Industrialisation in South Africa: The impact of globalisation

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The growing significance of globalisation and the process of industrialisation present countries with both challenges and opportunities. The relationship between globalisation and industrialisation is complex, with investment in industry, and trade in manufactured goods, being important globalisation drivers (Loots, 2001). While simultaneously, globalisation has dramatically changed the nature of industrialisation (Kaplinsky, 2005). After introducing globalisation and industrialisation, this essay explores the impact globalisation has had on the process of industrialisation in South Africa. The recent history of South Africa's industrialisation is outlined, and then illustrative case studies are used to consider the impact of globalisation. In the final section, appropriate policy responses are considered that may enable South Africa to address the challenges and benefit from the opportunities of globalisation.

Defining terms: Globalisation and Industrialisation

The term 'globalisation' is used to describe the increasing interconnectedness that exists between countries as "states and societies become increasingly enmeshed in worldwide systems and networks of interaction" (Held & McGrew, 2003: 3). Globalisation encompasses the fields of economics, politics, technology and culture (Haynes, 2008) and although all fields are significant to industrialisation¹, the focus of this essay is on economic globalisation. Harris (cited in Loots, 2001: 4) defines economic globalisation as "the increasing internationalisation of the production, distribution and marketing of goods and services." Economic globalisation is driven by the reduction of transport and communication costs, fewer policy barriers to trade and investment, and increased access to, and transmission speed of, information and technology (Loots, 2001). As a result, firms increasingly plan "their production on a worldwide basis" (Roberts & Thoburn, 2004: 125). This has many implications for industrialisation.

The term 'industrialisation' is used to describe the development of industry. However, like the term 'globalisation', it is multifaceted, because, as Hewitt et al (1992) explain, industry can be defined in a number of ways. Firstly, industry can be defined as the production of material goods, excluding agriculture. Secondly, industry can be defined as being made up of the mining, energy and manufacturing sectors. This classification of industry is "defined in terms of the kind of output, not how the goods are made" (Hewitt et al, 1992: 3). The third definition they offer, however, concerns how the goods are made and focuses on the production process and "sees industry as a particular way of organizing production" (Hewitt et al, 1992; 6). Therefore,

¹ For example, as cultures transcend national boundaries, products, such as clothing and movie memorabilia, can be sold globally rather than in a narrow range of countries.

considering these definitions, the process of industrialisation is not simply about moving away from agriculture to the production of other goods, nor is it just about the production of particularly goods, it also includes the process by which these goods are made.

The impact of globalisation on the industrial output, in terms of the types of goods that are made, is significant, however, the greatest impact globalisation has is on the production process as it has transformed the way industry is organised (Kaplinsky, 2005). This essay focuses on South Africa's manufacturing sector to illustrate the impact globalisation. To understand South Africa's industrialisation since 1990, the process has to be considered in relation to the previous decades that the country spent under apartheid rule.

A recent history of industrialisation in South Africa.

The legacy left on the country's industry by apartheid policies and the resulting sanctions were devastating (DTI, 2007a). Policies that had been designed to benefit just 25% of the population had created an inefficient industrial structure (Chang, 1997). Protectionist policies, and the subsequent international sanctions, isolated South African firms from the global market and therefore the manufacturing sector relied on producing goods for the domestic market (Barnes & Kaplinsky, 2000; Roberts & Thoburn, 2004). Government policies caused industry to be dominated by large firms that relied on subsidies and suppressed small and medium enterprises (SMEs) (Joffe et al, 2005). This, along with high import tariffs and international sanctions, created an uncompetitive environment with no incentives for firms to improve productivity (Joffe et al, 2005). The apartheid regime also intentionally did not invest in developing the human capital of the majority of the population (DTI, 2007a). All this resulted in an unproductive manufacturing sector characterised by outdated technology, processes and organisation (Joffe et al, 1995). Chang (1997) explains that the country's economy only survived due to the countries abundance of natural resources.

Given this, when South Africa re-integrated into the international economy in the early 1990s (Loots, 2001), the survival chances of much of South Africa's manufacturing industry was questioned (Chang, 1997).

However, entry into the global economy was planned, with trade liberalization occurring in stages (Kusi, 2002) alongside a range of industrial policies designed to increase productivity and promote exports (DTI, 2007a). As a result, South Africa was able to seize the opportunities and overcome many of the challenges that globalisation presented.

South Africa's integration into the global economy took place during a time of political instability and therefore, the country did not benefit significantly from increased levels in foreign direct investments (FDI) (Loots, 2001)². Therefore, the globalisation of South Africa's economy was driven by trade and despite the state of the country's manufacturing sector at the end of the apartheid era, industrialisation has gained momentum. In terms of exports, the export of manufactured goods "increased by an annual average of 6.7% between 1990 and 2005, up from 2.9% in the preceding two decades" (Manuel, 2007: 12). A series of case studies are now presented to illustrate the impact of globalisation on three manufacturing industries³. The automotive and components industry is used to evidence how effective policies were used to transform the sector. Then, the textiles and clothing industry is used to illustrate the impact imports have and introduces a selection of struggles firms face as they seek to respond. Finally the furniture industry is investigated to show the opportunities and challenges South African firms face in terms of market access and upgrading.

The Automotive and Component Industry

In the early 1990s, South Africa's automotive and component sector displayed all the previously mentioned symptoms of a heavily protected industry, relying on a stagnating domestic market suffering from the effect of international sanctions (Black, 2001). However, trade liberalisation did not lead to its demise, in fact, by 2005 the sector accounted for 7.4% of South Africa's GDP (DTI, 2007c). The success is attributed to effective policies that enabled the industry to respond to globalisation and become a significant exporter. Vehicle exports increased from 20,000 in 1997 to 285,000 in 2008 (Black, 2001; Kaplinsky, 2005; SAinfo, 2008).

In 1995, the Motor Industry Development Programme (MIDP) was introduced (Black, 2001). The programme encouraged manufacturers to focus on producing certain components while enabling them to import others duty-free, thereby promoting specialisation in order to make the industry more productive (Black, 2001). The programme also encouraged exports, as firms were not allowed to import more than they exported (Kaplinsky, 2005). These favourable conditions provided the incentives needed for foreign firms such as Ford and Toyota to reinvest in the South Africa (Barnes & Kaplinsy, 2000). This resulted in the import of up-to-date technology and processes and helped local firms, including component SMEs to connect to the global motor industry (Kojima & Kaplinsky, 2004). The MIDP was significant in enabling the assembly industry to become more productive, however, the sector also benefited from cheap electricity (SAinfo, 2008) and access to

² However, the removal of international sanctions did enable a number of South African firms to enter the global economy by becoming transnational corporations (Loots, 2001).

³ The three industries chosen are considered to be lead sectors by South Africa's Department of Trade and Industry (DTI, 2007b)

aluminium (Kojima & Kaplinsky, 2004). The end result was an increasingly competitive assembly industry, enabling the sector to compete on the global market.

The component industry also benefited from globalisation, for example between 1990 and 1999, South Africa's share in EU imports of catalytic convertors rose from 2.9% to 72.7% (Kojima & Kaplinsky, 2004). The relationship SME component producers built with TNCs enabled them to learn efficient manufacturing practices (Kojima & Kaplinsky, 2004) and made it possible for some to access the after-market (Barnes & Kaplinsky, 2000). Some component firms also found that the conditions under apartheid rule had prepared them to have a competitive advantage at short, low volume runs (Black, 2001), while others had been at the cutting edge of developing components able to cope with Africa's climate and terrain (SAinfo, 2008). Therefore, components firms that were able to find a niche market thrived (Barnes & Kaplinsky, 2000). However, globalisation wasn't good news for all component manufactures. Many SMEs desperately required investment to upgrade, however, there was too much risk involved to attract significant foreign or local investment (Black, 2001). TNCs increasingly expected component manufacturers to be involved in the designing of components, a function that few South African's firms had the capacity to achieve and lack of quality remained a persistent problem (Barnes & Kaplinsky, 2000). Therefore, along with the easing of import restrictions, all this meant that proximity to an automotive TNC was no guarantee of inclusion in their supply chain (UNOSAA, 2008). The MIDP is now evolving to address these issues (SAinfo, 2008). These opportunities and challenges are not unique to the component industry.

The Textile and Clothing Industry

Globalisation has had a negative impact on the textile and clothing sector with serious repercussions. Although the sector only contributes 0.6% to South Africa's GDP, it directly employs 127,000 people, approximately 20% more than the automotive and component sector (DTI, 2007c). Therefore, the livelihoods of many people depend on the industry's survival. Prior to 1990, this sector depended on the domestic market (Roberts & Thoburn, 2004), however, since South Africa's integration into the global economy the market has been flooded with low price imports, primarily from China (Nordås, 2004). Previously, South Africa's uncompetitive textile and clothing industry had relied on import tariffs and quota restrictions to protect it from foreign imports (Bezuidenhout et al, 2007). However, integration into the global economy included membership of the World Trade Organisation which restricted the country's ability to use protectionist measures (Nordås, 2004).

Large firms responded to the impact of globalisation by attracting investment enabling them to update machinery and processes (Roberts & Thoburn, 2004). As a result, productivity improved and clothing exports increased from 4% in 1990 to 18% in 2000 (Jooste et al, 2003). However, such changes weren't without their costs, as increased productivity involved reduced levels of employment (Bezuidenhout et al, 2007). It is the SMEs who struggle the most, like component SMEs they have been unable to attract the necessary investment (Roberts & Thoburn, 2004). Without being able to increase production quantities, one possibility for survival would be to move up the value chain and perform functions that add more value, for example, design. However, there is a shortage of trained designers so few firms are able to achieve this (Nordås, 2004). As seen in the motor industry, another option for SMEs is to specialise and there are firms who have been highly innovative in finding niche markets. For example, under apartheid, international sanctions meant that the South African Army relied on domestic firms to produce parachutes and bullet-proof vests – one firm is now one of the top three global manufacturers of these items (Roberts & Thoburn, 2004). Possible policies that could strengthen this sector are considered in the final section; however, increasing productivity, without reducing employment levels will be extremely difficult (Bezuidenhout et al, 2007).

Furniture Industry

South Africa's furniture industry has benefited from globalisation, but faces significant challenges in order to remain competitive. At the beginning of the 1990s the industry was in decline due to widespread poverty causing the domestic market to shrink (Moodley, 2002). South Africa's integration into the global economy enabled the industry to focus on exports. Despite outdated processes, an abundant supply of raw materials and cheap labour enabled the industry to be competitive, as a result exports rose from 4% in 1990 to 44% by 2000 (Jooste et al, 2003). The industry benefited from significant contracts with large European TNCs (e.g. IKEA & B&Q) who are increasingly focusing on design and marketing, and consequently outsourcing production (Kaplinsky et al, 2002). Relationships with TNCs have provided producers with access to the finance and technology they required to upgrade (Kaplinsky et al, 2002). However, despite this South Africa's furniture industry has been limited by widespread inefficiency and low quality. As a result, the industry is principally only competitive on price and is therefore trapped at the bottom of the value chain, mass-producing inexpensive items for minimal profit (Kaplinsky et al, 2002). With the global markets becoming increasingly competitive, South Africa's furniture industry needs to upgrade in order to retain existing markets access and capture new ones.

As environmental regulations became more important, many South African producers were able to upgrade by becoming certified by the Forrest Stewardship Council. South Africa's furniture producers had an advantage in terms of certification because the majority of their raw materials were already sourced from sustainable forests (Morris & Dunne, 2004). Although the certification process and associated costs were particular challenging for SMEs, many firms invested the money expecting certification to open up new markets. However, in reality, certification became so widespread; it simply enabled firms to retain existing markets (Morris & Dunne, 2004).

Upgrades in terms of internet technology have also become an essential aspect of gaining market access as firms increasingly use e-commerce to trade with suppliers (Moodley, 2002). This provides opportunities for South African SMEs to integrate into the global furniture industry. However, a considerable number of SMEs have been unable to make the necessary investments involved and the country's poor broadband infrastructure presents additional challenges (DTIa, 2007). Therefore, without the appropriate policies, the potential benefits of an internet-connected global furniture industry could become a disadvantage as South African firms are further excluded from the market (Moodley, 2002).

Increasing design capacity is another option for furniture producers to move up the value chain. However there is a lack of furniture designers in South Africa as there is no significant training programme (Kaplinsky et al, 2002). Also TNCs, with their desire to remain in control of the industry, are keen to exclude suppliers from the design stage (Kaplinsky et al, 2002). Even if South Africa's furniture producers were able to design and manufacture unique, high quality products, the cost of marketing would make market access extremely difficult (TIKZN, 2008). Therefore, due to a range of factors, effective policies are required to the furniture industry to upgrade and increase market access.

Possible Policy Responses

The state has been proactive in implementing policies to develop industry in South Africa. These have included general policies, for example promoting macroeconomic stability, and targeted industrial policies such as the MIDP (Chang, 1997). A range of policies are now highlighted that I consider essential to promote industrialisation, in the context of globalisation, of the sectors introduced in this essay.

Firstly, a range of general policies are required to ensure that South African industries are able to compete on the global market. It is recognised that the "days of cheap electricity and energy are ending" (DTi, 2007b: 3), however, it is necessary for the government to ensure supply meets the demand. Failure to do so could damage existing industry and make attracting new industry difficult. South Africa's instability was one reason for struggling to attract FDI and the country's high crime rate remains a key deterrent for investors (Thomas et al, 2005). Therefore, law and order is a central issue that needs to be addressed. Then, the rising significance of the internet in global commerce makes it vital that the government prioritise a rapid improvement of the countries broadband network to ensure firms are not excluded from the global market (Moodley, 2002).

Secondly, policies promoting education and training would enable firms to move up the value chain.

Alongside general policies to enhance primary, secondary and tertiary education which would lead to a more educated workforce, targeted policies are required to ensure that the key sectors can upgrade (Chang 1997). For example, engineers are required to enable the automotive component industry to be increasingly involved in the design stage and begin to transition from mechanical to electronic components, and designers are required in the clothing and furniture sectors (Barnes & Kaplinsky, 2000; Roberts & Thoburn, 2004; Kaplinsky et al, 2002). South African firms do not have a good record at training their employees (Joffe et al, 1995), therefore incentives (e.g. tax relief) could be offered to encourage employers to be active trainers.

Policies that enable South African firms to move up the value chain are essential as more developing countries, which can undercut South African industries in terms of cost, enter the global market (DTI, 2007a).

Also, South Africa has an advantageous location and manufacturing capabilities to benefit from the growing African market (Joffe et al, 1995), increased design and marketing capacities could enable them to take advantage of this market.

Recent policy measures have sought to nurture SMEs (IDC, 2008). This is significant as previously industrial policies had favoured large firms (Joffe et al, 2005). A strong SME base is considered important to promote competition, create employment and nurture social stability (Ladzani & Vuuren, 2002). Raising human capital through education is significant in promoting entrepreneurship to ensure SMEs development (Ladzani & Vuuren, 2002). However, effective targeted policies can also be implemented to nurture SMEs. For example, the case studies reveal that SMEs have difficulties in accessing finance in order to upgrade. Therefore, the South Africa's Industrial Development Corporation provides finance for SMEs, despite the risks that deter

commercial investment (IDC, 2008). In doing this, market failures can be overcome ensuring that SMEs have the opportunity to specialise, innovate and find niche markets in a highly competitive climate (Joffe et al, 2005). However, the case studies also illustrated that large firm can often be helpful in enabling SMEs to gain access to the global market; therefore it is important that industrial policy, while encouraging SMEs, doesn't ignore the important role of larger firms.

Finally, creating clusters of firms could benefit SMEs. This approach has been particularly successful for the country's wine industry, enabling the sharing of skills and an effective worldwide marketing drive (Zeng, 2006). Clustering can increase productivity within the motor industry as it enables firms to specialise in a small range of products while relying on other firms in the cluster for other products (Barnes & Kaplinsky, 2000). The furniture could also benefit from clustering and this approach has now being adopted in some areas of the country (TIKZN, 2008). Clusters could benefit the furniture industry in ways similar to the wine industry. However, other additional benefits could include the enabling of firms to corporately create the necessary internet interfaces to access the global market (Moodley, 2002) and enable them to effectively influence timber suppliers. Currently, the majority of South Africa's timber used for construction and to produce paper, therefore furniture SMEs, with their relatively low volume orders have minimal influence and have difficulties purchasing timber at a competitive price. Clustering would enable them to increase their bargaining power they have with timber suppliers (TIKZN, 2008). However, despite the potential advantages of clustering in the furniture sector, there are no active policies to facilitate it (DTI, 2007a).

Conclusion

Globalisation has had a significant impact on South Africa's industrialisation. An increasing number of products are now made for export and the way industry is organised has been transformed. Integrating into the global economy involved a major shift from protectionist policies that resulted in low productivity towards policies that promoted competition and facilitated efficiency. Effective policies enabled many firms to benefit from globalisation and overcome the potential challenges. However, rapid integration had many losers, as illustrated by the textile and clothing sector. As South Africa continues to develop it is essential that policies evolve to enable effective industrialisation. Not only do South African producers need to become more competitive in today's climate, they also need upgrade and move up the value chain in response to the increasing number of developing countries entering the global economy.

Bibliography

Barnes, J. & Kaplinsky, R. 2000: Globalization and the Death of the Local Firm? The Automobile Components Sector in South Africa. *Regional Studies*, 34 (9),

Bezuidenhout, A., Khunou, G., Mosoetsa, S., Sutherland, K. & Thoburn, J. 2007: Globalisation and Poverty: Impacts on Households of Employment and Restructuring in the Textiles Industry of South Africa. *Journal of International Development*. 19 (3), 545-565.

Black, A. 2001: Globalization and Restructuring in the South African Automotive Industry. *Journal of International Development*, 13 (6), 779-796.

Chang, H-J. 1997: *Evaluating the Current Industrial Policy of South Africa*. University of Cambridge. http://www.tips.org.za/files/193.pdf (Accessed 24 March 2009)

Department of Trade and Industry (Republic of South Africa), 2007a: *A National Industrial Policy Framework*. http://www.sarpn.org.za/documents/d0002722/index.php (Accessed 24 March 2009)

Department of Trade and Industry (Republic of South Africa), 2007b: *Medium Term Strategic Framework 2008-2011*. http://www.thedti.gov.za/publications/mtsf08.pdf (Accessed 24 March 2009)

Department of Trade and Industry (Republic of South Africa), 2007c: *Industrial Policy Action Plan.* http://www.thedti.gov.za/publications/ipapa.pdf (Accessed 24 March 2009)

Haynes, J. 2008: Development Studies. Cambridge: Polity Press.

Held, D. & McGrew, A. 2003: The Global Transformations Reader (Second Edition). Cambridge: Polity Press.

Hewitt, T., Johnson, H. & Wield, D. 1992: Industrialization and Development. Oxford: Oxford University Press.

Industrial Development Corporation, 2008: Sustaining the Growth Path - Annual Report 2008. http://www.idc.co.za/AnnualReport/2008/IDC%20web%20front.pdf (Accessed 24 March 2009)

Joffe, A., Kaplan, D., Kaplinsky, R. & Lewis, D. 1995: *Improving Manufacturing Performance in South Africa*. Cape Town: University of Cape Town Press.

Jooste, A., Kruger, E. & Kotze, F. 2003: Standards and Trade in South Africa: Paving Pathways for Increased Market Access and Competitiveness. In Wilson, J. & Abiola, V. (eds), *Standards and Global Trade*. Washington: The World Bank, 235-370.

Kaplinsky, R., Morris, M. & Readman, J. 2002: The Globalization of Product Markets and Immiserizing Growth: Lessons From the South African Furniture Industry. *World Development*, 30 (7), 1159-1177.

Kaplinsky, R. 2005: Globalization, Poverty and Inequality. Cambridge: Polity Press.

Kojima, S. & Kaplinsky, R. 2004: The Use of a Lean Production Index in Explaining the Transition to Global Competitiveness: The Auto Components Sector in South Africa. *Technovation*, 24 (3), 199-206.

Kusi, N. 2002: *Trade Liberalization and South Africa's Export Performance*. Trade and Industrial Policy Strategies. http://www.tips.org.za/files/567.pdf (Accessed 24 March 2009)

Ladzani, W. & Vuuren, J. 2002: Entrepreneurship Training for Emerging SMEs in South Africa. *Journal of Small Business Management*, 40 (2), 154-161.

Loots, E. 2001: *Globalisation, emerging markets and the South African economy*. Paper presented at the International Jubilee Conference of the Economic Society of South Africa, Johannesburg, 14 September 2001. http://www.essa.org.za/download/papers/012.pdf (Accessed 24 March 2009)

Manuel, T. 2007: *Economic Policy and South Africa's Growth Strategy*. http://www.treasury.gov.za/comm_media/speeches/2007/2007031901.pdf (Accessed 24 March 2009)

Moodley, S. 2002: Global Market Access in the Internet Era: South Africa's Wood Furniture Industry. *Internet Research: Electronic Networking Application and Policy*, 12 (1), 31-42.

Morris, M. & Dunne, N. 2004: Driving Environmental Certification: Its Impacts on the Furniture and Timber Products Value Chain in South Africa. *Geoforum*, 35 (2), 251-266

Nordås, H. 2004: *The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing.*Discussion Paper No. 5. Geneva: World Trade Organisation. http://www.wto.org/english/res_e/booksp_e/discussion_papers5_e.pdf (Accessed 24 March 2009)

Roberts, S. & Thoburn, J. 2004: Globalization and the South African Textile Industry: Impacts on Firms and Workers. *Journal of International Development*, 16 (1), 125-139.

South Africa Info, 2008: *South Africa's Automotive Industry*. http://www.southafrica.info/business/economy/sectors/automotive-overview.htm (Accessed 24 March 2009)

Thomas, L., Leape, J., Hanouch, M. & Rumney, R. 2005: *Foreign Direct Investment in South Africa*. Regional Trade Facilitation Programme, Occasional Research Paper No. 1. http://www.rtfp.org/media/fdi_in_rsa__crefsa.pdf (Accessed 24 March 2009)

Trade & Investment Kwazulu-Natal (TIKZN), 2008: *Wood and Furniture Cluster*. http://www.tikzn.co.za/PRCo ntainer.aspx?doscrape=576 (Accessed 24 March 2009)

United Nations Office of the Special Advisor on Africa (UNOSAA), 2008: Small Scale Enterprise Development and FDI in Africa: Challenges and Opportunities. http://www.un.org/africa/osaa/reports/FDI_study_2008.pdf (Accessed 24 March 2009)

Zeng, D. 2006: *Knowledge, Technology and Cluster-based Growth in Africa*. World Bank Institute. http://siteresources.worldbank.org/INTEXPCOMNET/Resources/Zeng_2006.pdf (Accessed 24 March 2009)