Revisiting spillovers through the lens of resource dependence theory: The role of access relationships in low income countries rife with institutional voids

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Abstract

Research shows that foreign direct investment (FDI) yields positive spillovers in host nations through opportunities for learning and productivity improvement. Low income countries particularly benefit from spillovers. Nevertheless, credible studies of a few countries have reported negative spillovers, a surprising finding that needs explanation. By examining conditions in these countries during periods when negative spillovers were recorded, this study found that pervasive turbulence, including severe institutional challenges were a common factor. The study predicted that negative spillovers occur when host nations are characterized by economic and institutional turbulence; and that a large performance gap between local and foreign firms could explain the negative spillovers. Using the literature on MNCs' exit from conflict-ridden contexts, the study suggests that MNCs may seek to remove as many value-adding activities from the host location as possible, even while maintaining a physical presence there. As the very terms "horizontal" and "vertical" spillovers suggest, spillovers take place because MNCs are in some way connected to the local economy. Even when MNCs may not physically exit a location, turbulence will likely result in them reducing their connectedness to the local economy. MNCs instead turn to intra-organisational arrangements, i.e. access relationships with the parent and sister subsidiaries to borrow important resources needed to keep afloat. The disconnection from the local economy results in a large performance gap between local and foreign firms, ultimately leading to negative spillovers. This study uses resource dependence theory's intra-organisational relationships to explain the large performance gap. The study polled the manufacturing industry in Zimbabwe, a low income country that once recorded positive spillovers in an era of economic and institutional stability, but is now grappling with a turbulent economic and institutional environment. The empirical results are consistent with the study's predictions, spillovers are negative. The results suggest that in such turbulent environments, domestic-firms oriented policy and stabilisation of economic and institutional structures to improve the absorptive capacity of local firms may be more useful than FDI-led development. By providing evidence from an understudied context, the study underlines the importance of a non-turbulent local environment as a precondition for realizing the benefits from FDI plants. The study also foregrounds resource dependence theory – via access relationships– as a useful lens for understanding the mechanism behind spillovers in a turbulent economic and institutional environment.

Key Words: Multinational Corporation, spillovers, economic and institutional turbulence, access relationships, resource dependence theory.

Declaration

I, Brian Chindondondo, declare that the thesis/dissertation, which I hereby submit for the degree Doctor of Philosophy at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

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1. Chapter 1: Introduction

Foreign Direct Investment (FDI) and multinational corporations (MNCs) have long been conduits for development and productivity improvements of industries in their host nations (Narula & Dunning, 2010). Research has revealed that host nations experience productivity improvement from spillovers that result from the presence of MNCs (Harris, 2009; Narula & Dunning, 2010). The level of benefits acquired by each host nation has also been shown to vary with the level of development of the host nation (Meyer & Sinani, 2009).

Spillovers are the residual benefits from FDI plants which accrue to indigenous firms and for which foreign-owned firms are uncompensated, and have an effect of raising the overall level of productivity of all firms in the host country (Harris, 2009). The Investment Development Path, first theorised by Dunning (1988) and elaborated by Dunning and Narula (2003), suggests that the extent to which a host nation benefits from spillovers varies with the level of its development. The Investment Development Path postulates an almost linear relationship between host nation benefits from MNCs and the nation's level of development; thus, the lower the level of development of the host nation, the less it will benefit from the MNCs setting up in their country. However, a meta-analysis by Meyer and Sinani (2009) suggests a curvilinear U-shaped relationship between MNCs and the benefits of spillovers, with low and high-income countries benefiting most. The low income countries are argued to have a huge technological and skills gap, and are thus better able to benefit from the technology and skills spillovers due to labour turnover from MNCs to local companies (Meyer & Sinani, 2009). However, there is some research cautioning that the gap is only beneficial up to a certain point, above which it may become too big yield to positive spillovers (Bellak, 2004; Castellani & Zanfei, 2002; Driffield & Taylor, 1999; Girma, Greenaway & Wakelin., 2001; Hubert & Pain, 2001).

Similarly, high income countries are argued to have high absorptive capacities, due to their internal capacity to counter and match competition from MNCs (Meyer & Sinani, 2009). The process of reacting to the competition from MNCs through activities such as research and development (R&D), reverse engineering, and patents spur improvement in productivity for the local industry in high income countries. Researchers (Aitken & Harrison, 1999; Haddad & Harrison, 1993; Harris, 2009; Kinoshita, 2000; Kokko, 1996; Liu, Siler, Wang & Cheng, 2000; Takii, 2005) have principally consented that knowledge acquisition (through reverse engineering, skills transfer through labour turnover, forward and backward integration, R&D) by host country organisations is the key mechanism for positive spillovers. Yet for low income countries with turbulent economic environments, knowledge acquisition may be difficult. This

is due to a myriad of challenges faced in transferring knowledge to subsidiaries and local companies in these economic contexts.

A turbulent economic environment is described by Ramírez and Selsky (2016) as providing unpredictable uncertainty for strategic planning purposes. It arises when managers are not confident that they understand the major changes and events in their industries, leading to unsustainable advantage or the decline in the sustainability of advantage (D'Aveni, 1994; Vecchiato, 2015). Under such conditions, temporary rather than sustainable advantages have been identified, and firms focus on short term goals to survive in the immediate future (Cho & Mazzarol, 2012; Mufudza, 2018). Such uncertainty is brought about by events as diverse as political, legal and social instability, a high inflation rate, terrorist events, wars and travel bans by host nations (Bailey, 2018; Barnard & Luiz, 2018; Contractor, Dangol, Nuruzzaman, Raghunath, 2020; Fathallah, Branzei & Schaan, 2019; Paul & Jadhav 2020).

During such crisis periods, for example the South-east Asian financial crisis of 1997, the debt default following Argentina's failed dollarization experiment in 2001 or periods of hyperinflation like in Yugoslavia (1994), Zimbabwe (2008) and Venezuela (2020), it virtually goes without saying that the standard spillovers mechanisms cease operating. There is little investment in formal R&D. In the face of economic disaster, few formally employed people leave their jobs so that there is low labour mobility, and even reverse engineering slows down as opportunities to informally exchange ideas slow down. Yet formal R&D, labour mobility and reverse engineering have been identified as key mechanisms through which spillovers occur (Aitken & Harrison, 1999; Haddad & Harrison, 1993; Harris, 2009; Kinoshita, 2000; Kokko, 1996; Liu, Siler, Wang & Cheng, 2000; Takii, 2005). At the same time as the turbulent economic and institutional environment results in a situation where mechanisms for positive spillovers cease operating, conditions develop within which negative spillovers can occur. To build that argument, the study will turn to the literature on MNCs in conflict-ridden contexts.

Prior research has shown that under risk-laden, conflict-ridden conditions, e.g. under conditions of war, MNCs seek to leave for countries that have more stable environments. For instance, Chung, Lee, Beamish and Isobe (2010) highlight economic crises as reasons for divestment of troubled subsidiaries by MNCs; whereas foreign exchange crises are pointed out as a reason for exit by Miller and Reuer (1998), and Rangan (1998). Dai, Eden and Beamish (2017) highlight that a war-torn environment will also result in divestment of troubled subsidiaries by the MNCs. Barnard and Luiz, (2018) also concur, noting that MNCs will seek to limit their exposure to a host country when unknown future institutional conditions, the "rules

of the game" by which firms need to operate, cause doubt about the productive capacity of the economy. Fathallah, Branzei & Schaan (2019) summarise the conditions that lead subsidiaries to exit; indicating crises, shocks, disruptions and distress in host countries as reasons for firms to leave their host countries. It is likely that MNCs with subsidiaries in institutionally and economically turbulent environments would make plans along similar lines.

Yet as much as MNCs may want to leave turbulent environments, some sectors may be quite difficult to leave due to the nature of assets invested in the business. In the manufacturing sector where there is typically investment in high value or physically large industrial equipment and buildings, exiting a hostile environment may not be as easy or fast a process as in other sectors where the main assets are either intangible or physically small. For instance, Williamson (1985) highlight that the physical assets and resources of the MNC subsidiary might have few replacement options, and as such results in sunk costs that outweigh the costs of staying in such a turbulent institutional environment. In addition, MNCs that exit turbulent environments may risk losing licenses, trademarks and other intangible property to local firms, thus making it very costly to abandon operations (Dai, Eden & Beamish, 2017).

If manufacturing MNCs decide to wind down the operations of subsidiaries in turbulent countries, they are unlikely to simply abandon their investment there. This means that they may need to continue operating until they are able to find some form of resolution (e.g. financial compensation) in the turbulent host country. It is likely that during that process, they will avoid the accumulation of extra assets and resources in and from the host country, unless they are both essential for continued operation and not obtainable from within the MNC itself.

Another possibility is that the MNC may find it worthwhile to continue generating income from existing assets. In some cases, the MNC may decide that the competitive landscape has been sufficiently downgraded by the turbulence for it to be able to continue realising acceptable returns, even without additional investment. And though an MNC may have had the intent to wind down operations, it may learn that it is capable of operating with minimal engagement with the host country. In such cases, the MNC may decide, at least for the foreseeable future, to remain in the host country.

In all these cases, MNCs are likely to operate the subsidiary with the lowest possible investment in and engagement with the host country. For example, they are unlikely to invest in upgrading the technologies in use in plants, or the skills of employees. They may decide to

import key, higher value-added goods rather than seek to source them locally. This, the study posits, will result in negative, rather than positive or even neutral spillovers being fostered.

1.1. Background

While the importance of FDI plants to low income countries cannot be over emphasized, research has shown that the extent of FDI prevalence in a country is determined by certain economic conditions prevailing in the country (Narula & Pineli, 2018). Stable economic environments are shown to attract FDI (Bailey, 2018; Isorva & Havranek, 2012), while turbulent economic environments are shown not only to repel FDI (Bailey,2018), but also – at least anecdotally – shown to yield negative spillovers. This research seeks to review spillovers in turbulent economic environments. It will hypothesize that in turbulent economic environments, negative spillovers will occur as the primary focus of FDI plants in those environments is to leave such environment if already invested, or delay entry into that environment until the country stabilizes (Barnard & Luiz, 2018; Fathallah, Branzei & Schaan, 2019).

Whereas spillovers are measured at country or industry level, the explanation for the nature of spillovers (positive, negative or neutral) could be better understood at firm level. For instance, in a metanalysis of fifty six studies by Bellak (2004), he concludes that a huge firm level performance gap between domestic firms and foreign firms results in negative spillovers. These sentiments are also shared by Moralles and Moreno (2020), who highlight that most low income countries with turbulent institutional environments are yielding negative spillovers due to a large performance gap between local and foreign firms. A high level overview of the manufacturing firms in a typical low income country with a turbulent environment, Zimbabwean, may give some insight into the performance gap between foreign and local companies.

The aggregate performance of the Zimbabwean manufacturing industry has been on the decline since the late 90s, reaching an all-time low-level Capacity Utilisation (CU) of 35% in 2014, compared to 80% in the late 90s (CZI Manufacturing Survey, 2016). The World Economic Forum (WEF) and the Confederation of Zimbabwean Industries (CZI) have highlighted Zimbabwe's institutional context as fraught with institutional voids that are a hindrance to the performance of manufacturing firms in Zimbabwe (CZI Manufacturing Survey, 2017; WEF Global Competitiveness Report, 2017).

Local companies in low income countries are known to have inferior knowledge and technology compared to MNCs (Bouoiyour, 2004; Bwalya, 2006; Harris, 2009; Narula & Pineli, 2018), but they possess contextual understanding of their countries' institutions and are therefore presumed to be better positioned than MNCs to work around institutional voids (Davies & Torrents, 2017). However, in Zimbabwe's institutional context, manufacturing MNCs have enjoyed better performance than their local counterparts. The Capacity Utilisation (CU) of MNCs has consistently been higher (averaging 85%), compared to local manufacturers who have averaged 20% (CZI Manufacturing Survey, 2016).

Not only has the performance of the manufacturing MNCs been better than local manufacturers, some MNC subsidiaries in Zimbabwe have even been performing better than their sister companies in the Southern Africa region. For instance, Tongaat Hulett Zimbabwe's operating profit for the year ending 31 March 2017 was double that of its sister company in South Africa, despite the Zimbabwean subsidiary's capacity (size) only being 30% of the South African subsidiary's capacity (Tongaat Hulett Results, 2017). Indeed, Tongaat Hulett's Zimbabwean subsidiary has been performing better than other subsidiaries in its group for the past 20 years. Other examples of MNCs that have been doing well include the British Oxygen Company, British American Tobacco, and Delta Corporation (Delta Corporation Limited, 2017; Zimbabwe Stock Exchange, 2017). Despite the challenges in Zimbabwe, these organisations have been posting profits for the past two decades.

Given Zimbabwe's institutional context, it can be assumed that these manufacturing MNCs should not be performing well, let alone outperforming their sister companies operating in countries with better institutions. A key question for research is thus to understand what makes MNCs perform better than local organisations despite operating in the same weak institutional context, and how this superior performance shapes spillovers in such a context.

Anecdotally, it seems that subsidiaries of MNCs in Zimbabwe have relied heavily on their parent companies and sister subsidiaries to mitigate institutional voids in the country. For instance, due to the severe foreign currency shortages in Zimbabwe, the Reserve Bank of Zimbabwe (RBZ) resorted to prioritising foreign currency payments by Zimbabwean companies to suppliers outside the country (International Monetary Fund, 2017). This prioritisation resulted in significant raw material delivery delays of up to six months as foreign suppliers have suddenly cut credit lines to their Zimbabwean manufacturing customers, placing them on a payment before delivery basis. To mitigate this capital market void, one subsidiary of an MNC in Zimbabwe requested its sister subsidiary in South Africa to procure

raw materials on its behalf, thereby avoiding the up to six month waiting period for a payment to be processed by RBZ to their supplier. Due to severe power cuts in Zimbabwe, another subsidiary of an MNC in Zimbabwe had to rely on product supply from its parent company in South Africa to meet demand from their customers. In contexts rife with institutional voids, it seems plausible that subsidiaries of MNCs can rely on the munificent resources of their parent company and sister subsidiaries to keep operating and beat competition.

However, their superior performance would not necessarily be ascribable to learning and knowledge accumulation by the subsidiary itself. Instead, it would seem that the subsidiary "borrows" capabilities from the MNC. In response to this under-documented response of subsidiaries to contexts rife with institutional voids, this research proposes examining the envisaged large performance gap that results in negative spillovers through the lens of resource dependence theory, and probe the roles that MNCs play as a source of access relationships that enhance performance and thus shape spillovers in low income countries with turbulent institutional environments.

Building on Pfeffer and Salincik's (1978) theory on resource dependence, the study will explain how subsidiaries are managing the constraints and contingencies emanating from a turbulent environment through intra-organisational arrangements with sister subsidiaries and parent companies. Noting that resource dependence is especially concerned with power relationships, the focus of this study is particularly on access relationships. Thus the study looks at how the intra-organisational arrangements give rise to access relationships, which are defined as relationships between two organisations that enable the organisations to have a reciprocal sharing of resources without necessarily acquiring the resources upfront.

With the workings of power within the MNC showing that MNC parents/headquarters will exercise power over the subsidiary due to resources over which the headquarters can easily enforce its ownership rights (Ciabuschi, Dellestrand, & Kappen, 2012; Cuervo-Cazurra, Mudambi & Pedersen, 2019; Mudambi, Pedersen & Anderson, 2014), it is plausible to suggest that the parent is compelled to assist its subsidiary in a turbulent environment in order to safeguard its resources already in use in such a turbulent environment. These resources that the parent may want to protect include factories, land, buildings and financial assets, for which the transaction costs of enforcing ownership by the parent are low. Thus, on the basis of assets already invested in a subsidiary operating in a turbulent environment, the parent may lend extra resources to the troubled subsidiary in order to keep it afloat and safeguard the assets already invested. The troubled subsidiary therefore obtains or borrows resources from

its parent or sister company, which resources would otherwise not have been easily obtained on the open market in the host nation.

In this study, access relationships are used to refer to relationships that provide access to resources like raw materials, skilled labour, spares, networks, technology etc. as defined by Meyer, Estrin, Bhaumik and Peng (2009). This follows the approach of Pfeffer and Salancik (1978) on resource dependencies and inter-organisational arrangement formations. They argue that organisations are constrained and affected by their environment and act to attempt to manage these resource dependencies by setting up different forms of inter-organisational arrangements. The constraints in the environment that have been previously documented through a resource dependence lens range from increased product market competition, limited credit supply to raw materials and energy shortages (Pfeffer & Salancik, 1978; Blumentritt, 2003).

Pfeffer (2007) pointed out that the inter-organisational arrangements made to mitigate the constraints are not only with external organisations, but can also be formed among subunits of MNCs (intra-organisational relationships). However, how that functions and what are the implications when those arrangements are made inside the MNC have not received much attention (Hillman, Withers & Collins, 2009). This study thus also contributes to the literature by empirically extending resource dependence theory to how it functions inside the MNC.

1.2. Problem statement

The institutional contexts of low income countries give rise to numerous opportunities for research. Firstly, while research has established a set of strategies for MNCs to mitigate turbulent institutional environments, there is little research on the possible spillovers effects of responses to institutional voids by MNCs in low income countries (Doh, Rodrigues, Delmohout & Makhija, 2017). This study therefore seeks to stablish the effect of a turbulent economic environment fraught with institutional voids on the nature of economic spillovers (positive, negative or neutral) yielded by MNCs in such an environment.

Second, a practical problem for research is to understand the effect of the institutional framework of a country on the capability and performance of a firm (Meyer & Sinani, 2009). The performance of firms and the differential of such performance between local and foreign firms have been shown to be a decisive factor on the nature of spillovers that can obtain in a country (Bellak, 2004; Castellani & Zanfei, 2002; Driffield & Taylor, 1999; Girma, Greenaway

& Wakelin, 2001; Hubert & Pain, 2001). A comparison of local and foreign firms' performance under turbulent economic conditions with institutional voids thus beckons for this study.

Lastly, central to most FDI literature (Meyer and Sinani's, 2009) is an assumption of knowledge acquisition by host country organisations as the key mechanism for spillovers. This assumption is more relevant in stable environments, generally an attribute of high-income countries. This suggests that the spillovers process may be different for low income countries, particularly those with unstable economic environments. Most organisations (local or foreign) in unstable economic environments will struggle to acquire and internalise knowledge/resources; they instead focus on short-term survival strategies (Cho & Mazzarol, 2012). It is therefore plausible to suggest that the mechanism that explains economic spillovers (whatever their nature i.e. positive or negative) in low income countries with turbulent environments might be the ability of the MNC parent company to buffer their subsidiary against institutional voids by acting as a source of access relationships. The study will investigate the extent to which this suggestion is probable.

1.3. Purpose statement

The purpose of this research is to examine how economic turbulence affects the nature of economic spillovers in low income countries; and the extent to which MNCs' support to their subsidiaries operating in such economic environments, specifically Zimbabwe, explains the nature of the economic spillovers. The research explicitly seeks to determine whether spillovers remain positive under a turbulent environment rife with institutional voids, and how the MNC parent or sister support shapes the nature of spillovers in such environments.

The effect of parent or sister company support will be measured first in terms of the subsidiary's performance versus that of local companies, and second in terms of the relationship between ownership of the firm and performance. These two metrics will help to establish the gap between local and foreign firms, which may explain the nature of the spillovers obtaining in a turbulent institutional environment. Third, using resource dependence theory as a possible explanation of the performance gap between local and foreign firms, the study will seek to establish the source (whether foreign or local) of resources needed to effectively operate a turbulent institutional environment characterised by little or restricted resources. How the ownership-performance relationship is influenced by a) the general foreign sourcing of important resources and b) specifically sourcing from the MNC network will help foreground resource dependence theory as a possible explanation of the extent and indeed nature of spillovers in economic environments rife with institutional voids.

1.4. Research questions and hypotheses

In a turbulent economic context rife with institutional voids, this study focuses on the following questions:

1. Do economic spillovers remain positive as they are generally known to be?
2. Is there a large performance gap between local and foreign firms? What is the relationship between the nature of ownership (foreign or local) and performance? Do foreign firms perform significantly differently from local firms?
3. Where do firms access the resources required to overcome institutional voids in turbulent environments?
4. How does the source of resources influence the magnitude of the performance gap between local companies and foreign companies?

This translates into the following hypotheses;

H_1: The existence of foreign firms in a turbulent institutional environment will result in negative spillovers in the host country industry.

H_2: There is a large performance gap between foreign firms and local firms such that;

a) There is a difference in the performance of foreign firms and local firms i.e. foreign firms outperform local firms.
b) There is a positive relationship between nature of ownership and performance i.e. the better performance of foreign firms owes to their ownership structure

H_3: There is a positive relationship between nature of ownership and the sourcing of resources such that local firms source resources primarily locally and foreign firms source resources primarily abroad, both when considering

a) general foreign sourcing of resources and
b) sourcing of resources from the MNC network

H_4: The positive relationship between nature of ownership and performance in a context rife with institutional voids is mediated by,

a) general foreign sourcing of resources and
b) sourcing of resources from the MNC network.

1.5. Scope

This study focuses on the manufacturing industry of Zimbabwe. Leaving a hostile country may not be an overnight process. A manufacturing company, due to its size (equipment-wise) and operations cannot easily wind up and leave. Whereas the same can be said for mining operations, the motivation for continued operation of mining companies is different from that

of manufacturers. Firstly, most, if not all mining companies in Zimbabwe export 100% of their product. Second, mining companies will go where the resource is regardless of the economic conditions prevailing in that country. For instance, a platinum miner will not choose to set up their operations in Botswana or Malawi because the economies of these countries are stable. They have to set up in either Zimbabwe or South Africa because that is where the only deposits of platinum in Africa are situated in. This is supported by prior research which has shown that organisations in mining industry – for resource seeking reasons – will remain operating in turbulent environments (Dai, Eden & Beamish, 2017; see also study in the Middle East and North Africa region by Dimitrova, Triki & Valentino, 2020). Thus this study excludes the mining companies.

Similarly, subsidiaries in the financial services sector are excluded because first, they can wind up operations within a relatively short period if need arises, and second, the main mechanisms for spillovers (R&D and reverse engineering), are less prevalent in this sector compared to the manufacturing and mining sectors.

The research is therefore limited to manufacturing subsidiaries of MNCs and locally owned manufacturers operating in Zimbabwe and affiliated to the Confederation of Zimbabwe Industries (CZI). Established in 1923, the CZI is the apex organisation for the manufacturing industry in Zimbabwe with a mission to “encourage, promote, protect and advance the sustainable growth and development of the manufacturing industry and business” (CZI, 2020). The organisation focuses on advocacy, basic economic advice and dissemination of information to its members.

The CZI also conducts the annual state of the manufacturing sector survey, and the quarterly Business Confidence Index (BCI) which the organisation developed in partnership with the International Trade Centre (ITC) and the European Union (EU). In 1994, there were 518 manufacturing companies affiliated to the CZI, and they contributed 86 percent of the official manufacturing employment in Zimbabwe as reported by the government owned Zimbabwe National Statistics Agency (then Central Statistics Office) at the time (The Industrial Institute for Economic and Social Research, 1994). In its annual Census of Industrial Production (CIP) of 2013, Zimbabwe National Statistics Agency (ZIMSTAT) reported 302 registered manufacturing companies in Zimbabwe. This list was compiled from a register of formally incorporated and registered companies with the registrar of companies in Zimbabwe, and excluded those that had closed (ZIMSTAT, 2013). ZIMSTAT has not publicly published manufacturing statistics since 2013, but based on the aforementioned, it can be assumed that

the 281 manufacturing companies affiliated to the CZI in 2017 may represent above 90 percent of registered manufacturers in Zimbabwe.

1.6. Importance and benefits of the study

By exploring access relationships between the MNC focal subsidiary, its parent and sister subsidiaries, the study examines a hitherto under-studied mechanism behind spillovers. The study uses resource dependence theory's intra-organisational relationships to explain why there is a large performance gap between foreign and local companies in turbulent environments. This performance gap ultimately shapes the nature of spillovers i.e. a too wide a gap will result in negative spillovers. This study therefore proposes the resource dependence theory lens to understand negative spillovers in developing countries with a turbulent institutional environment. For scholars, the mechanism behind spillovers under such economic contexts is important as it illuminates resource dependence theory as a complementary lens to what is already known. For practitioners, the nature of spillovers and what drives them helps inform government on the adjustments needed to optimally benefit from MNCs. Similarly, MNCs also stand to learn how to profitably navigate similar environments that are rife with institutional voids.

Zimbabwe is an ideal case study because in a somewhat stable Zimbabwe in 1992, a study by Managi and Bwalya (2010) demonstrated positive spillovers when the country's governance and macro-economic conditions were ranked as the best in the Southern African region by the World Bank (2020a). Zimbabwe was also regarded as the most industrialised country in Sub-Saharan Africa after South Africa by the Africa Development Bank (2012). Thus this study could not have been better timed as there is an opportunity to examine spillovers – using the same methodology used for 1992 data – in today's Zimbabwe with extreme economic conditions.

1.7. Conclusion

This chapter highlighted the background and intent of the study. The next chapter focuses on the peculiarity of Zimbabwe's institutional context, followed by a review of pertinent literature and hypothesis development in chapter 3.

2. Chapter 2: Zimbabwe's Institutional Context

2.1. Introduction

The purpose of this research is to examine how economic turbulence affects the nature of economic spillovers in low income countries; and the extent to which MNCs' support to their subsidiaries operating in such economic environments, specifically Zimbabwe, explains the nature of the economic spillovers. The business operating environment in low income countries is characterised by the absence or underdevelopment of institutional mechanisms that permit buyers and sellers to efficiently come together (Khanna & Palepu, 1997, 2010). This deficiency in institutions was coined by Khanna and Palepu (1997) as institutional voids. Extensive research on institutions has shown that firms function better in the presence of well-defined and functional institutions, while the absence of or weak institutions (institutional voids) result in poor performance (Davies & Torrents, 2017; Delmohout & Makhija, 2017; Dhanaraj & Khanna, 2011; Doh, Rodriguez, Delmohout & Makhija, 2017; Khanna & Palepu, 1997; Khanna & Palepu 2010).

2.2. Zimbabwe's economic and political environment

Although Zimbabwe is experiencing a severe turbulent institutional environment at the moment, its governance and macro-economic conditions were ranked as the best in the Southern African region by the World Bank (2020a) in the 1990s. It was also regarded as the most industrialised country in Sub-Saharan Africa after South Africa in the 1990s by the Africa Development Bank (2012). In a study to test for spillovers in a stable Zimbabwe, Managi and Bwalya (2010) found positive spillovers using cross-sectional data from 1992. Given Zimbabwe's current economic situation, our study is therefore well positioned to test spillovers in a very turbulent Zimbabwe (period 2017-2018).

The extremity of the market conditions in Zimbabwe today is different to that of Zimbabwe in 1992, but similar to other developing countries in which similar research has been conducted, making the country a useful case study at this point in time for understanding spillovers under such conditions. Barnard, Cuervo-Cazurra and Manning (2017) point out that extreme conditions often lay bare the boundary conditions of theories, and the study believes that the Zimbabwean case is such an example. Additionally, the period of this study coincided with a very fundamental change in Zimbabwean leadership. The country's leader President Robert Mugabe who had been in power since the independence in 1980 – and whose stance had been argued to have attributed to a huge decline in the economy – had just been removed

from power in November 2017. The study was therefore positioned at the end of one, and the start of another era.

The political environment in Zimbabwe has been very volatile in the past two decades. The ruling party has ruled the country since its independence from British colonisation in 1980. Mungwari (2017) noted that the onset of independence in 1980 until 1999, the country remained a "*de facto* one party state, although it was a *de jure* multi-party state". In 1999, the emergence of a new political party that challenged a ruling party that had become used to winning every election with no opposition sowed great divisions and polarised the whole the nation. By the end of 1999, Zimbabwe started experiencing deepening economic collapse of unprecedented proportions, and this was attributed to a number of political and economic factors which were largely blamed on the then President Mugabe's government ill-fated policies (Besada & Moyo, 2008). The policies resulted in poor governance, economic mismanagement, and loss of support of the international community as a result of what was perceived as human rights violations, manipulated electoral processes and failed elections (Besada & Moyo, 2008; Mungwari, 2017). The country has struggled to emerge out of this legacy of political mismanagement, resulting in continuous fights between the two predominant political parties and contestation of every election since 1999.

Zimbabwe's economic situation has not been spared as it has been on the decline since 1999. It is one of the 25 out of 230 countries with the lowest GDP per capita in world, with 81.3% of Zimbabweans surviving on less than $5.50 per day, and 70% living below the country's poverty datum line (World Bank, 2020b). The average household income shrunk to $62 per month in 2016, 50% lower than in 2014, and equivalent to 1950's income levels (Zimbabwe Vulnerability Assessment Committee, 2016). Because the study is focusing on turbulent institutional environments characterised by institutional voids as defined by Khanna and Palepu (1997), this chapter focuses on Zimbabwe's institutional context based on Khanna and Palepu's (1997) typology of institutions. While the study acknowledges the broadening of institutions by Khanna and Palepu (2010); and Khanna, Palepu and Sinha (2005), the study specifically focuses on Khanna and Palepu's 1997 institutions as they formed the basis of the authors' response strategies to institutional voids. The response strategies have widely been used by MNCs to succeed in emerging markets. The five institutions are capital market, product market, labour market, government regulation and contract enforcement institutions. An absence or deficiency of a capital market institution will yield a capital market institutional void, and likewise for the other types of institutions. Importantly, as will become apparent in studies reviewed in chapter 3, these institutions have also been widely used as proxies for measuring

level of absorptive capacity of a firm or country, a key requirement for yielding positive spillovers.

2.3. Capital market institutions

Due to the lack of formal capital market institutions and safeguards to protect their investments, investors refrain from putting money into unfamiliar ventures (Khanna & Palepu, 1997). Zimbabwe's business context is unpredictable, with year-on-year inflation at one point in the past two decades reaching an all-time high of 89 sextillion per cent (Hanke, 2010). After having been somewhat stable in the past decade, hyperinflation is looming again, with the estimated year-on-year inflation rate for October 2020 being 622% (International Monetary Fund, 2020).

The country is grappling with severe cash shortages, largely due to shortages of foreign exchange, which in turn were spurred by dollarization. In response, the government has imposed limits on cash withdrawals and payments to foreign suppliers of goods and raw materials to Zimbabwean companies. Payments for services deemed to be available in Zimbabwe – often incorrectly, because local production capacity has been decimated over the past two decades – and those deemed non-strategic are given low priority. It can take up to six months for the payment to be processed by the Reserve Bank (International Monetary Fund, 2019; 2020). Cash shortages have long been so dire that the Confederation of Zimbabwe Industries' 2016 annual survey of the manufacturing industry has ranked the cash shortages and liquidity crunch as biggest problems affecting business in Zimbabwe, as firms were not able to buy raw materials from outside the country in response to production needs (Confederation of Zimbabwe Industries, 2016). If firms cannot buy raw materials from outside the country as and when their production needs dictate, then this becomes a major hindrance to investment by foreign entities into the country. For MNCs that already have subsidiaries operating in the country, transfer pricing often offers a workaround so that their local subsidiaries may be able to procure resources without going onto the Zimbabwean capital market.

The country is also in external debt stress and has little chance of emerging from its debt problems even in the long term (International Monetary Fund, 2017). It is ranked highest in the sub-Saharan Africa in terms of corruption by the International Monetary Fund (2019) and lowest in credit ranking by the World Economic Forum (2017), sitting at 136 out of 137 countries in 2017. Securing credit is a major barrier, with only 14% of businesses served by

the banking sector (Finmark Trust, 2012). Again, local firms are likely to be more severely affected by this than MNCs that can access credit elsewhere.

2.4. Labour market institutions

Developing nations often suffer from a scarcity of well-trained labour (Khanna & Palepu, 1997), as well as of academic institutions that offer an understanding of the historical and institutional context required for foreign companies to work effectively in these markets (Dhanaraj & Khanna, 2011). An unpublished Master's thesis by Chimboza (2012) suggests that Zimbabwe's educational polices after independence in 1980 resulted in high standards of education and the country producing skilled professionals to work in the public and private sectors of the economy. The country still has a sound educational system which has resulted in a literacy rate of 98% as of 2015, the highest in Africa and one of the highest in the world (United Nations, 2017).

However, there has long been a massive exodus of skilled labour in Zimbabwe due to a host of reasons that include poor standards of living, the high cost of living, high taxation, the unavailability of goods, low and unavailable salaries, deteriorating economic and political situation, poor housing and poor medical services (Tevera & Crush, 2003). In 2008, there were between five hundred thousand to five million Zimbabweans abroad (de Jager & Musuva, 2015; Pasura, 2008; Zanamwe & Devillard, 2009). Given that Zimbabwe's education system is still better than other services, the country has become a major source of quality educated labour in Southern Africa and global labour markets (Tevera & Crush, 2003). Even as early as 2002, there were more Zimbabwean-born scientists and engineers working in the Diaspora than there were in Zimbabwe (Chetsanga & Muchenje, 2003). To this day thousands of Zimbabwean teachers, engineers, doctors, scientist, nurses and other professionals work in neighbouring countries and overseas (Kanyongo, 2005).

This skills flight has also created a huge vacuum in Zimbabwe's labour market due to lack of transfer of experience to younger graduates produced from educational institutions (Crush & Pendleton, 2012); and lack of experienced leaders for development and training of the labour required for a variety of development activities (Tevera & Crush, 2003). Ultimately, development activities in the country stall as MNCs and local firms ponder the wisdom of entering or continuing operations in such a country with a volatile labour market. Learning and acquisition of skills become difficult under such circumstances, with organisations' ability to adapt to and learn from change becoming a more useful asset than their ability to store and access cumulative knowledge (Hanvanich, Sivakumar & Hult, 2006). Another impact of this

massive brain drain has been reduced Research and Development (R&D) in the country, with government and private-sector spending as little as 0.2 per cent of the gross national product on R&D, one of the lowest in the world (Ministry of Science and Technology Development, 2012). Although MNCs are known to pay more than local firms for more competent people (Flores, Fontoura & Santos, 2007; Harris, 2009), under such conditions of migration there may simply not be the skilled people locally to appoint.

2.5. Government regulations and contract enforcement institutions

The quality of governance and trade openness in Zimbabwe is ranked lowest in Sub-Saharan Africa by the World Bank (2020b). The country is also ranked 133 out of 137 on property rights, transparency of government policy, burden of government regulation, judicial independence by the World Economic forum's global competitiveness report of 2017, and also ranks lowest in the region on the World Banks development indicators on property rights and rule-based governance. These rankings are hardly surprising for a country that had a coup d'état in 2017

The Zimbabwean government is also infamous for introducing the controversial land reform program between 1999 and 2003, which paralysed the agriculture sector and most agro-based manufacturing industries (Davies & Torrents, 2017). The farm seizures led to widespread condemnation by the international community and were largely blamed for the economic meltdown in Zimbabwe (Dube & Midgely, 2008). The landowners whose land had been redistributed fought the government in Zimbabwean courts to no avail. In 2005, new regulation by the government through the Constitution of Zimbabwe Amendment Act (No. 17) of 2005 extinguished any judicial recourse for farmers who wished to object to the acquisition of their farms (Dube & Midgely, 2008).

The Zimbabwean government introduced the Indigenisation and empowerment Act through amendment 20 of the constitution of Zimbabwe in 2013. The Indigenisation Act directs companies and businesses owned by non-indigenous Zimbabweans to sell, cede or donate fifty-one per cent (51%) of the equity or shareholding to previously disadvantaged indigenous Zimbabweans. In an unpublished thesis by Shumba (2012), the author notes that the impact of this policy was anxiety in the business communities and it drove off foreign firms, direct investment, local investors, and led to the exclusion of Non-Governmental Organisations (Davies & Torrents, 2017). It is in the light of such developments that this study proposes that the literature on how MNCs respond to conflict-ridden environments may be useful. In such institutional contexts, MNCs and their subsidiaries are unlikely to want to invest heavily in

developing skills, because their investment is not secure. They are therefore likely to investigate other approaches.

Though the land reform and the indigenisation policies have been cited as the cause of the current state of Zimbabwe's economy (Davies & Torrents, 2017; Dube & Midgely, 2008), there have been several other policies that have changed foreign companies' investments paths in Zimbabwe. Policies like price controls which sought to cap prices for basic goods regardless of the cost of production; and the Reserve Bank directive on withdrawal limits and foreign payments prioritisation to mention but a few, have also worsened the situation.

2.6. Product market institutions

The availability of information and infrastructure that enables sellers to communicate with and reach buyers is also a critical problem in developing nations (Khanna & Palepu, 1997).
Although Zimbabwe today exhibits severe institutional voids, the country during the 1980s was a beacon of development (African Development Bank, 2010; Tevera & Crush, 2003; World Bank, 2020a). The Zimbabwe railway network connects all major mines and heavy industrial plants, as well as major collection points for farms; providing transport for bulk raw materials, finished goods, and passengers. The system has three well-connected hubs, Bulawayo, Gweru, and Harare. These hubs are at the centre of the international rail routes linking Zimbabwe to the DRC and Zambia to Botswana, Mozambique and its ports of Beira and Maputo, and South Africa and its ports of Durban, Richards Bay, and Port Elizabeth (African Development Bank, 2010). It is also at the centre of shorter and cost-effective railroad links between Malawi and South Africa through Bulawayo, the port of Beira through Harare, and Lusaka and the port of Durban through Bulawayo.

However, in the past two decades, the transportation infrastructure in Zimbabwe has dramatically declined. The quality of infrastructure in Zimbabwe has deteriorated, currently ranked 116 out of 137 in World Economic Forum's Global Competitiveness report, and lowest in the region as reported by the World Bank's development indicators (2020b). This has resulted in the industry enduring as high as 18 hour power cuts a day, with some areas in the capital city going for years without running water. The capacity of the railway network to provide services has been severely eroded due to lack of regular repairs and maintenance of the track infrastructure, signalling, and telecommunication system (African Development Bank, 2010). The impact of this deterioration in infrastructure is that bulk goods that used to be transported by rail are now being transported by road. This has overburdened the road network and increased the operational costs for companies in Zimbabwe. For instance, a

company that used to transport 1000 tonnes of coal in one trip by rail is now transporting same quantity of coal with 40 trucks by road for 800km.

While broadcasting and telecommunications infrastructure have improved after the government opened this sector for private players in the late 90s, severe power shortages for the past decade have often rendered these services ineffective. Zimbabwe has a current electricity demand of 2100MW compared to available capacity 1100MW (Kaseke, 2013). The country therefore imports about 50% of its electricity needs from its neighbouring countries in the Southern African Power Pool (SAPP). However, this importation has often been switched off due to Zimbabwe's staggering electricity debt with its neighbours (Kaseke, 2013; Rusvingo, 2014). With power outages contributing to low capacity utilisation of Zimbabwean industries (Confederation of Zimbabwe Industries, 2016; International Monetary Fund, 2020), some companies have resorted to alternative power like diesel generators, but this option is often more than twice as expensive as utility power. The result of power cuts has been output reduction by most organisations and mothballing entrance into the country by potential investors, again suggesting that literature on the response of MNCs to conflict-ridden areas may be of value.

2.7. Conclusion

This chapter highlighted the harshness and instability of Zimbabwe's economic and institutional context. Table 1 summarises Zimbabwe's institutional context based on the World Economic Forum's Global Competitiveness report of 2019. Zimbabwe's context is compared to its neighbouring countries.

Table 1: Zimbabwe's institutional context

Measure	Scale	Zimbabwe	Botswana	Mozambique	Zambia	South Africa
Global competitiveness rank	Out of 141 countries	128	91	137	120	60
Judicial independence	1 – 7; 7 being best	2.8	4.5	2.3	2.7	5
Efficiency of legal framework in challenging regulations	1 – 7; 7 being best	2.8	3.9	2.5	2.4	4
Burden of government regulation	1 – 7; 7 being best	2.4	3.5	3	3.5	3
Incidence of corruption	1 – 7; 7 being best	22	61	23	35	43
Property rights	1 – 7; 7 being best	2.8	4.9	3.4	4.1	4.1
Quality of road infrastructure	1 – 7; 7 being best	2.8	3.8	2.4	3.4	4.5
R&D expenditure	% GDP	0.2	0.5	0.3	0.3	0.8

It is clear that the country faces numerous and severe institutional voids; and importantly for this study, does not present a stable environment in which firms can operate. Table 1 shows that the conditions are even worse than those of its neighbours. Given that some level of stability is required to improve the absorptive capacity of local firms and thus positive spillovers, it is appropriate to posit negative spillovers under the current turbulent economic and institutional conditions. The next chapter focuses on literature germane to the study and hypothesis development**.**

3. Chapter 3: Literature review

3.1. Introduction

The purpose of this research is to examine how economic turbulence affects the nature of economic spillovers in low income countries; and the extent to which MNCs' support to their subsidiaries operating in such economic environments, specifically Zimbabwe, explains the nature of the economic spillovers. This chapter makes use of the extensive literature on FDI, MNC operations, and the associated spillovers in their host nations. Articles on FDI dating back as early as 1970 are reviewed to get an understanding of the relationship between MNCs, FDI and spillovers. Using literature on MNCs in conflict-ridden contexts, the chapter explores the dynamics of these MNCs and indeed the spillovers with changes in institutional conditions in their host countries, particularly from a low income country perspective. This chapter also explores literature on resource dependence theory's intra-organisational arrangements to limit dependence and power of external actors, and how this can be extended to explain the nature of spillovers in turbulent institutional contexts.

3.2. Benefits of FDI

The benefits of MNCs range from micro benefits like direct employment of local people by FDI plants, to macro-economic industrial growth through economic spillovers which ultimately impacts the host nation's gross domestic product (Harris, 2009; Narula & Dunning, 2010; Narula & Pineli, 2018). Studies on MNCs have thus gained importance in the past four decades, particularly the impact of MNCs on host nations' development (Narula & Dunning, 2010; Narula & Pineli, 2018). MNCs are touted for bringing positive changes to host nations' industries. The changes include new technology and management skills, as well as impacting the host nations' gross domestic product.

These perceived benefits have principally been the basis of FDI policies for most nations, particularly in low income countries where empirical research has largely found a positive correlation between FDI and GDP growth (Bwalya, 2006; Kokko, Tasini & Zejan, 1996; Meyer & Sinani, 2009). However, there have been inconclusive and negative results in a few cases (Haddad & Harrison, 1993); suggesting these benefits may also be contextual. Prior studies have largely classified the benefits into direct and indirect (Aitken & Harrison, 1999; Harris, 2009; Meyer & Sinani, 2009; Narula & Pineli, 2018).

3.2.1. Direct benefits of MNC

FDI in the field of international business has been viewed as providing direct benefits as a source of employment with better paying jobs, and capital inflow into the host country (Flores *et al*., 2007; Harris, 2009). The transfer of technologies and management practices from parent companies of MNCs to their local subsidiaries and increased R&D expenditure by foreign firms have also been presented as enticements to host nations' FDI policy makers (Harris, 2009). These benefits have been shown to have a positive impact on the host nation's gross domestic product (GDP) due to the associated increase in productivity of domestic operations, improved fiscal revenues and exports for the host nation (Barrios & Strobl, 2002; Blomstrom & Sjoholm, 1999).

3.2.2. Indirect benefits

The indirect benefits of FDI, which are termed spillovers are the residual benefits from FDI which accrue to indigenous firms and for which foreign-owned firms are uncompensated, that have the effect of raising the overall level of productivity of all firms in the host country (Harris, 2009). There are various types of spillovers, but they are generally classified by their transmission mechanism, namely horizontal and vertical spillovers (Griliches, 1992; Harris, 2009; Meyer & Sinani, 2009; Narula & Dunning, 2010; Narula & Pineli, 2018; Scitovsky, 1954).

3.2.2a. Horizontal Spillovers

Horizontal spillovers are indirect benefits that accrue to local companies operating in the same sector with FDI plants, and are based on non-market interactions usually involving the sharing of knowledge and expertise (Harris, 2009; Narula & Dunning, 2010). These spillovers may occur in different ways, first of which as a competition outcome. In this form, the arrival of a new (foreign) competitor affects equilibrium prices in related product markets, as well as in input and factor markets (Flores *et al.*, 2007; Harris, 2009). While this increased competition may negatively affect local firms' performance, this effect has been shown to be short-term (Aitken & Harrison, 1999; Barrios, Dimelis, Louri & Strobl, 2004; Harris, 2009). Empirical studies have shown a medium to long-term improvement in productivity and efficiency of local firm in the host nation though competition outcome (Barrios *et al*., 2004).

Second, horizontal spillovers may manifest themselves through a demonstration or imitation effect where local firms imitate the superior production techniques and managerial practices used by the MNCs (Barrios & Strobl, 2002; Barrios *et al.*, 2004). However, this imitation may not take off if the local companies do not have the capacity to imitate using techniques like reverse engineering and R&D i.e. lack absorptive capacity. Absorptive capacity is the ability

of an organisation to internalise knowledge created by others and modifying it to fit their own specific applications, processes and routines (Cohen & Levinthal,1990). Specialised workers who are often in short supply in low income countries have been presented as one of the key constituents of absorptive capacity (Narula and Pineli, 2018).

The third manifestation of horizontal spillovers is through labour turnover at the MNCs. This turnover results in knowledge leakage from MNCs trained employees into local companies. This is the managerial and technical know-how that the MNCs trained employees take with when they move to a co-located competitor or start their own firm (Aslanoglu, 2000). MNC subsidiaries are known to possess superior knowledge resources as compared to domestic firms as they dedicate a relatively larger share of resources to human capital development compared to local firms (Narula & Marin, 2010). However, while many spillovers study claims labour turnover as a medium for spillovers, few studies have tried to directly measure the labour turnover effects (Narula & Pineli, 2016). For instance, the productivity of domestic manufacturing firms in Ghana was found to be positively influenced by their owners' previous experience in MNCs of the same sector (Gorg & Strobl, 2005). In Brazil, workers of Brazilian domestic firms were found to be earning higher salaries when the number of former MNC employees working in the firm increased, which is what while Poole (2013) interpreted as an evidence of spillover through the labour turnover effect. Song, Almeida, and Wu (2001) used U.S. patent records to trace the movement of scientists between domestic and foreign firms, thereby confirming labour turnover. Similar studies were also conducted by Fosfuri, Motta and Ronde (2001) and Moen (2005).

3.2.2b Vertical Spillovers

Vertical spillovers occur due to buyer and seller linkages that aim at improving quality of inputs and outputs (Harris, 2009). As most suppliers of intermediate inputs to MNCs in low income countries exhibit imperfections, MNCs are often forced to adopt either vertical integration, extra market linkages or solicit government intervention (Aslanoglu, 2000). Through the linkages, the MNCs can provide technical, managerial and financial assistance to their suppliers. An example from the African context is the Zambian MNC community that had to form backward and forward linkages due to the lack of reputable suppliers of raw materials to MNCs (Bwalya, 2006). This meant that MNCs had to develop local suppliers to enable them to produce intermediate inputs more efficiently, thereby making them available to foreign firms upstream at a lower cost (Bwalya, 2006). Javorcik (2004) also found evidence of positive spillovers through backward linkages in Lithuania between 1996 and 2000. Narula and Pineli (2016) suggest that vertical spillovers are at a maximum when the goods produced by the

MNC are complex, the level of development in home and host countries are not too different, and when communication costs with the MNC parent are higher. This observation suggests that MNC turn to local suppliers primarily when it is difficult to obtain the supplies from their parent. This suggestion is also supported by Rodriguez-Clare's (1996).

3.3. MNCs in turbulent environments

Ramírez and Selsky (2016) describe a turbulent environment as one that provides unpredictable uncertainty for strategic planning purposes. Such uncertainty is caused by events such as political, legal and social instability, high inflation rate, terrorist events, wars and travel bans by host nations (Bailey, 2018; Barnard & Luiz, 2018; Contractor, Dangol, Nuruzzaman, Raghunath, 2020; Paul & Jadhav 2020).

During such crisis periods, the standard spillovers mechanisms may cease operating. For instance, there is little investment in formal R&D (e.g. Zimbabwe has the lowest expenditure on R&D expenditure in the world at 0.2% of GNP (Ministry of Science and Technology Development, 2011)). The few formally employed people leave their jobs so that there is low labour mobility (e.g. Zimbabwe had one of the highest formal unemployment rates in the world in 2017 i.e. 90% (BBC News, 2017), and even reverse engineering slows down as opportunities to informally exchange ideas slow down. Yet formal R&D, labour mobility and reverse engineering have been identified as key mechanisms through which spillovers occur (Aitken & Harrison, 1999; Haddad & Harrison, 1993; Harris, 2009; Kinoshita, 2000; Kokko, 1996; Liu, Siler, Wang & Cheng, 2000; Takii, 2005). The absence of these enablers of positive spillovers breeds conditions within which negative spillovers can occur. Literature on MNCs in conflict-ridden contexts may give more insight.

In turbulent environments, FDI plants have been shown to want to leave for countries that have more stable environments. In their paper on escape FDI, Barnard and Luiz (2018) highlight that firms seek to limit their exposure to a country because of unknown future institutional conditions, the "rules of the game" by which firms need to operate, cause doubt about the productive capacity of the economy. Though their focus is on outward FDI, Fathallah, Branzei & Schaan (2019) highlight crises, shocks, disruptions and distress in host countries as reasons for firms to leave their host countries. The study extends this argument to other MNCs in conflict ridden regions. It is likely that MNCs with subsidiaries in institutionally and economically turbulent environments would make plans along similar lines.

Although MNCs may want to leave turbulent environments, some sectors may be quite difficult to leave due to the nature of assets invested in the business. This means that MNC subsidiaries may need to continue operating until they are able to find some form of resolution (e.g. financial compensation) in the turbulent host country. It is likely that during that process, they will avoid the accumulation of extra assets and resources in and from the host country, unless they are both essential for continued operation and not obtainable from within the MNC itself. So while manufacturing MNC subsidiaries may look to wind up their operations, which may take a year or more, or which as they may realise, may not financially viable to exit, they continue to operate yet at the same time avoid accumulation of extra assets and resources which are needed for continued operation. Williamson (1985) and Dai, Eden and Beamish (2017) highlight the situations where exiting a turbulent institutional environment maybe more costly than to remain and continue with operations. In such transition phases, where subsidiaries are on the verge of withdrawal from a host country with a turbulent environment, or just operating to survive until a positive turn of the economy, the study posits that negative, rather than positive or even neutral spillovers are fostered.

3.3.1. Empirical evidence of spillovers – a recap

As early as the 1970s, Caves (1974) and Globerman (1979) found positive spillovers for Canadian local firms as a result of the entrance of MNCs into Canada. By measuring the change in domestic plants' total factor productivity and the foreign-affiliate share of activity in the plants' industry, they found overall improvement in productivity of local firms which they attributed to competitive pressure induced by foreign firms.

In Uruguay (Kokko, 1994), Mexico (Kokko, 1996) and Taiwan (Chuang & Lin, 1999), studies using the same methodology concurred with Caves (1974) and Globerman (1979). Increases in expenditure on patents, trademarks and research and development were also mechanisms and indeed indicators of productivity improvement. Since the pioneering work by Caves in 1970, there has been a multitude of studies using – by and large – the same methodology to measure spillovers at industry and country level. What has largely improved since the earlier work has been the availability and type of data being used for recent studies. For example, panel data has increasingly been used in recent studies and yielded better results as opposed to cross sectional data used in the early days (Crespo & Fontoura, 2007; Gorg & Greenway, 2004; Gorg & Strobl, 2001; Narula & Pineli, 2018, Xiao & Park, 2018).

While the quality of data for spillovers studies has significantly changed over the years, the discourse on FDI and its importance has hardly changed, and has largely focused on two

areas. First, the focus has been on new contexts and empirical evidence of the existence of spillovers in those contexts. Second, authors have focused on the relationship between spillovers and the level of development of a nation, with a general view that spillovers from foreign firms can support the development of host nations.

This focus is explicit in Meyer and Sinani's 2009 meta-analysis of more than 40 articles on spillovers, and seems to have shaped – together with empirical evidence of positive spillovers – most low income governments' treatment of FDI (Bellak, 2004; Bwalya, 2006; Kokko, Tasini & Zejan, 1996; Meyer & Sinani, 2009, Narula & Pineli, 2018). Low income governments have consequently focused on crafting FDI friendly policies to attract FDI, which has been empirically shown to be beneficial for low income countries, even more than for the middle income countries (Meyer & Sinani, 2009). Yet there has long been concerns that FDI does not always foster development (Narula &Dunning, 2010). This study suggests that FDI friendly policies might not always be the right starting point for developing economies. The study posits that it is important to stabilize economies before rushing the agenda for FDI friendly policies.

3.3.2. Conditions in countries with negative spillovers

In the few studies in which negative spillovers have been documented, it is noteworthy that the host countries were consistently experiencing some form of economic turbulence or severe institutional challenges. This includes studies of Venezuela (Aitken & Harrison, 1999), Morocco (Haddad & Harrison, 1993), the Czech Republic (Djankov & Hoekman, 1999) and Mexico (Jordaan, 2008). Although there are few studies finding negative spillovers, they include low and middle income countries from across the world. Moreover, a review of this work suggests that spillover benefits seem to be affected by the host country's level of economic and institutional stability. Khanna and Palepu (1997) had coined the term "institutional voids" to refer to the absence of market-facilitating institutions. In many of the countries with negative spillovers from FDI, institutional voids were present, but it seems that those challenges went beyond the presence of (static) voids. Instead, it seems that the combination of turbulent conditions with institutional voids and challenges presented the challenge to firms.

A review of the few studies recording negative spillovers shows that the countries studied had some period of economic and institutional turbulence during or around the period of those studies. For instance, Djankov and Hoekman (2000) found negative spillovers in the Czech Republic between 1995 and 1998, a period known for the currency crisis in 1997 that led to negative growth and an exodus of foreign investors as well as political instability that led to a

split in government and unplanned elections between 1997 and 1998 (Hronova & Hindls, 2012). Djankov and Hoekman's 2000 study also provides empirical evidence of foreign firms jettisoning their turbulent hosts for more stable environments. Staying in the region, similar results were obtained by Konings (1999) for Bulgaria and Romania during the period 1995 and 1997. Both countries experienced periods of macroeconomic instability resulting in inflation of 311% and 155% respectively.

Jordaan (2008) recorded negative spillovers in Mexico in a cross-sectional study done with data from 1993. From 1992, Mexico was riddled with political instability that led to the takeover of some cities by rebels and the assassination of a presidential candidate during a rally (Aldo, 2012). In 1994, Mexico experienced the "tequila crisis", the economic turbulence that led to a widespread flight of foreign investors (Aldo, 2012). This underlines the study's earlier argument that even if MNCs may immediately want to leave a turbulent environment, the process is not an overnight process, but rather slow and can take more than a year, as evidenced by foreign investors departing in 1994 even though the crisis in Mexico started in 1992.

Aitken and Harrison (1999) found negative spillovers in Venezuela during a period (1975 to 1989) in which the country was struggling with a range of institutional challenges. At the time, Venezuela discriminated against foreign firms. Foreign firms were made to pay high corporate income tax i.e. 50% against 35% for local companies, and were not allowed to remit more than 20% of their profits to their home countries (Aitken & Harrison, 1999).

A similar situation characterized Morocco during its economic transition between 1985 and 1989. There were a number of trade barriers during that period, chief among them the Morrocanization law which forced 51% mandatory local ownership of all foreign firms, and laws disallowing foreign firms from investing in certain sectors of the Moroccan economy. Haddad and Harrison (1993) found negative spillovers in Morocco over that period.

Ghana yielded negative spillovers in a study by Waldkirch and Ofosu (2010) for the period between 1992 and 1998 in which the country recorded a maximum inflation of 59.5% (World Bank, 2020b). Moreover, the country also suffered from political tension. It held its first multi-party general elections in 1992 after a decade of military rule, and the subsequent years were characterized by political and economic uncertainties. It is known that firms prefer institutional stability, even when the change is positive (Barnard & Luiz, 2018), and this is the case not

only for Ghana, but arguably also for Vietnam, where negative spillovers were reported for 2001 to 2008 (Kokko & Thang, 2014).. Perceived global competitiveness fell in 2005 even as the economy opened, e.g. with the signing of the bilateral trade agreement with the USA in 2000 (WEF Global Competitiveness Report, 2020). Over a similar period (2000 to 2005) which also was shortly after the Asian Financial Crisis, Malaysia also reported negative spillovers (Dogan, Wong & Yap, 2017). In trying to minimize the fall-out from the crisis, Malaysia had pegged its currency against the dollar at an arguably artificially high level (Arif & Abubakar, 1998). Table 1 summarizes these conditions.

Table 2: Countries that yielded negative spillovers

Country	Year	Local situation
Bulgaria	1995 – 1997	Inflation at 311% in 1996
Czech Republic	1995 – 1998	Currency crisis and exodus of foreign investors in 1997; government split and unplanned election in 1997
Ghana	1992 -1998	Inflation at 51%; 1992 end of a decade of military rule triggers extensive political and economic uncertainties
Malaysia	2000 - 2005	In the aftermath of the Asian crisis, when the ringgit dropped from MYR 2.50 to MYR 4.80 per USD, the Malaysian government pegged its value at MYR 3.80 per USD. This lasted till 2005
Mexico	1993 – 1995	Political instability, war, rebels taking over certain cities in 1994. Assassination of presidential candidate in 1995, flight of foreign companies
Morocco	1985 – 1989	Morrocanization low forced 51% mandatory local ownership of all foreign firms; restriction of foreign investment in certain sectors of the economy
Romania	1995 – 1997	Inflation at 155% in 1996
Venezuela	1975 – 1989	Foreign firms made to pay higher corporate income tax i.e. 50% against 35% for local companies, foreign firms not allowed to remit more than 20% of their profits to their home countries
Vietnam	2001 - 2008	Progress on privatization with 2000 bilateral trade agreement with USA and 10-year plan enhancing the role of the private sector. Yet dramatic fall in 2005 Global Competitiveness Report due to negative views of government institutions

The commonality of a turbulent environment with institutional and economic challenges in the above mentioned studies is clear. Whilst it is widely accepted that MNC plants generally yield positive spillovers, it also seems plausible, based on this study's argumentation and the evidence from these cases, that under turbulent conditions, spillovers are likely to be negative. To test this claim, the study examines Zimbabwe, a low income country that has been

grappling with a turbulent economic environment and institutional challenges for the past two decades. Thus;

> **H_1:** The existence of foreign firms in a turbulent institutional environment will result in negative spillovers in the host country industry.

Figure 1 is the conceptual framework for hypothesis 1 based on the adapted Cobb-Douglas equation which has been widely used by most FDI studies on spillovers.

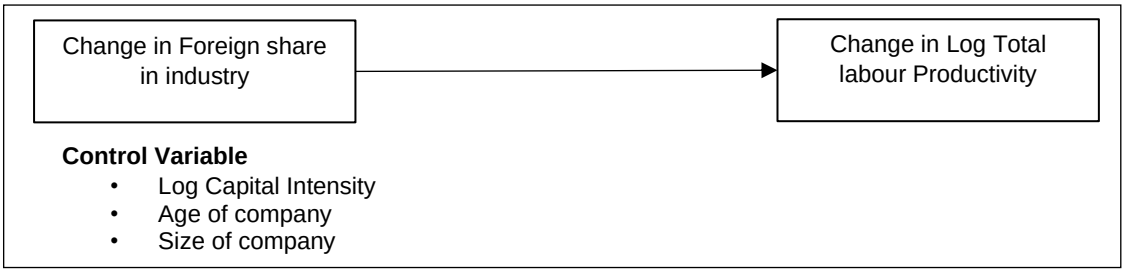

Figure 1: Conceptual framework for H_1

3.4. Explanations for negative spillovers

Positing negative spillovers in low income countries with turbulent institutional environments will have far reaching implications for policymakers. The primary reason for FDI-friendly policies by most governments has been to attract FDI, which in turn is believed (with substantial empirical evidence, e.g. Narula & Dunning, 2010; Narula & Pineli 2018) to improve the domestic economy. The Zimbabwean government, like many other transitional and developing countries, tries to attract FDI by offering generous investment packages, e.g. 5-year tax holidays and import duty exemptions for investments into mining and energy sectors. All these FDI friendly policies are meant to increase the share of foreign companies in the industry, which is in turn believed to improve productivity of local firms.

This study is arguing that in a turbulent institutional environment, spillovers will be negative rather than positive. Policy makers may therefore need to understand the explanation, and ultimately mechanism behind the hypothesised negative spillovers in such contexts so they can adjust their polices accordingly. If FDI is indeed yielding negative spillovers, it will be detrimental to the local firms if policy makers continue with policies that seek to attract FDI. Instead what could help local industry would be to craft policies that seek to reduce negative spillovers. But these policies can only be created if the policy makers know what causes the negative spillovers.

3.4.1. Performance Gap and Absorptive capacity

While spillovers are measured at country or industry level, the explanation for the nature of spillovers (positive, negative or neutral) could be better understood at firm level. For instance, Bellak (2004) concludes that a large performance gap between domestic firms and foreign firms results in negative spillovers. Bellak highlights productivity, wage and skills gaps – all measured at firmed level and contrasted between local firms and foreign firms – as the measures of performance adopted by the papers used for his metanalysis.

Bellak (2004) further highlights that most governments compete for FDI with a belief in net positive effects of FDI into their countries. Admittedly, based on prior FDI literature finding positive spillovers, these governments cannot be faulted. However, because there have been studies where negative spillovers have been obtained, particularly in developing countries, such governments must instead orient their policies to not focus only on policies that only incentivise FDI to come into their countries, but also towards how to prevent negative spillovers.

Yet as much as host nations may wish for positive spillovers, the nature of spillovers (whether positive, negative or neutral) has been shown to depend crucially on the conditions for local firms (Blomström, 2002, Bellak, 2004). There is general consensus among scholars that the size of the performance gaps between local firms and foreign firms is a determinant for the likelihood of spillovers to occur between foreign-owned and domestic-owned. For instance, in his meta-analysis of fifty six studies investigating the effect of performance gap on spillovers, Bellak (2004) concluded that small gaps may typically yield small or neutral spillovers, whereas medium sized gaps yielded high positive spillovers. Several authors also echo the same sentiments (Girma *et al.*, 2001; Castellani & Zanfei, 2002; Driffield & Taylor, 1999; Hubert & Pain, 2001). Of interest is the finding by Bellak (2004) that when the performance gap is high, which is often the case with most developing countries due to low absorptive capacity (Bellak, 2004; Moralles & Moreno, 2020), spillovers become negative.

Absorptive capacity has been defined as the ability of an organisation to internalise knowledge created by others and modifying it to fit their own specific applications, processes and routines (Cohen & Levinthal,1990). Authors largely consent that the effect of FDI spillovers to host countries varies according to the absorptive capacity of recipients (Bekaert, Harvey & Lundblad, 2010; Blalock, 2002; Blomstrom & Sjoholm, 1999; Blonigen & Wang, 2005; Borensztein, De Gregorio & Lee, 1998; Kim, 2015; Khordagui & Saleh, 2013; Kose, Prasad & Terrones, 2009; Liang, 2017; Li & Liu, 2005; Makki & Somwaru, 2004; Tang & Zhang, 2016;

Ubeda & Perez-Hernandez, 2017; Vu & Le, 2017). Absorptive capacity is therefore another decisive factor for nature of spillover benefits.

Despite the overwhelming evidence on the role of the size of performance gap and absorptive capacity for the appropriation of spillovers, the proxies used to measure either of the two in the multitude of studies reviewed have been heterogeneous. For instance, in the meta-analysis of fifty six studies reviewed by Bellak (2004) in which performance gaps where being measured, and for which the gap was ultimately argued to be the decisive factor on nature of spillovers that a recipient country will yield; productivity, wage gap and skills gap were all used as proxies for performance. Girma *et al.* (2001) reached the same conclusion about the effect of performance gap on spillovers, but used productivity and wage gap only. Vu and Le (2017) used technical efficiency which they argue to be an indicator of the quality of inputs (given technological level) and the management of a firm.

The proxies for absorptive capacity have been equally varying. Though a number of authors have largely agreed on R&D activity or expenditure as a proxy for absorptive capacity (Cohen & Levinthal, 1990; Blalock, 2002; Kim, 2015; Coe, Helpman & Hoffmaister, 2009; Seck, 2009), a considerable number of studies also used varying proxies. For example Blalock (2002), in addition to R&D activity, used technology gap and skills gap as additional measures. Saleh and Khodagui (2013) used human capital, trade openness, and institutional quality; while a number of other authors also considered human capital (Borensztein *et al*., 1998, Blonigen and Wang 2005; Narula & Pineli, 2018; Li and Liu, 2005); financial development and trade openness (Balasubramanyam, Salisu & Sapsford, 1996; Makki & Somwaru, 2004;); quality of institutions (Bekaert *et al*., 2010; Kose *et al*., 2009); and quality of infrastructure (Kinoshita & Lu, 2006)

The heterogeneity in the measurement of absorptive capacity is of particular interest to the context of this study. As highlighted in the above sections, the varying proxies for absorptive capacity range from R&D, quality of institutions, trade openness, financial development and quality of infrastructure. This study focuses on Zimbabwe, and the set of institutions reviewed in Chapter 2 cover the various proxies of absorptive capacity in studies reviewed. As laid bare in Chapter 2, these institutions in Zimbabwean are at their lowest ebb.

For instance, as a recap, there has been reduced R&D in the country, with government and private-sector spending as little as 0.2 per cent of the gross national product on R&D, one of the lowest in the world (Ministry of Science and Technology Development, 2011). The

environment has been hyperinflationary in the past two decades, leading to severe cash shortages and international payments restrictions by the Government. Most institutional prerequisites for development have accordingly deteriorated, with the country ranking among the lowest in world on corruption, trade openness, quality of governance, quality of infrastructure and property rights (International Monetary Fund, 2019; World Economic Forum, 2017).

In short, the current state of affairs in Zimbabwe is that of a country with the one of the lowest absorptive capacities in the world. Qualitatively, it is plausible for the study to summarily attribute the hypothesized negative spillovers to Zimbabwe's anecdotal low absorptive capacity as explained in Chapter 2. However, the study will go further and suggest that the MNC engages in various strategies to deal with a low absorptive capacity in host country, and that the performance gap between local and foreign firms could be the reason for the posited negative spillovers.

The Confederation of Zimbabwe Industries has already hinted about the existence of a large performance gap between local and foreign firms, commenting that manufacturing MNCs have been enjoying better manufacturing operational performance than their local counterparts (CZI Manufacturing Survey, 2016). Using capacity utilisation (CU) as a measure of manufacturing operational performance (consistent with other prior studies i.e. Bellak, 2004; Corrado & Mattey, 1997; Deb, 2014; Girma *et al.,* 2001; Igbinedion & Obeide, 2016; James, 1975; Oluwaseun, 2018; Ray, 2013 Vu & Le, 2017;), the capacity utilisation of manufacturing MNCs has consistently been higher (averaging 85%), compared to local manufacturers who have averaged 20% (CZI Manufacturing Survey, 2016).

Multiple authors have reiterated that countries will have to reach a certain absorptive capacity threshold of their indigenous sector in order to reap spillovers benefits, otherwise it is likely that domestic firms are unable to assimilate new technologies. In turn, that implies that spillovers are either unlikely to occur or can be negative (Bellak, 2004; Driffield & Taylor, 1999; Tang and Zhang, 2017; Ubeda, Perez & Hernandez, 2017). The study will thus investigate whether this anecdotal difference in performance prevailing in the Zimbabwean context is large enough to warrant negative spillovers.

On the basis of Bellak's 2004 study, this study builds on its first hypothesis that negative spillovers are likely to occur in a Zimbabwe with a turbulent institutional environment, and posit that a large difference in performance between local and foreign companies (i.e. a large

performance gap between local firms and foreign firms in Zimbabwe) could be the explanation behind negative spillovers under such a turbulent environmental context. Thus;

H_2: There is a performance gap between foreign companies and local companies such that;

a) There is a difference in the performance of foreign firms and local firms i.e. foreign firms outperform local firms.
b) There is a positive relationship between nature of ownership and performance i.e. the better performance of foreign firms owes to their ownership structure

Figure 2 shows the conceptual framework for hypotheses 2a and 2b

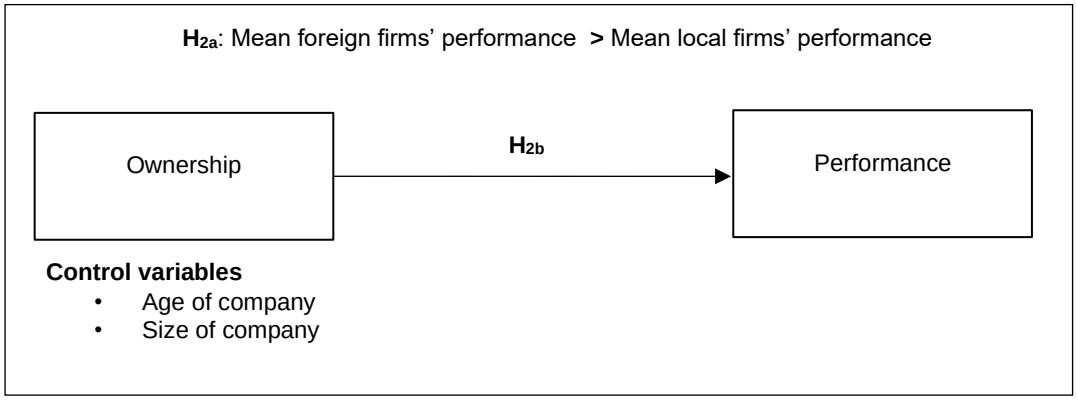

Figure 2: Conceptual framework for H_2

3.5. Why there is a gap between domestic and foreign firms?

This chapter, thus far, has first posited negative spillovers in a turbulent institutional environment. Secondly, it has suggested a large performance gap between local and foreign firms as the possible reason for negative spillovers being hypothesized. But in order to understand why this performance gap would result in negative spillovers, and where needed, to design appropriate policy measures (Bellak, 2004), it is important to delve deeper into why there are significant performance gaps.

Literature on FDI has shown that MNCs in developing countries perform better than their local counterparts, and in fact that MNCs' superior performance is often the catalyst for productivity improvement in host nations' industries (Barrios & Strobl, 2002; Blomstrom & Sjoholm, 1999; Meyer & Sinani, 2009). On the other hand, the institutional voids literature regards local companies as so critical that a frequently prescribed strategy for MNCs to overcome institutional voids in host nations is to collaborate with local companies (El-Ghoul, Guedhami,

& Kim, 2016; Khanna & Palepu, 1997; 2010). This implies that in contexts rife with institutional voids, local companies are expected to perform at least as well if not better than MNCs due to their in-depth knowledge of local institutions. Evidently, these two different fields of study (institutional voids and FDI) are contrasting as far as the ownership-performance debate is concerned in contexts rife with institutional voids.

The central explanation for why MNCs outperform local firms, especially in developing countries, has been around MNC subsidiaries' ability to accumulate knowledge and capabilities (Dunning, 1998; Harris, 2009; Meyer & Sinani, 2009; Narula & Dunning, 2010; Narula & Pineli, 2018). Various mechanisms have been examined, from the transfer of improved managerial practices to demonstration effects to investments into research and development. What the mechanisms have in common is that subsidiaries are argued to benefit from being part of an MNC in becoming more competent than the local firms.

The "spillovers" literature takes as a point of departure that the local economy may be able to benefit from the greater competence of the subsidiary that in turn is argued to derive from the MNC. Meyer and Sinani (2009) conducted a meta-analysis of the spillovers literature and found that low income countries (much more than middle income countries and as much as high income countries) benefit from spillovers. In contrast, although there is evidence that partnerships with local firms are important in countries rife with institutional voids, there is little evidence of the superior performance of such locally connected firms. Moreover, it may be that partnerships are important – but that those partnerships need not be with local entities. For example, Chipp, Wocke, Strandberg and Chiba (2019) find that South African MNCs use partnerships among each other to enter other African contexts when there are severe institutional voids.

These types of partnerships are consistent with the predictions of resource dependence theory, where firms seek to reduce environmental uncertainty and dependence primarily through relationships (Hillman *et al.,* 2009; Pfeffer & Salancik, 1978). Although there has been a shift from more formal (e.g. mergers) to less formal (e.g. alliances) relationships (Drees & Heugens, 2013), there has been relatively little work on intra-MNC resources (Hillman *et al.,* 2009). This study follows Meyer, Estrin, Bhaumik and Peng (2009) in arguing for a further broadening of the scope of resources encompassed by resource dependence theory. The study proposes resource dependence theory's intra-organisational relationships as a way of understanding resources inside the MNC, and indeed, suggest those intra-MNC resource

flows as a central explanation of why MNCs outperform local firms in countries with extensive institutional voids.

3.5.1. Resource dependence theory in explaining subsidiary performance

Resource dependence theory suggests that organizations are constrained by their environments because they do not have all the resources they need to survive and prosper within those environments (Blumentritt, 2003). Resource dependence theory is premised on the notion that all organizations critically depend on other organizations, and that the organizations that survive are successful in interacting with environmental actors that control resources they need (Hillman *et al.*, 2009; Pfeffer & Salancik, 1978). Dependence is thus the degree to which an organization relies on outside actors for needed resources to function and achieve its goals.

The theory was developed by Pfeffer and Salancik in 1978. It has power as a central concern, and interorganisational relationships formed to limit dependence on other actors in the economy (Cuervo-Cazurra, Mudambi & Pedersen, 2019; Hillman *et al.*, 2009). Resource dependence theory suggests that firms critically depend on other organisations for the provision of vital resources (Drees & Heugens, 2103). However, reliance on external actors results in power imbalances between the focal organisation and the external actor whom the organisation is dependent on (external providers become powerful and difficult to control in that relationship dyad). To reduce the power and dependence on the external actors, literature on resource dependence theory has offered a number of options for organisations. First, environmental dependence can be reduced by vertical integration/mergers with the external actor; or joint ventures and other interorganizational relationships (Pfeffer & Salancik, 1978). Another option to manage uncertainty and dependence is by co-opting it through inviting a representative of the source of constraint onto the focal organisation's governing board, thus trading sovereignty for support (Davis & Cobb, 2007; Hillman *et al.,* 2009; Pfeffer & Salancik, 1978).

Pfeffer and Salancik (1978) also indicate political action as another option for managing environmental dependences. In such instances, the focal organisation uses political means to alter the condition of the external economic environment. Lastly, and of importance to this study, is the use of intra-organisational arrangements to gain resources and manage dependence on external actors. Hillman *et al.* (2009), Pfeffer and Salancik (1978) highlight executive succession as one of the intra-organisational arrangement options, and Pfeffer

(2007) proposes any “specific intra-organisational decision” that allows the focal organisation to gain resources and reduce dependence on external actors.

In advanced economies, where this theory was developed and extensively tested (see Hillman *et al.*, (2009) in which they review resource dependence theory studies spanning 30 years), the institutional environment generally functions, and is often less “visible” . But in developing countries, a major part of the environment that affects the firm is the often dysfunctional formal institutional environment. It goes virtually without saying that in a low income country rife with institutional voids, formal institutions (e.g. the central bank, customs office or railway network) will not be effective at providing the needed resources. Although firms, for political reasons, may want to signal dependence, it is unlikely that they will take the risk of becoming dependent on such challenging organisations. Instead, it can be expected that they will engage differently with the institutional environment – and relationships with other (privately held) organisations are likely to increase in importance.

Studies of resource dependence theory have largely focused on relationships between the focal organisation and a range of different external for-profit companies (e.g. Hillman *et al.,* (2009) decries the little research on intra-organisational arrangements since the birth of resource dependence theory in late 70s). There is however an emerging body of research examining the usefulness of resource dependence theory to explain the functioning of the MNC. Peng and Beamish (2014) examine how resource dependence theory is applied to the MNC subsidiary– headquarters relationships. They posit that factors which affect the access to and use of resources - from a resource dependence theory perspective - will affect the parent–subsidiary power relationship, further highlighting that the size of the subsidiary determines the power that it may have over its headquarters. When the subsidiary is small in size, the headquarters will have substantial control, and thus power over the subsidiary. When the subsidiary size increases, the power shifts towards the subsidiary.

Mudambi *et al.* (2014) also use resource dependence theory to show that when the MNC is dependent on subsidiary competencies, the subsidiary will have influence over MNC decisions, structures and outcomes, resulting in subsidiary power. Similarly, Cuervo-Cazurra *et al*. (2019) also concur that resource dependence theory applies in explaining intra-organisational relationships within the MNC especially when subsidiaries create competencies based on the control of intangible resources like knowledge assets. These are resources over which property rights are difficult to define and defend for parent. Subsidiaries with such assets thus exercise considerable power within the MNC.

Although the focus of this study is not to examine power relationships inside the MNC, or why subsidiaries will agree (or not) to requests from a sister subsidiary and how power is shifted inside the MNC because of those relationships; the study focuses on the implications for the external environment, the host country, to the extent that such relationships exist. In a country characterised by severe institutional voids and limited absorptive capacity, it is less clear to what extent other external companies operating there will be able to provide vital resources to a subsidiary. Instead, the most accessible source of resources for a subsidiary is likely to be the MNC of which it is part. Therefore, this study considers relationships inside the MNC. It examples relationships of the focal organisation with units within the MNC network and the MNC parent from a resource dependence theory perspective.

It therefore builds on Pfeffer's extension of the scope of arrangements that organisations make to include intra-organisational arrangements which result in within the organisation arrangements to reduce dependence on the external environment (Pfeffer, 2007). The study thus anchors its focus on that aspect of internal organizational arrangements - in this case access relationships from sister and parent subsidiaries - to reduce dependency on the external actors in a context characterised by turbulence and institutional voids.

The implication of resource dependence theory to this study is that the resources needed and acquired by foreign subsidiaries versus local companies in a given context can significantly affect the outcomes they achieve, affecting their performance and potential spillovers. In countries with institutional voids, foreign firms are often argued to require context-specific resources to achieve competitive advantages (e.g., El-Ghoul *et al.,* 2016). Although the literature has previously recognized that local firms could be a source of access relationships that provide resources in contexts with weaker institutional frameworks (Meyer *et al.,* 2009), it has not yet examined whether the MNC parent and sister subsidiaries may play a similar role.

These access relationships – dependences – between MNC subsidiaries and their parents might be a basis for explaining subsidiary superior performance in turbulent economic environments, because those relationships could enable subsidiaries to obtain resources from the parent or from sister organizations. Although the resources obtained would otherwise not have been easily obtained on the open market in the host nation, they may be instrumental in mitigating the constraints in the environments within which the MNCs subsidiary is operating (Drees & Heugens, 2013).

Some examples may be helpful. First, in countries with extreme institutional voids, foreign currency is often not freely available. For example, in Zimbabwe, if firms want to import machinery, parts or raw materials – none of which are likely to be available locally – they often need to submit a request to a government that virtually per definition is not particularly efficient. Local firms need to wait for the request to be approved before they can make those acquisitions, but MNCs can send the materials through as soon as needed and use transfer pricing to recoup costs as soon as the purchases have been formally approved. In fact, Bellak (2004) regards transfer pricing as one of the incisive instruments available to foreign firms against national governments and regulations; but such instruments are not available to local firms.

Second, if there are concerns about the local legal system, local firms need to engage in complex, expensive strategies to ensure that the jurisdiction of contracts is outside of rather than within the country. Where production and the targeted market are local, such strategies may not be worth their cost – leaving local firms exposed to a problematic local legal system. In contrast, even when both production and the targeted market are local, MNCs can ensure that subsidiaries in countries with institutional voids do not enter into contracts. Instead, they would participate in contracts that are signed in other jurisdictions where the MNC operates.

Finally, countries with severe instructional voids often have skills shortages. MNCs can send appropriate specialists and technicians from another, close-by subsidiary on short-term assignments for maintenance or to oversee specialist tasks, an option that is not available to local firms. Since the inception of FDI studies, foreign firms have been known to draw on their parent firm's managerial expertise to manage the complexities in their host countries. Even in difficult turbulent institutional environments, foreign firms through their industrial and geographical diversification have a more extensive set of information and better capacity (than local firms) for evaluating different situations (Caves, 1996).

What these strategies have in common is not only that they are available to the subsidiaries of MNCs but not to local firms, but also that they allow the subsidiaries to function and indeed realize superior returns without contributing to local capability accumulation. Subsidiaries "borrow" the capabilities that reside elsewhere in the MNC to allow them to operate, but there is little evidence of them internalizing those capabilities or developing their own.

This relatively recent line of enquiry resonates with resource dependence theory's intra-organisational relationships whose emphasis is on resources obtained from the environment

but not necessarily internalised by the organisation. As acquisition, control and internalisation of resources in unstable economic environments is highly unlikely (Cho & Mazzarol, 2012), resource dependence theory may be a useful lens through which to explore the difference in performance between local and foreign firms, and ultimately the nature spillovers in these contexts. Given a pervasive lack of environmental stability, the study contends that resource dependence theory's intra-organisational relationships may offer greater utility in explaining the superior performance of MNC subsidiaries relative to local firms. By looking at where firms obtain their most important resources required for continued operation in a turbulent institutional environment, in particular probing the effect of access relationships between the focal subsidiary and the MNC parent, the study proposes that;

H_3: there is a positive relationship between nature of ownership and the sourcing of resources such that local firms source resources primarily locally and foreign firms source resources primarily abroad, both when considering

a) general foreign sourcing of resources and
b) sourcing of resources from the MNC network

Figure 3 shows the conceptual framework for hypotheses 2 and 3.

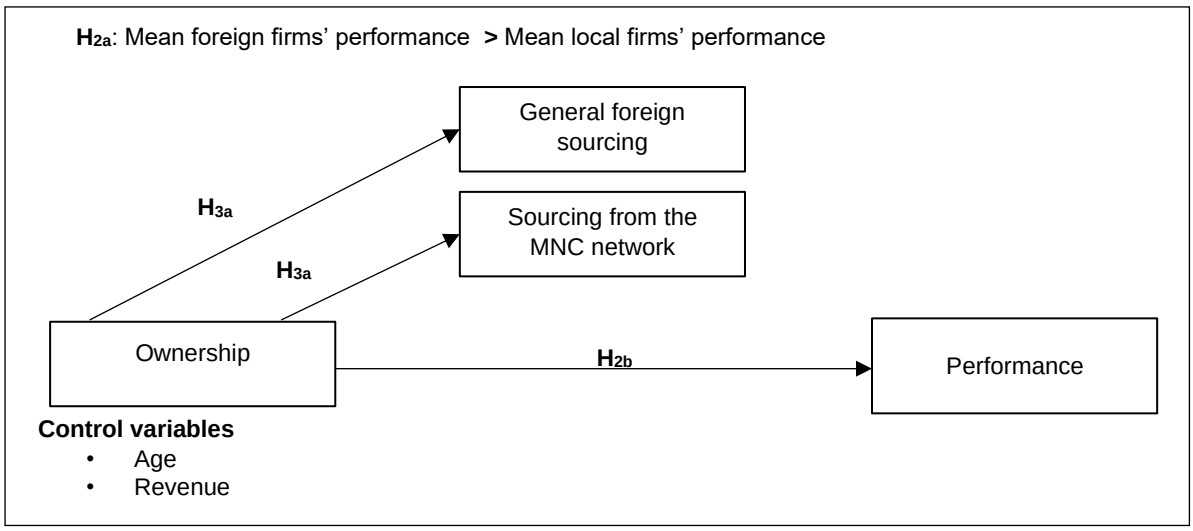

Figure 3: Conceptual framework for H_2 and H_3

3.5.2. Effect of resources on performance

The study thus far posits that the main driver of the superior performance of the MNC subsidiaries is their superior resources, whether or not internalised or gained through access relationship. The study also postulates that MNC subsidiaries are getting these resources

because they are part of the MNC network with munificent resources that can be shared within subsidiaries when need arises, an opportunity which does not exist for local firms. This suggests that the ownership structure of MNC subsidiaries is having a positive effect on their performance, and this positive effect is affected by the source of resources (MNC network) being relied upon for superior performance.

While most spillovers studies have found foreign ownership to be positively related to performance (Aitken & Harrison, 1999; Kokko & Thang. 2014; Liu *et al.,* 2000; Mayneris & Poncet, 2015; Meyer, 2004; Narula & Marin, 2003; Narula & Pineli, 2018), the effect of the sources (and sourcing) of resources on the ownership-performance relationship has hardly been quantitatively examined. This study contents that this could be the underlying explanation of negative spillovers in low income countries, particularly those with turbulent institutional environments. This intuition must therefore be explicitly tested to further anchor the work on the dynamics of spillovers in low income countries rife with institutional voids. Consequently, the study postulates that;

> **H_4**: The positive relationship between nature of ownership and performance in a turbulent institutional environment is mediated by,
>
> a) general foreign sourcing of resources
> b) sourcing of resources from the MNC network.

Hypotheses 2, 3, and 4 are therefore conceptualised as shown in Figure 4.

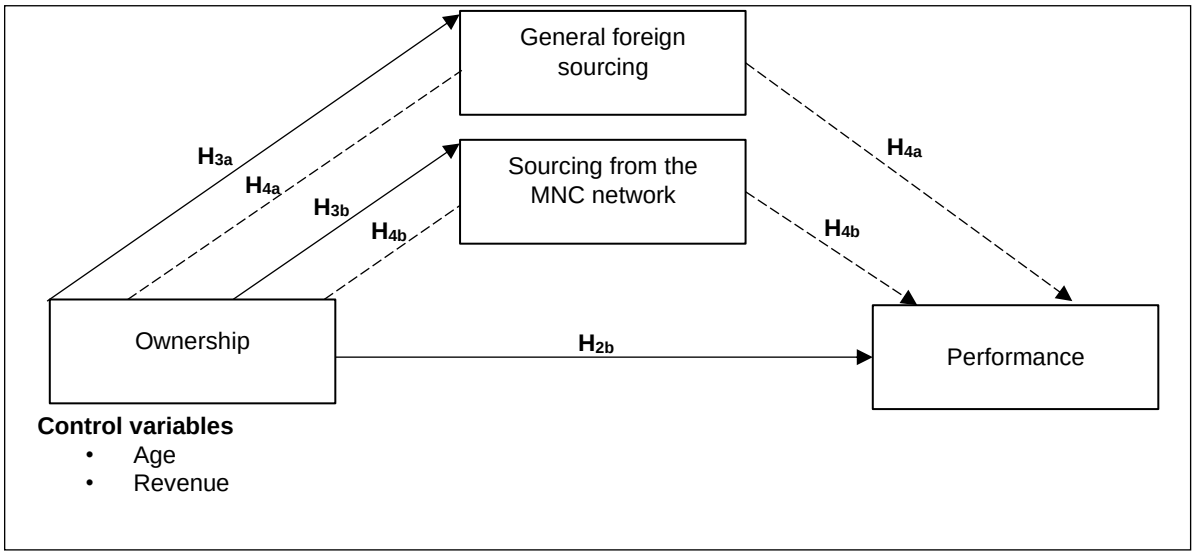

Figure 4: Conceptual framework for H_2, H_3,and H_4

3.6. Conceptual model summary

Overall, this chapter hypothesised that in turbulent institutional environments, spillovers will be negative due to the widening performance gap between local firms and foreign firms. The study further hypothesised ownership predicts performance, and that the widening performance gap is caused by access relationships, which only benefit the organisation in the relationship and rarely beyond. Lastly, this chapter hypothesised that foreign sourcing of resources, whether from the MNC network or foreign sourcing in general, mediates the ownership-performance relationship. Figure 5 is a summarized conceptual model for the study.

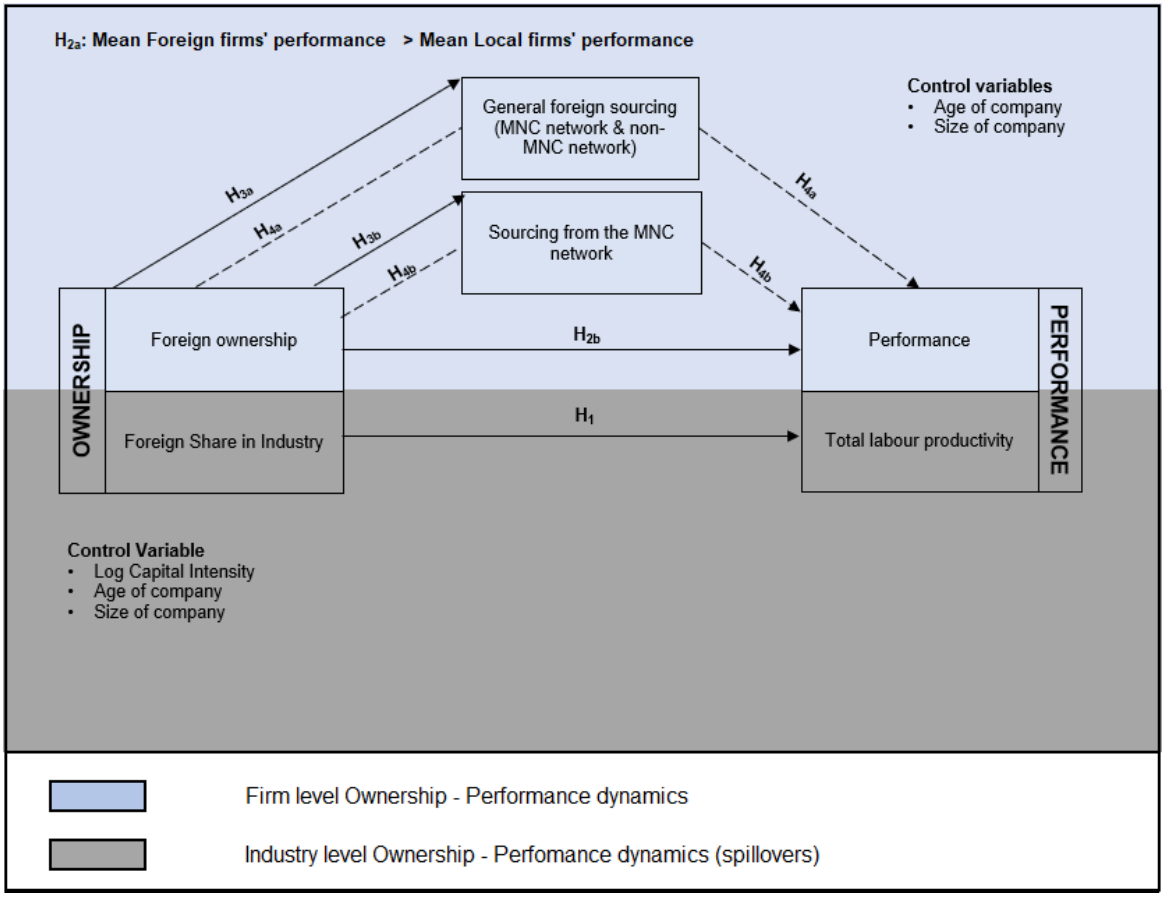

Figure 5: Conceptual framework for the study

3.7. Conclusion

Implicit in the term resource dependence theory is the notion of dependency. This term has a long history in international business research, and dependency was already a concern in the late 70s where there was a general fear of dependency on MNCs among academics and host nations, particularly in a much acclaimed "*dependencia*" study of Latin American nations by Cardoso and Faletto (1979). While this idea of dependency was summarised by Cardoso and Faletto in 1979, many authors echoing the same sentiments had long written about it (Amin,

1972; Bodenheimer, 1970; Cardoso, 1973; Chilcote & Edelstein,1974; Cockcroft, James, Frank & Johnson, 1972; Cohen, 1973; Moore, 1973; Ray, 1973). MNCs were feared for offering few or no benefits to host countries; distortions in the local economies; and distortions of host countries' political processes (Moran, 1978).

Since then, views of MNCs have swung in an almost pendulum-like fashion, shifting from concern about exploitation to excitement about the potential they offer for development (Blumentritt, 2003; Dunning, 1991, 1998). Given the current climate of deglobalisation (Rodrik, 2018), it seems that the views about the benefits of MNCs to host locations are perhaps again increasingly circumspect.

The hypotheses in this research examine the long standing fear about the negative consequences of a “dependency” situation i.e. that indeed the local companies in the host country are not benefiting from foreign investment. However, the argument is that the superior performance of the MNC subsidiary is due not to the accumulation of own resources, but to access to difference resources through different types of access relationships (foreign rather than local). This in turn results in widening of the performance gap between local firms and foreign firms. These access relationships do not necessarily build capability of the local industry.

Prior research has shown that the accumulation of resources in turbulent environments is often not feasible, and companies focus on survival (Cho and Mazzarol, 2012). A key strategy for achieving that is through access relationships, thus dependency on other actors (in this case internal actors) for resources to keep afloat (Drees & Heugens, 2013). The study suggests that access relationships do not build capacity of the local industry as these relationships are only likely to benefit the organisations in the relationship and rarely beyond. This in turn, the study further argues, will likely widen the performance gap between local and foreign firms, which ultimately leads to negative spillovers.

In summary, this chapter argued for negative rather than positive spillovers in turbulent institutional environments. This implies that FDI under those institutional conditions may hinder rather than help local development. This chapter has thus advanced the resource dependence theory as a possible lens to explain spillovers in turbulent institutional environments. Finally, the chapter concluded with a conceptual model summarising the hypothesised relationships amongst the key variables. The next chapter focuses on a detailed research methodology for the study.

4. Chapter 4: Research design and methodology

4.1. Introduction

The purpose of this research is to examine how economic turbulence affects the nature of economic spillovers in low income countries; and the extent to which MNCs' support to their subsidiaries operating in such economic environments, specifically Zimbabwe, explains the nature of the economic spillovers. The study thus focused on a low income country with a turbulent institutional environment, Zimbabwe, selected based on its institutional context and income level as discussed in Chapter Two. This chapter focuses on the research design and methodology for the study.

4.2. Research design, approach and strategy of enquiry

Taking the deductive research approach, a quantitative research design using the survey research strategy was used to assemble empirical evidence to support the hypotheses of this study. The survey research strategy was used to conduct a cross-sectional study of the relationships among nature of ownership, performance, source of resources and spillovers in a context rife with institutional voids. As the hypotheses are testing for differences, associations and relations, a quantitative inquiry through surveys was relevant as it permits the most economic collection of standardised data from a sizeable population (Castellan, 2010).

4.3. Units of analysis

The universe of analysis was Zimbabwe. The units of analysis were manufacturing firms affiliated to the Confederation of Zimbabwe Industries. The units of observation were the manufacturing firms' managers. They had various titles, including Chief Executive Officer, Chief Finance Officer, Chief Operating Officer, Managing Director, or whoever they delegated; but were identified as the lead respondent by the fact that they are the main contact point for the Confederation of Zimbabwe Industries annual surveys.

4.4. Data collection methods, population and sampling

One of the main challenges in studying countries with severe institutional voids relates to the availability of data. Precisely because countries and their institutions are so underdeveloped, there is hardly any systematic collection of evidence about conditions in those countries. This means that sampling frames can at best represent an informed guess about economic activity. Assuming that a relatively robust sample frame can be estimated, the poor infrastructure

makes it hard to access potential respondents – whether through mail, electronically, or in person – so that the quality of data can also be questioned.

Although Zimbabwe today exhibits severe institutional voids, the country during the 1980s was a beacon of development (African Development Bank, 2010; Tevera & Crush, 2003; World Bank, 2020a). That, combined with its British colonial heritage and close ties to South Africa, had resulted in the creation of several quite sophisticated business institutions, e.g. the Zimbabwean Stock Exchange, various industry and professional associations, a statistics division to map the Zimbabwean economy and so forth. Where institutions have been government-led, they have often suffered from severe underinvestment over the past two decades. For example, it is not atypical for employees to frequently not receive salaries. But in the absence of other work opportunities, employees have often continued doing the work that they were contracted to do.

Private institutions have in fact gained in importance, because they provide businesses with a mechanism to register concerns without exposing individual firms. This is especially the case for the dwindling population of formal firms in Zimbabwe, because of their visibility and the desperate need of the government for revenue. Although the large informal sector in Zimbabwe – most of which sprung up in the past two decades – resembles that of a typical low income country, the formal sector of Zimbabwe is well-organized. This provides a unique opportunity for testing theory.

The study intended to use well-established instruments, but there was concern about their applicability in the very different Zimbabwean context. For this reason, a pilot was conducted on 36 firms, drawn from the population of 281 of the CZI. The researcher had difficulty in reaching five out of the 36 firms the study had intended to interview for the pilot phase, with four of them not reachable as a result of having changed addresses or no being longer operational. One firm declined participation. The pilot was therefore based on 31 firms, a response rate of 86.11% which was large enough to allow reliability analyses. The 31 firms were excluded from the final study.

One of the problems lay with the manufacturing performance measures. Local firms have not had the resources to invest into the business for about two decades, and they have been “making do” with existing machinery and other assets since then. This meant that local firms with assets that are mostly beyond their useful life ended up reporting good returns on assets from small net incomes even when their manufacturing plants were hardly operational. As

such returns on assets and returns on investment were unusable measures of performance. Although these measures were retained in the questionnaire, consultations with firms and reference to a few past studies (e.g. Corrado & Mattey, 1997; Deb, 2014; Igbinedion & Obeide, 2016; James, 1975; Oluwaseun, 2018; Ray, 2013) led to the decision to measure manufacturing performance through manufacturing capacity utilisation. This measurement is also in line with other FDI literature that has used manufacturing capacity utilisation, or its variant (technical efficiency) in measuring performance gap between local and foreign manufacturing companies (Bellak, 2004; Vu & Le, 2013).

This is the most important way in which this thesis deviates from past measures and analytic strategies. Because it revisits a well-documented phenomenon, a decision was taken to replicate as much as possible from prior studies. This provides some confidence that findings – especially where they differ from prior work – are not due to different measures or statistical approaches, but indeed to some underlying mechanisms.

Population

The Confederation of Zimbabwean Industries (CZI), the industry association for the manufacturing sector in Zimbabwe, gave permission to poll their members, and the Chief Economist of the CZI had in fact endorsed the study in a communication to members. When the permission was received in 2018, there were a total of 281 manufacturing entities. For a country with a population of 15 million, that is already a small number, but during the period of data gathering and immediately since, 11 firms went bankrupt.

Given the well-documented difficulties of getting a good response rate for mail or web-based questionnaires (Taylor, 2000; Wright, 2005), data gathering took place in person, and typically lasted for more than an hour. Since Zimbabwe has a high unemployment rate, it was possible to access good research assistants. Firms were welcoming and, without it being part of the data gathering protocol, showed the researcher and research assistants around on the premises. Questions were answered by different executives, with the general manager or local equivalent often asking Human Resource and Operations managers to provide the detailed answers pertaining to their areas. A high degree of trust was in evidence throughout, with even privately held firms frequently sharing their financial statements to ensure that the right data were provided.

Most firms requested a copy of the aggregated results of the data, although about thirty percent of the population wished for hand-delivery of a hard copy of the results, rather than

an emailed copy – giving some indication of the challenging context. The typical explanation was that they were keen to see what other firms were doing, but were concerned about emails being intercepted. There is an occasional, almost random targeting of firms by the government, for example when a major fuel distributor was suddenly closed down because it was believed that it was responsible for the dramatic currency fluctuations, and when the government ordered the Zimbabwe Stock Exchange to indefinitely suspend all trading when it suspected that listed foreign firms were manipulating the inflation and exchange rates in Zimbabwe. An additional nine firms, having given verbal permission for full participation in data gathering and having shared all required data, refused to provide a signature on the consent form for fear of being traceable to the study. The study respected their wishes and did not include them in the study. The final data analysis is thus based on the responses of 225 firms, a 96% response rate for surviving CZI affiliated firms.

4.5. Reliability and validity

Nunnally (1967, p. 206) describes reliability as repeatability and freedom from random measurement error in a research instrument. It is a measure of replicability and consistency. Reliability is measured using Cronbach's alpha, and values of 0.70 and above are acceptable (Kline, 2004). Validity refers to the appropriateness of the instrument, whether it actually measures the constructs it is intended to measure (measurement validity) (Neuman, 2014); as well as the accuracy of analysis (internal validity) and generalisability (external validity) of results. Constructs being used in the study (nature of ownership, performance, source of resources and spillovers) are well developed, pretested and validated. Table 2 indicates studies where these constructs have been used before. In addition to the pilot study that was conducted, these constructs were maintained to ensure validity and reliability of measures for the study.

Common method bias, which is variance that is attributable to measurement method rather than to the constructs itself (Fiske, 1982), is regarded as one of the main sources of measurement error (Podsakoff, MacKenzie, Lee & Podsakof, 2003). Since data gathering took place in person, and the respondents allowed the researcher and research assistants to inspect financial statements of the firms, it was easy to corroborate the information given by respondents, thereby making sure that data were collected uniformly with no room for variance in constructs that were being measured. Some of the firms were also listed which made it easier to further corroborate the information given by respondents with that inspected by researcher in their financial statements, and that published publicly as per the stock exchange regulations.

Table 3: List of Variables

Construct	Definition	Operationalisation
Nature of Ownership	The organisation's shareholding structure (Chuan & Lin, 1999)	• Two categories: local ownership defined as an organisation with at least 86% shares owned by locals and foreign ownership defined as an organisation with at least 15% shares owned by foreigners (Aslanoglu, 2000; Chuan & Lin 1999; Kokko, 1996; Sjoholm, 1999)
Performance	The ratio of the actual output to the designed capacity of the machinery (Corrado & Mattey, 1997)	• Manufacturing Capacity utilisation (Ray, 2013; Oluwaseun, 2018)
Source of resources	The streams from which an organisation accesses its resources (Meyer *et al.*, 2009)	• The response to question where you obtain your resources (adapted from Meyer *et al.,* 2009)
Spillovers • Adapted Cobb-Douglass equation • Blumentritt (2003)	The residual benefits from FDI which accrue to indigenous firms and for which foreign-owned firms are uncompensated, and have an effect of raising the overall level of productivity of all firms in the host country (Harris, 2009)	• Total factor productivity equation based on Cobb Douglas equation (Aslanoglu, 2000; Caves, 1974; Chuan & Lin 1999; Globerman, 1979; Kokko, 1994; Kokko, 1996; Sjoholm, 1999). Equation detailed in section 4.6.4 • Answer to the following 4 questions (Blumentritt, 2003): 1. Compared to firms which are your immediate competitors, this plant invests a great deal in training our local employees 2. Compared to firms which are your immediate competitors, this plant makes more profit 3. Compared to firms which are your immediate competitors, this plant purchases many of the raw materials it uses from local firms 4. Compared to firms which are your immediate competitors, by operating here, this plant creates a large number of jobs at other local firms 5. Scored on a 5-point Likert-type scale, with anchors of strongly disagree and strongly agree (α = 0.92). Scored on a five point Likert-type scale with anchors of strongly disagree and strongly agree (α = 0.92).
Age of company	The number of years since the formation or incorporation of the firm. (Acquaah, 2013)	• Answer to question – what year did you start operating in Zimbabwe (Acquaah, 2013)?
Size of company	Total Revenue (Acquaah, 2013)	• Answer to question – What was your total revenue as at (i) December2017 (ii) December 2019 (Acquaah, 2013)?

Construct	Definition	Operationalisation
Industrial sector of the company	International Standard for Industrial Classification. Zimbabwe's Manufacturing industry classified into 10 subsectors (CZI, 2016)	• Answer to the question - What is your main product? The researcher would then classify the response according to the following categories: Chemical and Petroleum Products; Textiles, Clothing and Footwear; Drinks, Tobacco and Beverages; Foodstuffs; Metal and Metal Products; Non-Metallic Mineral Products; Paper, Printing and Packaging; Transport Equipment; Wood and Furniture; Other Manufacturing

4.6. Data analysis methods

Simple regression analysis using the adapted Cobb-Douglas equation, and Blumentritt's (2003) five-point Likert type scale were used to test for spillovers in H_1. In order to test the significance of the difference in performance between foreign firms and local firms in a context rife with institutional voids (H_{2a}), the Mann-Whitney U was used as the data did not conform to a normal distribution. A simple regression analysis was used to test H_{2b} and H_3, which sought to test the relationship between nature of ownership and performance; and nature of ownership and foreign sourcing of resources respectively. A Tobit regression model was used as an additional test for the ownership/performance relationship. In order to test for mediation (H_4), SPSS Process Macro was used.

4.7. Definitions and operationalisation of variables

4.7.1. Ownership

The FDI literature used in this study has divided ownership into two broad categories, foreign and local ownership. Foreign owned companies being defined as companies in which foreigners or foreign companies have significant shareholding. Most literature has defined foreign companies as those that have at least 15% of their shares owned by foreigners (Aslanoglu, 2000; Chuang & Lin 1999; Kokko, 1996; Sjoholm, 1999). To keep in line with the standards of the FDI literature, this study also used 15% ownership into a company as a measure of foreign ownership. All companies falling below the 15% threshold were therefore considered local companies. . For the sake of robustness, the study used multiple cut off points for foreign ownership in tests that treated ownership as a dichotomous variable. For instance in reporting results for H_1, while the primary reporting of results was for a 15% cut off, the study also reported results from 5% to 50% at 10% intervals.

4.7.2. Performance

In manufacturing industries, capacity utilisation is often used as a measure of manufacturing performance (Ray, 2013), and is measured as a ratio of the actual output to the designed

capacity of the machinery (Corrado & Mattey, 1997). As the scope is limited to MNCs and local firms in the manufacturing industry in Zimbabwe, the study adopts manufacturing capacity utilisation to measure the manufacturing performance of firms for two reasons. First, manufacturing capacity utilisation has long been identified as a useful measure of manufacturing performance (Corrado & Mattey, 1997; Deb, 2014; Igbinedion & Obeide, 2016; James, 1975; Oluwaseun, 2018; Ray, 2013; Vu and Le, 2013). Most governments also use manufacturing capacity utilisation to track performance of their respective manufacturing sectors. For instance, Zimbabwe releases statistics on manufacturing capacity utilisation for the industrial sector through ZIMSTAT, South Africa releases the same through Statistics South Africa (STASSA), and the USA releases them through the Board of Governors of the Federal Reserve System. The CZI, whose members are the population of this study also uses manufacturing capacity utilisation as a performance measure for manufacturing firms in its annual state of the manufacturing sector survey.

Second, because the study is focusing on manufacturing companies, manufacturing capacity utilisation may be the best measure of operational performance as it controls for manufacturing firms that no longer focus on their primary business of manufacturing. For instance, some manufacturing firms in Zimbabwe have long ceased to do manufacturing but are renting out their premises to other firms in different industries. Such firms are getting rental income and revaluation of buildings income as their only sources of income, and not income from their primary registered business which is manufacturing. Manufacturing capacity utilisation is therefore a useful measure of operational performance for manufacturing firms as it measures the extent to which a firm's manufacturing equipment and other inputs like manufacturing personnel are being used against the maximum capacity that the company has on its books.

The study thus operationalised performance as capacity utilisation. However, since eleven companies that were operating at the time of the pilot had already closed when the full study was conducted, the ability to keep operating when other firms are closing shop was also seen as an important measure of manufacturing performance. In order to capture this contextual element, a turbulent economic environment characterised by severe institutional voids, the study introduced "Change in Capacity Utilisation" as another measure of manufacturing performance. Change in capacity utilisation (ΔCU) was measured as the difference between capacity utilisation of 2017 and that of 2018 (expressed as a percentage of the 2017 figure). A bigger and negative change in this measure suggests downsizing and points towards closure of the company, whilst a constant or bigger, positive figure indicates maintenance of

the status quo and better manufacturing performance respectively. Change in capacity utilisation was therefore used as the measure of manufacturing performance throughout the study.

4.7.3. Source of Resources

The study adapted the source of resources measure by Meyer *et al*., (2009). Respondents were first asked to rank their five most important resources out of a list of twenty types of resources. This was followed by a question on where they sourced each of the five top ranked resources. During the pilot, respondents had thirteen options, about half locally and half abroad. (See Questions 7 and 8 in Appendix A – "The Questionnaire", for a list of the resources and their sources). Post the pilot, the original questionnaire was expanded with options that were derived from consultations with respondents.

Some of these were not intuitive. For example, during Apartheid while there were sanctions against South African firms, Zimbabwe (formerly called Rhodesia) was one of the few places to which South African firms could expand. For the same reason, many of the South African firms were also conglomerates, and after the end of Apartheid, sold non-core assets – often to different buyers in South Africa and Zimbabwe. But many employees and through them friendship ties between the previously sister subsidiaries remained, and because the Zimbabwean firms did not present a competitive threat in any way, South African firms would sometimes support them. For example, Zimbabwean firms might be invited to attend training and specialist presentations in neighbouring South Africa at no cost. Because questionnaires were completed in person, respondents would typically describe the source of resources, and the researcher or research assistant would enter it at the appropriate place on the questionnaire.

General foreign sourcing

The sourcing measure was calculated by first asking firms to specify their top five resources. They were then asked to identify the proportion of local and foreign resources for each of the top five resources so that the total sourcing (foreign and local combined) for each of their top resources added to 100%. The proportions of foreign sourcing were then added. For instance, if a firm obtained 20% of its most important resource from foreign sources, and obtained 30% for the second most important resource, 70% for the third, 80% for the fourth and 60% for the fifth; then foreign sourcing for the five important resources of this firm was calculated as the sum of 20%, 30%, 70%, 80% and 60% making it 260 out of a possible 500. Foreign sourcing was then used as dependent variable in the regression for H_{2a}. There were a total of eight

foreign sources from which resources could be obtained. This included both sources within the MNC network (e.g. the MNC parent or a sister subsidiary) and also relationships with other firms abroad. Table 3 lists the eight general foreign sources of resources.

Table 4: Foreign resources

Source	Resource				
	1	**2**	**3**	**4**	**5**
1. Local firm in which your firm **owns a stake**, e.g. a joint venture partner or an acquired firm	%	%	%	%	%
2. Foreign ***parent firm*** if you are part of a multinational	%	%	%	%	%
3. Foreign ***sister subsidiary*** if you are part of a multinational	%	%	%	%	%
4. Other ***foreign firm(s)*** with which you have ***historical ties***, even though you no longer have an ownership relationship	%	%	%	%	%
5. Other foreign ***business*** relationship(s) in a ***related*** industry	%	%	%	%	%
6. Other foreign ***friendship*** or ***network*** relationship(s) in a ***related*** industry	%	%	%	%	%
7. Other foreign ***business*** relationship(s) in an ***unrelated*** industry	%	%	%	%	%
8. Other foreign ***friendship*** or ***network*** relationship(s) in an ***unrelated*** industry	%	%	%	%	%
9. Other foreign (Specify: ……)	%	%	%	%	%
	100%	100%	100%	100%	100%

Sourcing from the MNC network

Four questions specifically focused on sourcing from the MNC network. Questions 1 - 4 in table 2 were used to calculate sourcing from the MNC network. While the first question at first appeared to reflect a local resource, it became apparent during data collection that where MNCs had more than one subsidiary in Zimbabwe, they would use one subsidiary to receive foreign resources on behalf of all the other subsidiaries. Probing revealed that this was done for administrative purposes, given the costs and complexities of procuring from abroad.

This typically affected subsidiaries (for ease of explanation, A and B) owned by the same MNC, that were reporting to the South African subsidiary in the MNC group that was playing a regional headquarters role. A central procurement team and a central warehouse for keeping spares and raw materials were housed in subsidiary A. When the MNC (via South Africa) supplied resources or raw materials to the Zimbabwean subsidiaries, it supplied everything to

subsidiary A. Subsidiary B would then obtain its resources locally from subsidiary A and indicate the origin of such resources as “Local firm in which your firm owns a stake” (option 1 in table 3). This is consistent with literature on regional headquarters (RHQ) and the mandate given to regional management centres (RMC) to oversee the activities of co-located subsidiaries (Schotter, Stallkamp & Pinkham, 2017; Schutte, 1997).

4.7.4. Spillovers

The study followed Aitken and Harrison (1999) and estimate a log-linear production function at the firm level to test whether FDI plants are yielding negative spillovers in Zimbabwe. Aitken and Harrison (1999) use an adapted standard log-linear Cobb-Douglas equation. This method measures spillovers at industry level, and almost 90% of studies on spillovers use this equation or its adaptation (Aitken & Harrison, 1999; Barry, Gorg & Strobl, 2005; Blomstrom & Persson; 1983; Blomstrom & Sjoholm, 1999; Caves 1974; Haskel, Pereira, Slaughter & Matthew, 2007; Kokko, 1994; Sjoholm, 1999; Takii, 2005). For robustness, the study adapted Blumentritt’ s (2003) firm level spillover measure. The study only focused on horizontal spillovers due to lack of and non-availability of data to measure vertical spillovers.

Spillovers based on the Adapted Cobb-Douglas Equation

Using the adapted Cobb-Douglas equation, the occurrence of spillovers is assessed indirectly through estimating an equation in which the productivity of the domestic firms of a certain sector depends on the foreign presence in the same sector, controlling for other observable determinants (Aitken & Harrison, 1999; Narula & Dunning, 2010). These determinants include capital-labour ratios, labour quality, scale economies, and concentration. If foreign presence has been found to have a significant positive effect on local productivity, then spillovers are deemed to have taken place. Simple regression analysis based on a function derived from the Cobb Douglass production function but modified to capture foreign firms’ share in the particular industry as an independent variable is done. Most of the literature reviewed for this study used manufacturing census data for their analyses, grouping manufacturing firms into subsectors like chemicals manufacturing, textiles manufacturing, food manufacturing, beverage manufacturers etc. To allow for operationalisation of the spillovers variable, the manufacturing firms were classified according to the International Standard for Industrial Classification (ISIC Rev 4).

The study adapted the standard log-linear Cobb-Douglas equation to measure the existence of spillovers in the Zimbabwean Manufacturing industry. Almost 90% of studies on spillovers

use this equation (Aitken & Harrison, 1999; Barry, Gorg & Strobl, 2005; Blomstrom & Persson; 1983; Blomstrom & Sjoholm, 1999; Caves 1974; Haskel *et al.,* 2007; Kokko, 1994; Sjoholm, 1999; Takii, 2005); and the one by Aitken and Harrison (1999) was adapted for this study.

To capture spillovers, measures of change in industry input (Logarithm of Capital Intensity in this case, $\Delta \log CI$), change in industry output (Logarithm of Total Labour Productivity, $\Delta \log TLP$) and change in foreign share ($\Delta FShare$) were used as is in the equation (1).

$\Delta \log TLP$ was calculated as follows;

- LogTLP for 2018 minus LogTLP for 2017 expressed as a percentage of LogTLP for 2017. Where TLP is calculated as total output (revenue) divided by total number of employees.

Δ*log CI* was calculated as follows

- LogCI for 2018 minus LogCI for 2017 expressed as a percentage of LogCI for 2017. Where CI is calculated as capital employed divided by total number of employees.

Δ*Fshare* was calculated as follows

- Fshare for 2018 minus Fshare for 2017 expressed as a percentage of Fshare for 2017. Where foreign share is calculated as the total output (revenue) of foreign owned firms in a particular sector (beverages sector for example), divided by the total output (revenue) of combined local and foreign firms in that sector, expressed as a percentage.

The overall spillover equation is as follows

$$\Delta \log TLP = \alpha \Delta \log CI + \beta \Delta \mathrm{FShare} + K \quad \text{..... (1)}$$

Where;

- k is a constant,
- α and β are coefficients
- Positive spillovers exist if two things occur;
    i. β must be positive and;
    ii. p value must be significant.
- Negative spillovers exist if two things occur;
    i. If β is negative and
    ii. p value is significant.

- Spillovers do not exist if p value is not significant regardless of the magnitude and direction of the β value (Aitken & Harrison, 1999)

Spillovers based on Blumentritt (2003) measure

Blumentritt (2003) measure captures spillovers at firm level, and the study only uses it for robustness check of the widely used adapted Cobb-Douglass equation measurement that captures spillovers at industry level. Blumentritt' s (2003) measure consists of four questions measured on a five point Likert scale with anchors of strongly agree and strongly disagree.

4.7.5. Control variables

The study controlled for firm age, sector through classification of the firm's main product and its size (through revenue) respectively. Nielsen and Raswant (2018) highlight the need to justify the inclusion, and proper reporting of control variables. The following section justifies the selection of the control variables for this study, highlighting prior studies in which these variables were used.

4.7.5a Age of company

Age is defined as the time difference between year *t* and the official year of incorporation of the firm (Acquaah, 2013). Narula and Pineli (2018) have decried the exclusion of small domestic plants in most FDI literature to date. As this was a census, the study polled all organisations affiliated to CZI regardless of size. Since older firms are more likely to possess an understanding of their economic environment, the expectation was for older firms to perform better than new companies. This is in line with many empirical papers which have shown that younger firms are more likely to fail (Audretsch & Mahmood, 1994; Mata, Portugal & Guimaraes, 1995). In line with these previous studies in FDI literature, the study controlled for age.

4.7.5b Size of company

Firm sizes are classified by total assets (Dang, Li & Yang, 2018) or where such information is not available, number of employees and revenue (Acquaah, 2013). Revenue was used to operationalise the size of a firm. As MNC subsidiaries are generally large, the study controlled for size so that the MNCs could be compared to similar size local companies as well. While number of employees could have been used for measuring firm size, the Zimbabwean manufacturing industry is not uniformly advanced in terms of technology, even for firms in the same sector. For instance, two firms in the sugar industry have a huge discrepancy in number of employees but making this same product. But the huge difference in number of employees

owes to one company using machinery for cane cutting (approximately thirty harvesters), whereas the other firm has a manual cane cutting process done by up to 4,000 employees. Using number of employees to compare these two companies would reflect the mechanised company a smaller company than the other one with a human intensive operation, when these companies are almost same in size in terms of revenue.

4.8. Conclusion

This chapter has demonstrated why the research design, strategy and approach were appropriate for the hypotheses, context and theoretical lens of the study. The variables for the study were identified, and based on extant research, operationalised. The next section presents the results of the study.

5. Chapter 5: Results and Discussions

5.1. Introduction

The purpose of this research is to examine how economic turbulence affects the nature of economic spillovers in low income countries; and the extent to which MNCs' support to their subsidiaries operating in such economic environments, specifically Zimbabwe, explains the nature of the economic spillovers. This chapter analyses the data collected from a census of manufacturing firms affiliated with the Confederation of Zimbabwe Industries (CZI), and discusses the results of the analyses, making use of literature germane to the findings. The results, models and the concomitant discussions are presented per hypothesis.

5.2. Descriptive statistics

Variables were measured in four categories: control variables including Age and Size (Revenue 2018 in $10,000s) and change in log capital intensity (ΔLogCI); the predictor variables being ownership and change in foreign share (ΔFshare); the dependant variables were performance measured as change in capacity utilisation (ΔCU), general foreign sourcing of resources (GFSourcing), Spillovers (Blumentritt's 2003 measure) and sourcing from the MNC network (MNCnet); as well as the mediating variables being general foreign sourcing (GFSourcing) and sourcing from the MNC network (MNCnet). Respective survey questions as illustrated in Table 1 of chapter 4 were created to provide measures for each variable. The control, predictor and dependent variables were determined from direct responses to questions relating to general information on the firm's establishment, ownership structure, products, revenue, capital employed, number of employees and capacity utilisation in the period between December 2017 and December 2018. In determining ownership, firms indicated on a scale of 0 to 100, the percentage foreign shareholding in their firm. Where it was necessary to classify ownership as foreign or local, foreign ownership was defined as any firm having in excess of 15% foreign shareholding.

The study acknowledges the need to factor in the role of scale and time in the operations of a business and how these can have an influence on the measurement of a firm's performance (Acquaah, 2013; Audretsch & Mahmood, 1994; Dang, Li & Yang, 2018; Mata *et al.*,1995;). The study thus controlled for the influence on performance of firm age and size as indicated by the period from commencing firm operations and firm's revenue respectively.

The study further proposed that the mechanism by which ownership influences performance is through access to foreign resources. As such, the influence of firm ownership on performance is best explained by an understanding of the sourcing of resources in contexts rife with institutional voids. The study proposed that the ownership of a firm predicts where a firm is likely to source its most important resources so that locally or foreign owned firms will perform well or poorly depending on what kind of resources they need, and where such resources are obtained. The study further proposed that general foreign sourcing (GFSourcing) and sourcing from the MNC network (MNCnet) mediate the relationship between ownership and performance. Table 4 shows summary descriptive statistics for the sample.

Table 5: Descriptive statistics

Dependants: n = 225												
	Foreign				**Local**				**Sample**			
	Min	**Max**	**Mean**	**Std. Dev**	**Min**	**Max**	**Mean**	**Std. Dev**	**Min**	**Max**	**Mean**	**Std. Dev**
∆CU	-0.400	1.187	0.480	0.420	-0.625	1.860	0.244	0.436	-0.625	1.860	0.299	0.443
GFSourcing	0.000	500.000	187.880	99.805	0.000	450.000	161.763	95.154	0.000	500.000	167.800	96.655
MNCnet	0.000	400.000	72.885	89.894	0.000	434.000	42.538	81.919	0.000	434.000	49.551	84.599
∆LogTLP	-0.367	0.151	0.031	0.069	-0.168	0.311	0.045	0.076	-0.367	0.311	0.042	0.074
Spillovers (Blumentritt, 2003)	9.000	20.000	17.440	3.363	10.00	20.000	18.250	2.821	9.000	20.000	18.060	2.966
Predictors; n = 225												
Ownership	20.000	100.000	57.199	20.531	0.000	14.000	0.116	1.115	0.000	100.000	13.308	26.049
∆Fshare	-0.386	2.822	0.217	0.969	-0.386	2.822	-0.066	0.531	-0.386	2.822	-0.01	0.666
Controls: n = 225												
Age	2.000	108.00	44.230	31.143	1.000	106.000	23.820	18.935	1.000	108.000	28.530	23.886
Rev2018 (in $10,000s)	0.630	422,442.13	27,901.18	73,052.45	1.60	794,728.17	17,915.17	84,536.81	0.63	794,728.17	20,223.05	81,977.51
∆LogCI	-0.092	0.720	0.049	0.143	-0.297	0.386	0.007	0.102	-0.297	0.720	0.017	0.114

Table 5 shows that the data do not conform to a normal distribution when subjected to Kolmogorov-Smirnov's and Shapiro-Wilk tests for normality, ($p < 0.05$). Non-parametric tests were thus used throughout the study.

Table 6: Tests for normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
∆CU	0.066	225	0.019	0.982	225	0.005
GFSourcing	0.103	225	0.000	0.963	225	0.000
MNCnet	0.279	225	0.000	0.646	225	0.000
Ownership	0.451	225	0.000	0.569	225	0.000
Age	0.167	225	0.000	0.848	225	0.000
Rev2018	0.403	225	0.000	0.246	225	0.000
∆LogCI	0.127	225	0.000	0.838	225	0.000
∆LogTLP	0.088	225	0.000	0.939	225	0.000
Spillovers (Blumentritt, 2003)	0.379	225	0.000	0.683	225	0.000
∆Fshare	0.336	234	0.000	0.449	225	0.000

Correlation Analyses

Correlation analysis was used to observe the strength of the linear relationship between each of the measured variables. Given the non-normal nature of the data, Spearman rank correlation was used. For the data, measures ranged from -0.001 for the relationship between Spillovers (Blumentritt, 2003) and Capital Intensity (∆LogCI) to 0.439 for the general foreign sourcing (GFSourcing) to sourcing from the MNC network (MNCnet) relationship as shown in Table 6. The ownership to performance (∆CU) relationship is also significant at p = 0.003 with Spearman's rho greater than 0.192.

Table 7: Correlations

		1	2	3	4	5	6	7	8	9	10
1. Age	Coef	1.000									
	Sig	.									
2. Rev2018	Coef	0.225	1.000								
	Sig	0.001	.								
3. Ownership	Coef	0.297	0.269	1.000							
	Sig	0.000	0.000	.							
4. ∆CU	Coef	0.107	0.345	0.216	1.000						
	Sig	0.110	0.000	0.001	.						
5. GFSourcing	Coef	-0.022	0.018	0.140	-0,074	1.000					
	Sig	0.738	0.788	0.036	0.272	.					
6. MNC-net	Coef	-0.009	-0.112	0.217	-0.233	0.439	1.000				
	Sig	0.890	0.094	0.001	0.000	0.000	.				
7. ∆LogCI	Coef	0.119	-0.089	0.161	-0.026	-0.093	0.043	1.000			
	Sig	0.076	0.181	0.016	0.698	0.163	0.519	.			
8. ∆LogTLP	Coef	0.011	0.086	-0.063	0.190	-0.164	-0.260	0.194	1.000		
	Sig	0.874	0.197	0.349	0.004	0.014	0.000	0.003	.		
9. ∆Fshare	Coef	-0.039	0.061	0.063	0.034	-0.089	0.081	-0.059	-0.016	1.000	
	Sig	0.557	0.366	0.346	0.609	0.183	0.226	0.376	0.812	.	
10. Spillovers (Blumentritt, 2003)	Coef	-0.031	0.106	-0.092	0.125	-0.239	-0.333	-0.001	0.296	0.042	1.000
	Sig	0.650	0.114	0.171	0.062	0.000	0.000	0.993	0.000	0.534	

To address concerns regarding multicollinearity within the data, collinearity tests were performed, and the results show Variance Inflation Factors (VIFs) for all variables (tables 8, 11, 15 and 17) ranging from *1.003 to 1.174*, all well under the threshold 5 indicating that multicollinearity did not exist in the data (Hair, Anderson, Tatham, & Black, 1998).

5.3. Spillovers

5.3.1. Spillovers result based on adapted Cobb – Douglass equation

The study had hypothesised that the existence of foreign firms in a Zimbabwean context rife with institutional voids will result in negative spillovers in the industry. Consistent with vast literature on spillovers, the study adapted the standard log-linear Cobb-Douglas equation to measure the existence of spillovers in the Zimbabwean Manufacturing industry (results in table 5). The value of the coefficient of foreign shareholding in the industry (in this case measured as change in foreign share (∆Fshare)) indicates spillovers are negative and significant at p <

0.05 (p = 0.009; t = -2.65). The coefficient of foreign share (-0.02) in Table 8 suggests that a rise of 10 percentage points in foreign share in the industry, *ceteris paribus*, would lower output in each domestic plant in the industry by 0.2%.

Table 8: Model summary_ LogTLP and ∆Fshare relationship

Dependent	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig
∆LogTLP	0.272	0.074	0.057	0.072	4.396	0.002

Table 9: Model Coefficients_ LogTLP and ∆Fshare relationship

Dependent		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
∆ LogTLP	(Constant)	0.039	0.008		5.110	0.000		
	∆Fshare	-0.020	0.007	-0.176	-2.650	0.009	0.951	1.052
	∆LogCI	0.101	0.043	0.154	2.335	0.020	0.965	1.036
	Age	-7.591E-05	0.000	-0.024	-0.362	0.717	0.929	1.076
	Rev2018	1.488E-07	0.000	0.164	2.513	0.013	0.988	1.012

Figure 6 is the overall model for the study, with results for the relationship between total productivity (∆LogTLP), capital intensity (∆Log CI) and foreign share (∆Fshare).

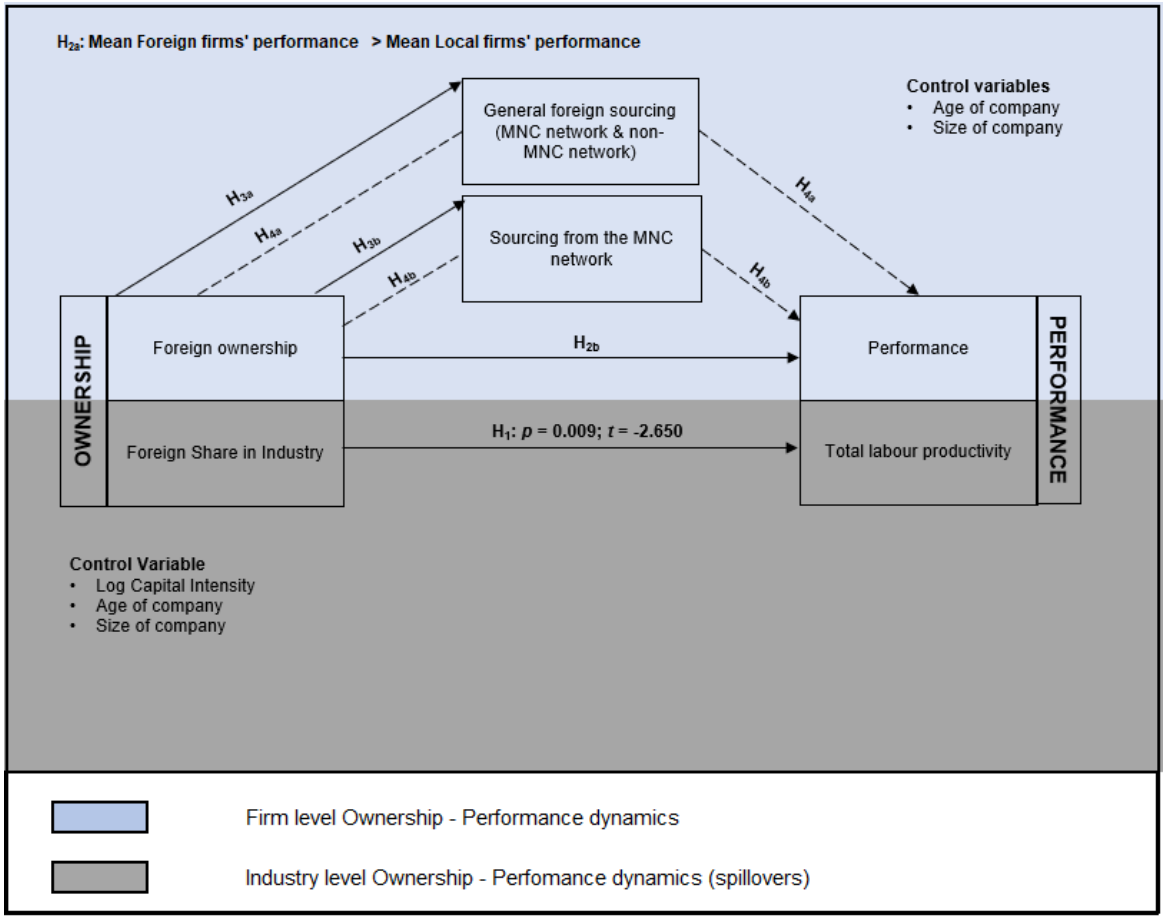

Figure 6: Model with spillovers result

Whilst most literature in FDI studies used the 15% foreign ownership threshold in calculating the foreign share in industry (Fshare) variable, a few studies used a range of between 5 - 10% (Blomstrom & Sjoholm, 1999; Barrios & Strobl, 2002; Bwalya, 2006) , and other studies used a range of above 15% to 50% (Aitken & Harrison, 1999; Caves, 1974; Haskel *et al.,* 2007; Kathuria, 2000; Takii, 2005;) for foreign ownership. In order to investigate how the results would change when the threshold shifts from 15% down to 10% or shifts up from 15% up to 50%, the study tested different thresholds within a range of 10% - 50% foreign shareholding, and the results are shown on table 9. The values of the coefficient of foreign shareholding in the industry (∆Fshare) indicates spillovers are remain negative and significant at $p < 0.05$ for all thresholds from 10% up to 50%, suggesting that spillovers remain negative even when 50% foreign shareholding is considered as minimum to classify a firm as foreign.

Table 10: 10% - 50% thresholds

% ownership threshold in the ∆*Fshare* variable	Number of foreign firms in sample	Unstandardized		Standardized	t	sig
		B	Std. Error	Beta		
10	53	-0.020	0.007	-0.176	-2.645	0.009
20	50	-0.020	0.007	-0.176	-2.650	0.009
30	46	-0.019	0.007	-0.175	-2.631	0.009
40	38	-0.018	0.007	-0.160	-2.416	0.017
50	35	-0.018	0.007	-0.172	-2.593	0.010

5.3.2. Robustness result – Spillover result based on Blumentritt (2003) measure

Whilst, to the best of the study's knowledge, the spillover measure by Blumentritt (2003) has not been widely used except for his study in 2003, the study uses it here to test for robustness of the spillovers result obtained using the widely used adapted Cobb Douglass equation. There is already evidence of a negative association between ownership and economic spillovers as indicated by the results of bivariate analysis conducted in table 6 (rho = -0.092). To determine the relationship between ownership and economic spillovers, the study uses linear regression analysis. The predictor is ownership with age and revenue 2018 as covariates. Results in tables 10 and 11 indicate that the relationship between ownership and economic spillovers is negative but not significant at $p < 0.05$ ($p = 0.436$; $F = 0.912$).

Table 11: Model summary_ Ownership and Economic spillovers

Dependent	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig
Economic spillovers	0.111	0.012	-0.001	2.96772	0.912	0.436

Table 12: Model Coefficients_ Ownership and Economic Spillovers

Dependent		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
Economic spillovers	(Constant)	18.165	.312		58.288	0.000		
	Ownership	-0.002	0.008	-0.021	-0.294	0.769	0.852	1.174
	Age	-0.005	0.009	-0.037	-0.508	0.612	0.853	1.173
	Rev2018	3.682E-06	0.000	0.102	1.520	0.130	0.997	1.003

5.3.3. Discussion: Spillovers

The results have shown that spillovers are negative and significant, even when the threshold of foreign ownership is varied from 10% to 50%. From the time the pilot study was conducted to the conclusion of data gathering, eleven companies that were originally part of the CZI membership closed down. All of them were domestic companies. Given the results from the study, this is not surprising: Spillovers are negative and significant, suggesting that a rise in foreign-owned plants lowers the output in locally owned plants.

Yet this insight is hardly reflected in the vast literature on spillovers. Although evidence suggests that especially low income countries benefit from spillovers (Meyer & Sinani, 2009), the study introduces an important boundary condition to that finding. When country conditions are economically and institutionally turbulent, the presence of foreign firms harms rather than helps the local economy. This is important.

A review of nine empirical studies where negative spillovers have previously been reported suggest that all those countries at the time were facing economic and/or institutional turbulence. They include studies of Venezuela (Aitken & Harrison, 1999), Morocco (Haddad & Harrison, 1993), the Czech Republic (Djankov & Hoekman, 1999) and Mexico (Jordaan, 2008), Ghana (Waldkirch & Ofosu (2010), Vietnam (Dogan, Wong & Yap, 2017) and Malaysia (Kokko & Thang, 2014). It is important to note that the turbulence was sometimes triggered by the introduction of what would generally be regarded as positive changes, e.g. the end of military rule in Ghana and the increased openness to private enterprise in Vietnam. Previous work has shown that institutional changeability matters more than whether those changes are positive or not. Thus the end of Apartheid and start of Mandela's term (Barnard & Luiz, 2018) triggered extensive escape FDI from South Africa because firms were concerned about unknown future "rules of the game". This stopped once firms better understood the new institutional landscape. Similarly, apart from the documented decimation of the Zimbabwean economy for the past two decades, the period of the study 2017/2018 also coincided with a fundamental change in Zimbabwe's political history. There was a change in leadership in November 2017 after a *coup d'état* that deposed former President Robert Mugabe who had been in power for the entire thirty seven years of an independent Zimbabwe.

It is virtually definitional that low and middle income countries suffer from weak institutions (Davies & Torrents, 2017; Moralles & Moreno, 2020; Narula & Pineli, 2018). Few advisors would challenge the wisdom of developing countries introducing essential reforms, getting rid of military governments, or even introducing indigenization laws if they can increase economic

participation in the economy. Yet all of those actions carry not only the non-trivial risk of failure, but they also inherently – hopefully over the short term – increase uncertainty and perhaps tension in the local economy.

In other words, although the study focused on Zimbabwe, quite an extreme case of a turbulent local context, it is likely that developing countries can expect to experience turbulence from time to time. In this regard, it is useful that the study was able to compare its evidence (from 2017/2018) to a prior study on spillovers in Zimbabwe using data from 1992 (Managi & Bwalya, 2012). The difference between the Zimbabwe of 1992 – when positive spillovers were found – and the present day lies in economic and institutional turbulence replacing a stable country context.

These findings have wide implications for scholars and policy makers alike. One obvious implication for policy makers is that policy should not be oriented at further attraction of FDI plants in the country, but instead on measures that reduce turbulence and hence negative spillovers. Possible measures will be illuminated in section 5.7 of this chapter.

5.4. Performance gap between local and foreign firms

5.4.1. Performance gap

Ownership was measured on a continuous scale as the percentage of foreign shareholding within each firm. For the purpose of testing this hypothesis, Ownership was then coded as a binary variable representing either foreign ownership (at least 15% foreign ownership, coded 1) or local ownership (more than 85% local shareholding, coded 2). The Mann Whitney U test for differences was used to test the difference in performance due to differences in ownership. The results in table 12 indicate that there is a significant difference in performance ($p = 0.0001$; $Z = -3.638$) between foreign and locally owned firms in contexts rife with institutional voids.

Table 13: Mann Whitney U test

Ranks				
	Ownership	N	Mean Rank	Sum of Ranks
Change in CU	Foreign	52	141.79	7373.00
	Local	173	104.35	18052.00
	Total	225		
Mann Whitney test statistics				
	Change in CU			
Mann-Whitney U	3001.00			
Wilcoxon W	18052.00			
Z	-3.638			
Asymp. Sig. (2-tailed)	0.000			

Model summary

Equation 3 summarises the model.

$Mean\ foreign\ firms'\ Change\ in\ CU\ (141.79) > Mean\ local\ firms'\ Change\ in\ CU(104.35)$ [p = 0.0001; Z = -3.368] ..... (3)

In order to investigate how the results would change when the threshold shifts from 15% down to 10% or shifts up from 15% up to 50%, the study tested different thresholds within a range of 10% to 50% foreign shareholding. The results in table 13 show a similar and significant difference in performance for all the threshold levels tested. In all subsequent analyses, a continuous variable is used for ownership.

Table 14: Mann Whitney U tests – different thresholds

Item		**>10**	**>20**	**>30**	**>40**	**>50**
N	Foreign	53	50	46	38	35
	Local	172	175	179	187	190
Mean Rank	Foreign	139.43	139.35	137.04	133.39	137.17
	Local	104.85	105.47	106.82	108.86	108.55
Mann-Whitney U		3157.00	3057.50	3011.00	2778.00	2479.00
Wilcoxon W		18035.00	18457.50	19121.00	20356.00	20624.00
Z		-3.382	-3.247	-2.810	-2.119	-2.391
Asymp. Sig. (2-tailed)		0.001	0.001	0.005	0.034	0.017

5.4.2. Ownership and performance

There is already evidence of an association between ownership and performance as indicated by the results of bivariate analysis conducted (table 5). There was a significant positive correlation between ownership and change in capacity utilisation (rho = 0.216, p = 0.001). To determine the relationship between nature of ownership and change in capacity utilisation, linear regression analysis was used. The predictor was ownership with age and revenue 2018 as covariates. Results in tables 14 and 15 indicate that ownership significantly predicts performance at $p < 0.05$ ($p = 0.001$; $F = 5.417$).

Table 15: Model summary_ Ownership and change in capacity utilisation

Dependent	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig
Change in CU	0.262	0.068	0.056	0.430	5.417	0.001

Table 16: Model Coefficients_ Ownership and change in capacity utilisation

Dependent		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
∆CU	(Constant)	0.218	0.045		4.821	0.000		
	Ownership	0.003	0.001	0.148	2.108	0.036	0.857	1.167
	Age	0.001	0.001	0.052	0.742	0.459	0.858	1.166
	Rev2018	1.002E-6	0.000	0.186	2.853	0.005	0.997	1.003

Figure 7 is the overall model for the study, with results for the relationship between ownership and capacity utilisation controlling for age, industry and revenue.

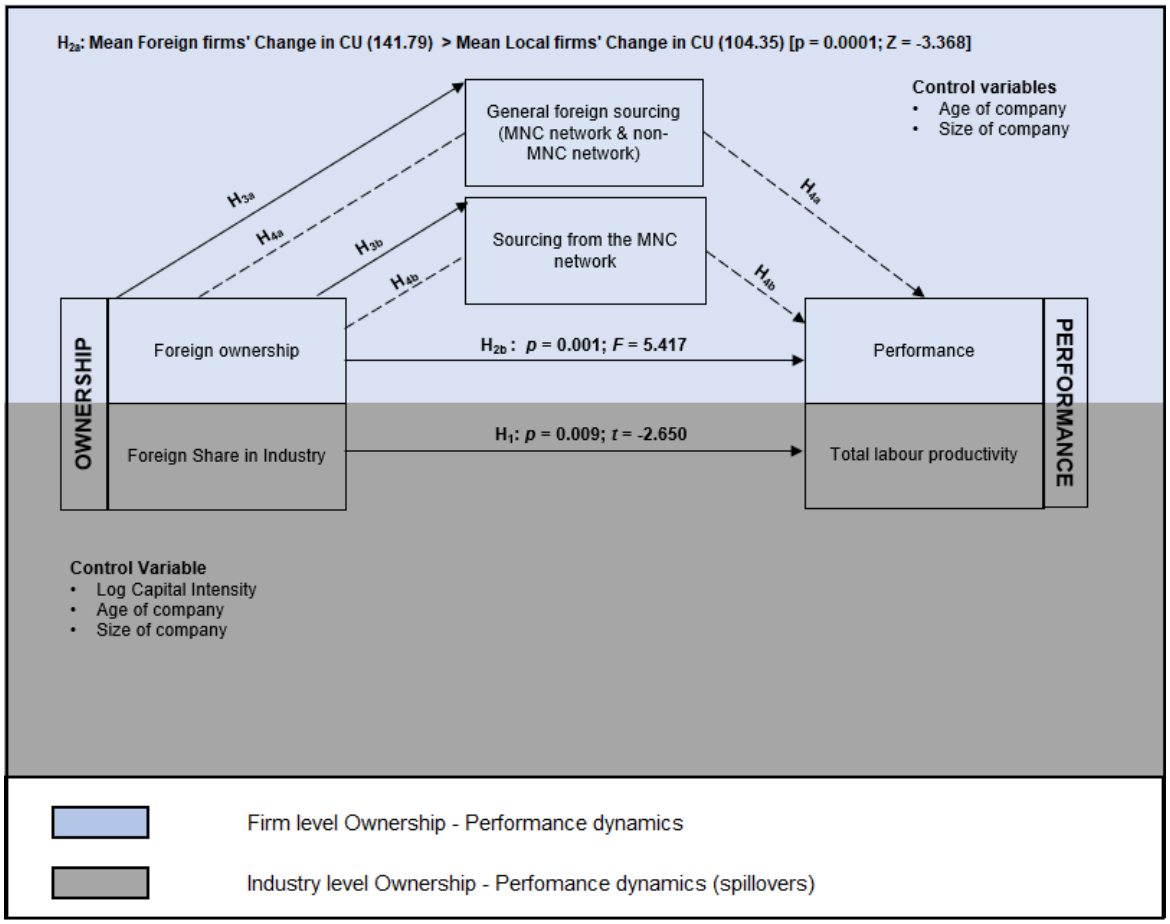

Figure 7: Model with Ownership - Performance result

5.4.3. Robustness measure – Tobit regression results

Performance was measured as change in Capacity Utilisation (Change in CU), a continuous variable. However for robustness, the study also conducted more tests on the performance-ownership association by running a Tobit test for Capacity Utilisation 2017 and 2018 (CU2017 and CU2018). In this instance Tobit is relevant due to the constrained nature of the dependents i.e. CU2017 and CU2018. The Tobit model is an econometric model of choice for dependent variables of partial continuous distributions and partial discrete distributions where the dependent variable is limited (Du, Wang & Li, 2020). Thus for estimation using a double-truncated capacity utilization variable, which takes a value between 0 and 1, the Tobit model was most appropriate. Model (1) regresses only capacity utilization and ownership for 2017 and 2018; the variable coefficients of Ownership being 0.007 and 0.010 respectively both significant at the 5% level. To verify this conclusion, control variables age and revenue were introduced and the results of model (2) show that the coefficient of Ownership remains positive and significant. The results indicate that firm ownership positively influences the capacity utilization of manufacturing firms.

Table 17: Model summary_ Tobit regression model

	Model 1- without controls				Model 2- with controls			
	coeff.	**SE**	**Z**	**p**	**coeff.**	**SE**	**z**	**p**
Ownership	0.007	0.001	9.308	0.000	0.002	0.001	2.617	0.009
Age					0.007	0.001	13.434	0.000
Revenue2017					4.59e-11	4.92e-11	0.933	0.351
Ownership	0.010	0.001	10.649	0.000	0.003	0.001	3.909	0.0001
Age					0.009	0.001	14.614	0.000
Revenue2018					6.45e-11	2.25e-11	2.868	0.004

5.4.4. Discussion: Performance gap between local and foreign firms

The results have shown a significant difference in performance between foreign and local and firms, with MNCs performing better than local firms. This is hardly surprising under economic contexts in which local firms have no alternative but to source resources important to the survival of their operations locally. This finding lends support to vast literature on performance of local firms versus that of foreign firms. There has long been agreement that MNCs perform better than local firms (Arnold & Javorcik 2009; Djankov & Hoekman, 2000; Evenett & Voicu 2001; Griffith & Simpson, 2002; Girma *et al.,* 2001; Harris, 2002; Helpman *et al*., 2004; Liu *et al.,* 2000; Narula & Pineli, 2018). The difference in performance is attributed to foreign firms' possession of some firm-specific advantage that gives them an absolute cost advantage over local companies (Hymer, 1976; Narula & Pineli, 2018; Pfafferymayr & Bellak, 2002). Even as early as the 90s, Globerman, Ries and Vertinsky (1994) had noted that foreign firms are known to enjoy better access to foreign markets through intra-firm trade and network economies, such that they can operate more profitably on a larger scale. The absolute cost advantage manifests as MNCs' better financial resources, technologies, managerial know-how and linkages to value chains (Narula & Pineli, 2018).

This difference in performance between local and foreign firms has been shown to be a decisive factor for the nature of spillovers benefits that can obtain in a country. For spillovers to occur (positive, negative), there must be a gradient in performance between MNCs and local firms; if this difference in performance does not exist, then spillovers to domestic firms cannot be expected to occur (Bellak, 2004; Castellani & Zanfei, 2002; Driffield & Taylor, 1999; Girma *et al.,* 2001; Harris, 2009; Hubert & Pain, 2001). However, this difference in performance (performance gap) has been shown to have little effect on spillovers (i.e. neutral or no spillovers) if it is too small; cause positive spillovers if the gap is medium, and negative spillovers when the gap is too large (Bellak, 2004). Based on the study's empirical results,

Zimbabwe's negative spillovers can be clearly attributed to the large performance gap between local and foreign firms (i.e. significant difference in performance as per results of hypothesis 2a). Spillovers manifest themselves through a demonstration effect where local firms imitate the superior production techniques and managerial practices used by the MNCs (Barrios & Strobl, 2002; Barrios *et al.*, 2004). However, this imitation may not take off if the local companies do not have the capacity to imitate using techniques like reverse engineering and R&D, what is generally termed absorptive capacity (Cohen & Levinthal, 1990). As previously reported, the performance gap is high in most developing countries due to low absorptive capacity (Bellak, 2004; Moralles & Moreno, 2020).

The significant difference in performance (large performance) between local and foreign firms in Zimbabwe is therefore hardly surprising given the country's indicators of absorptive capacity. The country's R&D expenditure is lowest in the world at 0.2% of GNP (Ministry of Science and Technology Development, 201). Specialised workers, who are often in short supply in low income countries, have been also presented as one of the key constituents of absorptive capacity (Narula and Pineli, 2018). Whilst Zimbabwe has the highest literacy rate in Africa (United Nations, 2017), and some of the most educated people in Africa, formal unemployment rate is very high and was reported as 90% in 2017 (BBC News, 2017). This means that even if the workforce is educated, most of them lack experience, and thus are not trained and skilled due to high unemployment levels that have sustained since the turn of the new millennium, resulting in brain drain to neighbouring countries and abroad. Indeed, a few authors have noted this skills deficiency in Zimbabwe. Crush and Pendleton (2012) have highlighted that the skills flight in Zimbabwe has created a huge vacuum in the labour market due to lack of transfer of experience to younger graduates produced from educational institutions, whilst Tevera and Crush (2003) have indicated that this ultimately leads to lack of experienced leaders for development and training of the labour required the industry.

The study acknowledges that there have been a few studies that have shown local firms performing better than MNCs, or local firms' performance not significantly different from that of MNCs. For instance, Harris (2009) found that local firms performed better than foreign firms in the UK. In other studies with similar findings (Dunning, 1988, 1998; Harris & Robinson, 2003; Konings, 2000), subsidiaries of MNCs have been found to be less productive than local firms in the short run, particularly in cases where there are initial difficulties in assimilating new plants into the FDI network. Even so, this study further acknowledges that in the cases where local firms have performed higher than MNCs subsidiaries, or where there was no significant difference between local and foreign, for instance (Harris 2009), it has mostly been in high-

income countries whose local firms have a high absorptive capacity compared to the local firms study's context.

Ownership and performance

Since the study has already established a significant difference in the performance of foreign and local companies, it was expected that the relationship between ownership and performance of firms would also be positive and significant. The results have shown that ownership significantly predicts performance, and this lends support to the multitude of similar findings in FDI literature (Aitken & Harrison, 1999; Kokko & Thang. 2014; Liu *et al.,* 2000; Mayneris & Poncet, 2015; Meyer, 2004; Narula & Marin, 2003; Narula & Pineli, 2018; Ramamurti, 2004).

FDI policies meant to attract FDI into host countries are typically based on the premise that foreign ownership of the FDI relates to the superior performance of these plants (Harris, 2009; Meyer & Sinani, 2009; Narula & Pineli, 2018). Governments then hope that – with the help of a conducive environment – domestic plants will learn or imitate the technology and methods of the MNC plants and ultimately improve their performance and methods. This result thus concurs with this long-standing position in FDI literature.

Though hypothesis 3 explains why MNCs are performing better and why ownership predicts this performance, an insight into the possible reason for this finding may help. In stable economic contexts with a sound institutional framework, both locally owned companies and foreign owned companies can openly source important resources for their operations from anywhere in the global village. In the study's context where government regulates who is allowed to use their foreign currency to make foreign purchases for foreign material which is hardly available locally, the playing field is skewed towards those organisations with outside country ties. This is an attribute of all MNC subsidiaries, and they can obtain important resources for their operations without having to sweat for approvals from the government like their counterparts with no ties outside the host nation.

For example, in Zimbabwe, foreign currency is often not freely available. If firms want to import machinery, parts or raw materials – none of which are likely to be available locally – they often need to submit a request to a government that virtually per definition is not particularly efficient. Local firms need to wait for the request to be approved before they can make those acquisitions, but MNCs can send the materials through as soon as needed and use transfer pricing to recoup costs as soon as the purchases have been formally approved.

The study therefore concurs with most FDI studies that the MNC can provide a range of resources to subsidiaries when they operate in foreign markets (Khanna & Palepu, 2010; Harris, 2009; Kokko, 1994; Herzer, 2008; Narula & Dunning, 2010). They have better technologies which results in production at lower costs; they are larger in size than their local competitors, and as such are in a better position to exploit cross-border efficiencies, particularly in sectors where scale economies matter; and subsidiaries can import intermediate goods and raw materials from their foreign affiliates at lower costs. MNCs also have a wide network of subsidiaries, as well as the parent from which to obtain such resources. The study lends support to literature which has long identified the MNC as a differentiated network in which subsidiaries have access to different types of resources and therefore perform differently within their markets and within the MNC (Anderson, Forsgren & Pedersen, 1999; Bartlett & Ghoshal, 1991; Cantwell, 2009; Ghoshal & Nohria, 1986; Kogut, 1990).

What these studies indicate is that MNC subsidiaries differ in terms of history, contexts, capabilities and organisational roles (Anderson *et al*., 1999; Mudambi & Narula, 2011), suggesting that the logic of the MNC is where some units create knowledge and others use it. The intent of hypothesis 3 is to confirm the MNC subsidiaries in Zimbabwe as users of technology and resources from their wider MNC network. But this study argues that in a turbulent economic context the subsidiaries do not necessarily internalise the knowledge and capabilities from their parent or sister firms as the focus of the MNC to exit or at least limit accumulation of extra resources under such an environment. Rather, the subsidiaries borrow these capabilities from their parent or sister firms. This will become more apparent in the results of the next hypothesis.

5.5. Ownership, source of resources and performance

5.5.1. Ownership and source of resources

To test the relationship between ownership and (a) general foreign sourcing and (b) sourcing from the MNC network, linear regression was used. The results show that the relationship between ownership and general foreign sourcing is significant at $p < 0.05$ ($p = 0.028$ and $F = 3.090$), suggesting foreign sourcing increases with increase in foreign ownership in a firm (Table 16 and 17). The results further show that the relationship is also – and indeed somewhat more – significant if only sourcing from the MNC network is considered rather than general foreign sourcing i.e. $p < 0.05$ ($p = 0.011$ and $F = 3.828$).

Table 18: Model summary_ Ownership and foreign sourcing

Dependent	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig
GFSourcing (H_{2a})	0.201	0.040	0.027	95.330	3.090	0.028
MNCnet (H_{2b})	0.222	0.049	0.036	83.041	3.828	0.011

Table 19: Model Coefficients_ Ownership and foreign sourcing

Dependent		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
GFSourcing (H_{2a})	(Constant)	169.859	10.000		16.987	0.000		
	Ownership	0.717	0.264	0.193	2.713	0.007	0.857	1.167
	Age	-0.325	0.288	-0.080	-1.128	0.261	0.858	1.166
	Rev2018	0.000	0.000	-0.098	-1.479	0.141	0.997	1.003
MNCnet (H_{2b})	(Constant)	47.216	8.711		5.421	0.000		
	Ownership	0.688	0.230	0.212	2.990	0.003	0.857	1.167
	Age	-0.160	0.251	-0.045	-0.638	0.524	0.858	1.166
	Rev2018	0.000	0.000	-0.108	-1.164	0.101	0.997	1.003

5.5.2. Sourcing of resources as a mediator

The study hypothesised that the relationship between ownership and performance is mediated by a) general foreign sourcing and b) sourcing from the MNC network. Using SPSS process Macro, the mediating effects of general foreign sourcing and sourcing from the MNC network were tested on the ownership-performance relationship. 5,000 bootstrapping samples were generated from the original data set for the overall model (n = 234) by random sampling (Shrout & Bolger, 2002; Zhao, Lynch & Chen, 2010). Table 18 shows the bootstrapping direct, indirect, and total effects calculated at a 95% bias-corrected interval of each indirect effect.

The results show that the indirect effects exerted by general foreign sourcing (β = -0.0003; 95% bias-corrected interval = -0.0009 to 0.0001) on performance (ΔCU) is not statistically significant, suggesting general foreign sourcing does not have a mediating effect. With respect to sourcing from the MNC network, the results show that the indirect effects exerted by sourcing from the MNC network (β = -0.0005; 95% bias-corrected interval = -0.0015 to -0.0002) on performance (ΔCU) is statistically significant, suggesting a mediated effect. However, because the direct effect (β = 0.0032; 95% bias-corrected interval 0.0009 to 0.0056) is statistically significant, it can be concluded that sourcing from the MNC network partially mediates the influence of ownership on performances.

Table 20: Mediation summary

	Direct effect [LLCI;HHCI]	Indirect effect [LLCI;HHCI]	Total effect [LLCI;HHCI]	Result
Ownership -> GFSourcing -> ΔCU	0.0028 [0.0005; 0.0052]	-0.0003 [-0.0009; 0.0001]	0.0025 [-0.0002; 0.0049]	No mediation
Ownership -> MNCnet -> ΔCU	0.0032 [0.0009; 0.0056]	-0.0007 [-0.0015; -0.0002]	0.0025 [-0.0002; 0.0049]	Complementary mediation

Figure 8 is the overall model for the study with results for all hypothesis.

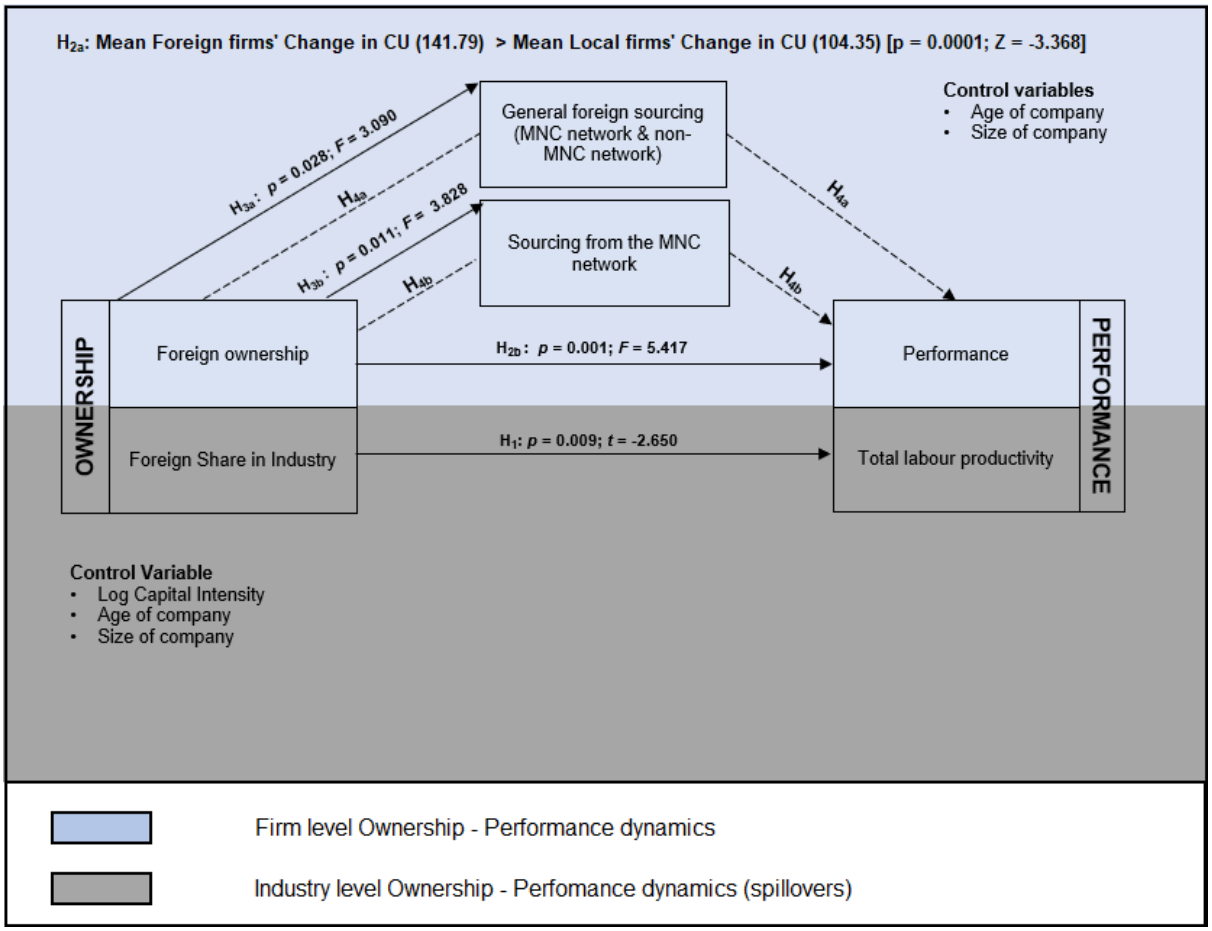

Figure 8: Overall model

5.5.3. Discussion: Ownership and source of resources

The study has found that there is a significant positive relationship between ownership and (a) general foreign sourcing and (b) sourcing from the MNC network. This suggests that as the ownership of a company increases i.e. towards more foreign ownership, the company's sourcing from a foreign source (whether from the MNC network or non-MNC network)

increases. From the preceding hypothesis (hypothesis 2), there is clear evidence that foreign firms operating in Zimbabwe outperform the local firms. Moreover, they tend to obtain their most critical resources from outside the country, whereas the local Zimbabwean firms obtain them locally. This is hardly surprising. After two decades of turmoil, the Zimbabwean business environment is decimated, and resources from elsewhere are likely to be more abundant. If firms have the option to secure resources from outside the country, they seem to do so – but given restrictive government regulations, that is hard for local firms to achieve.

General foreign sourcing

The finding that ownership is positively related to general foreign sourcing is hardly surprising. Chipp, Wocke, Strandberg and Chiba (2019) highlight that the general foreign sourcing can also involve other MNCs. They show how South African MNCs co-enter countries with institutional voids together with other South African MNCs offering financial, telecommunications and supply chain services. This allows MNCs not only to access services that are underdeveloped or absent in host countries, but also to negotiate and resource international operations from the institutionally relatively better developed South Africa. This finding also in many ways corroborates the growing work on global value chains. Building on Buckley's (2009) article on non-equity modes and global value chains, Narula and Pineli (2016; 2018) highlight that today's MNCs are increasingly in control of important global value chains without ownership through equity. This suggests that relationships which ultimately result in performance of firms no longer depend on ownership of resources being relied upon by the firm seeking the resources, but just contro*l* of the resources through non-equity modes and global value chains. Access relationships seem to follow a similar logic.

What these strategies have in common is not only that they are available to the subsidiaries of MNCs rather than to local firms, but also that they allow the subsidiaries to function and indeed realise superior returns without contributing to local capability accumulation. Subsidiaries "borrow" the capabilities that reside elsewhere in their foreign network (whether from the MNC network or non-MNC network) to allow them to operate, but there is little evidence of them internalising those capabilities or developing their own.

Intra-MNC foreign sourcing

The study has found intra–MNC foreign sourcing to be more important. In the case of Zimbabwe, resource accumulation by subsidiaries (or local firms) has been virtually impossible over the past two decades – and the harsh economic environment in Zimbabwe shows no signs of letting up. Hyperinflation in 2008 (69 sextillion percent) had wiped out entire balance

sheets, and the specter of hyperinflation is again looming large, with year-on-year inflation currently sitting at 622% (International Monetary Fund, 2020). Hopes that the situation in Zimbabwe will improve post the ousting of Mugabe in 2017 have faded with increased forex shortages in a deeply import-reliant economy (International Monetary Fund, 2019) and outward migration from Zimbabwe shows no signs of slowing, with skilled professionals like medical doctors struggling to make ends meet on dwindling salaries (Davies & Torrents, 2017). MNCs are understandably loath to invest much in Zimbabwe – but their subsidiaries continue to outperform local firms. The study suggests that this discrepancy can be explained by the fact that subsidiaries have access to the resources of the MNCs – they outperform local firms because they can "borrow" resources from the MNC network.

But seeing the MNC as a source of access relationships through which resources can be obtained if and when needed (rather than as a source of learning and knowledge accumulation) is relevant not only for subsidiaries of countries rife with institutional voids. It is likely that even subsidiaries that are capable of accumulating and internalizing resources do, to a greater or a lesser extent, rely on the MNC network to access resources when they need them. It has long been pointed out that the MNC of today resembles a differentiated network more than a series of "miniature replicas" (Bartlett & Ghoshal, 1991; Cantwell, 2009; Meyer, Mudambi & Narula, 2011; Nohria & Goshal, 1997). MNCs rely on "centers of excellence" (Frost, Birkinshaw & Ensign, 2002) and extended mandate subsidiaries (Cantwell & Mudambi, 2005) to develop and disseminate knowledge through the MNC network.

What is important for the MNC network is to make sure that subsidiaries can access those resources. It has long been pointed out that the MNC of today resembles a differentiated network more than a series of "miniature replicas" (Bartlett & Ghoshal, 1991; Cantwell, 2009; Meyer, Mudambi & Narula, 2011; Nohria & Goshal, 1997). MNCs rely on "centers of excellence" (Frost, Birkinshaw & Ensign, 2002) and extended mandate subsidiaries (Cantwell & Mudambi, 2005) to develop and disseminate knowledge through the MNC network. Limited mandate subsidiaries per definition do not have or likely seek power, so it may be that they are given 'patronage' by other subsidiaries that seek to improve their own position in the network. Literature on regional headquarters has also long identified pooling of resources for smaller subsidiaries as one of the main roles of regional headquarters (RHQ) for MNCs (Schutte, 1997). These intra-organisational relationships – among the focal subsidiary, the MNC parent and its sister subsidiary – become instruments for mitigating the constraints in the environments within which the focal subsidiary is operating (Drees & Heugens, 2013).

In this light, the ability to develop and accumulate resources may be less important for the focal subsidiary. Of course, subsidiaries still need to be able to absorb those resources, and to do so, they do need their own capabilities (Cohen & Levinthal, 1990). But as already pointed out, these capabilities are very low in most developing nations, particularly those with a turbulent context. Understanding the balance of importance of internalized versus "borrowed" capabilities in a turbulent institutional environment is therefore an important avenue for future research.. The study therefore believes that resource dependence theory can be used to explain much more of MNC performance than has previously been the case, whether in emerging countries or more widely.

5.5.4. Source of resources as a mediator of ownership and performance

To further anchor the work, it was incumbent upon the study to conduct a path analysis to examine how foreign resources translate foreign/domestic ownership into superior performance. For that, the study had hypothesized that the relationship between ownership and performance was mediated by a) general foreign sourcing and b) sourcing from the MNC network. While general foreign sourcing did not have any mediating effect, sourcing from the MNC network did have a mediating effect. This finding foreground resource dependence theory as a lens with which to understand the ownership/performance dynamics in turbulent economic contexts riddled with institutional voids.

The implication of this finding is that access relationships are the mechanism through which ownership predicts the performance. In this study, the access relationships between the focal subsidiary and its MNC network (its parent and sister subsidiaries) have resulted in superior performance of the MNC subsidiary. This is hardly surprising as the foreign access relationships are only available to MNC subsidiaries and not local firms due to the institutional context issues in Zimbabwe.

Added to this, foreign firms have multiple ways in which the access relationships are used to work around institutional voids in Zimbabwe. Apart from the transfer pricing strategies already alluded to, if there are concerns about the local legal system, local firms need to engage in complex, expensive strategies to ensure that the jurisdiction of contracts is outside of rather than within the country. Where production and the targeted market are local, such strategies may not be worth their cost – leaving local firms exposed to the local legal system. In contrast, even when production and the targeted market are local, MNCs can ensure that subsidiaries in countries with institutional voids do not enter into contracts. Instead, they would participate in contracts that are signed in other jurisdictions where the MNC operates.

Moreover, countries with severe institutional voids often have skills shortages (Moralles & Moreno, 2020; Narula & Pineli, 2018). While the high literacy rate (95%) of Zimbabwe is noteworthy, the exodus of skilled labour started as early as year 2000, and the country has long had more locally trained engineers and scientists outside the country than inside (Chetsanga & Muchenje, 2003). Faced with such circumstances, MNCs can send appropriate specialists and technicians from another, close-by subsidiary on short-term assignments for maintenance or to oversee specialist tasks, an option that is not available to local firms.

For policy makers, especially in low income countries, the policies that seek mandatory local ownership of MNCs and other sectors of the economy may not change the performance of those firms. Instead policies that allow local firms to participate and honour their commitments in foreign networks and global value chains (i.e. honouring through making payments when they are due, as well as providing local resources to the same network when needed by partners in global network, etc.) may result in raising the performance of local firms. The issue of government restricting local firms in payments to (honouring) their commitments to global networks has detrimental effects on the performance of local firms. Even so, the work that the government has to do to raise the performance of local firms is not capital intensive, but rather policy shifts to allow a level playing field for local and foreign owned firms. Section 6.2 has policy suggestions to improve the absorptive capacity of local firms.

5.6. Conclusion

This chapter tested the hypotheses, discussed the results, their implications and associated limitations of the study. The results have indicated that spillovers are negative in the turbulent institutional environment characterising the study's context. They have also indicated a significant difference in performance of foreign owned firms and locally owned firms; and a significant positive relationship between ownership and (a) general foreign sourcing and (b) sourcing from the MNC network of firms' most important resources. The results have also shown a significant positive relationship between ownership and performance, and that sourcing from the MNC network mediates the relationship between ownership and performance. The next chapter covers the overall conclusion of the study.

6. Chapter 6: Overall Conclusion

6.1. Introduction

The study revisits a well-researched topic; economic spillovers and how the performance of subsidiaries of MNCs relative to their local counterparts shape the nature of spillovers. It is situated in a turbulent developing country context rife with severe institutional voids, which is a context that has been under-theorised in the past. The study finds negative spillovers owing to the large performance gap between foreign and local companies. Although the performance findings are consistent with previous research in that foreign firms do in fact realise superior performance, the research proposes resource dependency theory as an explanation for why this would result in negative spillovers.

6.2. Implications of the study

The study finds clear evidence that spillovers are negative due to a large performance gap between local and foreign companies in Zimbabwe's turbulent institutional environment. Moreover, foreign firms operating in Zimbabwe outperform local firms because they tend to obtain their most critical resources from outside the country, whereas the local Zimbabwean firms have no option but to obtain resources locally. The findings raise multiple implications to practitioners and academia alike.

6.2.1. Scholarship

The study is also making an important contribution to international business scholarship. First, it offers an explanation for why negative spillovers occur – and it is not simply because of the absence of enabling local conditions. Numerous scholars have previously pointed out the importance of local conditions to reap the benefits of foreign investment, typically viewed through the lens of capabilities (Cohen and Levinthal, 1990; Fagerberg & Srholec, 2017; Lall, 2001; Narula & Dunning, 2010). By underlining the importance of a non-turbulent local environment as another ingredient necessary to realize the benefits of foreign firms, scholars will increase the precision of their understanding of how foreign firms help developing economies to realize positive developmental outcomes.

Second, the study findings also revive the literature on Dependencia which was made prominent by Latin American authors between the 60s and 70s. The primary argument by proponents of this literature was that resources flow from low income countries to high income countries under the guise of MNCs assisting low income countries. This flow of resources

ultimately results in enriching the high income countries and the demise of low income countries' economies (Amin, 1972; Bodenheimer, 1970; Cardoso, 1973; Chilcote & Edelstein,1974; Cockcroft et al., 1972; Cohen, 1973; Moore, 1973). They argued that while governments of low income countries have built dependency around MNCs, believing MNCs to be key actors of change and development, the MNCs themselves were not necessarily building capability in local firms but instead were a means of channelling resources to high income countries (Cardoso & Faletto, 1979).

Based on the results of this study, the concerns expressed by multiple authors who contributed to this body of literature are in fact founded. MNCs operating in Zimbabwe are not building any local capability, given that access relationships arguably benefit the partners in the relationship rather than more widely.

Finally, this research foregrounds resource dependence theory – via access relationships between a focal subsidiary and the MNC network – as a useful lens for understanding the mechanism behind spillovers in turbulent contexts rife with institutional voids. Moreover, although literature has previously recognized that local firms (external actors) could be a source of access relationships that provide MNC subsidiaries with context specific resources in environments with weaker institutional frameworks (Meyer et al., 2009), it had not yet examined whether the MNC parent and sister subsidiaries may play a similar role.

Indeed, prior research had already decried the little research on intra-organisational arrangements despite it being one of the options prescribed (in resource dependence theory literature) to reduce environmental dependences and power of external actors. Given the study context is characterised by severe institutional voids and limited absorptive capacity, it is clear external actors (companies) have no capacity to provide vital resources. Faced with such circumstances, the most accessible source of resources for a subsidiary is the MNC of which it is part. By examining previously under-researched (see Hillman et al., 2009) intra-organisational relationships through access relationship (rather than the much researched inter-organisational options like board interlocks, mergers and JVs with external actors in the same context etc.), the study therefore advances knowledge in an area that has been under-researched from a resource dependence theory perspective. The study thus foregrounds resource dependence theory – through intra-organisational arrangements – as an appropriate lens to understand spillovers in turbulent contexts.

A view of resource dependence theory from an intra-organisational relationships' perspective within the MNC to reduce dependence of external actors opens channels for future research. Although literature on MNCs in conflict ridden contexts offers a glimmer of explanation on why MNCs may not immediately pull out or mothball operations in such contexts, future research should investigate why the MNC network - rather than support mothballing efforts - would entertain resource support requests from the focal subsidiary for continued operation in a conflict ridden context. This is especially important from a power within the MNC perspective. It would be plausible to suggest that a subsidiary in a turbulent context could mothball operations until a time when the context improves, or exit the hostile environment, and not burden the MNC sister and parent in its affairs. But this is not the case in the Zimbabwean context. Subsidiaries in this turbulent environment continue to receive support from the MNC network, suggesting the subsidiary experiencing turbulence could be more powerful within the MNC than its supporting sister and parent, to the extent the support from the sister and parent is signalling dependence of the sister subsidiary and parent. This suggestion contradicts what is already known about power within the MNCs, and requires further empirical investigations.

An example may be helpful. Zimbabwe is an agro-based economy with an excellent climate for agronomy. While an MNC in tobacco processing with a regional headquarters in South Africa may not want to support their sister subsidiary in Zimbabwe due to the turbulence, they will be forced to do so because most of the primary raw material for the MNC in the region will be coming from their Zimbabwean sister subsidiary due to Zimbabwe being one of the top 10 tobacco producers in the world. What the Zimbabwean subsidiary may be lacking due to turbulence and institutional voids could be the foreign sourced resources such as processed packaging material needed to pack their primary product for shipment to other subsidiaries in the region. The subsidiary in a stable South Africa will thus support the focal subsidiary in a turbulent environment with the required foreign resources, and recouping their costs when they get product from the Zimbabwe subsidiary. Power dynamics within the MNCs during turbulence should thus be investigated. Given such nuances in reciprocal support of MNC subsidiaries, intra-organisational relationships between subsidiaries in turbulent contexts and their MNC network have to be further investigated, particularly how the relationships changes scholarship's current understanding of power within the MNC. This study predicts that the troubled subsidiary could be more powerful than its peers in MNC network, but this has to be tested empirically.

6.2.2. Policy makers

The implications to policymakers are immediately evident. The primary reason for FDI-friendly policies by most governments has been to attract FDI, which in turn is believed (with substantial empirical evidence, e.g. Narula & Dunning, 2010; Narula & Pineli 2018) to improve the domestic economy. The results of the study suggest that these FDI-focused policies may need to be revisited.

First, since the study can with a fair degree of confidence claim that turbulence and institutional voids work against the positive effects of spillovers, policy makers in low income countries with extreme institutional voids must work to improve and stabilise the economic and institutional environments of their countries especially when turbulence ensues. Typically, competing local firms in their host nations have hardly any restrictions to obtaining resources from outside their country of origin. For example, local firms could in principle seek inputs from providers in global value chains. The governments of such host nations have thus created an open playing field for the MNCs and local firms in as far as exposure to arrangements outside the host country are concerned. In contrast, in Zimbabwe the local companies have been largely paralysed by institutional voids manifesting as government restrictions on local companies doing business outside the borders of the country. However, MNCs can continue to obtain resources from abroad, and especially their parent and subsidiaries through the MNC network. Clearly, local firms face substantial disadvantages.

Literature has long identified the need for governments to create an environment that allows for learning and the building of absorptive capacity (Blomstrom et al., 2000; Feinberg & Majumdar, 2001; Kokko & Thang, 2014; Narula & Dunning, 2010; Narula & Pineli, 2018). Absorptive capacity is the ability of an organisation to internalise knowledge created by others and modifying it to fit their own specific applications, processes, and routines (Cohen & Levinthal, 1990). Empirical evidence (Bellak, 2004; Girma et al., 2001; Kokko, 1994; Borensztein et al., 1998) – and indeed the empirical results of this study – have shown that positive FDI spillovers are less likely in countries/industries where the gap between the performance and technologies of domestic and foreign firms is too large. Foreign firms can “crowd out” less efficient local firms from the domestic market

The Zimbabwean government, like many other transitional and developing countries, tries to attract FDI by offering generous investment packages e.g. the Zimbabwean government gives 5-year tax holidays and import duty exemptions for investments into mining and energy sectors. A key reason for these preferential policies is the belief that MNCs confer technology

spillovers to domestic firms. Given the results of the study, these FDI friendly policies must first be replaced with domestic firms oriented policies; and then complement the domestic firms oriented policies with an institutionally and economically conducive environment that will allow local companies to imitate/learn the methods of existing foreign plants in the country.

The Zimbabwean government also needs to create a conducive environment that opens the playing field for both local and foreign-owned companies and reduce the foreign sourcing gap between local and foreign. This is especially important as the results have shown that if a firm can access foreign sources under such an institutional context, it will perform regardless of its ownership structure. As it stands, a policy that seek to increase in FDI plants is likely to lead to the suffocation and ultimately closure of local plants.

Second, domestic firms oriented policies like education and vocational training, incentives to engage in R&D, and most importantly the reduction of impediments to the free flow of knowledge and other resources must therefore be instituted by the Zimbabwean government. In particular, impediments that reduce access to own funds in local banks and access to foreign sourcing of important resources by local companies must be removed. These policies ultimately improve the absorptive capacity of domestic firms and are likely to increase the chances of improved local firms' performance and positive FDI spillovers.

A number of authors also concur on the importance of policies that concentrate on domestic firms in order to improve their absorptive capacities. Such policies ultimately reduce the large performance gap between local and foreign firms, thereby not only preventing negative spillovers, but also stimulating positive spillovers. For instance, Fosfuri and Motta (1999) suggest "sourcing FDI" through incentivising domestic firms to undertake investments in high-tech regions abroad where they could benefit from geographical proximity with market leaders. Bellak (2004) also highlights the importance of policies that seek to incentivise to domestic firms to improve their capabilities i.e. domestic firm focused measures such as R&D subsidies to domestic firms; tax breaks to domestic firms participating in R&D, reverse engineering, promoting domestic firms' capacity to learn, and directly or indirectly encouraging domestic firms lacking firm-specific advantages to develop competitive advantages. Policies likely to improve the national innovation system and those that favour domestic start-ups in high productivity industries have also been noted as important forces in stimulating domestic firms to compete against new FDI entrants into the country, and may also help improve diffusion of knowledge into actual production and thus help to narrow technology gaps (Bellak, 2004).

Nonetheless, the study points out that the negative spillovers result is not simply due to the absence of the widely agreed mechanisms of positive spillovers (investment in R&D, reverse engineering, labour turnover), even though those are virtually non-existent in the current Zimbabwean context. Instead, using the literature on MNCs' exit from conflict-ridden contexts (Dai, Eden & Beamish, 2017; Oetzel & Oh, 2014), the study suggests that MNCs may seek to remove as many as possible value-adding activities from the host location, even while maintaining a physical presence there. As the very terms "horizontal" and "vertical" spillovers suggest, spillovers take place because MNCs are in some way connected to the local economy. Even when MNCs may not physically exit a location, turbulent economic environments will likely result in them reducing their connectedness to the local economy.

Where internalisation and accumulation of MNC network resources is usually the plausible explanation of the superior performance of subsidiaries, in such turbulent institutional contexts as Zimbabwe, and indeed much of the developing world, the boundary condition of some level of stability that would allow for the accumulation of resources is often not met. The study suggest that the superior subsidiaries performance is explained by the access relationships between the focal subsidiary and its MNC network (parent, sister subsidiaries and global value chains). What is important for the MNC network is to make sure that subsidiaries can access those resources. In terms of performance, the ability to develop the resource may be less important. Of course, subsidiaries still need to be able to absorb those resources, and to do so, they do need their own capabilities (Cohen & Levinthal, 1990). It is therefore the conviction of the study that resource dependence theory can be used to explain much more of MNC performance and spillovers than has previously been the case, whether in emerging countries or more widely. Overall, from the MNC practitioner's perspective, a key lesson is that while institutional contexts like Zimbabwe may deter new MNC subsidiary entrants, the findings provide insights on how to manage subsidiaries that already have assets in this context, particularly assets that were established prior to the economic downturn of the context in study.

6.2.3. Managers

The results should assist both set of managers (for foreign firms and domestic firms) on how to manage operations in turbulent environments. For MNCs, where exit of turbulent institutional environments is impossible, the findings should assist MNC parents to profitably manage their subsidiaries in such contexts. To the managers of the MNC subsidiaries in such environment, the findings will buttress the importance of the helping hand from the MNC network in such times of need.

The findings of this study should also open the eyes of local firms in low income countries (both stable and unstable economies) to the value of foreign access relationships. The importance of increasing the firm level absorptive capacity through investment in R & D, training of employees and joint ventures with the foreign firms in order to tap into their foreign access relationships also becomes imperative for the manager of domestic firms. Partnerships with foreign firms are particularly important as prior studies (e.g., in Djankov & Hoekman, 2000) have found positive spillovers existing to domestic firms that have JVs with foreign firms, while negative spillovers occurred to domestic firms that did not have any JVs with foreign firms.

6.3. Limitations of the study

The study has advanced resource dependence theory as a lens with which to understand the mechanism behind spillovers in turbulent economic contexts ridden with institutional voids. The study finds evidence that spillovers are negative in turbulent economic environments owing to the large performance gap between local and foreign firms. The large performance gap or superior performance of foreign firms is attributed to their borrowing of important resources from their parents or sister subsidiaries, thus explaining the current play of spillovers in Zimbabwe.

There are a number of areas that need improvements to enhance the understanding of spillovers in turbulent institutional contexts. Narula and Pineli (2018) regard longitudinal data as better than cross-sectional and ideal for spillovers tests. Whilst the data for the study was for two consecutive years of operations, it was more cross-sectional than panel. Even though the CZI had a database dating back to the 2000s, this data did not have the specific information that was needed to test for spillovers, and other tests carried out in the study. It is therefore important for future study in this and other similar contexts to test spillovers using panel data. Collection of the right data for these future studies in Zimbabwe is work that the author intends to carry on beyond this study.

Much more work is needed to understand the mechanisms driving a negative spillovers relationship. Some spillovers studies have yielded different results when segregating exporting and non-exporting companies in their spillovers calculation (Blomstrom & Sjoholm,1999; Karpaty & Lundberg, 2004). Other studies have included some proxy for absorptive capacity (Blalock & Simon 2009; Narula & Marin 2003), although largely in developed countries due to data availability issues (Narula & Pineli, 2018). Overall, while the foregoing was beyond the ambit of this study due to availability of data, the formation and

inclusions of such data should be high priority on any future research agenda in this and other similar contexts in order to improve the robustness of results.

In addition, while the study has come up with an important finding of negative spillovers (which is largely contrary to the positive spillovers that have been found in most studies), the empirical findings needed further contextualisation. This could have been achieved by including the managerial views of the conditions in Zimbabwe and how they affect companies. While such information could not be compiled post collection of data, it is work that the author intends to extend beyond this study. Such information – which is likely to provide a deeper and contextual explanation of the arguments and findings - will be collected when the author sends the results of this study to the organisations that requested for a copy of the results.

Lastly, the study only examines the economic consequences of the presence of MNCs in turbulent contexts. But there is evidence the MNCs can also play a role that is not purely economic, for example corporate social responsibilities programs that can uplift the livelihoods of local people (El Ghoul *et al.,* 2017). How (positive/neutral/negative) economic spillovers relate to the non-market consequences of MNCs' presence in a turbulent country is another important question. Empirical research is needed not only to better understand to the nature and limitations of the non-market benefits MNCs bring to a turbulent low income host country, but also to link and weigh up the collective effect of (likely negative) economic spillovers and (potentially positive or negative) non-market consequences.

6.4. Conclusion

Using the literature on MNCs' exit from conflict-ridden contexts (Dai, Eden & Beamish, 2017; Oetzel & Oh, 2014), the study suggests that MNCs may seek to remove as many as possible value-adding activities from the host location, even while maintaining a physical presence there. As the very terms "horizontal" and "vertical" spillovers suggest, spillovers take place because MNCs are in some way connected to the local economy. Even when MNCs may not physically exit a location, turbulent economic environments will likely result in them reducing their connectedness to the local economy. They instead turn to internal organisational arrangements, i.e. access relationships with the parent and sister subsidiaries to keep afloat.

The study argues that in turbulent economic and institutional contexts, the MNC is a source of ongoing access relationships for the subsidiary, even under conditions of extreme turbulence. Thus the subsidiary can "borrow" technicians, spare parts or raw materials, better developed jurisdictions for disputes and so on from elsewhere in the MNC network. These resources

allow the subsidiary to realise superior performance relative to local firms. The findings of this study that there are negative spillovers to the rest of the economy are different to most of prior research, but consistent with the logic of borrowing resources. In particular, because capabilities are not internalised in the subsidiary, they seem not to be available to local firms.

The effect of these relationships on domestic plants is negative and ultimately leads to suffocation of the domestic plants. This “withdrawal” from host nation activities by MNCs results in a large performance gap between local and foreign firms, eventually leading to negative spillovers. The large performance gap is explained using the resource dependence logic.

The study tests its argument on the population of surviving Zimbabwean manufacturing firms, and finds that entities with foreign ownership rely more on foreign resources, while the local firms use more local resources. That the results show foreign firms being more successful than local firms, provides evidence of the importance of access relationship at least in contexts with economic and institutional turbulence – and perhaps beyond.

The finding of negative spillovers in such a turbulent context has important policy implications for government as to the value of FDI. It cannot be disputed that the offerings of MNC subsidiaries are often needed by an under-serviced local population. Those include products and services, e.g. food and beverages for food security in low income countries, building material like cement critical for infrastructure development in a largely under-developed economy, agricultural raw materials like fertilisers and chemicals critical for food production particularly in an agro-based economy like Zimbabwe and pharmaceutical products important for health of the poverty-stricken population. They also include direct employment for the up to 95% unemployed (formal employment) and a vast other services offered by MNC subsidiaries. But those are very different benefits (and considerations for encouraging FDI) than ensuring that domestic plants can in fact benefit from the presence of MNCs.

Getting clarity about the purpose of FDI seems to be an important first step that countries with turbulent economic and institutional environments need to obtain. Also, policies that are domestic firms oriented, aiming at improving the absorptive capacity of the domestic firms are imperative if countries with turbulent institutional contexts need to maximise on the presence of FDI plants.

For theorists, resource dependence theory is presented as a robust lens for explaining spillovers in turbulent economic and institutional contexts. This will support scholars in utilising a broader range of lenses through which to view spillovers, facilitating flexibility in terms of choice of lens in different institutional contexts.

7. References

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Appendix A: The Questionnaire

PART 1: PLEASE FILL IN THE FOLLOWING GENERAL INFORMATION ABOUT YOUR COMPANY AN YOURSELF

1. What year did your organisation start operating in Zimbabwe?.....…….
2. What is your main product?
   ……..……
3. What is the percentage of foreign shareholders in your company?
   ……..%
4. What is your position in the company?
   ……..……..…….
5. Including yourself, what was the total number of employees in your company as at;
   i. 31 December 2017? …….
   ii. 31 December 2018?.....

FOR THIS SECTION ON *YOUR COMPETITIVE PERFORMANCE*, PLEASE FILL IN AS FOLLOWS:

On a scale of 1 – 5, with 1 being “strongly disagree” and 5 being “strongly agree”, indicate how much you agree with the following statements.

1	Compared to firms which are your immediate competitors, this plant invests a great deal in training our local employees	1	2	3	4	5
2	Compared to firms which are your immediate competitors, this plant makes more profit	1	2	3	4	5
3	Compared to firms which are your immediate competitors, this plant purchases many of the raw materials it uses from local firms	1	2	3	4	5
4	Compared to firms which are your immediate competitors, by operating here, this plant creates a large number of jobs at other local firms	1	2	3	4	5

7. Which of the following type of resources where most crucial for the successful performance of your company in the past three years? Please rank the five most important ones as 1, 2, 3, 4 and 5. For example, if cash, loans, brand names, business network relationships and sales outlets were, in that order, the most important resources, then put 1 against cash, 2 against loans, 3 against brand names and so on.

1. Brand names	
2. Building and real estate	
3. Business network relationships	
4. Cash	
5. Distribution network	
6. Equity	
7. Foreign currency	
8. Innovation capabilities	
9. Licenses	
10. Loans	
11. Machinery and equipment	
12. Managerial capabilities	
13. Marketing capabilities	
14. Network with authorities	
15. Patents	
16. Raw materials	
17. Sales outlets	
18. Technological knowhow	
19. Trade contacts	
20. Other (Specify……)	

8. The next set of questions are about where your company got the key resources indicated in previous question in the past three years.

Please note: A related industry is one in which firms typically have a close business relationship. A firm from a related industry can be a competitor, but also a supplier or customer. FOR EXAMPLE: If you manufacture clothing, related industries can include textile manufacturers, designers and retailers. An unrelated industry to a clothing manufacturer would include mining or aerospace.

	Resource 1	**Resource 2**	**Resource 3**	**Resource 4**	**Resource 5**
LOCAL					
10. Local firm in which your firm **owns a stake**, e.g. a joint venture partner or an acquired firm	%	%	%	%	%
11. Other ***local business*** relationship(s) in a ***related*** industry	%	%	%	%	%
12. Other ***local friendship*** or ***network*** relationship(s) in a ***related*** industry	%	%	%	%	%
13. Other ***local business*** relationship(s) in an ***unrelated*** industry	%	%	%	%	%
14. Other ***local friendship*** or ***network*** relationship (s) in an ***unrelated*** industry	%	%	%	%	%
15. Local financial institution	%	%	%	%	%
16. Other local (Specify: ……..…)	%	%	%	%	%
FOREIGN					
17. Foreign ***parent firm*** if you are part of a multinational	%	%	%	%	%
18. Foreign ***sister subsidiary*** if you are part of a multinational	%	%	%	%	%
19. Other ***foreign firm(s)*** with which you have ***historical ties***, even though you no longer have an ownership relationship	%	%	%	%	%
20. Other foreign ***business*** relationship(s) in a ***related*** industry	%	%	%	%	%
21. Other foreign ***friendship*** or ***network*** relationship(s) in a ***related*** industry	%	%	%	%	%
22. Other foreign ***business*** relationship(s) in an ***unrelated*** industry	%	%	%	%	%
23. Other foreign ***friendship*** or ***network*** relationship(s) in an ***unrelated*** industry	%	%	%	%	%
24. Other foreign (Specify: ……..…)	%	%	%	%	%
	100%	100%	100%	100%	100%

9. What is the total value of your company's assets in US dollars as at;

i. 31 December 2017? ……

ii. 31 December 2018? ……

10. What was your annual return on assets as at;

i. 31 December 2017?...……%

ii. 31 December 2018?.....%

11. What was your annual overall capacity utilisation as at;

i. 31 December 2017? ……..%

ii. 31 December 2018?.....%

12. What was your return on equity as at;

i. 31 December 2017? …….. ……%

ii. 31 December 2018?.....%

13. What was your annual revenue in US dollars as at;

i. 31 December 2017?.....……

ii. 31 December 2018?.....

14. What was the capital employed by your company in US dollars as at;

i. 31 December 2017? …….

ii. 31 December 2018?.....

THANK YOU FOR YOUR PARTICIPATION

Appendix B: Informed Consent Letter

Record of participation and informed consent letter

Dear Participant,

I am currently pursuing a PhD in Business Administration at the Gordon Institute of Business Science of the University of Pretoria, focussing on the Zimbabwean manufacturing industry. The purpose of my study is to learn more about firms' relationships with other parties and how they explain firms' performance.

I believe the results will be of value to Zimbabwean industries and policy-makers. You are requested to participate on behalf of your company, which has been selected because it belongs to the Confederation of Zimbabwean Industries, i.e. Zimbabwean manufacturing firms. Your opinions and the performance information of your company are critical to the success of our study.

Authorisation to participate on behalf of the company

Please have this section completed by a person who is qualified to decide if the company can participate in this research project:

I, _____, confirm that I am authorised to give permission on behalf of the company to participate in the survey.

I also confirm that I will need/will not need (delete inapplicable) a copy of the aggregate results of the research. Please send me the results on the following address

Email or physical address: _____

Informed consent

Please note that this section must be completed by the individual(s) who are interviewed to obtain the company data. They may be or may not be the same individual(s) as the person who authorised participation by the company.

I wish to interview you on the topic of your firm's relationships with other parties and how they explain the firm's performance. Your opinions and the performance information of your company are critical to the success of our study and should take no more than 45 minutes of your time.

Your participation is voluntary, and you can withdraw at any time without penalty. All data you provide will be kept securely and only aggregated data will be reported. Your identity and position will not be disclosed.

By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact me my supervisor. Our details are provided below.

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Signature of participant……Date…….

Signature of researcher……...Date…….