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The impact of inward FDI on the performance of local firms

Student Name: Raven Naidoo
Student Number: 11367751

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Abstract

Foreign direct investment (FDI) is a source that improves the competitiveness of the host country which can be further utilised to develop the country's own resources and capabilities. In addition, non-affiliated local firms that do not have a foreign partner improve their performance due to the spillover effects gained either through the sharing of resources, learnings or due to the increase in competition. As such, FDI is seen as an important economic growth driver in developing economies since these economies struggle to compete in the global economy.

The objective of this research is to determine whether foreign ownership in a developing economy is beneficial in terms of national competitiveness; reducing the income gaps; improving employment opportunities; improving the financial performance of an acquired local firm and if the foreign parent introduces new technologies into the economy. Due to the mining- and manufacturing sector being the main recipients of FDI in South Africa and both having similar operations specifically being high capital and labour intensive, these sectors were chosen for the purpose of this research. The data sample was analysed using multiple regression as it is a flexible method of data analysis that may be appropriate whenever a quantitative dependent variable needs to be examined to find a relationship with two or more independent or explanatory variables.

The results indicate significant benefits for the host economy in attracting FDI into the country. The benefits seemingly outweigh the costs and the presence of Multinational Corporations (MNCs) in South Africa will help it in elevating some of the socio-economic challenges like high unemployment rate and the shortage of skills through resource sharing with the MNCs.

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Keywords

Multinational Corporations (MNCs), Foreign Direct Investment (FDI), Spillovers, Performance (Financial and Relative), Efficiency, South Africa

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisations and consent to carry out this research.

Raven Naidoo

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Chapter 1: Introduction to the Research Problem

1.1 Introduction

Foreign direct investment (FDI) is generally regarded as a resource that improves the competitiveness of the host country which can be further utilised to develop the country's own resources and capabilities - Scott-Kennel (2004). This operational efficiency which leads to potential higher competitiveness in the market is in most cases ultimately passed on to the firms operating in the economy. Research conducted by Scott-Kennel (2004) has shown that when a local firm is affiliated with a foreign firm (the parent firm), the local firm receives the benefits of trade that increases their competitiveness in the global market and has a positive effect on their resources. Cheung (2010) also shows that local firms that do not partner with foreign firms improve their performance due to the spillover effects gained either through learnings or due to the increase in competition.

Abor, Adjasi and Hayford (2008) completed studies in Ghana and their research has confirmed that inward FDI has positively contributed to the improvement of local-affiliated firms. These spillovers benefits assisted in making the host economy more competitive and accordingly improvements in the performance of the affiliated local firm are evident. Meyer and Sinani (2009) suggests that spillover effects experienced by non-affiliated local firms from the foreign investors vary according to the awareness, capability and motivation that the local firm demonstrates in-order to react to entry of foreign firms into the market. These spillovers all lead to a more competitive environment as the benefits of FDI is not only restricted to the local partner.

The benefits that arise from inward FDI as reported by (Scott-Kennel, 2004; Cheung, 2010; Todaro and Smith, 2011) include the transfer of management philosophies and skills which leads to human capital development, the introduction of new technologies into the economy, access to new markets not otherwise available to the firms in the host country, improved labour productivity, more job opportunities and an improved distribution of income. As

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stated above, these benefits are not restricted to the local-affiliated firm as the non-affiliated local firm also reaps these benefits depending on the reaction to MNCs operating in their economy (Meyer and Sinani, 2009).

South Africa is widely regarded as a gateway into Africa (SAInfo and BuaNews, 2012) by most foreign investors as enterprises seek to operationalise and expand their strategy and explore growth opportunities into Africa, as exemplified by companies such as Wal-Mart and Barclays' investment into ABSA.

However, as South Africa struggles with low growth rates and is starting to lag behind other emerging economies in Africa, who are taking advantage of FDI. In addition to this, South Africa needs to address their high unemployment rate currently at 25.5 per cent (www.statsa.gov.za), poverty and growing income inequality which is measured by the Gini-coefficient. The Gini-coefficient indicates the level of income distribution amongst countries citizens as defined by the World Bank. As such a coefficient of zero represents perfect equality while a coefficient of 100 implies extreme inequality. South Africa has a coefficient of 63.1 (www.data.worldbank.org), being close to the highest in the world.

The benefits that arise from inward FDI indicate that South Africa can seize this opportunity in-order to relieve them of some of the socio-economic issues that they currently face.

1.2 Research Aims

Due to the increased calls for nationalisation of certain sectors in the South Africa economy, this research aims to prove that inward FDI is good for the economy and furthermore that it helps to improve the competitiveness of South Africa in the global economy, which in turn supports the notion that nationalisation, is non-viable.

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This research intends to gather substantive evidence to establish if firms improve their performance from either direct or indirect benefits received from the participation of foreign-owned firms in the host economy based on the findings of the research conducted in other developing economies. The objective of this research is to determine whether foreign ownership in a developing economy is beneficial in terms of national competitiveness; reducing the income gaps; improving employment opportunities; improving the financial performance of an acquired local firm and if the foreign parent introduces technologies new into the economy. The research also aims to investigate the spillover effects of foreign-owned firms on the performance and competitiveness of non-affiliated local firms.

In view of the results achieved, the South African government would be advised to reconsider any existing policies and regulations that might deter foreign investors from investing in the economy.

1.3 Research Motivation

There has been exhaustive debate within South Africa by some parties closely associated with the South African government on the subject of whether certain sectors of the economy need to be nationalised rather than allowing foreign ownership. It's argued that significant financial benefit is lost through the pay-out of large dividends to foreign shareholders, as opposed to having these profits further invested into the domestic economy and the communities' where these foreign firms operate. In addition to this, nationalisation will allow the government to distribute the profits of these industries more equally among more people as compared to privatisation which benefits a selected few.

These interested parties are of the opinion that reversing ownership from foreign to local owners will provide more positive and incremental benefits to the affected local firms and economy as a whole. The perceived benefits include lowering the unemployment rate; increasing the skills of the local citizens and

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thereby improving the financial performance of the firms more efficiently than would be the case with foreign-owned firms.

South Africa has one of the highest Gini-coefficients in the world; high levels of unemployment; an ailing education system that hampers the country's ability to produce competent staff and significant levels of corruption within government organisations. Entrepreneurial activity which helps the economy grow is largely concentrated in the informal sector as compared to other emerging economies, which leads to growth stagnation. These factors, amongst others, inhibit South Africa's competitiveness and restrict the country's appeal to global investors.

The rationale for this research project is pertinent to the current South African debate on the nationalisation of larger industries. It is a subject area intrinsically linked to the political arena, as these policies affects the global appeal any country's economic market. Foreign investors are wary of potentially suffering significant financial losses if a country decides to change it current stance on foreign ownership in the economy and instead opt to favour a closed economy characterised with significant government ownership.

1.4 Research Scope

The scope of this research is limited to all listed firms from the main board of the JSE for the period 2007 to 2011 which have either merged or have been acquired by foreign firms, as well as non-affiliated local-owned firms. All firms not listed on the main board of the JSE are excluded from this research. The data required to complete this research is secondary cross-sectional data, which was collected from different sources including the JSE and the financial database of BFA McGregors (the latter was accessed using the GIBS Information Centre).

Chapter 2: Theory and Literature Review

2.1 Introduction

As stated by Todaro and Smith (2011), few areas in economic development theory have aroused as much controversy as the issues pertaining to the benefits and costs of foreign direct investment on the host economy. These disputes centre less on the effect Multinational Corporations (MNCs) have on the traditional economic aggregates such as GDP; investment; savings and manufacturing growth rates, although they arguably do have an impact. The disagreements focus more on the fundamental economic- and social meaning of development as relating to the diverse activities of MNCs. Todaro and Smith (2011), go on to state that foreign direct investment is seen as a way of filling the gaps between the locally available supplies of savings; foreign exchange; government revenue and human capital skills, and the desired level of these resources necessary to achieve growth- and developmental targets.

Scott-Kennel (2004) indicate that academics and policymakers are interested in researching the potential effect that foreign direct investment has on the hosts' economy in both developing- and developed countries. It is also stated that foreign direct investment is a source by which the host country can upgrade the competitiveness of their resources and their capabilities. McCloud and Kumbhakar (2011) define foreign direct investment (FDI) as the long term investment by MNCs in local firms located in a country other than their home country. As a result of the FDI made by the foreign firm to the affiliated local firm, economic growth in the host country is gained through knowledge transfer in the form of research and development; training initiatives the foreign parent affords the employees of the local-affiliated firm and the efficiencies that the foreign firm brings to the local firm.

As such, FDI is seen as an important economic growth driver in developing economies since these economies struggle to compete in the global economy. This is especially true with countries that produce specific goods and services that are similar to their country. Todaro and Smith (2011) go on to state that

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non-oil exporting countries have historically incurred deficits on their current account balance, therefore a continuous inflow of foreign financial resources represents an important factor in their long-term development strategies to help reduce the poverty of these countries. It is argued by Todaro and Smith (2011) that MNCs are not development businesses as their objective is to maximise return on capital. The best profit opportunities are sought and these organisations are largely unconcerned with issues such as poverty, inequality, employment conditions and environmental problems.

As stated by Todaro and Smith (2011), MNCs employ about 80 million workers in countries outside their home base. For this reason, MNCs only employ a small fraction of the work force, but these jobs tend to be concentrated in modern urban sectors. Foreign direct investment in the host economy also involves more than simply transferring capital or setting up operations. MNCs convey technologies of production; tastes and styles of living; managerial philosophies and other diverse business practices – MNCs' are beneficial to both the foreign acquired firm and the local-owned firm.

Todaro and Smith (2011) add that many people in developing countries are inclined to believe that MNCs operate with the approval of their home governments. As such, many developing countries understandably feel overwhelmed in bargaining with such perceived powerful entities. China has had relatively good success in negotiating better deals with multinationals regarding technology transfer and taxation, but other developing nations have failed to apply this negotiating power since they lack China's combination of strength and strong central government authority.

Furthermore Todaro and Smith (2011) state that, the size of MNCs sometimes confers substantial economic power to the MNC in the host economy, and this power is strengthened by the fact that they operate in a market dominated by a small number of sellers. Consequently MNCs have the ability to manipulate prices and profits; collude with other firms in determining areas of control and to

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restrict the entry of new competitors by dominating new technologies; possessing special skills and through product differentiation and advertising. Most developing economies are more aware of the presence of MNCs than developed countries.

2.2 Attracting FDI

Some academics propose that in-order for a country to attract foreign direct investment; they must have certain inherent characteristics in place which will make them attractive to the foreign investor. Therefore, in-order to reap the benefits of inward FDI, governments are now changing policies to attract foreign investors by using financial incentives such as tax allowances; duty drawbacks; investment allowances and reducing structural constraints in-order to attract potential investors into their economy (Abor, Adjasi and Hayford, 2008). Wang and Wong (2009) state that if an economy wants to gain positive economic growth from FDI, two economic conditions must exist in-order to attract these foreign firms to the domestic market: a sufficient level of human capital and a well-developed financial market. The host country must be an attractive destination for foreign investors as the investment choice will be dependent on the capabilities and opportunities that exist in the host country.

Jensen (2006) confirms that governments should focus on policies that attract inward FDI since these investments rarely produce a negative result for economic growth. She also states that FDI is expected to bring numerous benefits to the host country's economy such as capital inflow and knowledge gain from the foreign partner, while creating efficiencies in the affiliated local firm's processes with the use of technology which may not be available to the local firm if the MNC decided not to invest. The effects of FDI on structural change are highly dependent on the policies and institutions of the host country.

Jensen (2006) indicates that economic policies that promote institutional building, establishment of the rule of law and the promotion of a transparent and fair business environment are good starting points for attracting investors. In

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In addition to this she says that political factors like economic reform and 'state capture' have large and significant effects on the inflow of FDI. Jensen (2006) concludes by saying that the general policy efforts which promote institution building, creating the rule of law, encouraging a transparent and fair business environment are good policies as FDI rarely contributes to negative economic growth on its own.

Other factors that play a part in the decision to invest in a country by foreign investors are the tax laws of the country, as well as the infrastructure available in the host country. Ndikumana and Verick (2008) suggest that investment in different types of countries namely resource-intensive, relative to non-resource-intensive countries are driven by different factors. These include among others the telecommunication infrastructure which is critical in non-resource-intensive countries.

This research is aimed at discovering the benefits of inward FDI in the domestic market for both local-affiliated and non-affiliated firms. If the collated evidence presented in this report is significant, the current economic policies by the host government should preferably be reviewed. These amended policies should endeavour to attract foreign investors to enter the country's markets, which will furthermore enable the country and the economy to become competitors in the global arena.

2.3 Performance and Capabilities of the Affiliated Local Firm

Abor et al. (2008) completed studies in Ghana and their research has confirmed that inward FDI has positively contributed to the improvement of local-affiliated firms. This was achieved by making available increased local capital for exports; reducing the technology gap; facilitating access to new and larger foreign markets; providing training for labour and by helping upgrade the technical and management skills of the workforce. These spillovers benefits assisted in making the host economy more competitive and improvements in the performance of the local-affiliated firm are evident.

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Todaro and Smith (2011) state that MNCs not only provide financial resources and new factories to the local-affiliated firm, but also make available other desirable resources including management experience; entrepreneurial abilities and technological skills that can be transferred to their local colleagues by means of both training programs and through the process of learning by doing. In addition to this, MNCs can educate local managers on establishing contact with overseas banks; locating other sources of supply; diversifying market outlets and becoming knowledgeable of international marketing practices. MNCs also convey to local firms sophisticated technological knowledge pertaining to production processes, while transferring modern machinery and equipment to capital-poor developing countries.

In addition to this Todaro and Smith (2011) state that this could have a negative impact as the transfer of skills, knowledge and technology to their local colleagues may have little impact in terms of developing scarce skills and resources. This could possibly inhibit further development by stifling the growth of local entrepreneurship due to the dominance of the MNCs' present in domestic markets.

2.4 Resource Sharing between Foreign and Local Firms

According to the study conducted by Scott-Kennel in New Zealand (2004) it is suggested that the local firm's development occurs as a result of direct resource transfer between the MNCs and the local-affiliated firm in the host country. This helps the local-affiliated firm to compete in their own country by improving their capabilities and increasing the resources available to them via the MNCs. The aforementioned research also found that the local-affiliated firm is either dependant or reliant on the foreign parent for a wide range of resources such as product- or production technologies; information; experience and advanced management practices which enhances their ability to compete in their own economy. As a result, the local-affiliated firm's performance improves and they become more competitive.

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Being given access to various resources that the local firm gains from its foreign parent affords affiliated local firms access to firm-specific advantages that non-affiliated local firms may not have access to, as discussed by Scott-Kennel (2004). Consequently, in addition to the affiliated local firms' own processes, these firms are given further competitive advantage in their local industries. Factors such as superior capability; access to technology; increased knowledge and more experience, it is logical that improved performance, output and productivity by the local-owned firm will follow. The host country will also gain from these benefits in the form of improved industry output and productivity; more employment opportunities; local supply; increased exports and the adoption of better technologies - (Scott-Kennel, 2004).

Scott-Kennel's research (2004) established that in half of the cases in their study, the foreign firms also transferred resources to the local firms. This proved that inward FDI can be associated with positive benefits (direct or indirect) for the domestic industry when foreign-owned firms form relationships with local firms. This becomes more evident when there is a collaborative relationship involving the transfer or sharing of product-specific technologies; research and development; economies of scale; knowledge of distribution systems and inputs. In addition to these, other benefits include the transfer of human resources, skills, training, information, experience and expertise. The research conducted by Scott-Kennel (2004) alludes to the fact that there is a beneficial relationship between FDI and local capability building – conclusions that are sustained by further research on the subject.

Supporting the findings of Scott-Kennel (2004), Abor et al. (2008) established that MNCs improve the quality of labour by providing efficient educational training systems to local firms. MNCs are able to do this as they have access to more sophisticated technology and larger markets. Saville and Lumby (1995) found mixed results in their comparison of performance between local firms and foreign-owned firms operating in the same economy. They concluded that foreign-owned firms provided the following benefits to the economy: greater

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labour productivity; improved income distribution between employees; skills promotion; higher government revenue and more competitive product markets, even though foreign-owned firms did not create more job opportunities. On the other hand they have come to the conclusion that although foreign-owned firms impose costs in the host country they operate in, the benefits they provide far outweighed the cost and therefore may help with economic growth and development.

Contrary to Saville and Lumby's findings (1995) that employment opportunities have not increased with foreign ownership, Waldkirch, Nunnenkamp and Bremont's research (2009) showed that FDI improves the employment figures. Their study, which was conducted in Mexico, showed a significant positive (yet quantitatively modest) impact on the employment figures of both white- and blue collar workers. This confirms the view that FDI benefits white collar employment even as there is a greater impact for blue collar workers in more capital intensive industries.

Previous research conducted has also shown that the costs outweigh the benefits of FDI. Research undertaken by Mullen and Williams (2007) found there is no real evidence to suggest that affiliated local firms accrue any benefits from a larger presence of foreign affiliates. This contradicts the results achieved in the previous studies discussed earlier. Their findings also suggest that inward FDI may actually reduce the affiliated local firm's productivity. Mullen and Williams (2007) concede that these results may only hold true for small local firms operating in a high fixed cost industry and in an imperfectly competitive industry. Nevertheless, these results warrant inclusion when trying to establish a high positive correlation between inward FDI and a local firm.

Hanson (2001) suggests that there are considerable benefits to be derived from FDI in terms of productivity for local-affiliated firms however multinationals are attracted to high-productivity countries and industries within these countries. Therefore organisations from industries that have foreign-owned firms

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operating, show lower rates of productivity growth. This statement provides little support for the argument that FDI will improve the welfare and profitability of the host economy.

2.5 Foreign Affiliation Increasing Export Potential

The export decisions of firms were investigated to determine if local firms with a foreign parent benefit more from their access to foreign markets therefore allowing these local firms to change their strategy to exploit export opportunities. Research conducted by Abor et al. (2008) in Ghana showed that firms affiliated with foreign firms are more likely to export their products when compared to locally-owned firms. The reasons for this may be that foreign parents help local firms by providing the improved technologies and management skills necessary to alleviate or eliminate any inefficiency experienced in terms of productivity. Higher levels of productivity tend to influence the export decision, which could in turn be related to the demand and supply principles.

Cheung (2010) found that with the presence of foreign-owned firms which have international marketing networks, the affiliated local firm begin to increase the export of their own products. This is a positive spillover-effect from the foreign partner, through either learnings gained or due to international competition or a combination of both factors. Other reasons for the increase in exports could be related both to the capital injection the foreign firm affords to the local firm and the relationships they could have in foreign markets. Entry into foreign markets is generally expensive and this could affect the decision of local firms to export. Therefore affiliated local firms usually find the export decision easier to make with the financial backing of a foreign parent.

Todaro and Smith (2011) argue that foreign direct investment contributes to filling the gap between targeted foreign exchange requirements and those generated from net export earnings. An inflow of foreign capital can reduce part of or the entire budget deficit of host governments and can also function if the

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foreign-owned firm generates net positive flow of export earnings. Policies that do not allow MNCs to export and only allow for domestic consumption counteract this and could lead to a deficit. These deficits usually results in the importation of capital equipment and intermediate products and the outflow of foreign exchange in the form of repatriated profits; management fees; royalty payments and interest on private loans.

2.6 Non-affiliated Local Firms also Benefit

As confirmed by Cheung (2010), non-affiliated local firms also benefit from foreign-owned firms operating in the same environment and have a positive effect on their performance. These spillover effects or benefits could be gained either through learnings or increased competition or a combination of both these factors. Research and development (R&D) activities conducted in the host country by the foreign firm also increases the benefit to other local firms. Local firms may rely on foreign technology by creating an imitation of these technologies as part of their own innovation, rather than spending money on undertaking their own Research and Development.

When a country is open and willing to accept foreign ownership in their economy, Meyer and Sinani (2009) suggests that non-affiliated local firms may reap the benefits of spillover effects from the foreign investors. These benefits vary according to the awareness, capability and motivation that the local firm demonstrates in-order to react to entry of foreign firms into the market. Awareness is related to instances where the local firm becomes aware of the new entrant in the industry, even though the local firm may not consider the potential impact this foreign entrant may have on their business through either the inherent competition- or learning opportunities presented. With the necessary motivation, the local firm may change or adapt their own strategies to counteract the challenge in-order to maintain or increase their competitive edge. In terms of capability, it refers to the local firm's ability to utilise the acquired knowledge and therefore increase their realised spillovers.

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In addition to this, Meyer and Sinani (2009) states that spillovers also vary according to the different stages of economic development of the host country. At different economic stages, a firm may reap different levels of benefits from MNCs. In low-income economies, local firms may benefit from the standard knowledge that foreign firms do not mind sharing. This knowledge can be gained through observation or indirect interaction with the foreign firm. In this type of economy, foreign firms may operate in a different market segment than the local firms as the local firm may be servicing the mass market. Consequently the local firms may focus on the motivation and capability aspects rather than awareness. Meyer and Sinani (2009) suggest that the local firm is likely to benefit from demonstration effects due to the technology gap.

Meyer and Sinani (2009) state in medium-income economies, the local firm is likely to compete directly with the foreign firm when their products and technology are similar. As such, the foreign firm may have a competitive advantage over the local firm and the local firm may find it difficult to maintain its market share. Awareness of the impact of the foreign firm will be high, but the local firm may demonstrate weak capabilities, making it difficult for them to act strategically in-order to attract any benefits for themselves. In high-income economies, the foreign firm may compete directly with the local firm and therefore the awareness factor is very high. However, the local firm may have created strong capabilities to compete successfully with the foreign firm.

The work by Meyer and Sinani (2009) goes further to say that local firms facing increased competition from imports become more strategically flexible in-order to enhance their learning abilities from foreign firms. They also become more likely to develop the motivation and capability aspects in-order to improve productivity and protect their market position in response to the entry of foreign firms in the market. Using the multiple networks that foreign firms introduce to the market, local firms can build partnerships with these supply chains in-order to gain an understanding of the foreign consumer's needs; market structures;

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competitors; distribution networks and transport infrastructures, which could provide the local firm with additional business opportunities as exporters.

As stated in Todaro and Smith (2011), it has long been assumed that some of the knowledge transferred to employees' leaks out when engineers and managers resign in-order to start their own firms or to join competitors of the foreign-affiliated firms. This transfer of knowledge, skills and technology are assumed to be both desirable and productive for the recipient nations.

Mullen and Williams (2007) contradict the findings that there are benefits for non-affiliated local firms, their research found no evidence that benefits accrue to and suggests that the non-affiliated firms productivity may even fall. They do concede however that this drop in productivity could be due to the smaller market share and the high fixed costs associated in working in an imperfectly complete industry. In addition to this, they state that the output produced by foreign firms could be of an improved quality and when used as inputs in the production process of other local firms, the spillover benefits leads to an improved product that is produced by the non-affiliated local firm. Furthermore, local firms can employ workers who have been trained by foreign firms. These appointments may assist the local firm in improving especially if the knowledge gained by the employee from their previous employer is not strictly industry specific. This would give rise to a form of agglomeration economy in the presence of low inter-regional labour mobility.

To summarise the above, benefits accrue as local firms may be forced to gain or protect their market share - they become either more competitive or efficient or a combination of both factors. Local firms potentially gain access to the specialised products; affiliate products; technical support and the capabilities the foreign firm brings to the market. It may be easier to gain access into foreign markets and thus improve local firms' exports.

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2.7 Arguing Against Inward FDI

The literature review conducted to date was done to investigate whether inward FDI does have a positive effect on the domestic economy. Existing research in this field has proven that it does have a positive effect on the economy. There exists other research that contradicted these findings, but as this research was conducted specifically in small local firms operating in a high fixed cost industry and in an imperfectly competitive industry (Mullen and Williams, 2007). Todaro and Smith (2011) have investigated some drawbacks where MNCs could hamper the competition by having exclusive production agreements with the host governments, failing to reinvest much of their profits and inhibiting the expansion of local firms.

Todaro and Smith (2011) elaborate on the following disadvantages that inward FDI could have on the domestic economy: MNCs may fail to re-invest much of their profits and may stop the expansion of local firms that could potentially become a supplier of intermediate products, by opting to rather import these goods from overseas suppliers. The management skills, ideas and technology provided by MNCs may have little impact in developing these scarce skills and resources locally, and may in fact stifle the development of these skills for the local resources. MNCs also tended to promote the interest of a small number of local managers and thereby increase the income gap between the small portion of high earners and the larger majority of the lesser-earning workforce.

It is also argued by Todaro and Smith (2011) that MNCs produce products that are demanded by the rich minority, serving only to stimulate these inappropriate consumption patterns through advertising and the perceived market power. Products are produced with capital intensive technologies that create comparatively little employment, which does not benefit developing nations suffering from high unemployment rates. Multinationals also use their economic power to influence government policy in the form of excessive protection; tax rebates; investment allowances and the cheap provision of factory sites. MNCs can also avoid much of the taxation in high taxation countries by shifting profits

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to affiliates in low taxation countries. This is done by inflating the price it pays for intermediate products purchased from overseas affiliates, thereby lowering the local profits. Lastly the profits gained by the MNCs may exceed the social benefits. MNCs can also damage host economies by stifling local entrepreneurship through using superior knowledge; a large network of contacts; superior advertising and marketing skills and essential support services to suppress local competition and stop the emergence of smaller local enterprises. MNCs can also acquire the best and potentially lucrative local businesses and thereby crowd out local investors and therefore obtain the profits for themselves.

2.8 Literature Summary

It can be concluded from the literature review that there exists an on-going discussion of the effects (both positive and negative) of inward foreign direct investment on the host economy. According to Faeth (2008), neoclassical trade theory viewed inward FDI as multinational corporations with capital to invest, choose countries where they will gain the highest return on their investment. Factors that could contribute to the higher returns include lower labour costs as well as lower tax rates introduced by the host economy's government in-order to attract foreign investments. FDI is also influenced by ownership advantages, including superior technology; management expertise and product differentiation. This allows MNCs to compete with local firms as the ability to transfer these resources, skills and knowledge to the targeted firm provides a key competitive advantage to the local affiliated firm.

Adams (2009) states that the main reason governments should want to attract foreign direct investment, centres on the premise that it will contribute positively to economic growth through increased foreign capital, access to superior technology and increased competition. There are different types of FDI and each type will have a different impact on economic growth. Reiter and Steensma (2010) indicated that FDI will only contribute to economic growth

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when invested in an efficient and sustainable way, and when the FDI is channelled through the correct sectors.

Through the literature it can be ascertained that some determinant elements of FDI include the size of the market with larger markets being more attractive being sort; the openness of the domestic market; the availability of natural resources; the security of their investments; quality infrastructure; the availability of skills and policies in place such as tax breaks are required to attract FDI. Studies have shown there is a positive correlation between the above determinants and the inflow of FDI from foreign investors. Therefore, if the South African government sees FDI as a strategic initiative to economic growth, it logically follows that it would be advisable to create favourable policies that will bring these determinants into play. The benefits of FDI have been highlighted in many of the articles in the literature survey conducted and is briefly summarised below.

FDI introduces advanced technologies that may be used by the affiliated local firm to improve efficiencies in their production process and to allow them to become more competitive in the domestic economy. Non-affiliated firms may also benefit from the technologies introduced in the host economy in-order to allow them to become more efficient and competitive. The transfer of skills and knowledge by foreign firms to their domestic partners through technical training, process refinement and management knowledge will allow the local firm to become more competitive and profitable. There is also a case for the transfer of this knowledge to suppliers of the local firm – these suppliers also gain the benefits of the spillovers. Similarly, the networks forged while operating in different geographical regions can enable the management of the local firm to use this extensive knowledge to improve their operations.

Employees working for affiliated local firms that leave to either to work for a competitor or start their own firms gain invaluable knowledge, which possibly creates more competition for the foreign firm operating in the host economy.

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Labour productivity increases in the affiliated local firm with the introduction of improved technology and the research and development activities undertaken by the foreign investor. Job creation can be improved with the introduction of foreign firms in the host economy.

Yet there are costs associated with the introduction of foreign firms in the host economy as listed below: The foreign firm can create a monopoly in the host economy which will stifle the competition by driving down costs. This will allow foreign firms to drive down prices to a level at which their competitors cannot compete. Through their networks, they may be able to source cheaper inputs into the production process, thereby preventing the growth of local suppliers. Foreign firms may also seek to do excessive profit repatriation rather than using these profits to reinvest into the domestic economy. Through the introduction of superior technologies, job losses may be inevitable in capital intensive industries and foreign management may replace local management.

This research is aimed at determining if the potential benefits outweigh the potential costs by allowing inward FDI into the South African economy. There are arguments by economic theorists both for and against the introduction of FDI to the domestic economy. Existing research conducted thus far has resulted in mixed results and are inconclusive.

Chapter 3: Research Propositions

The following chapter highlights the research propositions used by the researcher to achieve the research objectives of this research as discussed in Chapter 1. The research aims to determine whether foreign ownership is beneficial in a developing economy. The tests undertaken for each of the propositions are aimed at answering each of the research aims.

3.1 Research Proposition One

The acquired local firm improves their overall performance in terms of job creation; labour productivity; through the introduction of technology; more equal distribution of income and reduced profit repatriation through resource sharing with the MNC.

The tests that were employed to answer this proposition is linked to the first part of Saville and Lumby's tests (1995) namely resource effects. From the literature review, it is noted that from Scott-Kennel's (2004) and Abor et al. (2008) that evidence exists that inward FDI has positively contributed to the improvement of local-affiliated firms by making available capital for exports; reducing the technology gap; facilitating access to new and larger foreign markets; providing training for labour and by helping to upgrade the technical and management skills of the workforce. Waldkirch et al. (2009) study which was conducted in Mexico showed a significant positive (yet quantitatively modest) impact on the employment figures of both the white- and blue collar workers in Mexico. It is noted that in more capital intensive industries, there is a greater impact for blue collar workers. Saville and Lumby (1995) found that foreign-owned firms provided the following benefits to the economy: greater labour productivity; improved income distribution between employees and skills promotion, even though they found that MNCs do not create more job opportunities.

3.2 Research Proposition Two

The host government is able to reduce the budgetary gap by charging the MNCs higher tax rates.

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Some academics have proposed that in-order for a country to attract foreign direct investment; the country must have certain inherent characteristics in place which will make it attractive to foreign investors. Therefore, in-order to reap the benefits of inward FDI, governments are now changing their policies by using financial incentives order to attract potential investors into their economy. These incentives include tax allowances; duty drawbacks; investment allowances and reducing structural constraints (Abor et al., 2008). Todaro and Smith (2011) also argued that multinationals use their economic power to influence government policy in the form of excessive protection; tax rebates; investment allowances and the provision of low cost factory sites. MNCs can also avoid much of the taxation in high taxation countries by shifting the profits to affiliates in low taxation countries by inflating the price it pays for intermediate products purchased from overseas affiliates, thereby effectively lowering the domestic profits.

3.3 Research Proposition Three

The local-affiliated firm becomes more profitable and efficient than local firms.

Abor et al. (2008) completed studies in Ghana and their research has confirmed that inward FDI has positively contributed to the improvement of local-affiliated firms. This was achieved by making available increased local capital for exports; reducing the technology gap; facilitating access to new and larger foreign markets; providing training for labour and by helping upgrade the technical and management skills of the workforce. These spillovers benefits assisted in making the host economy more competitive and improvements in the performance of the affiliated local firm are evident.

Todaro and Smith (2011) state that MNCs not only provide financial resources and new factories to the local-affiliated firm, but also make available other desirable resources including management experience; entrepreneurial abilities and technological skills that can be transferred to their local counterparts by means of both training programs and through the process of learning by doing.

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In addition to this, MNCs can educate local managers on establishing contact with overseas banks; locating other sources of supply; diversifying market outlets and becoming knowledgeable of international marketing practices.

Chapter 4: Research Method

4.1 Overview

This research concentrated on the financial and non-financial (relative) performance of multinational corporations against non-affiliated locally-owned firms in the South African economy by using multiple regression analysis.

4.2 Research Method

A quantitative research method was chosen to complete this study where the financial performance of MNCs was evaluated against the financial performance of non-affiliated local firms for the same period. These firms had to be listed on the Johannesburg Stock Exchange (JSE) during the period of the analysis. According to McEwan (2008), researchers in finance and policy rely on various quantitative methods. The most commonly used statistical method is regression analysis, but researchers are increasingly moving towards using experimental and quasi-experimental methods. These methods are used for example to answer research questions about the causal relationship between policy and programs.

Also stated in McEwan (2008), descriptive statistics establishes or refutes patterns in the data; inspires theoretical explanations of observed facts; guides the design of casual research and provide better context for interpreting and generalising casual results. Casual research tests for the cause-and-effect relationships, rather than merely establishing any correlations between the change in ownership and performance outcomes. As such, the investigation into the research propositions was quantitative and casual in nature.

The experimental research method as stated in Zikmund (2003) was used in this research with the design type being quasi-experimental. This research method is most commonly used for research in the finance field and therefore suited this research. However as stated in Zikmund (2003), a quasi-experimental design cannot be truly considered a true experiment because it lacks the adequate control of extraneous variables.

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A causal method, quasi-experimental in design as describe above, was followed to investigate whether foreign-owned firms influenced the competitiveness of local-owned firms. It further explored whether or not FDI is an important mechanism in the economy for both types of firms. In addition to analysing the competitiveness of the acquired local firm, the following areas that are linked to a firm's performance was evaluated in-order to investigate if MNCs are adding value to host economies as compared to the value added by local-owned firms.

The resource effects tests adapted from Saville and Lumby (1995) focused on employment creation, human capital improvement and government revenue situations: Has the MNC created more jobs in the host economy compared to the local-owned firm? Does the MNC have higher labour productivity compared to the local-owned firm? Does the MNC offer more capital intensive technology than the local firm, which may increase the productivity of their workers compared to that of the local-owned firm? Is the distribution of income by the MNCs to their management and labour better than the local-owned firm? In terms of profits repatriation, does the MNC pay significant dividends to their foreign shareholders or do they invest more into their host economy as compared to the investments made by local-owned firm? Does the MNCs pay higher tax rates to the host government, thus increasing the government revenue? The competitive effects test also adapted from Saville and Lumby (1995) focused on the profitability and efficiencies of the MNC as compared to the local-owned firm.

The data required to complete this research was secondary cross-sectional data, which was collected from different sources including the JSE and the financial database of BFA McGregors (the latter was accessed using the GIBS Information Centre).

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4.3 Population

The population of this research included all listed firms from the main board of the JSE for the period 2007 to 2011 which have either merged or have been acquired by foreign firms, as well as non-affiliated local-owned firms.

4.4 Sample Size and Method

Firms listed on the JSE are required to make announcements to their shareholders through the Stock Exchange News Service (SENS), as these announcements could have an impact on the share price. This service is an electronic notification information system designed to ensure that any material announcement that could affect the value of a share can be received timeously and simultaneously by analysts and investors. Using the SENS database, a search was conducted for all announcements using keywords related to acquisitions, mergers or take-overs which involved foreign MNCs in-order to identify foreign ownership. All acquisitions, mergers or take-overs completed by domestic entities with no foreign ownership were excluded from the results.

Once the sampling frame (total population) was mined from the JSE, the data was arranged into foreign and locally-owned firms together with the sector that they operated in. The population comprised of 351 firms. Of these, 258 firms were locally-controlled and 93 were foreign controlled on 01 October 2012. Further analysis of the distribution of MNCs in South Africa was completed and the following results of foreign ownership was obtained across the different sectors: consumer services (17.4 per cent); manufacturing (33.3 per cent); mining (42.2 per cent); finance (21.9 per cent); retailers (40.0 per cent); transport and communication (27.3 per cent); technology (7.7 per cent) and construction (22.2 per cent).

As FDI is normally more prevalent in certain sectors or industries than others, the United Nations Conference on Trade and Development (UNCTAD) 2011 world investment report which collects their data from the South African Reserve Bank (SARB) was used to identify the South African industries with a

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high concentration of FDI. Table 4.1 contains the FDI statistics from the 2011 UNCTAD report.

Table 4.1 - FDI Distribution amongst South African Sectors Industries

Sector / industry	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	370 695	255 837	303 545	355 088	489 317	611 722	751 925	632 619	886 664	1 015 517
Primary	124 718	81 272	103 593	112 358	169 005	251 249	333 112	196 300	290 768	369 704
Agriculture, hunting, forestry and fishing	653	655	500	719	734	888	858	935	932	932
Mining, quarrying and petroleum	124 063	80 617	103 093	111 639	168 271	250 361	332 254	195 365	289 836	388 772
Mining and quarrying	124 063	80 617	103 093	111 639	168 271	250 361	332 254	195 365	289 836	388 772
Manufacturing	89 443	67 248	75 427	111 354	136 028	165 432	197 099	204 754	242 217	282 920
Services	156 536	107 317	124 525	131 376	184 284	195 041	221 714	231 565	333 679	362 893
Electricity, gas and water	30	30	28	28	28	29	29	29	29	29
Construction	1 761	1 858	1 938	1 986	1 977	1 983	1 972	2 033	2 037	2 044
Trade	15 141	13 312	13 425	14 517	14 722	16 172	27 766	30 990	31 148	34 511
Transport, storage and communications	8 825	10 131	22 043	14 112	9 449	13 809	12 840	15 525	64 943	83 942
Finance	130 562	81 634	86 733	100 215	157 590	162 521	178 580	182 420	234 955	241 792
Community, social and personal service activities	217	352	358	518	518	527	527	568	567	575

Source: UNCTAD, FDI/TNC database based on data from the South Africa Reserve Bank.

Note: Trade includes hotels and restaurants. Finance includes business activities.

This search showed that the mining- and manufacturing sector of the South African economy attracted the most inward FDI, and therefore firms in these sectors were selected as the sample. A second reason for selecting these two sectors included that they are both capital and labour intensive sectors and furthermore that they provided a big enough sample in-order to run the statistical tests. The mining sector provided 63 firms and the manufacturing had 47 firms. These are also significant industries in the South African economy. All firms in the mining and manufacturing sector were chosen as members of the sample and no sampling technique (probability or non-probability) was considered to reduce the size of the sample (Saunders and Lewis, 2012). This sample provided a good mix of firm size, asset size, number of employees and financials.

The manufacturing sector was further disseminated into sectors that are more capital intensive than others. This was done to remove the potential bias that the mining sector may have as opposed to firms in the manufacturing sector that are low capital or labour intensive. For this reason, firms from the chemicals-, forestry-, paper-, oil- and gas sectors were chosen.

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In total 110 firms came from the both sectors with 43 firms (38.7 per cent) being foreign-owned. The required data as mentioned from these 110 firms was collected from the BFA McGregor database and was accessed via the GIBS Information Centre. However 68 firms were dropped from the sample and the reason for this is discussed in section 4.6. Therefore only 42 firms were left in the sample and 28.6 per cent had foreign ownership.

Both sectors could have been studied separately or merged to form one larger data set while creating a variable to control for sectorial differences. The latter was chosen as this would provide a larger, more useful sample and provide better results for testing purposes. In addition, as mentioned previously, both sectors have similar characteristics and similar operational requirements and both sectors are important to the South African economy.

4.5 Unit of Analysis

The unit of analysis was a single acquisition of a local firm by a foreign firm before 2007. The financial and non-financial data for the period 2007 to 2011 that was required for this research were: Sector Operating In; Total Assets; Operating Profit or Loss; Number of Employees; Profit before Income and Tax (PBIT); Turnover; Directors' Salary; Ordinary Dividends Paid; Net Profit or Loss; Taxation Paid and Effective Tax Rate.

4.6 Data Collection: Instrument and Method

Due to different industries experiencing different economic upturn or downturn cycles and given the different operating conditions that they operate in, the researcher could not compare firms from different industries together as this could potentially skew the data and introduce bias in the data collection method. Using the matching technique described in Zikmund (2003), the data collected was matched to firms using a similar pertinent characteristic: belonging to the same or similar sector. The firms selected in the sample were found after a search was conducted on the SENS database to identify the acquisitions-, mergers- and take-overs of local-owned firms by MNCs To ensure that the data

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collected was accurate, reliable and accessible, data was collected from firms listed on the Johannesburg Stock Exchange (JSE). The data required was cross-sectional and not longitudinal (time series) data. Cross-sectional data was collected as this type of data is the most suitable as it contains the facts at a distinct point in time. If time series data was used, then at least 20 years' worth of data have been required and changes in firm ownerships would have created significant issues with the comparisons done in this research.

In-order to remove any bias in the data and to remove any type of data that could have skewed the results and potentially render the analysis or results incorrect, data was collected from firms that were similar in terms of (amongst others) capital- and labour intensity, or those firms that operated in similar industries of the economy.

In total 110 firms came from the both sectors with 43 (38.7 per cent) being foreign-owned. Due to one or more of the following reasons, altogether 68 firms were dropped from the sample:

- (i) The tests conducted in this research incorporated the financial reporting period from 2007 to 2011 and 23 of these firms had either incomplete or missing data for the mentioned period.
- (ii) The data was checked for outliers and two firms' data was incorrectly reported which was also out of norm for them.
- (iii) Most of the firms reported figures in the South African currency (ZAR) while 21 firms reported in the currency of their home country. These firms were excluded as it would have been necessary to convert these figures to the correct exchange rate for the requested period, which could have led to incorrect conversion rates being used.
- (iv) Two firms who indicated a change in control from local to foreign ownership in the period from 2007 to 2011 was also excluded.
- (v) As mentioned in section 4.4, the manufacturing sector was further analysed due to some of the firms belonging to this sector were not known to be labour or capital intensive like the firms in the mining

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sector. Therefore only firms belonging to the chemicals, forestry, paper, oil and gas sectors were chosen. Due to this a further 20 firms were dropped from the sample due to these firms having operations that are less capital or labour intensive.

- (vi) As a result of these exclusions, the full sample finally included 42 firms of which 12 (28.6 per cent) were foreign-owned.

Errors in data processing namely administrative errors could have also occurred. This could have occurred when the input of data may have been erroneous, or if data calculation or programming errors were made during processing. The final data was therefore carefully reviewed in-order to eliminate possible errors.

4.7 Data Analysis

The tests that were used to analyse the data was adopted from previous studies similar to this particular research study, or was adapted along the lines of these existing studies. Statistical tests employed by Saville and Lumby (1995) were found to be most appropriate for this research. The statistical method, multiple regression was used to present the data. In addition to this, in-order to ensure that the test run had no skewed data due to inflated or understated values that were reported, the accuracy of the data was tested for normality and outliers.

When comparing the relative performance of MNCs and local firms as stated in Saville and Lumby (1995), the ordinary least squares method (OLS) was used as the method of estimation. The tests run were part of the following categories as discussed in Saville and Lumby (1995):

- i) Resource effects
- ii) Competitive effects

The category resource effects were further classified into sub-categories and tested statistically. These categories are: Employment Creation; Labour Productivity; Appropriate Technology; Distribution of Income; Profit Repatriation

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and Government Revenue. The competitive effects tests concentrated on the Profitability and Efficiency of the firms. These tests either provided support or refuted the claims made against the appropriateness of the MNCs in the economy they operated in.

The statistics equation (multiple regression) was used to analyse the relationship between continuous variables, although it is better suited to studying the functional dependencies between factors. For example: X determines the level of Y. Cohen, Cohen, West and Aiken (2003) state that multiple regression is a flexible method of data analysis that may be appropriate whenever a quantitative dependent variable needs to be examined to find a relationship with two or more independent or explanatory variables. The relationships between the variables could be nonlinear, with the independent variables being either quantitative or qualitative in nature. One can examine the effects of a single variable or multiple variables with or without the effects of other variables being taken into account. In addition multiple regression allows you to separate causal factors for each independent variable and then you can analyse each one's influence on the dependent variable that you are trying to explain. The Ordinary Least Squares linear regression is the most widely used type of regression for predicting the value of one dependent variable from two or more independent variables.

When analysing the results to determine if the alternate hypothesis can be accepted, Albright, Winston and Zappe (2009) suggests that the significance level determines the size of the rejection region. In addition to this, the p-value of the sample gives the probability of the sample with at least as much evidence in favour of the alternative hypothesis as the sample actually observed. Hence the smaller the p-value, the more evidence there is in favour of the alternative hypothesis. As a result these values will be interpreted from the regression results to determine if the alternative hypothesis is accepted or the null hypothesis cannot be rejected.

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After collecting data for the period 2007 to 2011, before the described tests were conducted, the data was again evaluated to identify any missing data or line items. With financial analysis, some firms do not report on every line item on their financial statements unless this is mandatory. Therefore some variables that were required for each individual test had some degree of missing data. The omitted data was deleted from the sample for that particular test as multiple regression analysis requires that every observation have a score for each variable in the test. This is not ideal way of dealing with missing data as one possible shortcoming could be that the number of observations for the test may be very small after the deletion. In addition to this, the observations with completed data left to run the multiple regression tests may not be wholly representative of the sample. However the results of the multiple regression tests could be deemed useless due to inflated or understated values.

4.8 Limitations of the Research

As this research study focussed only on two industries of the South African economy, a number of potential limitations may arise:

The data required to investigate the effects of MNCs on the host economy is usually unavailable, or when available, could be unreliable as MNCs are usually reluctant to disclose this strategic information. This reluctance may be due to competitive reasons or as a result of the current debate on the MNCs' participation in the host economy. Consequently, if the data provided was unaudited, that particular MNC was excluded from this research.

The time line of the research from 2007 to 2011 may also have impacted the sample size negatively. The research focused only on the acquisitions by firms listed on the main board of the JSE and as such it was not representative of acquisitions by unlisted firms or firms listed on other stock exchanges.

The data from the sample was collected coincided with the economic downturn and the loss of jobs during the recession in South Africa which could have

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negatively impacted the results. The sample came from specific industries and therefore could have restricted the research. Some firms did not report on all data items required to run all the statistical tests and therefore these firms were excluded from all or certain tests. Tests to check for the effects of skills promotion could not be run because of the inaccessibility of data.

Chapter 5: Results

5.1 Data Sample Selection

Relevant data of FDI retrieved from the UNCTAD (2011) report pertaining to the inward FDI received by South African firms, indicates that the mining- and manufacturing sector (together with the financial sector) were the biggest recipients of inward FDI for the period 2007 to 2010. Due to the mining- and manufacturing sector being similar in operations specifically as being high capital and labour intensive, these sectors were chosen for the purpose of this research. Additionally, these sectors provided a sufficiently large number of firms for testing purposes: mining (63 firms) and manufacturing (47 firms).

The sample selection method is restated from section 4.6.

In total 110 firms came from the both sectors with 43 (38.7 per cent) being foreign-owned. Due to one or more of the following reasons, altogether 68 firms were dropped from the sample:

- (i) The tests conducted in this research incorporated the financial reporting period from 2007 to 2011 and 23 of these firms had either incomplete or missing data for the mentioned period.
- (ii) The data was checked for outliers and two firms' data was incorrectly reported which was also out of norm for them.
- (iii) Most of the firms reported figures in the South African currency (ZAR) while 21 firms reported in the currency of the home country. These firms were excluded as it would have been necessary to convert these figures to the correct exchange rate for the requested period, which could have led to incorrect conversion rates being used.
- (iv) Two firms who indicated a change in control from local to foreign ownership in the period from 2007 to 2011 was also excluded.
- (v) As mentioned in section 4.4, the manufacturing sector was further analysed due to some of the firms belonging to this sector were not known to be labour or capital intensive like the firms in the mining sector. Therefore only firms belonging to the chemicals, forestry, paper, oil and gas sectors were chosen. Due to this a further 20 firms

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were dropped from the sample due to these firms having operations that are less capital or labour intensive.

- (vi) As a result of these exclusions, the full sample finally included 42 firms of which 12 (28.6 per cent) were foreign-owned.

The tests conducted in this research were largely adopted from a previous research conducted by Saville and Lumby (1995). Multiple regression was used to present the data. For all tests, the method of ordinary least squares was used as the method of estimation. All data was tested for outliers and heteroskedasticity by examining the residuals with a residual plot. If the plot exhibited a fan shape or any other evidence of non-constant error variance, it indicated heteroskedasticity. Any data causing this was removed from the sample for that particular test.

The tests were run in accordance to the layout of the research propositions in chapter 3.

5.2 Tests for Resource Effects

The tests in this subsection was conducted in-order to test how the MNCs and locally-owned firms use their resources, particularly employees and technology in-order to become more productive, thereby increasing their competitiveness in the market. In addition to this, a test was run to ascertain if MNCs paid higher dividends to their shareholders and if they were charged higher tax rates in-order to help reduce the budgetary gap of the host government when compared to the non-affiliated local firm.

5.2.1 Test for Employment Creation

The first test run was to assess if MNCs created more jobs than the local firms. As adopted from Saville and Lumby (1995), the size of the firm is measured by total assets (ASST) and the profitability of the firm is measured by the firm's operating margin (OPMG). As mentioned previously, sectoral differences is controlled by the dummy variable SECT, where firms in manufacturing assume

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the base category value of zero and firms in the mining sector assume the value of one. In-order to distinguish and compare the firms with foreign- or local-ownership, another dummy variable OWNER was created where firms with local-ownership assumed the value of zero and the MNCs assumed the value of one. As stated in Saville and Lumby (1995), the model used to explain the employment creation (EMPL) which is the dependant variable, will have to include the explanatory variables ASST, OPMG, SECT and OWNER. A multiple regression model was run and the results are shown in Table 5.1 below.

Table 5.1 - Results from the Employment Creation Test

Dependent Variable	EMPL					
Observations	90					
Durbin Watson	0.6076					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.8824	0.7787	0.7683	8653.9606		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	4	22401091800	5600272950	74.7790	< 0.0001	
Unexplained	85	6365737935	74891034.52			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
Constant	732.6256	1883.3687	0.3890	0.6983	-3012.0158	4477.2671
ASST	0.5704	0.0490	11.6311	< 0.0001	0.4729	0.6679
OPMG	-17176.1480	5425.0238	-3.1661	0.0021	-27962.5487	-6389.7473
SECT	-1144.8264	2399.8227	-0.4770	0.6346	-5916.3170	3626.6641
OWNER	8087.0787	2037.6910	3.9687	0.0002	4035.6030	12138.5543

With an R-Square value of 0.779, it indicates that this model is able to explain only 77.9 per cent of the explanatory variables. The results indicate that on average 733 jobs are created by firms in the sample as given by the intercept term, CONSTANT. The positive coefficient of ASST indicates that larger firms create more jobs, while the negative coefficient of OPMG indicates that more profitable firms create fewer jobs. The dummy variable SECT having a significantly negative coefficient and not being different from zero and with a p-value of greater than 0.1 indicates that the sector does not have an effect on

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employment creation. The coefficient for OWNER being positive indicates that MNCs create on average 8,087 more jobs than locally-owned firms if all other variable in the equation are kept constant.

The F-Statistic value is 74.78 for this model. The critical F-value from the F-Distribution table for F (4, 85) at a 1 per cent significance level is equal to 3.55 which is less than the F-Statistic value. Consequently the F-Statistic is significant at a 1 per cent level and as such we reject the null hypothesis and conclude that there is a statistically significant difference amongst the population means as all the coefficients are not equal to zero.

The results indicate that MNCs create more jobs than locally-owned firms whereas there is no difference between the sectors for job creation.

5.2.2 Test for Labour Productivity

From the theory it follows that MNCs bring to affiliates some advanced technology and management knowledge which would increase the efficiencies in the operations of the affiliate, consequently increasing the productivity of the labour. This test is run to prove the theory and the model used was adopted from Saville and Lumby (1995).

The variables used to calculate and compare labour productivity between the MNC and the locally-owned firm was valued added per employee (VAPE), which is derived by dividing the profit before interest and tax (PBIT) by the number of employees (EMPL). The scale of the firm is represented by the turnover (TNOV) and total assets per employee (KINT) are also used in the model. As in the previous instance, this model has to control for sectorial and ownership differences by using the dummy variables SECT and OWNER with manufacturing and local-ownership assuming the value of zero. A multiple regression model was run and the results are produced in Table 5.2 below.

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Table 5.2 - Results from the Labour Productivity Test

Dependent Variable	EMPL					
Observations	90					
Durbin Watson	0.5434					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.7943	0.6308	0.6135	11177.4624		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	5	18147298169	3629459634	29.0506	< 0.0001	
Unexplained	85	10619531565	124935665.5			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
TNOV	0.0008	0.0001	7.5213	< 0.0001	0.0006	0.0010
KINT	0.0082	0.0614	0.1338	0.8939	-0.1139	0.1303
VAPE	-1.4662	1.2960	-1.1313	0.2611	-4.0430	1.1107
SECT	3168.5249	2184.6101	1.4504	0.1506	-1175.0654	7512.1151
OWNR	6615.2917	2512.7503	2.6327	0.0101	1619.2709	11611.3124

An R-Square value of 0.631 indicates that this model is able to explain only 63.1 per cent of the explanatory variables. The positive coefficient of KINT indicates that higher capital industries leads to a greater value add per employee. However, the low t-Value of this variable indicates that it has no effect on value added by the worker. With the coefficients of TNOV being significantly different from zero indicates that the value added by the employee is dependent on the scale of the operations (TNOV). Due to SECT being a high value, the value added by the employee is dependent on the particular sector. With regards to ownership, it shows that employees in foreign owned firms provide R6, 615 more in profit before interest and tax per employee than locally-owned firms. They are also approximately 31.8 per cent more productive than employees from local firms.

The F-Statistic value is 29.05 for this model. The critical F-value from the F-Distribution table for F (5, 85) at a 1 per cent significance level is equal to 3.24 which is less than the F-Statistic. Consequently the F-Statistic is significant at a 1 per cent level and therefore we reject the null hypothesis and conclude that there is a statistically significant difference amongst the population means.

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As such, the findings indicate that employees in MNCs are more productive than employees in locally-owned firms.

5.2.3 Test for use of Appropriate Technology

It is argued that MNCs introduce advanced technology which helps to increase labour productivity. This makes the host firm more efficient, which could lead to increased profitability. In labour- and capital intensive industries such as the ones in this sample, it could provide a competitive advantage.

The model employed in this test is adapted from Saville and Lumby (1995). It uses the explanatory variables ASST (the size of the firm) and TNOV (the scale of the operations). This model has to control for sectorial- and ownership differences by using the dummy variables SECT and OWNR with manufacturing and local-ownership assuming the value of zero. A multiple regression model was run and the results are shown in Table 5.3 below.

Table 5.3 - Results from the Use of Technology Test

Dependent Variable	EMPL					
Observations	90					
Durbin Watson	0.5554					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.8679	0.7533	0.7446	0.2527		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	4	16.75991052	4.189977631	65.6343	< 0.0001	
Unexplained	86	5.490089476	0.06383825			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
ASST	0.7552	0.1057	7.1439	0.0000	0.5450	0.9653
TNOV	0.0505	0.0963	0.5245	0.6013	-0.1409	0.2418
SECT	-0.0876	0.0530	-1.6523	0.1021	-0.1930	0.0178
OWNR	0.2028	0.0565	3.5884	0.0006	0.0905	0.3152

An R-Square value of 0.631 indicates that this model is able to explain only 63.1 per cent of the explanatory variables. The results from the test show that ASST

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has a positive correlation with capital intensity. The negative coefficient of the variable SECT shows no correlation and therefore SECT has no effect on capital intensity. The positive coefficient of TNOV indicates that more capital intensive firms operate who have with greater access to capacity than less capital intensive firms, even though the low t-Value shows that TNOV has no effect on capital intensity. The positive coefficient of OWNR shows that foreign firms operate with more expensive technology than locally-owned firms.

The F-Statistic value is 65.63 for this model. The critical F-value from the F-Distribution table for F (4, 86) at a 1 per cent significance level is equal to 3.54 which is less than the F-Statistic. The F-Statistic is significant at a 1 per cent level and therefore we reject the null hypothesis and conclude that there is a statistically significant difference amongst the population means.

The findings suggest that foreign firms introduce more capital intensive technology into the economy which could benefit them more than the locally-owned firms.

5.2.4 Test for Distribution of Income

Currently in South Africa the gap in regards to the distribution of income is increasing with higher wages going to managers or directors of firms than to the rest of the labour force. Critics of MNCs argue that MNCs increase the wage gap as they do not significantly pass wage increases to the labour force.

The model employed in this test is adapted from Saville and Lumby (1995). This model tests for the distribution of income based on the remuneration of the directors (RMPD) which is the explanatory variable. Other variables taken into consideration are firm size (ASST); operating margin (OPMG) and the firm's profitability (PBIT). Sectorial differences (SECT) and ownership differences (OWNR) are taken into consideration. The results are indicated in Table 5.4 below.

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Table 5.4 - Results from the Distribution of Income Test

Dependent Variable	RMPD					
Observations	150					
Durbin Watson	1.7958					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.5406	0.2922	0.2676	19835.6310		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	5	23391506411	4678301282	11.8904	< 0.0001	
Unexplained	144	56657124795	393452255.5			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
Constant	10723.2968	3303.0284	3.2465	0.0015	4194.6131	17251.9804
ASST	0.0005	0.0001	5.0686	< 0.0001	0.0003	0.0007
PBIT	-0.0004	0.0005	-0.7980	0.4262	-0.0013	0.0006
OPMG	24454.0762	11140.3754	2.1951	0.0298	2434.2880	46473.8645
SECT	1523.8561	3912.2877	0.3895	0.6975	-6209.0742	9256.7864
OWNR	2290.1775	3992.6763	0.5736	0.5671	-5601.6470	10182.0020

The intercept term shows that firms in the sample pay their directors on average R10, 723, 297 per annum. The variations in the pay are highlighted by the coefficients SECT where directors belonging to certain sectors may be paid more than directors in other sectors. The statistically significant variable (ASST) indicates that larger firms pay their directors more. This is also highlighted in the profitability (OPMG) of the firm. The positive coefficient of OWNR shows that foreign firms pay their directors on average R2, 290, 178 more than locally-owned firms, thereby contributing to the wage gap and increasing the Gini coefficient.

The F-Statistic value is 11.89 for this equation. The critical F-value from the F-Distribution table for F (5, 144) at a 1 per cent significance level is equal to 3.14 which is less than the F-Statistic. The F-Statistic is therefore significant at a 1 per cent level and therefore we reject the null hypothesis and conclude that there is a statistically significant difference amongst the population means.

The hypothesis is accepted that MNCs contribute to the wage inequality in South Africa more than local firms.

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5.2.5 Test for Profit Repatriation

As argued by critics that MNCs pay huge dividends to their foreign shareholders rather than using the proceeds of their profits to develop the host economy. Host economies – especially those in developing nations – require investments to develop their infrastructure and to improve the living conditions of the citizens. It is argued that these funds can be used to further develop the labour force in improving their skills and reducing the wage gap. In addition, these funds could be used to further improve the operational efficiencies of the firm and improve to improve competitiveness in the global economy.

The model employed in this test was adapted from Saville and Lumby (1995) and is aimed at testing the validity of the argument. The dependent variable used in this test is pay rate (PYRT) which is derived from the dividends paid out to shareholders against the earnings achieved. Saville and Lumby (1995) further state that PYRT is a function of the relative profitability (OPMG) and absolute profitability (PBIT) of the firm, where less profitable firms are expected to have a higher retention rate. It is further stated that the size of the firm (ASST) is an important determinant of PYRT, as larger firms are less reliant on retained earnings as source of capital. This model has to control for sectorial and ownership differences by using the dummy variables SECT and OWNR with manufacturing firms and local-ownership assuming the value of zero. The results are given in Table 5.5 after the discussion of the results.

A relationship exists between the size of the firm and the pay rate for dividends. Sectorial differences do not have any bearing on pay rate as the coefficient is not statistically significant. The coefficient for OWNR shows that MNCs pay out on average nearly 5 per cent more than locally-owned firms.

The F-Statistic value is 0.41 for this equation. The critical F-value from the F-Distribution table for F (5, 55) at an 85 per cent significance level is equal to 0.40 which is less than the F-Statistic. It is important to note that the F-Statistic is not significant and therefore the null hypothesis cannot be rejected as each

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explanatory variable has no effect of the dependent variable and have coefficients of zero.

The evidence from this test is inconclusive as to whether MNCs pay out a higher dividend ratio than the local-owned firms.

Table 5.5 - Results from the Profit Repatriation Test

Dependent Variable	PYRT					
Observations	60					
Durbin Watson	1.9993					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.1904	0.0363	-0.0338	11.4999		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	5	273.6211758	54.72423516	0.4138	0.8372	
Unexplained	55	7273.676413	132.2486621			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
ASST	-2.8250	4.9343	-0.5725	0.5693	-12.7136	7.0636
PBIT	0.2669	5.9564	0.0448	0.9644	-11.6701	12.2039
OPMG	-0.0284	2.7244	-0.0104	0.9917	-5.4881	5.4314
SECT	2.2798	2.4544	0.9289	0.3570	-2.6389	7.1986
OWNR	4.9716	3.3823	1.4699	0.1473	-1.8067	11.7499

5.2.6 Test for Revenue the Government Receives

In-order to promote inward FDI into an economy, host governments use incentives like lower taxes to attract MNCs investments. The opposite of this may be that MNCs governments may want to charge MNCs higher corporate tax rates in-order to reduce the budgetary gap of the host government, and by doing so, pay higher taxes than local firms.

To test this notion, the tax rate (TXRT) is used as the dependent variable and is calculated by dividing the total tax paid by profit before interest and tax (PBIT). As stated in Saville and Lumby (1995), it is necessary to control for the potential amount of time that a firm can devote to taxes. This is done by using the

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number of employees (EMPL) in the model. Tax rates are also influenced by the firm size (ASST) and scale of operations (TNOV). This model has to control for sectorial and ownership differences by using the dummy variables SECT and OWNR with manufacturing firms and local-ownership assuming the value of zero. The results are shown below in Table 5.6:

Table 5.6 - Results from the Government Revenue Test

Dependent Variable	TXRT					
Observations	74					
Durbin Watson	0.5953					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	NA	-0.0060	-0.0800	0.4153		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	6	-0.070056684	-0.011676114	-0.0677	< 0.0001	
Unexplained	68	11.72845886	0.172477336			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
ASST	-1.01027E-05	4.7893E-06	-2.1094	0.0386	-1.96596E-05	-5.45789E-07
TNOV	1.87791E-05	7.11935E-06	2.6378	0.0103	4.57268E-06	3.29856E-05
EMPL	-7.29273E-06	6.05004E-06	-1.2054	0.2322	-1.93654E-05	4.77993E-06
OPMG	-0.9850	0.4291	-2.2958	0.0248	-1.8412	-0.1289
SECT	0.4753	0.1153	4.1209	0.0001	0.2451	0.7054
OWNR	0.3016	0.1201	2.5103	0.0144	0.0619	0.5413

The results show that ASST, TNOV, EMPL and OPMG are significant determinants of the firm's tax rates. The sector variable illustrates that firms in the mining sector pay more tax than manufacturing firms. Foreign firms pay a rate of 30.15 per cent higher tax than local counterparts.

The F-Statistic value is -0.06 for this equation. The critical F-value from the F-Distribution table for F (6, 68) at any significance level is will be greater F-Statistic and therefore it can be concluded that the F-Statistic is not significant and therefore the null hypothesis cannot be rejected.

Therefore ownership does not play a part in the amount of tax that a firm is subject to.

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5.3 Tests for Competitive Effects

The following two tests measure the competitive effects of MNCs operating in the host economy. It is argued that MNCs could force smaller local firms out of the market by providing more cost-effective products, thereby making it difficult for local firms to compete or to becoming more efficient. Supporters of MNCs argue that local firms could take learnings from the MNCs which could allow them to become more competitive.

5.3.1 Test for Profitability

The model aims to prove that MNCs are more profitable than locally-owned firms as MNCs introduce enhanced management philosophies and technology to the affiliated local firm that improves their efficiencies compared to locally-owned firms. This test is adapted from Saville and Lumby (1995). As stated in the original research, relative profitability is primarily determined by the size of the firm; capital intensity; scale of operations; sectorial- and ownership differences. The results are shown below in Table 5.7.

Table 5.7 - Results from the Profitability Test

Dependent Variable	OPMG					
Observations	95					
Durbin Watson	0.9607					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.3452	0.1192	0.0697	0.164389679		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	5	0.325456207	0.065091241	2.4086	0.0426	
Unexplained	89	2.405133022	0.027023967			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
Constant	0.0334	0.0422	0.7917	0.4306	-0.0504	0.1173
ASST	-3.3785E-09	1.8275E-09	-1.8487	0.0678	-7.0096E-09	2.5262E-10
TNOV	4.5996E-09	2.4969E-09	1.8421	0.0688	-3.6165E-10	9.5608E-09
KINT	2.0292E-05	2.1538E-05	0.9421	0.3487	-2.2503E-05	6.3086E-05
SECT	0.0771	0.0493	1.5642	0.1213	-0.0208	0.1750
OWNR	-0.0010	0.0398	-0.0255	0.9797	-0.0800	0.0780

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The results indicate that a firm's size does not affect profitability, which is an unexpected result. Nonetheless, the positive coefficient of KINT and TNOV which indicate capital intensity and scale of operations does affect profitability. The low t-ratios for all variables are not significantly different from zero, therefore indicating that both sectorial differences and ownership differences are not important in explaining the variations in profitability.

The F-Statistic is therefore significant at a 5 per cent level however the p-values for most of the explanatory variables ($p\text{-value} > 0.1$) indicates that they are weak and do not give much support for the research hypothesis. Therefore if we take the p-value into consideration we cannot reject the null hypothesis.

The results indicate that MNCs are not more profitable than locally-owned firms which could be related to the spillover effects that locally-owned firms receive or gain through learnings from the MNC or the response that locally-owned firms take because of the presence of MNCs in the economy.

5.3.2 Test for Efficiency

According to the theory, MNCs bring an influx of knowledge of operations and advanced technology and by using these two resources, become more efficient than local firms. This may enable them to negate the competitiveness of local firms. This test is adapted from Saville and Lumby (1995) and is employed to establish if MNCs are more efficient than local firms. The model uses the log-transformed production function to measure the difference to output with the inputs into the operations.

The scale of the operations (TNOV) is the dependent variable with labour (EMPL) and size of the firm (ASST) being the explanatory variables. This model has to control for sectorial- and ownership differences by using the dummy variables SECT and OWNER with manufacturing firms and local ownership assuming the value of zero. The results are given in Table 5.8.

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Table 5.8 - Results from the Efficiency Test

Dependent Variable	TNOV					
Observations	95					
Durbin Watson	0.7455					
Summary	Multiple R	R-Square	Adjusted R-Square	StErr of Estimate		
	0.9204	0.8472	0.8404	0.1676		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	4	14.0229	3.5057	124.7592	< 0.0001	
Unexplained	90	2.5290	0.0281			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
Constant	1.6975	0.2743	6.1884	< 0.0001	1.1525	2.2425
LOG_ASST	0.7425	0.0471	15.7559	< 0.0001	0.6489	0.8361
LOG_EMPL	0.0638	0.0476	1.3408	0.1834	-0.0307	0.1582
SECT	-0.2807	0.0408	-6.8862	< 0.0001	-0.3617	-0.1998
OWNR	-0.0465	0.0450	-1.0321	0.3048	-0.1359	0.0430

The positive coefficient of ASST indicates a higher level of output if this variable is increased. The low t-ratio for EMPL indicates that this variable is not important in determining the variations in the production levels. The negative coefficient of SECT indicates that the mining sector is more efficient than the manufacturing sector in South Africa. The negative coefficient of OWNR indicates that MNCs are less efficient or productive than local firms. Any increase in the inputs will result in the production of the MNC being 5 per cent less than the local firm.

The F-Statistic value is 124.76 for this equation. The critical F-value from the F-Distribution table for F (4, 90) at a 1 per cent significance level is equal to 3.53 which is less than the F-Statistic. The F-Statistic is therefore significant at a 1 per cent level and therefore we reject the null hypothesis and conclude that there is a statistically significant difference amongst the population means.

From the results it can be concluded that MNCs are less productive or efficient than locally-owned firms.

Chapter 6: Discussion of Results

This chapter discusses the results of this research study and the implications of the research propositions. It follows the structure as implied by the research propositions with a relevant subheading discussing each test that was conducted.

6.1 The Resource Effects Tests

The tests run under this section were aimed at establishing whether MNCs performed better than local firms in terms of employment creation; labour productivity; distribution of income; profit repatriation; government revenue and appropriate technology.

Research proposition one is restated here - The acquired local firm improves their overall performance in terms of job creation; labour productivity; through the introduction of technology; more equal distribution of income and reduced profit repatriation through resource sharing with the MNC. This proposition relates to the discussion of the results under section 6.1.1 to 6.1.5. The discussion of the results will be interpreted in the same order that the tests were run.

6.1.1 Employment Creation

Table 5.1 from section 5.2.1, provides the results of this test. The results show that MNCs create on average, 8,087 more jobs than locally-owned firms if all factors in the regression equation are kept constant. The results also indicate that larger firms (in terms of total assets) create more job opportunities but firms that earn more profit tend to create fewer jobs. It must also be noted that sectorial differences do not play a huge part in creating jobs as this coefficient was not significant. This implies that the mining sector is no better at creating jobs than the manufacturing sector.

The above results are supported by the findings of Waldkirch et al. (2009) whose research established that inward FDI improves the employment figures.

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Their study conducted in Mexico showed a significant positive yet quantitatively modest impact on the employment figures of both the white- and blue collar workers. This confirms the view that FDI benefits the white collar employment, while in more capital intensive industries, there is a greater impact on blue collar workers. Scott-Kennel (2004) also added that with the introduction of FDI, the host country will benefit in the form of greater sector output and productivity; more employment opportunities; local supply and export and the absorption of better technologies.

However Saville and Lumby's (1995) study focussing on the Building-, Construction- and Engineering Industries of South Africa, found mixed results in their comparison of the performance between local firms and foreign-owned firms as MNCs do not generate more job opportunities. Todaro and Smith (2011) allude to this in their analysis as being one of the drawbacks of FDI: MNCs create products with capital intensive technologies that create comparatively little employment. This does not help developing nations suffering from high unemployment rates

From the regression results, it is shown that MNCs do create more jobs than locally-owned firms in capital intensive industries like the sectors studied in this research project. Due to the different results achieved in previous studies, it must be noted that the results achieved in this study could be related to the nature of the South African industries, which are high labour intensive. It could furthermore potentially be due to the South African labour laws, which could discourage both MNCs and locally-owned firms alike to introduce expensive technologies as these could be designed to be more productive, thereby reducing the required number of staff.

The findings confirm what Waldkirch et al. (2009) found in Mexico that blue collar workers benefited more in capital intensive industries. Although the findings in this study do not distinguish between blue and white collar workers due to the lack of data, the assumption is made that due to the similar

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characteristics of the sample to that of Mexico, the greater impact in South Africa will be for blue collar workers. In addition the results could be sector specific.

The results achieved must be seen in context of the industries and the characteristics of the socio-economic climate of the host economy being studied. The findings support the literature when the South African industries have similar demographics as countries like Mexico but it will be interesting to see if the labour laws in South Africa were less stringent, will the employment opportunities drop thereby allowing both the MNCs and locally-owned firms to have the optimal number of staff.

6.1.2 Labour Productivity

Table 5.2 from section 5.2.2, provides the results of this test. The results for this regression test shows that employees from MNCs are more productive than those of local firms by 31.8 per cent. In addition to these, MNCs employees provide on average R6, 615 per employee of profit before interest and tax than the local firms' employees. These results are also subject to sectorial difference with employees employed in the mining sector being more productive than those employees in the manufacturing sector.

Scott-Kennel (2004) supports the above findings by stating that given the access to various resources that the local firm has from its foreign parent, affiliated local firm are given access to firm-specific advantages that non-affiliated local firms lack. With these factors namely superior capability; access to technology; increased knowledge and more experience, one can expect better performance, output and productivity from the local-owned firm. Saville and Lumby (1995) found results to support the argument that the employees of MNCs are more productive than employees from local firms.

Abor et al. (2008) give further evidence that MNCs improve the quality of labour by providing efficient educational and training systems to the local-affiliated

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firms. Todaro and Smith (2011) state that MNCs not only provide financial resources and new factories to the local-affiliated firms, they also provide other needed resources including management experience, entrepreneurial abilities and technological skills that can be transferred to their local counterparts by means of training programs and the process of learning-by-doing.

The results support findings from existing literature indicating that MNCs improve labour productivity by introducing enhancements to current processes, having exposed their management to various managerial practices to improve operations, operational- or process efficiencies and by the introduction of advanced technologies. This study provides further evidence that supports the argument that MNCs help the affiliated local firm's employees become more productive in the long term. These advances could be related to the access that MNCs have to capital and the amount spent on research and development which locally-owned firms may lack

6.1.3 Appropriate Technology

Table 5.3 from section 5.2.3, provides the results of this test. The findings from this test show that MNCs introduce more capital intensive technology than locally-owned firms, which could be a key factor in increasing the productivity of employees. Firms with access to more capital tend to invest more in new technology. The introduction of technology is not sector-specific.

The findings are supported by Todaro and Smith (2011) who state that FDI in the host economy involves more than just the transfer of capital or setting up operations, as MNCs bring with them technologies of production; tastes- and styles of living; managerial philosophies and other diverse business practices: these are spillovers are for the foreign acquired firm. They have the ability to manipulate prices and profits; collude with other firms in determining areas of control and to restrict the entry of new competitors by dominating new technologies. Abor et al. (2008) found during their research in Ghana that inward FDI has positively contributed to the improvement of local-affiliated firms

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by reducing the technology gap. The above holds true as in-order to become more efficient and productive as MNCs are predominantly trying to ensure optimal profitability.

The literature shows that MNCs introduce technology in some form or another to the host economy. However the effect of this introduction must be analysed in terms of labour productivity, profitability and efficiency of the firm pre- and post the acquisition or merger. The results for labour productivity (section 6.1.2) shows an increase for the MNC however this test did not look for the effect that different management philosophies; styles or technology had on this increase. The results for the profitability (section 6.2.1) and efficiency (section 6.2.2) tests will be discussed briefly as a more detailed discussion will follow later in this chapter. The profitability test results point to MNCs not being more profitable than locally-owned firms while the efficiency test established that MNCs are less productive or efficient than locally-owned firms.

As a result the introduction of technology may not necessary make the MNC more profitable or efficient in the South African context which could be related to South African Labour Act that may not be conducive to the reduction of the labour force in-order to reach optimal staff levels. However if we take the introduction of technology as the only factor to prove, then the findings support the literature as MNCs introduce technology and this could be directly related to employees becoming more productive than locally-owned firms however this employee efficiency may not translate into profitability and efficiency for the MNCs.

6.1.4 Distribution of Income

Table 5.4 from section 5.2.4, provides the results of this test. From the results it seems that MNCs do to distort the distribution of income with directors earning approximately R2, 290, 178 per annum more than their counterparts in local firms. In addition, the size of the firm and the particular sector is influential in

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determining the wages of the directors; consequently it may be true that MNCs contribute to the wage inequality in the South African job market.

Todaro and Smith (2011) state that one negative aspect of inward FDI is that MNCs tend to promote the interest of a small number of local managers thereby increasing the income gap between the higher earners and the majority of the workforce. Abor et al. (2008) contradict the above findings, indicating that foreign-owned firms provide benefits to the economy which include the improved income distribution between employees. These findings are further supported by Saville and Lumby (1995) who found that MNCs do not contribute to the income gaps by paying their directors less.

The finding of this test shows that MNCs do contribute to the income inequality currently being experienced in South Africa, but previous research has also shown that MNCs contribute to the equal distribution of income. Taking the South African situation into consideration, it has been highly publicised that workers are becoming more dissatisfied with their pay and resorting to crippling strikes which restricts the growth of the economy. The findings here support certain critics of MNCs however some countries experienced favourable results were MNCs did not contribute the income gap.

The results achieved in Ghana which contradict the results achieved here could be because of the policies that the host government put in place. For more equal distribution of income, the host government must look at introducing policies which will discourage MNCs from following this practice. This will be difficult to implement however must be explored in-order to increase the middle class of South Africa and therefore increase the consumption patterns of your citizens.

6.1.5 Profit Repatriation

Table 5.5 from section 5.2.5, provides the results of this test. The MNCs pay out on average nearly five per cent more than locally-owned firms. However it is

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important to note that the F-Statistic is not significant and therefore the null hypothesis cannot be rejected as each explanation has no effect of the dependent variable, and have coefficients of zero. This model does not conclusively prove that MNCs pay out more dividends than locally-owned firms.

Todaro and Smith (2011) proceed to say that the main objectives of MNCs are to maximise the return on capital and as such they are not particularly interested in development. MNCs seek out the best profit opportunities and are largely unconcerned with issues such as poverty; inequality; employment conditions and environmental problems. The host governments budget deficits usually results in the importation of capital equipment and intermediate products and the outflow of foreign exchange in the form of repatriated profits; management fees; royalty payments and interest on private loans.

Todaro and Smith (2011) point out some disadvantages where MNCs could hamper healthy competition by possessing exclusive production agreements with the host governments; failing to reinvest much of their profits and inhibiting the expansion of local firms that might be suppliers to the foreign-affiliated firm, as foreign firms may prefer to import these goods from overseas affiliates. These findings are supported by Saville and Lumby (1995) who also found that MNCs distort local markets by paying their foreign shareholders more, rather than reinvesting these funds back into the host economy of their affiliated local firm.

Following the literature review, this test supports these findings, although the model employed was not statistically significant and the null hypothesis could not be rejected. The results consequently do not provide any conclusive proof that the MNC pay out huge dividends rather than using this to invest back in the host economy, host firm or the stakeholders of the firm.

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6.1.6 Summary of findings for research proposition one

The data used in these tests needed to prove if the acquired local firm improved their performance through resource sharing with their foreign parent. The results indicate that MNCs creates more job opportunities, improve labour productivity through the introduction of appropriate technology which is a factor in labour productivity, However MNCs struggle with income distribution while the profit repatriation test provided inconclusive results. The results from the tests' therefore conclude that the presence of MNCs in the economy has its benefits and costs and therefore the importance of them must be viewed in light of these benefits and costs.

6.1.7 Government Revenue

Research proposition two was required to be answered by the model employed in this test is and is restated here - The host government is able to reduce the budgetary gap by charging the MNCs higher tax rates.

Table 5.6 from section 5.2.6, provides the results of this test. This model also provided weak results: the results were not statistically significant. The test employed in this instance was used to test if MNCs contribute to filling the budgetary gap in South Africa. The results do show that MNCs pay approximately 30.15 per cent more tax than their local counterparts, but this figure could be due to MNCs investing in companies that are bigger in terms of assets and turnover.

Saville and Lumby's research (1995) has also found that MNCs pay higher taxes and so help in reducing the budgetary gap in South Africa. As mentioned in Abor et al. (2008), governments are changing their policies to attract foreign investors by using financial incentives such as tax allowances in-order to persuade them to invest in domestic economies. Ndikumana and Verick (2008) also suggest that MNCs decide to invest in a country based on the presence of favourable tax laws, as well as the existence of sound infrastructure in the host country. Todaro and Smith (2011) state that multinationals use their economic

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power to influence government policy in the form of excessive protection; tax rebates; investment allowances and the provision of low cost factory sites.

The results achieved in this test tend to be inconclusive. The results do not provide any conclusive proof that MNCs pay higher tax rates or receive favourable incentives from governments to invest. If governments want inward FDI into their economy, they must provide attractive options to MNCs with incentives like tax breaks. If MNCs are charged higher taxes in one country, they will seek to invest elsewhere.

6.2 The Competitive Effects Tests

The tests run in this section were aimed at finding out if MNCs performed better than local firms in terms of employment creation; labour productivity; distribution of income; profit repatriation; government revenue and appropriate technology.

Research proposition three is restated here - The local-affiliated firm becomes more profitable and efficient than local firms. The results are discussed in sections 6.2.1 and 6.2.2.

6.2.1 Profitability

Table 5.7 from section 5.3.1, provides the results of this test. The explanatory variables for this test did not provide statistically significant results however it must be noted that the entire model had an F-Statistic that is statistically significant at a level of 5 per cent. The results indicate that MNCs are not more profitable than local firms. The size of the firms does not affect profitability although the scale of operations and employee productivity are influential. With the p-values being greater than 0.10, the null hypothesis could not be rejected. It can be concluded that MNCs are not more profitable than locally-owned firms.

Todaro and Smith (2011) criticise MNCs for seeking out the best profit opportunities and for not being concerned with issues such as poverty and inequality. These issues could include MNCs having surplus funds to potentially

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ward off the competition of smaller firms in the industry, thus creating potential barriers to entry into the industry. They state that MNCs in the host economies have power that is greatly strengthened by the fact that they operate in a market dominated by a few sellers. Hence they have the ability to manipulate prices and profits; collude with other firms in determining areas of control and can restrict the entry of new competitors by dominating through new technologies; special skills and through product differentiation and advertising. Most developing economies feel the presence of MNCs more substantially than developed countries do. Saville and Lumby (1995) indicated results that contradict Todaro and Smith (2011) by stating that MNCs are not more profitable than local firms.

Hanson (2001) suggests that there are considerable benefits to be derived from FDI in terms of productivity for local-affiliated firms however multinationals are attracted to high-productivity countries and industries within these countries. Therefore organisations from industries that have foreign-owned firms operating, show lower rates of productivity growth. This statement provides little support for the argument that FDI will improve the welfare and profitability of the host economy.

Locally-owned firms may react in a positive way to the presence of MNCs in their market. As Meyer and Sinani (2009) suggests that non-affiliated local firms may reap the benefits of spillover effects from the foreign investors. These benefits vary according to the awareness, capability and motivation that the local firm demonstrates in-order to react to entry of foreign firms into the market. The degree of spillovers achieved varies in terms of what resources the local firms throw at it. As a result local firms may increase their profitability by learning from the MNCs, changing their strategy to protect their market share and improving their core competencies and capabilities thereby increasing their competitiveness and maintaining or improving their profits. This can be viewed that the presence of MNCs increases the competitiveness in the economy as local firms need to react or face losing their market share and profits.

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These findings contradict the conclusions of previous tests in this study where MNCs who introduced technology into the workplace, lead to a more productive labour force. This increase in productiveness does not however lead to an increase in profits but this could be related to the higher wages that MNCs pay their employees, or the increase number of job opportunities that the MNCs create in the economy. The results in this test support the argument that MNCs are not more profitable than local firms.

6.2.2 Efficiency

Table 5.8 from section 5.3.2, provides the results of this test. The test for efficiency indicates that a difference in ownership does not play a part in how efficient and productive a firm can be. Local firms can be more productive than an MNC, which could lead to more competitive markets between the MNC and local firms.

Cheung (2010) notes that local firms that do not partner with foreign firms improve their performance due to the spillover effects gained either through learnings or due to increased competition. Jensen (2006) confirms that governments should focus on policies that attract inward FDI because these investments rarely produce a negative result for economic growth. FDI is expected to bring numerous benefits to the host country's economy such as capital inflow and knowledge gain from the foreign partner while creating efficiencies in the local firm's processes by the use of technologies which may not be available to local firms.

It is likely that local firms tend to react to the potential threat MNCs introduce to the market by preferring to react in the manner suggested by Meyer and Sinani (2009). Local firms may reap the benefits of spillovers from the foreign investors, but this varies according to the awareness, capability and motivation that local firms demonstrate in-order to react to the entry of foreign firms into the market. Due to this reaction and the increased competition that the local firm faces, they tend to improve their operational processes to become more

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efficient than the MNC in the industries selected for this study. The results support the notion that MNCs are not more efficient than local firms, even though they introduce new business practises and technologies aimed at improving the operations of the locally-affiliated firms. The locally-owned firm could have the access to or copy the business practices and technology that the MNC introduces, in-order to adapt to the changing environment and therefore are able to successfully compete with the MNC.

6.2.3 Summary of findings for research proposition three

Locally-owned firms have a tendency to react in a positive manner to the introduction of MNCs into their economy. They are able to increase their competitiveness to ensure that they remain as profitable and efficient in relation to the MNCs.

Chapter 7: Conclusion and Recommendations

7.1 Introduction

Major economic powerhouses like the International Monetary Fund (IMF) and the World Bank are proponents for inward FDI and encourage all nations especially developing nations to actively pursue these opportunities. The reasoning behind this is because FDI plays a huge role in economic development. Majority of the inward FDI at present is still going to the developed economies and the impact of the benefits may not have a significant effect on these economies. As such the policies adopted by countries need to be changed in-order to attract FDI.

Studies thus far to ascertain the benefit of inward FDI to the host economy has provided mixed results and have been mainly industry specific. The benefits that arise from inward FDI include the transfer of management philosophies and skills which leads to human capital development, the introduction of new technologies into the economy, access to new markets not otherwise available to the firms in the economy, improved labour productivity, more job opportunities and an improved distribution of income. The above benefits are not only purely economic factors but include socio-economic benefits from which South Africa is struggling to deal with currently.

7.2 Summary of Findings

This research has explored the relationship between inward FDI and the impact it has on the comparative performance of non-affiliated local firms with that of MNCs within the manufacturing and mining sectors of South Africa. The analysis focussed on employment creation, labour productivity, introduction of appropriate technology, distribution of income, profit repatriation, revenue that the government receives, profitability and efficiency that the MNC presence brings to the host economy.

The findings provide support to some aspects of the literature highlighted in this research. The results indicate that MNCs provide more employment

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opportunities than non-affiliated local firms and this could be beneficial to South Africa to reduce their high unemployment. The results also reveal that the MNCs labour force is more productive as the MNCs are more likely to introduce capital intensive technology that may not be available to the domestic firm. This introduction of technology could be the factor that benefits their employees' productivity when compared to non-affiliated local firms.

On the other hand MNCs do not fare well in areas like distribution of income where they appeared to contribute significantly to the income inequality gap. In addition to this MNCs are not more profitable and efficient than non-affiliated local firms. The reasons for this could be that non-affiliated domestic firms tend to react in a positive way to the entrance of MNCs into the economy. In-order for the non-affiliated domestic firm to survive and maintain their market share, they will have to respond to this threat. This appears to increase the competition in the economy. The results for profit repatriation and government revenue did not provide conclusive evidence and therefore either the MNC or the non-affiliated domestic firm could be contributing more to these factors.

The findings do support the notion that the presence of MNCs is beneficial to an economy. The benefits that South Africa can gain are more employment opportunities, increased labour productivity, skills transfer to the labour force, and more competition in their economy. These benefits relate to some of the socio-economic factors that South Africa is currently struggling with. The cost to the economy that is associated with MNCs is the distribution of income where this inequality is due to MNCs failing to distribute the income fairly through their workforce as they pay a few managers more. Therefore it can be reasoned that the benefits of MNCs operating in an economy is greater than the costs that they tend to introduce.

7.3 Recommendation to Stakeholders

The benefits of inward FDI has been highlighted in this research paper. The South African government will have to take note of these benefits and change

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how they presently position themselves on this topic which ultimately affects inward FDI into the country. To begin with the South African government will have to communicate strongly that they are not in support of nationalising key industries in South Africa thereby easing the fears of potential foreign investors. Jensen (2006) indicates that economic policies that promote institutional building, establishment of the rule of law and the promotion of a transparent and fair business environment are good starting points for attracting investors. In addition to this she says that political factors like economic reform and 'state capture' have large and significant effects on the inflow of FDI.

In addition to this, foreign investors select their destination based on the capabilities and opportunities that exist in the host country. By South Africa having a huge unskilled labour force, ailing education and health care systems; South Africa will have to seek ways of improving this as South Africa is in dire need to create jobs and improving the skills of their labour force.

The South African government must also look at imitating China negotiating skills in-order to negotiate better deals with MNCs. This can relate to getting better tax rates and technology deals from the MNCs. The potential higher taxes that the government can charge will increase the government's revenue which will in effect reduce the budgetary gap. With technologies, a possible avenue to try would be asking the MNCs to allow non-affiliated local firms the ability to acquire the same technologies thereby not allowing the MNCs to create anti-competitive markets which will drown out the competition. South Africa will also have to look at their labour laws which are very strict and potentially gives the labour unions the power. Amendments to this bill while maintaining some form of power for the employee will also go a long way of easing the fears of MNCs. By improving the skills of their labour force will lead to more labour flexibility thereby allowing them to potentially join other industries.

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7.4 Recommendations for Future Research

The studies thus far have concentrated primarily on the impact that FDI has on the economy post the event. There is a potential to do a study that incorporates pre- and post the event of acquisition or merger. The research must be intended to investigate the effects of foreign direct investment on a domestic firm before and after it had merged or been acquired by the foreign company i.e. pre and post FDI.

This type of study is called an event type study and as defined in Gong (2009), the event study “focuses on identifying the economic effects of economy-wide, industry- or firm specific events on firms or industries”. These events may take place at any point on the calendar like corporate information releases or may be clustered at a particular time in the case of a (de-)regulatory event that affects the entire industry or a subset of the population of firms. As stated in Gong (2009), event studies in economics and business is often attributed to the fact that economists and business researchers are frequently asked to measure the effects of various events. An example would be if a merger and acquisition are perceived to be value creating or value destroying. Many events studies have been completed in the wealth effects of mergers and acquisitions, with two issues being investigated:

- (i) Whether the merger and acquisition foster or reduce competition.
- (ii) Whether the merger and acquisition are value enhancing moves from the viewpoint of the bidder, the target or the combined firm.

7.5 Concluding Remarks

The findings in this research are similar to the ones found in other research and all indications are that inward FDI is beneficial to the host economy for a number of reasons. The benefits of inward FDI seem to outweigh the costs that it imposes on the economy. Therefore South African government should actively pursue the option of inward FDI to help them resolve or lessen some of the socio-economic shortcomings.

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In-order to do this the South African government should take note of the results as similar results were achieved in economies that face similar problems to South Africa. With the increased global competition that South Africa faces from countries like China, they should actively pursue opportunities with MNCs in-order to allow them to address the high unemployment rate, the skills shortage and the potential income inequality. In-order to be an attractive destination to foreign investors, South Africa will have to look at their economic policies and amend them were necessary to attract inward FDI. South Africa will also have to look at their education system in-order to get a more skilful workforce.

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