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Articles

Industrial Policy in Context; Comparative Experiences from Chile and Zambia

Frank Chansa*, Ngao Mubanga, **
Dale Mudenda* and Manenga Ndulo*

** University of Zambia*
*** World Bank, Zambia Country Office*

This article tries to draw lessons from Chile for Zambia on innovative industrial policy and strategies that lead to industrial transformation and job creation. The creation of quality jobs for the increasingly skilled youth requires significant efforts. Industrial policy has been argued to have the potential to contribute to the creation of employment through support for new and old initiatives in the economy. In the case of Zambia, the economy has mainly been dominated by the mining sector, where the creation of jobs has been very small, whereas the comparator country Chile developed an institutional framework for industrial policy that addressed market failures and encouraged innovation concentrated in specific sectors. These were attainable given the country's existing or potential comparative advantage and therefore had strong growth prospects and impacted on job creation. The study finds that Chile provides a rich experience that Zambia can learn from in creating labour intensive job opportunities especially for youths.

Keywords:
Industrial policy, youth unemployment, industrial growth, state ownership, agribusiness, employment creation

Introduction

Zambia saw robust growth and increased Foreign Direct Investment (FDI) inflows during the first fourteen years of this century. In contrast, employment creation has been sluggish. Unemployment remained high, averaging 15% (World Bank, 2014). New jobs were only being created in the informal sector. In 2014, the informal sector comprised 89.3% of total employment. Youth unemployment remained high, estimated at 26% (World Bank, 2014). The large and growing youthful population continues to pose serious socio-economic challenges. Therefore, there is need to create sufficient jobs to absorb the increasing number of youths who will be seeking jobs. The creation of high quality jobs for the youth requires significant innovative efforts by policymakers.

The rationale for the use of innovative industrial policy for job creation and structural transformation is robust. Industrial policies that support a range of activities increase the potential for structural transformation and the creation of more jobs (Rodrik, 2010). This is exhibited by the decline of low-productivity agriculture and low value added extractive activities, and a relative increase in manufacturing and high-productivity services sectors. Despite failed industrialisation in Sub-Saharan Africa, evidence from Chile shows that the State is critical in influencing an industrialisation process that creates jobs.

The question that arises is how Chile supported specific sectors of the economy, while at the same time avoiding the risk of creating "white elephants". The purpose of this paper is to draw experiences from Zambia and Chile on innovative industrial policy and strategies that can lead to industrial transformation and job creation. It looks at an industrial policy and strategy that focuses on job creation and the role of the State. The rest of the paper is organised as follows. Section 2 provides the methodological motivation. Employment and industrial growth are presented in Section 3 and 4 respectively. Section 5 looks at the overview of Zambia's industrial policy. Key sectors are identified in Section 6, while the comparative experiences from Chile are drawn in Section 7. The conclusion of the paper is in Section 8.

Methodological Motivation

Industrial policy is a set of measures and strategies that promote structural change. Broadly, "industrial policies refer to restructuring policies in favour of more dynamic activities generally, regardless of whether those are located within industry or manufacturing per se" (Timmer et al, 2012). These policies and strategies can transform an economy from primary production to value added and diversified production. To increase productivity and create jobs, industrial policies and strategies must not only concentrate on exploiting a country's comparative advantage, but must also support a range of activities that will stimulate development and promote the creation of new jobs (Rodrik, 2010).

To create dynamic industrial growth, industrial policy and strategy must meet three core principles (observed from successful countries) that form our analytical framework (Rodrik, 2010). Firstly, a state of mind rather than outlines of objectives: Industrial policy has to be an interactive process between the State and private businesses to create "social capital" conducive to investment. This embedment of the State in the private sector is essential for sharing ideas necessary for the State to improve its selective and functional policy interventions for the private sector to flourish (Ndulo, 2015). The high-level interaction between the State and private actors helps in identifying the requisite State interventions that largely depend on the level of development and nature of the industry. For this to succeed active policies are required that

provide incentives, direction, and coordination within policy makers and the private sector; and between them.

Secondly, a successful industrial policy should be anchored on special incentives that have well defined access rules and output indicators (Rodrik, 2010). The strategy must be to provide a combination of incentives and compulsion. This suggests that incentive systems for new investors must be temporary and optional. Failure to meet their objectives must attract punishment. The intensity of such carrots and sticks could differ across industry and over time depending on government policy. Several incentives ranging from tax holidays, geographical location, subsidies, and trade-based incentives could be given.

Thirdly, industrial policy should cultivate a favourable environment for growth and development benefiting the entire society as opposed to a few privileged bureaucrats (Rodrik, 2010). This requires an accountable and transparent process of implementing the industrial policy and the associated incentives.

Innovative industrial policy embedding these principles can accelerate structural change towards more productive and dynamic activities in the economy (Altenburg, 2011). This can lead to industrial growth, economic diversification and job creation. The State has a key role in this. In Chile, the State selectively promoted specific industries that had high growth potential. It provided sector specific incentives and protection which gave the private sector the incentive to start new industries. Some of these industries grew and some failed. Lessons were learned.

The United Nations Economic Commission for Africa (UNECA) argued for a dynamic industrial policy to transform economies by creating competitiveness of firms and protecting jobs in domestic economies (UNECA, 2014). The role of the State herein is important. To generate industrial growth requires nudges from the State (Kim, 1985). Industrial growth will result from policies and strategies that allow a State to play developmental roles in the economy This will enable the nurturing of policies and strategies that promote the State's interaction with the private sector, develop an incentive and sanction regime with defined access rules and output indicators, and cultivate a favourable environment for growth and development benefiting the entire society (Rodrik, 2010). This was the experience in Chile, but has not been the case in Zambia.

For the purposes of our study we look at the experiences of Chile and Zambia. Chile has not only enjoyed a successful industrial growth process but, like Zambia, is resource rich. In 2013 it was ranked number 55 in the world in terms of its MVA per capita (UNIDO, 2013). Chile's industrial growth experience, therefore, holds important lessons for Zambia. Insights on how it has managed to generate a dynamic industrial base with interlinkages to the copper mining sector is of relevance to Zambia.

Employment in Zambia

Zambia's economy suffers from a severe unemployment problem. This is manifested by limited employment opportunities in the formal sector, and a burgeoning informal sector. Total formal sector employment rose by 257.5% in the fifty years since independence in 1964. This is against the backdrop of a rise in the total population of 280.6 %, (CSO, 2013). Inevitably, there has been a sharp rise in the labour force and the labour force participation rate over time. However, employment has not risen enough to keep up with the rise in the labour force, suggesting a rise in unemployment over time. Only 14% of the total labour force was formally employed in 2014. Most new jobs have been in the informal sector. These are mostly temporary and of a relatively poorer quality than formal sector jobs. To understand the employment situation over time, we analyse it in terms of four discernible episodes observed since independence (Chansa et al, 2016).

The first episode was the 1964-1984 period. During this time, formal employment increased by 37% from 264,100 in 1964 to 361,976 in 1984. The period was characterised by robust growth. The State implemented an import substitution industrialisation (ISI) and Zambianisation programme (Seidman, 1974; Ndulo, 1979; Fincham, 1980). This saw a large number of jobs created in sectors where state-owned companies were set up. However, as the industrialisation programme faltered, the jobs began to disappear (Ndulo, 1979; Fincham, 1980). In the second episode, 1985 -1992, there was a spike in employment levels, that rose from 361,976 in 1984 to a peak of 544,200 in 1991. This spike was driven by the ISI programme through initiatives such as growth from own resources (Kayizzi-Mugerwa, 1990). This implied using domestic resources to resolve the faltering economic situation.

During the third episode, 1993-2003, the State implemented an economic reform programme, initially hesitantly but later hastily. Many state-owned companies closed down with widespread job losses. Between 2000 and 2003, formal employment declined further despite the rising GDP growth. One possible explanation for this was that the mining sector was beginning to revive and was gaining traction as the copper price was on an upward trend (Chansa et al., 2016). This drove GDP growth. Employment data shows that over this period employment in the mining sector increased by 39%, while that for construction and services declined by 75% and 21% respectively. Thus, overall employment declined despite the rise in GDP.

The fourth episode was the 2004–2012 period. This exhibited an overall rise in employment of 74%. This impressive rise in employment coincided with the return to robust growth with real GDP growth at 6.9% over the period. The mining sector drove the growth. The rebounding copper price reversed the fortunes of the sector with spillover effects to other sectors in the economy. This had a major impact on direct and indirect formal sector job creation.

Sectorial decomposition shows that employment has largely been driven by the services sector(Chansa et al., 2016). For instance, between 1985 and 2014, employment grew in all sectors of the economy. This was dominated by electricity, finance, and wholesale and retail trade. These also exhibited strong growth (Chansa et al., 2016). In most other sectors, employment contracted over the period. The construction sector experienced the largest contraction of 51.6% followed by the transport and manufacturing sectors. These contracted at 36.2% and 24.8% respectively.

It is interesting to note that the manufacturing sector contributed 14.2% to total employment during the 1985-1989 period. Services and agriculture sector contributed larger shares at 29.8% and 15% respectively. In 2014, the manufacturing sector accounted for only 8.1% and has since been overtaken by the wholesale and retail sector. The latter is now the second largest contributor to total employment after the services sector. The contribution of the manufacturing sector in total employment has declined gradually over the entire period in contrast to the services sector whose contribution has continuously risen over this period. The change in fortunes for the manufacturing sector is partly explained by the failure of the state sponsored ISI programme and exacerbated by the post 1991 economic reforms as elaborated below.

Performance of the Industrial Sector

The performance of the manufacturing sector echoes the trends in employment observed above. The Manufacturing Value Added (MVA) as a percentage of GDP rose steadily from independence until 1992. It then fell sharply due to the collapse of the ISI and consequent closure of manufacturing firms. This is shown in Figure 1[1]. Output shrank considerably both per capita and as a percentage of GDP. It was much more pronounced as a percentage of GDP. This is because while MVA contracted by 68.5% in the 1992-1994 period, GDP expanded by 12.6% over the same period. MVA per worker has generally been on an upward trend since 2000. This is exhibited in Figure 2. This suggests that the average productivity of manufacturing labour has been growing steadily.

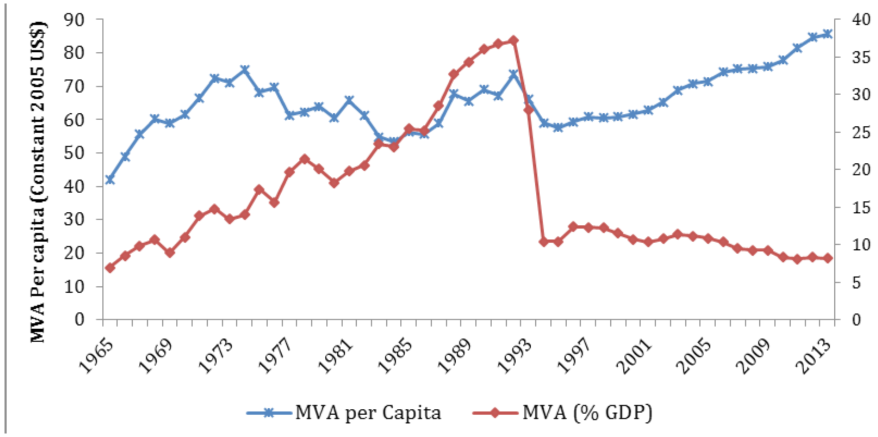

Figure 1: MVA per Capita and MVA (% GDP): Zambia: 1965 - 2013
Source: World Bank (2014)

What is more revealing is that, since 1995, the two trends seem to be moving in divergent directions. While MVA per capita seems to have returned to its upward trend, MVA as a percentage of GDP has continued to decline. One possible explanation for this observation is that while MVA has been growing modestly since 1995, this growth has been far outweighed by the growth in GDP hence causing the ratio to keep declining. Thus, the performance of the industrial sector has not kept pace with the performance of the overall econom.y

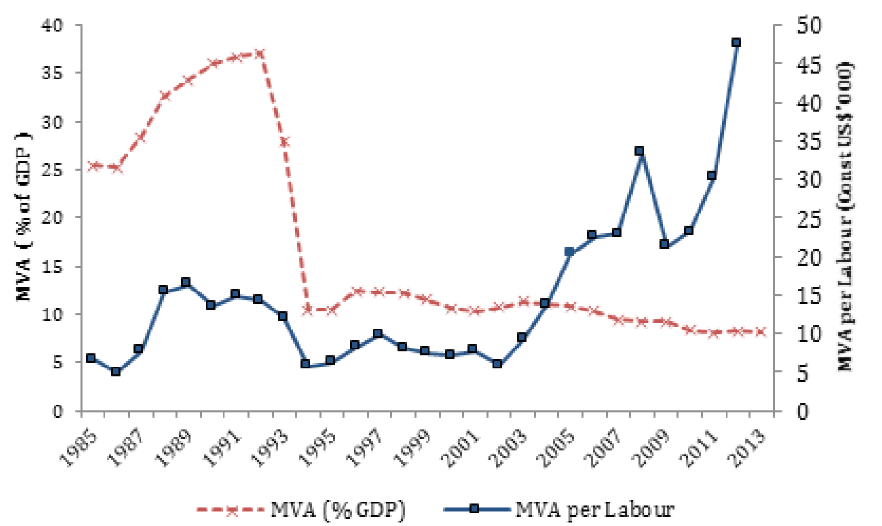

Figure 2: MVA per worker and MVA (%GDP): Zambia, 1965 - 2012
Source: World Bank (2014) and CSO Data

The poor performance of the industrial sector is even more apparent when we compare with that of Chile. This is shown in Figures 3 and 4. Zambia's MVA is stuck in the lower echelons while that of Chile seems to be growing. This trend is consistent with the findings of Meller and Simpasa (2011)

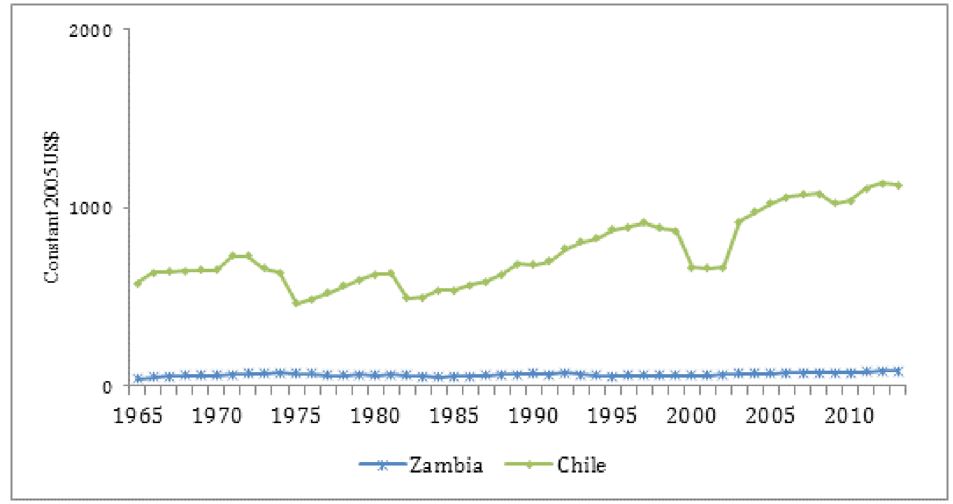

Figure 3: MVA per Capita: Zambia and Chile, 1965 - 2012
Source: World Bank (2014).

In Chile, the MVA as a percentage of GDP has grown continuously. This is shown in Figure 4. This is based on productivity gains and strong economic performance. In Zambia, this seems to have grown intermittently during the 1980s. This was due to increased manufacturing output under the ISI programme and contraction of GDP. This explains why Zambia's MVA exhibited larger shares of GDP than in Chile in the 1986 to 1993 period. However, this trend for Zambia reversed after 1995 following the collapse of most SOEs in the manufacturing sector.

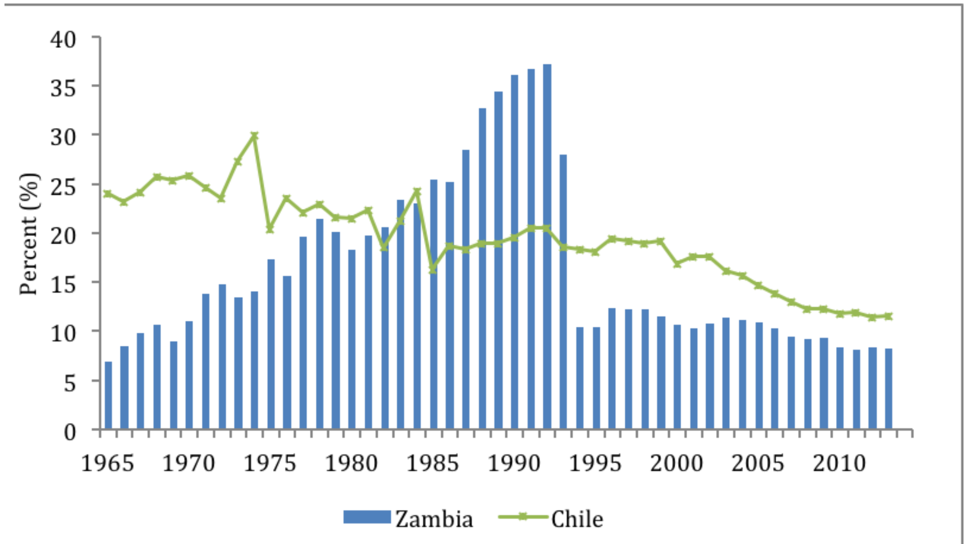

Figure 4: Percentage Contribution of MVA to GDP: Zambia and Chile, 1965-2012.
Source: World Bank (2014)

Manufacturing in Zambia is dominated by the food, beverages, and tobacco sectors. These contributed 67.6% of manufacturing GDP over the 1994-2012 period. The remaining sectors contributed less than 35% of manufacturing GDP. The fact that this structure has persisted over a number of years illustrates the fact that the efforts to diversify manufacturing output has been met with little success. The share of the textiles sector in total manufacturing has declined from 13% in the early 1990s to less than 1% in 2011.

Industrial Policy and Strategy in Zambia

Zambia has oscillated with policy reforms since independence in 1964. Economic policies were initially liberal in the period after independence. They turned inward-looking in 1968 and turned to a virtually free market orientation in the early 1990s. In line with these changes, the country's industrial policies have also varied from liberal market strategies, to a state-led industrialisation and back to free market strategies. We review the country's industrial policies since 1964 under three phases structured around the initial industrial policies of 1964 to 1968, the second phase of inward-looking policies of 1968 to 1991, and conclude with the discussion of the post-1991 phase.

The Initial Phase: 1964-1968

Zambia inherited a strong and one of the most prosperous economies in Africa (Baldwin, 1965). It had an average annual per-capita income of US$500 and an average annual population growth rate of 3% (World Bank, 2014). Despite the strong economy, the human capital situation was desperate. There were fewer than one hundred university graduates and fewer than one thousand secondary school graduates (O'Brien, 1982). Further, the provision of public infrastructure was largely limited to urban areas mainly around mining towns. The economy was dominated by an industrial enclave focused on foreign financed copper mining, on which the high income was based[2] (Baldwin, 1965).

The inherited industrial policy neglected the promotion of domestic industry. The manufacturing sector was small and mostly foreign-owned. Virtually all manufactured products were imported from abroad (Musonda and Adam, 1999; Mudenda, 2009; Hawkins, 1989). To address this situation, the new UNIP administration implemented the Transitional Development Plan (TDP) to accelerate development, create employment, and diversify the economy away from copper (Central Planning Office, 1965). The promotion of industrial growth was a means of diversifying the economy. Industrial policy remained relatively market-oriented. The State extended loans to the private sector through the Industrial Development Corporation (INDECO). Between 1964 and 1968, INDECO expanded its loan portfolio to private firms from about K2 million in 1964 to K16 million in 1967. However, Zambian entrepreneurs were scarce and marginalised. Few had the skills, capital and experience necessary to establish successful businesses (Craig, 1999; World Bank, 1984).

The First National Development Plan (FNDP) pursued objectives that emphasised the diversification of the economy, import substitution, increased employment, and reduction of inherited income inequalities between the rural and urban sectors. Resources were pushed into education, social welfare, and infrastructure. However, there was a worrisome perception of exploitation by foreign entrepreneurs in the business sector. This led to a change in strategy of how to organise the private sector. This was justified in the official "humanism ideology", a socialist-oriented policy that focused on group ownership, redistributing income, and wealth rather than growth at the end of the 1960s (Makgetla, 1986; Hawkins 1991).

The Second Phase: 1969-1991

In the late 1960s, the State was dissatisfied with the limited participation of indigenous Zambians in economic activities. The foreign-owned firms reinvested little and externalised all their dividends. The experience of the few state-owned enterprises under INDECO was positive. This incentivised the State to take controlling interests in existing private firms. Thus, through the Mulungushi and Matero Reforms, the State pursued public ownership of several major companies (Turok, 1979; Craig 1999; Makgetla, 1986; Hawkins 1991). The main thrust of industrial policy was to promote industrial growth through State investment and State participation; this would further foster linkages across sectors (Musonda and Adam, 1999; Craig, 1999). The strategy initially targeted consumer goods such as food and beverages, wood and wood products, textiles and wearing apparel. Subsequently, large-scale state investments were automobile assembly, chemicals, and mineral products.

Under the Mulungushi Reforms, the State acquired 51% shares in most private companies. Several manufacturing, hotel, and mining firms were later nationalised. New state-owned firms were established. A number of manufacturing firms were established in remote regions to promote rural industrialisation even if, at times, they did not make economic sense. By the mid-1970s, State involvement extended to areas as diverse as manufacturing, agriculture, mining, banking and finance, retail trade, and tourism. By 1975, a relatively large share of industrial output came from heavy industries such as chemicals, mineral products, metal industries, and motor vehicle assembly. This was supported by revenues from high copper prices during the period 1969 – 1975. The manufacturing GDP grew at an average of 11% per annum. Its share in GDP increased from 6% in 1964 to 18% in 1975. State-owned enterprises contributed over 54% of the manufacturing GDP (Makgetla, 1986; World Bank 1984; Hawkins 1989). This was supported by revenues from copper during the period 1969 – 1975.

Further, the State intensified its regulation of the private sector. Private businesses, especially foreign–owned, were not allowed to grow beyond prescribed sizes and were often restricted to specific geographical locations and areas of operation. State-owned enterprises were mandated to produce important and strategic goods. A Prices and Incomes Commission was established to control prices. FDI in key sectors required government approval and licensing. The licences stipulated conditions such as the size, location and products that firms could produce (World Bank, 1984; Bhagavan, 1978).

Industrial growth was further spurred by the trade sanctions on Rhodesia, a key source of imports, following its Unilateral Declaration of Independence (UDI) in 1965. The sanctions created effective protection to domestic industry. The import deficit stimulated domestic production to meet domestic demand (Ndulo, 2015; World Bank 1984). The import substitution industries were also supported through incentives such as guaranteed government procurement of products from these firms.

To support industrial growth, the State designed a complex trade policy regime. This comprised a mix of high and cascading tariffs (ranging from 0% for capital goods to 150% for final consumer goods). An import licensing system with quantitative restrictions was introduced as part of industrial policy. These

policies led to the expansion of the industrial base, which was ranked third in Sub-Saharan Africa at the time (Faroutan, 1993). The growth of the SOEs was associated with rapid increases in formal employment. Between 1969 and 1975, formal employment in SOEs increased at an average of 12% per annum (World Bank, 1984). In 1975, the SOEs contributed over 50% of manufacturing employment. However, this employment trend stagnated as the economic crisis set in after the mid-1970s. It picked up in the mid-1980s.

This industrial growth had inherent weaknesses that constrained its sustained growth (Hawkins, 1991; Seshamani, 1994;). Firstly, inputs in many industries, such as chemicals and automobile assembly were very import intensive. They also used foreign technology with limited adaptability to local conditions. This generated limited linkages to the rest of the domestic economy.

Secondly, the shortage of local skilled and educated workers was a major problem. The shortage was worse at the operational and managerial levels. The companies had to rely on expatriates to manage the SOEs. With the economic crisis after 1975, SOEs could not attract and retain skilled personnel (World Bank, 1984).

Thirdly, most SOEs remained inefficient. They relied on State budget support and on cross-subsidisation of loss-making companies by profitable ones through a complex organization of holding companies. This created complacency which affected performance. The situation was exacerbated in the mid-1970s, when the economy experienced adverse shocks from falling copper prices and rising import prices (Makgetla, 1986; Musonda and Adam, 1999).

With a narrow tax base, the contribution of copper to state revenues fell drastically from about 51% in the period immediately after independence to an average of 10% between 1982 and 1991. The contribution to GDP fell from 36% to under 15% (Musonda and Adam, 1999). This made it difficult to sustain the loss-making firms. Furthermore, foreign exchange shortages and the rise in import prices reduced the economy's capacity to import by almost 50% in the mid-1980s. This affected the importation of spare parts and inputs in the private sector and adversely affected capacity utilisation. The economic crisis generated an insurmountable deficit in the balance of payments, exacerbated by Zambia's landlocked location which contributed to high transport costs (Craig, 1999; Seshamani,1994; Hawkins 1989).

To resolve the foreign exchange shortages, the State centralised the allocation of foreign exchange. Priority was given to SOEs which made them complacent in their pursuit of efficiency and profits (Seshamani, 1994). The consequent overvaluation of the Kwacha fostered cheaper imports of intermediate inputs and consumer goods. This effectively served as a tax that reduced the competitiveness of exports in the international market.

Despite the poor performance of SOEs after 1975, the State was only concerned with maintaining employment levels in the sector. It vetoed any closures that would result in large-scale redundancies. The inefficient SOEs were supported by the State to maintain employment even in difficult times. Consequently, worker productivity in SOEs fell by an average of 14% between 1975 and the mid-1980s (World Bank, 1984).

The poor performance was exacerbated by direct and indirect political interventions. This was done through the State and the ruling party's participation on various boards that determined investment projects[3]. For example, industries were established in remote regions without consideration of trade costs and internal market access. This limited the competitiveness of these products in international markets.

However, the private sector remained important in sectors where the State did not crowd it out, but remained constrained by the dominance of the SOEs. It had to bear similar costs as the SOEs such as low external competitiveness due to the overvalued exchange rate. It had little support from the State. The private sector was heavily taxed to support the public sector. It had far less access to foreign exchange than SOEs. Often the private businesses survived and received incentives on personal contacts with State agencies or assistance from business groups such as the Chamber of Commerce and Industry. There was no proper structure for state-private sector dialogue (Hawkins, 1991). There were no clear procedures for the private firms to access incentives.

In the early 1970s the State neglected the promotion of private small and medium scale enterprises (SME). There was an effort to correct this deficiency in the 1981 SME Act. Thereafter, there was a discernible effort to support small scale firms in the private sector. This was aimed at expanding output and employment to boost incomes, and foster rural development (Chansa et al., 2016).

What is discernible from the policies between 1968 and the late 1980s is that the State worked to crowd out the private sector rather than complement it, through the resolution of market failures and the coordination of markets. Three major adverse shocks undermined the strategy. Firstly, the deterioration of the terms of trade as a result of the fall in copper prices and rise in oil prices made it difficult for the State to generate sufficient resources to sustain SOEs. Secondly, the economy suffered as a result of conflicts among neighbours, which increased the transportation costs of imports and exports. Finally, the State response to the crises was to maintain consumption at the expense of investment. The State delayed adjustment and used external borrowing to resolve the crises. This resulted in the deterioration of the economic disequilibrium such as large budget deficits, external debt, shortages of foreign exchange, and inflationary pressures.

To mitigate the disequilibria, the State resorted to increased controls and regulations such as foreign exchange and price controls. It was hesitant to adjust and reform the economy. Industrial policy and strategy remained highly politicised and without any complementary policies such as technical skills training for industrial and technological upgrading. The shortage of skilled labour contributed to the weak performance of the industrial sector. The business environment remained antagonistic to private investors with no meaningful structure for state-private sector dialogue,

The Third Phase: 1991 and thereafter

After several policy reversals and hesitation to reform, the State, in 1989, started to implement far reaching policy reforms. A new industrial policy to promote the private sector was promulgated. Institutional arrangements were made to oversee the process to privatise almost all SOEs. This period also coincided with the reintroduction of multiparty elections in 1991 which saw a change in the administration of the State from UNIP to the Movement for Multiparty Democracy (MMD).

The MMD administration strongly pushed the reform agenda further under the economy-wide structural adjustment programme. The reforms were swift and far reaching. They replaced interest rates and price controls with market-determined policies aimed at restoring economic efficiency and growth in the economy. Domestic and foreign trade was liberalised.

The practice of industrial policy witnessed a drastic change as outlined in the Policy Framework Paper (White, 1997). Industrial growth was now to be pursued through a market-driven and outward-oriented strategy. The policy eliminated all industrial licensing (except for essential registration) for all levels of private investment. The privatisation of SOEs was emphasised. The State committed itself to privatising over 300 SOEs. Between 1992 and 1998, many SOEs in wholesale and retail trade, tourism, manufacturing, and mining sectors were privatised.[4] Meanwhile budget support to loss-making enterprises was withdrawn.

The 1994 industrial policy document concretised the new policy. This was revised in 2010 and 2015, albeit with minor difference. The objective was to support private industries that maximised the use of domestic inputs and fostered linkages within the manufacturing sector and the rest of the economy. The industrial sector was to contribute to the diversification of the economy through exports of value added products. FDI was to be encouraged to stimulate exports and induce innovation and technological transfer into the economy. Several sectors were identified as growth sectors; food and beverages, engineering products, wood products, leather, textiles and clothing (Mudenda, 2009, Chansa et al., 2016)

To nurture industrial growth, the State pushed for a conducive environment for the private sector to thrive. Thus, not only was trade liberalised, but the current and capital accounts were also opened. The tariff structure was rationalised and simplified. Several incentives such as tax holidays and low tariffs on capital equipment and raw materials were provided to the private sector in an *ad hoc* manner.

In 2005, another industrial strategy was initiated. This focused on establishing multi-facility economic zones (MFEZ) under the supervision of the Zambia Development Agency (ZDA). The purpose was to make the industrial sector competitive through increased domestic and FDI in manufacturing for exports. The investors in these selected areas are provided with complementary physical infrastructure, customs and tax incentives as a way of fostering industrial growth (Chansa et al., 2016). Unlike the experience from South Korea, where the MFEZs are built on demand from the private sector, the zones in Zambia are driven by a political agenda. There is very little involvement or demand from the private sector. Furthermore, the zones lack a coordinated and all-encompassing supply of complementary services such as skilled labour, power supply, and established infrastructure (Chansa et al., 2016).

The State has also established a state-owned credit institution, the Citizens Economic Empowerment Commission (CEEC) to foster the growth of locally-owned SMEs. The Industrial Development Corporation (IDC) was also re-established in 2014 as a holding company of all SOEs. Its objective is to secure investment funds and promote industrial growth. The governance structure of IDC does not drastically deviate from the initial INDECO board. The board comprises influential political figures. Among them are three cabinet ministers, the Secretary to the Treasury, and the Permanent Secretary at the Ministry of Commerce Trade and Industry (all appointed by the Republican president). There are some members from the private sector. The president chairs all the board meetings.

Areas for Industrial Growth and Job Creation

The Zambian State has formulated policies and strategies to foster industrial growth. It has pursued many policies and programmes over the years. However, these have not been dovetailed to job creation, institution building, and sector specificity. Therefore, compared to Chile, there has been a poor record of developing specific, viable, and implementable policy strategies to realise the opportunities inherent in the key areas inhibiting growth. This has limited industrial growth and job creation. What are these key areas whose nurturing can enhance industrial growth and job creation? We focus on three of them. These are youth unemployment, sectorial policies and institutions, and agribusiness.

Youth unemployment

In Zambia, youth unemployment is a serious problem and currently at an average of 18%. Therefore, it is imperative that a sustainable industrial policy fosters jobs for the youth. Not only is there an urgent need for more youth employment, but also a need for these jobs to be sustainable. While this paper focuses on job creation holistically, it also looks at how Chile approached the problem of youth unemployment and illuminates the valuable lessons for Zambia; (i) the different mechanisms Chile used to create better and sustainable jobs, and (ii) how they ensured that the youth acquired the skills necessary for various industries.

Sectorial Policies and Institutions

Today, Zambia faces challenges in fostering private sector growth and prosperity through public policies despite having identified key sectors for growth. Additionally, the State has not been successful in realising the opportunities inherent in the identified areas. This is largely due to lack of comprehensive and viable policy strategies, or lack of institutional capacity and political will. A clear understanding is needed on how Chile supported specific sectors of the economy, while at the same time avoiding the risk of creating "white elephants", how State support can be linked to the expansion of industrial output in priority sectors and sustainable job creation and, lastly, what mechanisms have been used for supporting the different sectors, which reduces the risk of rent seeking, weakened governance, government failures, and corruption.

Agribusiness

One relevant sector that has been considered important for potential growth and job creation for Zambia is the agribusiness sector. Agribusiness could create employment and generate incomes along the value chain from the primary producer to the consumer. It can widen the tax base, and increase foreign exchange earnings (GRZ, 2006). Therefore, understanding the barriers to the expansion of agribusiness and what Chile has done to overcome these barriers is important for Zambia. The key questions asked are: (i) What has Chile done to ensure private sector growth and job creation in the sector? (ii) How to identify potential agribusiness sectors and what are the main barriers to expanding agribusiness? (iii) Which specific policies have allowed Chile to overcome these barriers?

Industrial Policy and Strategy in Chile

We look at industrial growth in Chile to draw some lessons from its experiences. We examine the role the State played in promoting industrial growth and employment creation. We seek lessons on the key areas of youth unemployment, sectorial policies and institutions and sector specific policy formulation for growth and job creation, focusing on the agribusiness sector.

The involvement of the private sector in the creation of quality jobs is recognised in the development literature. Industrial growth is crucial in this. As stated earlier, industrial policy is not only a list of specific policies, but it is also a state of mind that mandates collaboration between the State and the private sector (Rodrik, 2010). We therefore look, at how the State, through industrial policy, engaged the private sector to spur industrial growth and create jobs. The experience of a mineral resource-based country, such as Chile, in ensuring a successful industrialisation process is relevant to the growth process in Zambia.

Chile grew from a low-income to a high-income country since the 1960s. During that time, it sustained positive growth rates. In the 1970s, Chile pursued protectionist policies with high tariffs to spur its industrial growth. This strategy led to shortages of foreign exchange, high inflation and declining GDP. It, however, spurred some industries but stunted export growth, especially in products like copper and salmon. In the mid-1970s, the country changed its stance and carried out major reforms. The economy was liberalised, SOEs were privatised and sustained efforts were made to control inflation. The reforms were implemented in three phases; 1974-83, 1985, and 1990. These were later continued and strengthened after 1990. The State focused on international trade to revive the economy. It promoted exports of copper, silver, wine, salmon, seafood, and lumber. These policies were continued by the post-Pinochet administrations.

To spur industrial growth, the State encouraged experimentation, learning by doing, R&D, accumulation of tacit knowledge, and innovation. It developed an institutional framework for industrial policy that addressed market failures and innovation. Innovation was treated as an explicit policy goal. The focus on state-supported innovation was concentrated in specific sectors where the country had existing, or potential, comparative advantage and therefore had strong growth prospects.

The innovation practices pursued commercial application of ideas that were at the frontier of knowledge and introduced set ideas that were being used elsewhere (self-discovery). This was funded through the Corporacion de Fomento de la Produccion de Chile (CORFO) and the Consejo Nacional de Investigacionen Ciencia y Technology (CONYCIT). The former subsidised the demand for innovation and the latter subsidised the supply of knowledge by universities and research centers. Innovation was funded from the State budget and the mineral royalty tax. Tax rebates were offered to R&D activities and to FDI in high technology sectors.

CORFO was established to increase innovation, entrepreneurship, and competitiveness in the economy (USAID, 2009). It controls INNOVACHILE, which is in charge of the application of the country's innovation policies to increase competitiveness. INNOVACHILE provides grants to companies and technological centres. This funding depends on risk, innovation potential, economic potential and externalities and the degree of collaborative effort.

R&D activities benefited from tax credit and tax-deductible allowances. This implied that much of R&D expenditures was paid for by the State. Furthermore, all types of R&D expenditures were allowed. This could be performed in-house, by third parties, or partially done in a foreign country.

The State targeted sectors that had already demonstrated comparative advantage and showed strong growth prospects. It built on those successes by introducing advanced technology into production. It focused on upstream or downstream activities of the selected sectors. The sectors targeted were copper mining, aquaculture, fruit production, beef, pork, and poultry, and off shoring services.

The specific sector strategy in mining, was to move towards engineering services (upstream), or chemicals for mining, or mining machinery (downstream), rather than focusing only on the export of ore. In other words, because of the strong specialisation in natural resources, Chile had acquired particular skills and technologies in mining (e.g. mining-related engineering services). This took advantage of the proliferation of global value chains. Mining-related engineering services were exported. This loosened the link between copper prices and the country's export performance. The strong position in the upstream segments of the copper value chains made it possible to add other activities, such as further chemical or manufacturing processing, to its raw copper products. In fisheries, the State adopted Norwegian technology in salmon production in 1981. This was after several failed attempts throughout the 1960s and 1970s to grow trout and salmon. Salmon exports increased from about US$1 million to about US$159 million in 1991 and US$2.4 billion in 2008. Chile is now the second largest salmon exporter in the world. This was also the experience with the blueberry sector, which was established in the 1980s and is now a major export product.

Over the years, the country faced challenges with institutional capacity. The State responded by putting up mechanisms that would allow the economy to overcome these. For example, when the State was setting up new industries, CORFO facilitated the training of managers and key personnel abroad. In the case of salmon production, CORFO provided the funds for people to go to Norway to acquire skills.

Employment Creation and the State

Chile has faced youth unemployment. Young people aged between 15 to 29 years represent about 40% of the working population. Youth unemployment was on average 2.5 times higher than that of adults in the 1980s. Informality in employment was much higher among the youth than adults (UNESCO, 2012). The advent of liberal reforms led to a spike in unemployment. The youth were more adversely affected by the reforms because they had low levels of human capital formation. However, youth unemployment declined over time from 30.5% in 1980, 22.7% in 1985 and 13.1% in 1990. It stood at 16.1% in 2012 (World Bank, 2012). This shows that youth unemployment has significantly reduced. We can learn valuable lessons on how this was accomplished.

The high youth unemployment emanated from the uneven distribution of opportunities provided by the education system. Youth with the lowest levels of formal education, mostly from poor families had the highest risk of unemployment. The economic reforms created a stock of young people from poor families, with inadequate levels of human capital. These were marginalized and exposed to high-risk behaviours such as crime, drugs and violence (Aedo, 2004).

To address the problems associated with youth unemployment, the State started schemes oriented towards the youth. Notable among these schemes were the *Chile Joven* and the *Extra21*(Chansa et al., 2016). The schemes designed special training programmes outside the framework of the traditional mechanism to equip youths with the right skills (Vezza, 2013). Furthermore, a number of methods to support youth employment or to address labour demand barriers were used. Incentives were given to employers to address the scarce demand for young workers. These were based on legislation such as the uneven minimum wage, the wage subsidy and reduced social security contributions (Chansa et al., 2016).

Sectorial Policies and Institutions

Chile's industrial policy focused on resolving specific market failures that affected the economy, improving productivity and raising the technological content of existing sectors. A number of market failures were identified. These were credit constraints affecting SMEs, dearth of university students from low-income households, labour training, the public goods nature of some types of export promotion activities, and innovation.

The State supported specific sectors through the activities of an entrepreneurial institution called Fundacion Chile (FCh). FCh acted as a venture capitalist. It promoted innovation and self-discovery. It set companies in new sectors of the economy. These were later sold off to the private sector (e.g. the salmon project). It also promoted partnerships with private investors with a clear exit strategy. The Agency concentrated in six natural resource abundant sectors. These were agribusiness, marine resources, forestry, environment and chemical metrology, human capital, and information and communication technologies. In the marine, forestry, and agribusiness sectors, it promoted commercial projects that utilised technologies that were not in use in Chile (Alvarez et al., 2003). Examples are the salmon and blueberry industries.

The State provided financial and technical support for MSEs through Fondo de Garantía para Pequeños Empresarios (FOGAPE). Access to credit was a major constraint facing MSEs because of the lack of collateral and a track record of timely repayment. FOGAPE guaranteed a certain percentage of the credit granted by financial institutions to MSEs, small exporters, and organisations of small businesses. The guarantees were used to secure credit for working capital and investment projects. Small business associations could use the guarantees for infrastructure investment, purchase of equipment, and irrigation and drainage projects.

The costs to the State of the FOGAPE programme were estimated to be negligible. The State provided a subsidised loan preparation scheme for micro enterprises. This increased access to bank credit by many formal micro enterprises (Agosin et al., 2009). The State subsidised new exporters and supported the selected sectors in a manner that reduced risks of rent seeking, poor governance and corruption. Consejo Nacional de Innovación para la Competitividad (CNIC) was set up to create platforms useful for several sectors (e.g., the development of a venture capital segment of the capital markets) and to undertake strategic bets on specific industries. To minimise rent seeking and benefit capture by bureaucratic interests, the Council was made permanent and its members nominated by the president and ratified by the Senate. The term of office of the councilors would not coincide with that of the president. This would help avoid problems of political patronage and interference. The Council consisted of academicians, business leaders, and high government officials. This was to ensure checks-and-balances to policy making.

Agribusiness

Chile identified potential growth sectors in the economy. It looked for sectors that were within reach, given the country's existing or potential comparative advantage, and had strong growth prospects. Agribusiness was one such sector.

The country faced a number of challenges in developing the agribusiness sector. These required a mix of interventions to resolve them. There were coordination problems which made it difficult for the sector to take off. It was difficult to attract private investment. Firms lacked access to credit. In the early

1970s most of the firms were SMEs. These were considered high risk and denied credit by the banks. There was also a lack of human capital in the sector. There were not enough workers with the required skills and in some cases, none. This meant that productivity was very low. There was poor infrastructure and low mechanisation.

The State designed policies to resolve the coordination problem. These included actions that addressed legal constraints. It introduced subsidies to attract private investment to the sector. A loan guarantee scheme under FOGAPE was introduced to resolve the problem of access to credit. The guarantee scheme reduced risks that banks faced when lending to agribusiness SMEs. There were deliberate efforts to provide human capital for the sector. This involved targeted training and acquisition of skills required for the various agribusiness firms. This was necessary to raise productivity.

The State used a combination of channels to get this done. It sent managers and employees abroad, for example to Norway, to learn the practical skills in salmon production. Workers learned how to adapt Norwegian technology to Chilean conditions in the early days of the salmon industry. Furthermore, the State and the private sector invested significant resources to train skilled professionals in the industry. The State facilitated training programmes in biochemistry, pathology, engineering, business administration, and aquaculture, among others. This was done at local universities. In addition, the Salmon Institute of Technology (INTESAL) provided training for workers. There were fiscal incentives that enabled firms to claim tax deductions on expenses incurred in the training of workers (UNCTAD, 2006).

The State also strengthened agricultural production to support the development of the agribusiness sector. It provided subsidies to farmers. For instance, farmers received subsidies to install or improve existing irrigation systems on their farms. Communities and regions benefited from off-farm irrigation investments made by the State. There was also a soil recovery programme. This provided subsidies to finance activities to recover or improve degraded soil. Some of these activities included: phosphate fertiliser applications to restore the natural level of soil fertility; calcium fertiliser applications; the establishment and regeneration of grasslands; soil conservation, and crop rotation.

Subsidies were provided to improve access to credit and an agriculture insurance programme was introduced. A subsidy was given to farmers who took out crop insurance. Risks covered were those caused by climate hazards such as drought, excess or untimely rains, hail storms, snow, and wind. The eligible crops included cereals, industrial crops, vegetables, and legumes. There were also subsidies aimed at improving the productive, managerial and entrepreneurship capabilities of small scale farmers (OECD, 2008).

Specific Lessons for Zambia

Chile provides a rich experience that Zambia can learn from. What are these lessons? We look at these lessons in respect of the key areas for Zambia, whose resolution is labour intensive and would create increased job opportunities. These are youth unemployment, sectorial policies and strategies, and support to the agribusiness sector.

Youth Unemployment

There are important lessons on how to manage the problem of youth unemployment. Chile used different mechanisms at different times to resolve youth unemployment. How did they ensure that youths acquired the right skills for industry and that there was no skills mismatch? The key lessons are those from strategies that overcame labour demand barriers for youth and the need for comprehensive skills training.

The first lesson is that to resolve the youth unemployment problem there is need for strategies that overcome labour demand barriers for the youth. This requires a combination of interventions that stimulate labour demand. The youth are endowed with lower levels of tacit knowledge or know-how compared to adults. This implies that the youth tend to have lower productivity than adults. It is this perceived lower productivity that discourages firms from hiring them. Therefore, in order to encourage firms to hire the youth, they have to be given incentives to compensate for the lower productivity.

Chile used a combination of interventions to stimulate demand for youth employment. They introduced a variable minimum wage policy. This stipulated a lower minimum wage for anyone aged below 19 years. They also put in place wage subsidies for any firm employing the youth. The State intervened through the payroll scheme to lower pension contributions for the youth. All of these interventions were aimed at reducing the perceived cost of hiring a youth and thus stimulate demand for youth labour.

The second lesson is that it is important to conduct skills surveys to see what is needed and then adopt a comprehensive skills training approach. Identifying the skills gap is a starting point to resolving youth unemployment. The training initiatives must involve the private sector. In Chile, the State carried out surveys to identify the type of skills that employers needed and matched them to the needs of the youth. They initiated free training schemes for both technical and soft skills for diverse types of youth beneficiaries. Training was offered mostly at the semi-skilled level. Internships were encouraged and they put in place job counselors for the youth. In order to encourage the firms to carry out training upgrades for their workers, the State made the expense incurred by a firm on training to upgrade the skills of workers tax deductible. In short, Chile adopted a comprehensive approach to ensuring that the youth are equipped with the right skills.

Sector Policies and Strategies

There are important lessons that have emerged from Chile concerning the pursuit of sector policies. This is in respect to actual policies, initiatives and strategies. We discuss these in respect to six major lessons learned. These are the need to identify key sectors to support, the coordination and monitoring of selected sectors, the opening up of new sectors, the framework for supporting SMEs, investment in R & D, and the lack of institutional capacity.

First, there is need to identify key sectors to support. The principle of comparative and competitive advantage should be the guiding principle. This requires a systematic strategy to identify sectors to support. The argument is that in the context of a finite resource envelope, concentrating resources in a few sectors with growth potential will have a large impact on the economy and employment creation.

In Chile, the State set up companies in new sectors of the economy. It would later sell them off to the private sector. The salmon and blueberry industries are examples. The State also technically and financially supported SMEs. It designed loan guarantee schemes and subsidised loan applications.

The experience from Chile suggests that by focusing on the economy's comparative and competitive advantage, the State will inadvertently foster labour-intensive industrial growth that creates jobs. Chile focused on increasing production and exports of mining, agricultural, fishing and forest products. These were labour-intensive. It targeted sectors which had already demonstrated a comparative advantage and had strong growth prospects in the international economy. The drive was to build on those successes by introducing advanced technology into production and by moving upstream or downstream of the value chain. For example, for copper mining, moving upstream meant going into fine cable production while moving downstream meant going into production of chemicals used in mining operations.

Once sectors were selected, there are lessons to be learned from the coordination and monitoring of the sectors. One has to effect a strategy that allows for coordination and continued monitoring of supported sectors. This is likely to ensure efficiency in the implementation of the support to the sectors, make it possible for early detection of potential problems with the support process, and allow for adjustments to be made.

In Chile, the coordination was a responsibility of a council. The council was a permanent body whose membership was assigned to academics, business leaders, and high government officials. This was in order to ensure checks-and-balances to policy making.

The third lesson is a strategy of opening new sectors. The State has an important role to play in opening up sectors which may initially have been perceived to have an unfavorable risk to return profile by the private sector. Experience from Chile has demonstrated that economies usually have certain sectors where the chances of setting up a successful company may be very low for a variety of reasons such as lack of expert know-how in that sector, uncertainty about markets, lack of infrastructure, etc. In such cases setting up a company for the first, second, or third time may not result in a profitable venture. In other words, the rate of failure may be unusually high. In such cases, it requires someone prepared to persevere in the face of many unsuccessful attempts. Faced with such high rates of failure, the private firms are usually unwilling to lead the way in such a situation. The State can give a nudge.

In Chile, the State set up new firms in certain sectors by itself or in partnership with the private sector with an exit strategy. For example, if the State set up a firm in a sector by itself, then it must ensure that once this new firm is viable, the State sells it to the private sector. By so doing, the State has led the way in opening up this sector (i.e. demonstration effect) and at the same time has avoided the risk of creating a "white elephant". This is what happened in the case of salmon cultivation. The State sold the firm to a Japanese firm after it had demonstrated that the activity was viable. Similarly, if the State decides to set up a new firm in a sector in partnership with the private sector, it must enter into an agreement with private partners to eventually buy out the equity stake of the State in the venture. This was the case in blueberry fruit production.

The fourth lesson is the need for a framework to support SMEs. The lack of access to credit has been identified as a major constraint facing SMEs. This is explained by the fact that SMEs are generally viewed as high risk clients and as such banks and other financial institutions will only deal with them if they are able to charge higher interests. This inevitably reduces the ability of the SMEs to access credit.

Experiences from Chile suggests that the State created mechanisms for supporting SMEs both technically and financially. The State created a loan guarantee scheme to help reduce the perceived risk of lending to the SMEs. This enabled them to borrow at lower interest rates from the commercial banks. It also provided technical assistance to the SMEs through extension services and subsidised the loan application process.

The fifth lesson is that investment in R&D is critical to spur industrial growth. R&D investment is costly. There is, therefore, need for the State to have a clear R&D funding strategy. The State must foster experimentation, learning by doing, research and development, accumulation of tacit knowledge, innovation, technology adoption and adaptation. There are two approaches in organising

R&D efforts. A focus on new inventions and technologies and adopting already established technologies. The State rigorously pushed for R&D. It focused on undertaking and adopting already established technologies. This might be the most relevant and practicable for Zambia.

Chile offered incentives for R&D. The State treated innovation as an explicit policy goal in their development agenda. This focused on specific sectors given the country's existing or potential comparative advantage. It had two channels of funding innovation. The State subsidised the demand for innovation and subsidised the supply of knowledge by universities and research centres. Resources for innovation came from the State budget and the mineral royalty tax. In order for innovation to succeed, there must be policies geared to stimulate both the supply and demand for innovation. Equally important is the fact that the State must have a clear funding strategy for R&D and innovation.

Lastly, the sixth lesson is what to do in situations where there is a lack of institutional capacity. In this case the State should find mechanisms of learning from other countries. Chile sent people abroad to learn. This was done in the cultivation of salmon. Chile sent people to Norway to learn how to adapt the technology used in the sector.

Development of the Agribusiness Sector.

Lastly, we draw lessons on how the State in Chile identified potential agribusiness sectors. What are the main barriers to expanding the agribusiness sector? Which specific policies can overcome these barriers? Here, there are two important lessons for Zambia. This is in the identification of potential agribusiness sectors and in the monitoring of incentives.

Firstly, the identification of potential agribusiness sectors should be done within the framework of comparative and competitive advantage. The identification of potential agribusiness sectors in Chile was done in much the same way as general sector identification was done. This was by considering the comparative and competitive advantage of the various agribusiness sectors. There was coordination between the State and the private sector in the identification process. The State looked at activities that were within reach, given the country's existing or potential comparative advantage, and that had strong growth prospects. Secondly, a number of barriers to the development of agribusiness have been identified. Some of these are access to credit and finance, lack of infrastructure such as transport and storage, lack of human capital, insecure policy environment, low mechanisation, and poor coordination.

The way that the country tried to overcome these constraints is noteworthy. This involved a number of interventions. For instance, subsidies were provided to improve access to credit, subsidies for improving irrigation systems and

soil recovery programmers. The aim was to encourage more private sector investment. There was also a deliberate effort to invest in human capital required for the respective agribusiness sectors. The State, through local universities, carried out training programmes for workers. Other institutions such as the Salmon Institute of Technology also carried out training of workers. Subsidies were provided that aimed at improving the productive, managerial, and entrepreneurship capabilities of small scale farmers. The State also embarked on proper planning and coordination to ensure that the incentives are having the desired impact. Equally important, there was political commitment at the highest level to move the sector forward.

Zambia and Chile evolved different industrial policies and strategies over time. Chile managed to transform its industrial structure, while Zambia failed to do so. Chile garnered the developmental nature of the State to play a critical role in the industrialisation of the country. These policies and strategies hinged on the State's interaction with the private sector, the nature of the incentives and sanctions regime, and on how to share broadly the benefits from the growth process.

Endnotes

[1] The manufacturing sector is composed of the following sub-sectors: food, beverages and tobacco; textile and leather industries; wood and wood products; paper and paper products; chemicals, rubber and plastic products; non-metallic mineral products; basic metal products and fabricated metal products.

[2] The mines were mainly financed by capital from the U.S.A and the United Kingdom.

[3] Although efforts to depoliticise boards and management of SOEs were made in the 1980s, political interventions through State appointments to key positions remained rampant.

[4] The process of privatisation involves the dismantling of the corporate structures through which enterprises were held in the state sector and the development of these within the private sector. The business community that preferred privatisation was well represented in the MMD government, this made it easier to accept such radical changes.

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Does Foreign Direct Investment matter for Industrialisation in Nigeria?

Obianuju Ogochukwu Nnadozie*, Lotanna Ernest Emediegwu**, and Anthony Monye-Emina*

**University of Benin*
*** University of Manchester and University of Benin*

This paper employs cointegration and error correction techniques to provide empirical evidence on the dynamic relationship between foreign direct investment (FDI) and industrialisation in Nigeria for the period 1981-2015. Our findings show that FDI does not have a significant effect on industrialisation in Nigeria either in the short run or the long run. Also, the empirical results reveal that trade significantly harms industrialisation in Nigeria both in the short run and the long run. Our empirical results are, however, not surprising given that FDI inflows into Nigeria have largely been resource-seeking, that is, mainly targeted at the oil sector with the concomitant adverse impact on the non-oil sectors, particularly the manufacturing sector. We therefore recommend that policy makers should aim at selectively attracting FDI to other strategic sectors which will be supportive of industrialisation.

Keywords:
Foreign Direct Investment (FDI); industrialisation; Nigeria; cointegration; error correction model.

JEL classification:
F23, O14

Introduction

Since the turn of the last two decades, foreign direct investment (FDI) flows between economies have soared along with economic globalisation. Developing countries, emerging economies, as well as transition nations have increasingly come to acknowledge FDI not only as a source of economic development and modernisation but also as a veritable vehicle for income growth and employment. Thus, they no longer view it with suspicion – as a medium of either neo-imperialism or re-colonisation. Consequently, rigid regimes and counterproductive controls that once restricted the easy entry and smooth operations of multinational firms are now being substituted for FDI-friendly policies and programmes. Interestingly, in 2012 and for the first time in history, developing countries received the lions' share of world FDI at 52%. This was a breakthrough in FDI flows reaching this group of countries (OECD, 2014; Emediegwu & Edo, 2017).

Nigeria has been one of the most favoured FDI-recipient countries in sub-Saharan Africa. FDI inflows into the country have mostly followed an upward trajectory rising from $205 million in 1981 to $4.66 billion in 2014, peaking at $8.84 billion in 2011 (WDI, 2016). Policymakers in Nigeria have over the years made concerted efforts to attract foreign resources in general and FDI in particular upon recognition of its capacity to enhance economic growth and development. Although Nigeria has, on average, experienced significant growth in the past decades, several development and structural indicators reveal the flaws in the growth episodes recorded. High unemployment, poverty and inequality, infrastructural deficits, a limited diversified production structure and export basket, as well as structural rigidities, all coexist with robust growth. This situation has led to recurring calls for industrialisation because of its potential to promote economic diversification, inclusive growth, efficient resource utilization and hence, structural transformation (Economic Report on Africa, 2015).

There is an ongoing discourse on whether FDI can propel industrialisation in developing countries. Søreide (2001) affirms that FDI can reinforce industrialisation via technology transfer and industrial restructuring. Overall, the assumption behind the assertion that FDI fosters industrialisation is quite straightforward: externalities associated with FDI in the form of technology transfer, introduction of new processes and expertise in complex aspects of product development, job creation, productivity gains, and improved market access can result in the expansion of the industrial sector in terms of output and employment. Conversely, there are assertions that FDI may be harmful to domestic firms due to increased competition, thereby engendering deindustrialisation (Kang and Lee, 2011; Barrios, Gorg and Strobl, 2005). Nonetheless, there is paucity of empirical research on the effect of FDI on industrialisation as the focus of extant studies has been on the impact of FDI on economic growth. Thus, this study seeks to fill this gap. In specific terms, this paper aims at empirically ascertaining whether FDI benefits or harms industrialisation in Nigeria.

The organisation of this paper is as follows: the next section reviews previous evidence on FDI and industrialisation, followed by an analysis of the empirical methodology used and the sources and description of the selected data. The main empirical results of the study are presented and discussed in Section 4, while Section 5 concludes with the relevant policy implications.

Stylised Facts on FDI and Industrialization in Nigeria

Trends of FDI inflows into Nigeria

FDI inflows into Nigeria have, over the years, exhibited an upward trend albeit with slight fluctuations. Figure 1 shows that in 1970, it stood at $0.21 billion and rose modestly to $0.47 billion by 1975 with an average value of about $0.32 billion. FDI inflow had a negative value of approximately $0.74 billion in 1980. It dipped significantly from 1980 to 1986 and averaged at $0.24 billion. This period coincided with the economic recession in Nigeria owing to the drastic reduction in oil revenue caused by a crash in world oil prices. Following the introduction of the structural adjustment programme (SAP) in 1986 – an economic recovery programme aimed at restoring macroeconomic growth and stability – there was an upward spiral of the FDI inflow into the country. Specifically, between 1987 and 1994, FDI inflow experienced a slight increase and averaged about $1.26 billion. In general, the 1990s was characterised by huge FDI inflows into the country although there were significant fluctuations between 1995 and 2004. For most years between 2005 and 2015, the inflow of FDI into the economy increased, reaching an all-time high of $8.84 billion in 2011 with an average value of $6.17 billion.

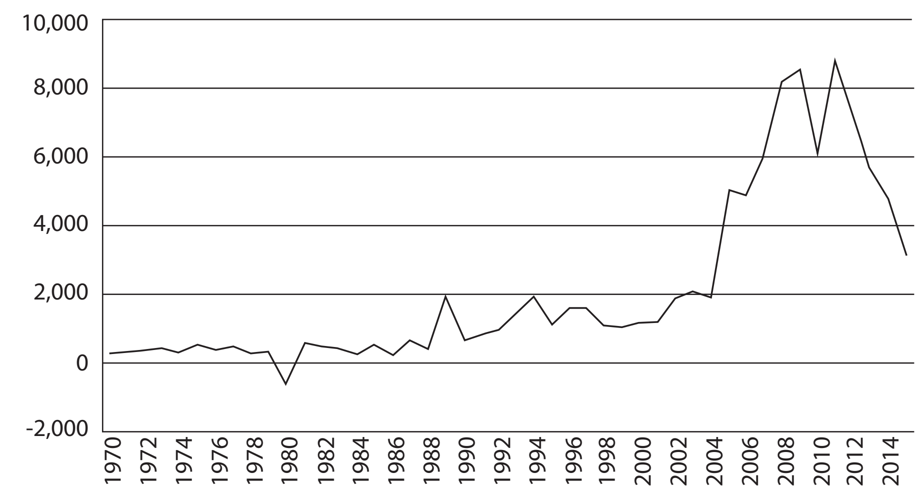

Figure 1: FDI inflows in Nigeria

Source: Authors using data from World Development Indicators (2016)

Industrialisation in Nigeria

Promoting rapid industrialisation in Nigeria has been the focus of several economic policies since her independence in 1960. The policy guide for the development of the industrial sector can be traced to the various national development plans. It is widely believed that the seed for rapid industrial development was sown in the first national development plan of 1962-1968 which pursued an import substitution industrialisation strategy. The Second National Development Plan (1970–1974) included an indigenisation policy aimed at enhancing the capacity of indigenous entrepreneurs to drive industrial development (Amakom, 2008). Hence, the first indigenisation policy which reserved certain categories of industrial activity, mostly services and manufacturing, for Nigerians was adopted in 1972 (Dagogo, 2014). The Third National Development Plan (1975-1980) was launched during the era of the oil boom. With the attendant increase in revenue, there was massive government investment in the industrial sector and an intense effort to further strengthen the indigenisation process. Thus, the second indigenisation policy was adopted in 1977 (see Amakom, 2008; Emediegwu and Okeke, 2017).

The strategy for industrialisation in Nigeria from the 1960s up to 1985 was mostly inward-looking, that is it was targeted at stimulating local production of manufactured goods for the domestic market; hence, the manufacturing sector became highly dependent on imported inputs. With the oil price crash of the early 1980s and the resultant decline in foreign exchange earnings required to settle huge import bills, the manufacturing sector was adversely affected. Moreover, the global economic recession marred the implementation of the Fourth National Development Plan (1981-1985). The deteriorating economic situation of the early 1980s eventually culminated in the introduction of the structural adjustment programme in July 1986.

SAP-induced policies were mostly outward oriented, that is geared towards export promotion (Ekpo, 2014). The objectives of SAP included stimulating non-oil exports, promoting private sector development, and facilitating the privatisation and commercialisation of state-owned enterprises for increased efficiency. Under SAP, the new industrial policy, as well as the trade and financial liberalisation policy, were enacted in 1989. While the former overturned some of the provisions of the Indigenisation Policy and opened the economy to foreign investors, the latter aimed at stimulating financial efficiency and industrial productivity.

The early 1990s witnessed the adoption of rolling plans. The national rolling plan of 1990-1992 incorporated the industrial master plan (IMP). It was devised to tackle shortage of industrial inputs, infrastructural deficits, and institutional challenges. The rolling plan also formed the bedrock for privatisation and promotion of small scale industries (Dagogo, 2014).

The post-SAP period witnessed the implementation of several policies and programmes aimed at fostering rapid industrial development. Worthy of mention is the small and medium enterprise equity investment scheme

(SMEEIS) and the national economic empowerment and development strategy (NEEDS). The post-SAP approach to the pursuit of industrialisation mainly focused on addressing constraints that could inhibit active participation of potential foreign investors (Ekpo, 2014).

Despite concerted efforts by the government to drive rapid industrialisation in Nigeria, the growth of the industrial sector can at best be described as abysmal despite the mild achievements of the 1970s.

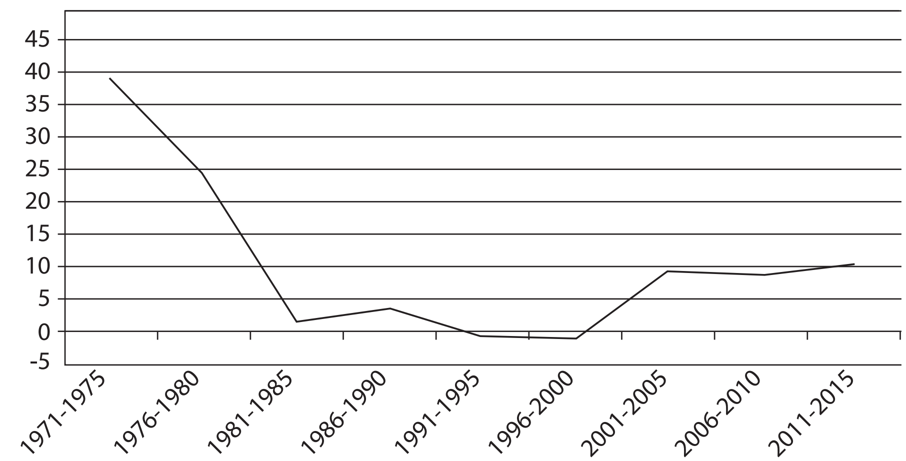

Figure 2: Growth rate of Nigeria's Manufacturing Sector
Source: Authors using data from Central Bank of Nigeria's Statistical Bulletin

Available statistics reveal that industrial output experienced a boost in the 1970s. Specifically, the index of industrial production rose from 41.3 in 1970 to 71.8 and 120.3 in 1975 and 1979 respectively (CBN, 2005). Between 1971 and 1975, the average growth rate of the manufacturing sub-sector was about 39.04%. It declined to 24.2% in the period between 1976 and 1980 and deteriorated significantly to 1.42% for the period 1981 to 1985. There was a slight increase in the average growth rate of the manufacturing sector to 3.54% from 1986-1990 (see, Figure 2). However, the growth rate turned negative during the 1990-1995 and 1996-2000 periods (Aminu, Raifu and Oloyede, 2018). From 2001 to 2015, the manufacturing subsector has experienced some improvement although not up to its 1970s level.

Literature Review

Theoretical Literature Review

The impact of FDI on industrialisation is multifaceted. Castellani and Zanfei (2003) opined that a very significant factor that supports a favourable impact of inward FDI on the productivity of domestic firms is technological gaps between foreign and domestic firms. They further suggested that a larger productivity gap between the foreign and domestic firms implies a larger potential for technology transfer and productivity spillovers to the latter. Masron and Hassan (2016) termed this assumption, the 'catching up hypothesis'. This hypothesis was derived from the pioneering work of Findlay (1978), who concluded that technological growth in moderately "backward" regions is an increasing function of the distance between their technological level and that of the "advanced" regions, as well as their degree of openness to FDI.

In contrast, in formalising the 'technological accumulation hypothesis', Cantwell (1989) argued that a negative relationship exists between the technological gap of foreign and domestic firms and the absorptive capacity of the latter, consequently, the higher the expected benefits in terms of technology transfer to domestic firms. Masron and Hassan (2016), however, claimed that the role of absorptive capacity is implicitly recognised in the catching up hypothesis, given that a kind of lower bound domestic technological capacity exists, under which FDI is not expected to have any significant positive effects on the domestic economies. Hence, the technological accumulation hypothesis extends beyond the crude notion of absorptive capacity, placing a new emphasis on the ability to absorb and utilise foreign technology as a necessary condition for spillovers to take place.

Søreide (2001) explored two groups of externalities through which FDI may initiate industrialisation: technology transfer, and industrial restructuring. Technology transfer occurs when domestic firms in the FDI-receiving country adopt foreign technology applied by a multinational corporation (MNC). Embracing imported technology has proved to be a *sine qua non* for industrialisation. Despite some degree of patent fee and copyright protection, domestic firms in the host economy that adopt the foreign technology free-ride on the innovative investments made by foreign firms since the cost of such research investment is avoided. Moreover, technology transfers may increase local firms' efficiency, and thus, profitability: however, these depend on the absorptive capacity of domestic firms (Balasubramanyam et al., 1996; Borensztein et al., 1998; de Mello, 1999; Blomströmet.al., 2000).

The second channel, industrial restructuring, occurs when an existing competition is affected by the establishment of an MNC affiliate. The production of a wider assortment of specialised inputs may generate a positive externality to other end-good producers. This concept is termed 'backward linkages'. However, 'forward linkages' can be achieved if more complex goods are locally produced at competitive costs. This eventually leads to industrial development.

Gui-diby and Renard (2015) identified two channels through which the impact of FDI inflows on industrialisation can be analysed: the supply and use

table (SUT) of the economy, and sectoral distribution of jobs. SUT is a table that represents a matrix of national accounts transactions recorded by industries and products during a reference period (usually one year). It records intermediate consumption of different industries by product. In the case of an ongoing process of industrialisation, the input matrix SUT is expected to be modified, and the vector of production by industries is expected to be concurrently altered. They encapsulated the earlier set of effects as 'direct impacts on industrialisation' and the latter as 'indirect impact on industrialisation'.

A major theoretical model that helps to explain the direct impact of FDI on industrialisation was developed by Markusen and Venables (1999). The model defined industrialisation in terms of GDP or value added and suggests that the entry of MNCs produces a double effect – competition and linkage effects. The competition effect arises when MNCs compete with local firms. They further opined that the magnitude of this effect is in direct proportion to the size of the products' surplus available in the market as compared to the initial supply of products without MNCs. However, it is inversely proportional to the domestic firms' productivity. The linkage effects emerge from connections with domestic suppliers. This implies that the proportion of local inputs used by MNCs compared with that used by the local firms determines either the strangulation or survival of the latter. Specifically, when the proportion of local inputs used by MNCs is higher, the exit of the domestic firms will be at hand, and vice versa.

On the other hand, the indirect impacts of FDI on industrialisation stem from the technological transfer that emerges from the entry of MNCs into the manufacturing industry. Fundamentally, technological transfer has the potential to raise the productivity and profitability of a firm. According to Markusen and Venables (1999), technological transfer can be achieved *via* acquisition or licensing of a technology, or through labour mobility. Gui-diby and Renard (2015) posit that growth in the manufacturing industry (in terms of number of jobs and firms) and volume of manufactured outputs (both final and intermediate) would depend on the size and the strength of backward and forward linkages for upstream and downstream firms, respectively. In contrast, horizontal spillovers will rely on the fluidity of the labour market and the capacity to acquire technologies. They added that while there may be an overlap between the two types of FDI-led industrialisation effects – direct and indirect – the cardinal difference is that the direct impacts are related to changes in products or employment, and the indirect impacts relate to transfer of knowledge.

Empirical Literature Review

Different economists have examined the nexus between FDI and economic growth from different perspectives; however, empirical works on the relationship between FDI and industrialisation are remarkably thin. In his classic paper, Kobrin (1977) used data from 59 developing countries plus multiple regression method to examine the nexus among industrialisation, social change, and the relative economic importance of foreign direct investment. He found the relationship to be interactive with FDI intensifying the pressures for social structure changes produced by industrialisation.

In a later study, de Mello (1999) used time series and panel data from a sample of 32 OECD and non-OECD countries during the period 1970 – 1990 to estimate the effect of FDI on capital accumulation, output and total factor productivity (TFP) growth in the host economy. His result showed that FDI would raise long-run growth in the host economy through knowledge spillovers and technological upgrading. However, such growth depends on the degrees of substitution and complementarity between foreign direct investment and domestic investment.

Using a firm-level balanced panel data on the manufacturing industries in France, Italy and Spain over the period 1992 – 1997, Castellani and Zanfei (2003) studied the effect of FDI on the productivity of domestic firms. Their results indicated positive, significant externalities on Italian firms, negative effect on Spanish firms and non-significant impact on French firms. Doytch and Uctum (2011) used data from 60 countries during 1990 – 2004 to estimate the impact of FDI on manufacturing and service growth. Applying GMM, FE and pooled OLS methods, they found that FDI wields a positive impact on the manufacturing sector in the Caribbean, Latin America, Europe and Central Asia, as well as in middle and low income countries, and in countries with developed manufacturing bases. However, FDI in the service sector could result in deindustrialisation.

Daiyue, Chao and Puel (2012) investigated the linkage between FDI and the process of new industrialisation in China's East, Middle and West regions from 1981 to 2009. Using Granger Causality method, they found that FDI into the Middle region has the most significant promotional effect on the process of new industrialisation, followed by the East, and then, the West. They also reported the long-term equilibrium elasticity of FDI in the East, Middle and West regions as 0.32, 0.39, and 0.19 respectively. They concluded that while a bilateral Granger cause exists between FDI and process of new industrialisation in the middle region, only significant unilateral Granger cause exists in the east and west regions.

In a related study, Adejumo (2013) focused on the linkage between foreign direct investment and the value added to the manufacturing industry in Nigeria from 1970 to 2009. Adopting a time series approach, as well as an autoregressive distributed lag (ARDL) approach to establish the long run relationship amongst

the variables and the short-run dynamics of the model, he concluded that in the long run, FDI has a negative impact on the Nigerian manufacturing sub-sector. The author attributes his counterintuitive finding to Nigeria's inability to host efficient segments of the global supply chains other than the manufacture of finished goods for the domestic market.

On their part, Gui-diby and Renard (2015) used panel data from 49 African countries over the period 1980 to 2009 to investigate the relationship between inward FDI and the industrialisation process in Africa. Their results showed that while other control variables, such as the size of the market, the financial sector, and international trade were important, FDI impact on industrialisation was insignificant.

More recently, Masron and Hassan (2016) focused on the Malaysian manufacturing sector for the period 1999 to 2008 to investigate the spillover effects of US FDI on the Malaysian economy. Applying seemingly unrelated regression (SUR) method, they found that FDI inflows into various sectors within the manufacturing industry do not guarantee positive spillover effects.

Methodology

Model Specification

In line with existing literature on FDI-industrialisation nexus, a simple model showing the likely determinants of industrialisation is specified as:

$$IND, = f(FDI, GFCF, PCY, EDU, TRADE, AGRIC) \quad (1)$$

where: IND is industrialisation, FDI represents foreign direct investment, GFCF is gross fixed capital formation, PCY represents per capita income, EDU is education, TRADE is trade openness and AGRIC represents value added of agricultural sector. Industrialisation is measured by manufacturing value added as a percentage of gross domestic product (GDP); foreign direct investment (percentage of GDP) is used to capture FDI; gross fixed capital formation is used to capture the level of domestic investment; per capita income is measured by gross domestic product per capita; education is measured by secondary school enrolment; trade is measured as the ratio of the sum of imports and exports to GDP; and AGRIC is the value added of agriculture as a percentage of GDP.

The estimable form of equation (1) is specified in logarithmic form as:

$$LIND_t = ß_0 + ß_1 LFDI_t + ß_2 LGFCF_t + ß_3 LPCY_t + ß_4 LEDU_t + ß_5 LTRADE_t + ß_6 LAGRIC_t + \mu_t \quad (2)$$

where *'L'* represents log.

A priori, we expect the coefficients of LFDI, LGFCF, LPCY, LEDU to be positive, that of TRADE to either be positive or negative and the coefficients of AGRIC to be negative. That is $\beta_1,\beta_2,\beta_3,\beta_4. > 0$, $\beta 5 >$ or > 0 and $\beta 6 > 0$

Investment, whether domestic or foreign, is a critical variable for industrialisation. For developing countries with capital constraints, external finance may be necessary to augment the level of domestic investment, and one of such sources of external finance is FDI. Overseas investments by multinational firms has the potential to expand manufacturing output thus increasing its value added by engendering productivity growth, technology transfer, more efficient organisational form and management process, as well as expansion of international market access. A major argument in favour of multinational firms is that they have access to latest and advanced technologies which can be transferred to the host countries (Todaro and Smith, 2012) thereby spurring the growth of the manufacturing sector.

In addition, per capita income which serves as a measure of the level of income and market size should positively impact industrialisation. Sachs and Warner (1999) from the big push logic assert that industrialisation requires some large demand expansion to serve as incentives for entrepreneurs to incur the fixed costs associated with it. Therefore, any factor capable of stimulating demand and expanding market access will likely be beneficial for industrialisation. A rise in per capita income can stimulate demand. Furthermore, we expect education to promote industrialisation given that a well-educated human resource is necessary to manage both the financial and technical resources required for industrialisation. Moreover, an educated workforce will facilitate the process of adopting and adapting existing technology to suit domestic production (Benhabib and Spiegel, 1994).

Again, openness to international trade has been identified as a key strategy for industrialisation. This is because it can produce important supply-side effects which result in efficiency gains, provide access to international markets, expand the size of the domestic market and serve as a conduit for technological advancement. Moreover, further liberalising of trade makes imports cheaper, thereby facilitating the acquisition of new inputs and higher-quality intermediate goods (Agenor, 2004). This notwithstanding, deficient local conditions, as well as lack of adequate protection for infant industries, may imply that increased trade openness can be corrosive to industrialisation as international competition may hamper the growth and survival of small domestic firms. Besides, open markets may serve as transmission channels for external shocks which can negatively impact the manufacturing sector.

Industrialisation is closely associated with a decline in the agricultural sector and increase in the manufacturing sector. Thus, we expect the value added of agricultural sector to be negatively associated with industrialisation in line with the argument of Gui-Diby and Renard (2015).

Estimation Technique

The objective of this paper is to examine the relationship between FDI and industrialisation using data for Nigeria. We utilise the error correction method (ECM) to achieve our objective. We, therefore, specify the ECM representation of equation (2) as follows:

$$\Delta LIND = \beta_0 + \beta_1 \Delta LFDI + \beta_2 \Delta LGFCF + \beta_3 \Delta LPCY + \beta_4 \Delta LEDU + \beta_5 \Delta LTRADE + \beta_6 \Delta LAGRIC + \psi ECM_{-1} + \mu$$

where all the variables are as previously defined; L shows that the variables are in their log form, Δ is the difference operator, ECM is the error correction term which is the residual obtained from the long run estimation and is the speed of adjustment parameter.

Before estimation with ECM, we conduct a test for the stationarity properties of the variables and establish the order of integration using the Augmented Dickey-Fuller (ADF) unit root test. This is necessary to avoid spurious regression results usually associated with the use of non-stationary variables. A test for cointegration is also conducted to ascertain the existence or otherwise of a long run relationship using the Engle-Granger as well as the Johansen cointegration techniques. Once a cointegrating relationship is established, it implies that a long-run relationship exists among the variables and both the short-run dynamics and the speed of adjustment to long-run equilibrium from a possible short-run distortion can be analysed.

Data Description and Sources

This study employs annual time-series data on seven variables namely: industrialisation measured by manufacturing value added, foreign direct investment, gross fixed capital formation, gross domestic product per capita (per capita income), secondary school enrolment rate (education), trade (measured as the ratio of the sum of imports and exports to GDP) and value added of the agricultural sector for the period 1981 to 2015. Figure 3 shows the trend of each series for the given time period. The data set used was sourced from World Development Indicators (WDI) (2015).

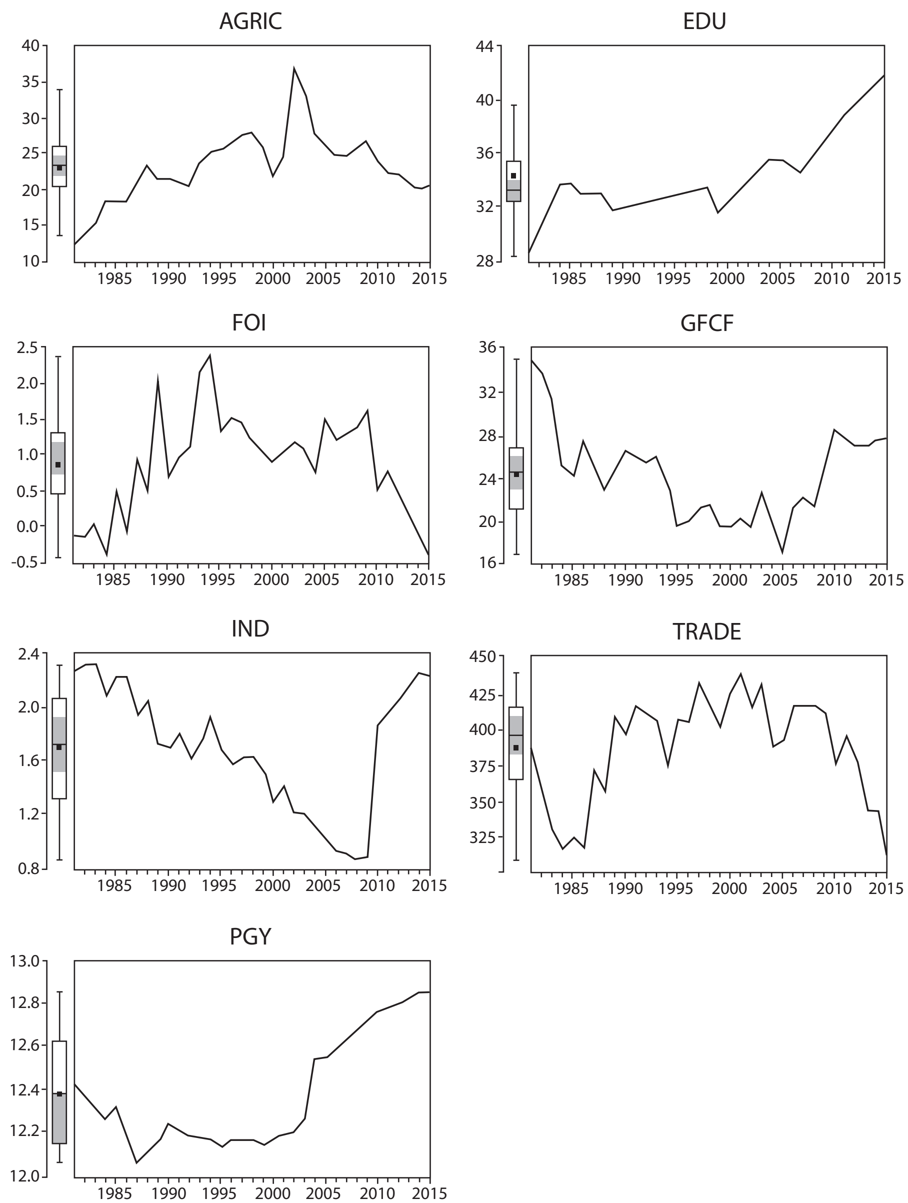

Figure 3: Series of Variables (log-transformed)

Presentation and Discussion of Empirical Results

In this section, we present the summary statistics of the variables employed in this study and discuss the results of our pre-estimation, estimation and post-estimation

tests. The pre-estimation test is the unit root and cointegration tests; estimation test is done using the error correction method, while post-estimation tests include diagnostic tests for normality, serial correlation, heteroscedasticity, and stability test.

Table 1: Summary Statistics of Variables

Variables	Obs	Mean	Std. Dev	Min	Max
LIND	35	1.697066	0.460365	0.879681	2.345383
LFDI	35	0.895094	0.692894	-0.409899	2.382556
LGFCF	35	2.440962	0.426666	1.697265	3.561650
LPCY	35	12.36577	0.253208	12.05759	12.85585
LEDU	35	3.409461	0.280234	2.833717	4.112947
LTRADE	35	3.897421	0.349074	3.161623	4.404434
LAGRIC	35	3.477302	0.209565	3.007449	3.882922

Pre-estimation Test

Unit Root Tests

The results for the stationarity properties of the variables using the Augmented Dickey-Fuller (ADF) unit root test type are presented in Table 2. The ADF test is based on the null hypothesis that the variables are not stationary against the alternative hypothesis that they are stationary.

Table 2: Unit Root Test Results

Augmented Dickey-Fuller (ADF) Unit Root Test					
Variables	Levels		First Difference		
	ADF Test Statistics	5% Critical Value	ADF Test Statistics	5% Critical Value	Decision
LIND	-1.446815	-2.951125	-5.673249*	-2.954021	Stationary
LFDI	-2.535220	-2.951125	-9.753136*	-2.954021	Stationary
LGFCF	-2.857276	-2.954021	-3.330520*	-2.960411	Stationary
LPCY	-0.443495	-2.951125	-4.346743*	-2.954021	Stationary
LEDU	0.024923	-2.951125	-3.862103*	-2.954021	Stationary
LTRADE	-1.909717	-2.951125	-7.455053*	-2.954021	Stationary
LAGRIC	-1.823826	-2.951125	-6.056877*	-2.957110	Stationary

***Source**: computed by the authors using E-views 9*

Notes:

The rejection of the null hypothesis of non-stationarity is based on MacKinnon (1996) critical values.

*, **and *** represent 1%, 5% and 10% level of significance respectively

From Table 2, the results of the ADF unit root test show that all the variables contain a unit root - that is, they are not stationary at level. However, these variables become stationary after first differencing, in line with the argument by Box and Jenkins (1970). Although the variables are non-stationary at levels, it is possible that a linear combination of the variables is stationary, implying that they could be cointegrated. We thus employ the Engle-Granger two-step procedure and the Johansen test for cointegration.

Cointegration Test

There are several alternative ways to conduct cointegration tests – Engle-Granger and Johansen cointegration procedures. While the Engle-Granger cointegration test is appropriate for single equation model and I(1) series, Civcir (2003) posits that its small sample properties have been queried in the existing literature and attests to the superiority of the Johansen cointegration test in handling simultaneity bias and potential endogeneity. Although we employ both methods, only the result of the Johansen cointegration test is presented and analysed, as there are no significant differences in them. (Results from Engle-Granger test are available on request.)

Table 3: Johansen Cointegration Test Result

Hypothesised No. of CE(s)	**Eigenvalue**	**Trace Statistic**	**0.05 Critical Value**	**Max-Eigen Statistic**	**0.05 Critical Value**
None*	0.994217	353.5950	150.5585	159.7354	50.59985
At most 1*	0.936776	193.8596	117.7082	85.59337	44.49720
At most 2*	0.764305	108.2662	88.80380	44.80176	38.33101
At most 3	0.564110	63.46448	63.87610	25.74135	32.11832
At most 4	0.468963	37.72313	42.91525	19.62066	25.82321
At most 5	0.254531	18.10247	25.87211	9.105990	19.38704

From the results in Table 3, both the Trace test and the Max-Eigen value test indicate the existence of three cointegrating equations at the 0.05 level. Thus, we reject the null hypothesis that there is no cointegration. The results above suggest the existence of a long run relationship among the variables.

Model Estimation Results

The results for the long run estimated model is presented in Table 4.

Table 4: Linear Multiple Regression Result (Long-run)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-21.77697	2.489284	8.748286	0.0000
LFDI	-0.028444	0.059502	-0.478033	0.6365
LGFCF	0.616178	0.100764	6.115042	0.0000*
LPCY	-1.494554	0.221576	-6.745113	0.0000*
LEDU	0.614000	0.210369	2.918688	0.0070*
LTRADE	-0.593648	0.124370	-4.773260	0.0001*
LAGRIC	-0.821618	0.186176	-4.413114	0.0001*
R-squared		0.905026		
Adjusted R-squared		0.883921		
Durbin-Watson statistic		1.735772		
F-statistic		42.88150		
Prob (F-statistic)		0.000000		

Source: Authors' computation

Notes

*, **and *** represent 1%, 5% and 10% level of significance respectively

The long-run static regression results indicate that GFCF, EDU, TRADE and AGRIC have the expected signs but FDI and PCY do not have the expected sign. Five variables, namely GFCF, PCY, EDU, TRADE and AGRIC are statistically significant at 1%, but FDI does not seem to impact industrialisation in Nigeria significantly. In specific terms, the coefficient for FDI is negative but insignificant. Similarly, PCY, TRADE and AGRIC also adversely affect industrialisation as their coefficients suggest that a 1% increase will impede the process of industrialisation by about 1.49%, 0.59%, and 0.82% respectively. However, GFCF and EDU exert a positive influence on industrialisation as their coefficients show that a 1% increase will enhance industrialisation by about 0.61%.

Although some of the coefficients do not conform to *a priori* expectations, the empirical results obtained are not puzzling. While FDI has the potentials to drive industrialisation by being a direct source of external finance and a conduit for technology spillovers, the sectoral destination is more important. FDI flows to Nigeria have not been channelled to the manufacturing sector. It is mainly concentrated in the extractive (oil) sector and more recently in the communication (service) sector (see Ayanwale, 2007). This may be one of the likely reasons for its insignificant effect on industrialisation. Also, the positive effect of domestic investment measured by GFCF on industrialisation may not be unconnected with series of financial sector reforms that have enhanced the investment climate, although policy implementation and efforts appropriate to boost investment in the real sector need to be intensified.

Our results for trade and per capita income are also not far-fetched. Gui-Diby and Renard (2015) affirm that existing literature has identified the level of income and trade as possible factors that can stall industrialisation and even spiral de-industrialisation as rising income levels may lead to a shift in consumption patterns from non-processed goods to manufactured goods and then to services. Contrary to the maxim that international trade can generate advantages such as market expansion, technological and knowledge spillovers, efficient allocation of resources etc., our results show that trade has not promoted industrialisation in Nigeria. A plausible explanation for this is evident in the structure and composition of Nigeria's foreign trade which is dominated by oil exports and has consequently increased the vulnerability of the manufacturing sector to external shocks.

Also, it is logical to conclude from our findings that an educated workforce is critical for industrialisation. Unarguably, proper education and training can raise the productivity of a worker as well as enhance his ability to manage the financial and technical resources essential to drive the process of industrialisation. Our empirical finding on the effects of FDI, trade and education on manufacturing value added is consistent with that of Adejumo (2013).

Table 5: Results of Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002468	0.028973	-0.085172	0.9328
D(LFDI)	-0.036854	0.051068	-0.721665	0.4772
D(LGFCF)	0.456460	0.121281	3.763650	0.0009*
D(LPCY)	-1.103684	0.444590	-2.482474	0.0201**
D(LEDU)	0.394099	0.349313	1.128211	0.2699
D(LTRADE)	-0.541174	0.130453	-4.148413	0.0003*
D(LAGRIC)	-0.501903	0.180150	-2.786022	0.0100*
ECM(-1)	-0.841786	0.195237	-4.311614	0.0002*
R-squared		0.683349		
Adjusted R-squared		0.594687		
F-statistic		7.707342		
Prob (F-statistic)		0.000055		
Durbin-Watson statistic		1.9551657		

Sources: Authors' computation

Notes

* , ** and *** indicate significance at the 1%, 5%, and 10% level respectively.

The results of the error correction model presented in Table 5 capture the short-run dynamics between the dependent variable and the explanatory variables. The coefficient of the error correction term has the expected negative sign and is statistically significant at the 1% level. This implies that long-run equilibrium will be restored after short-run disturbances. Specifically, the absolute value of the error correction term (84%) indicates that the speed of convergence to long-run equilibrium is remarkably high, thus manufacturing value added adjusts very quickly towards the long-run equilibrium position after short-run distortions. Any disequilibrium will be corrected in less than one year.

The overall fit of the model is moderate with an adjusted R-Squared value of approximately 0.59. This means that all the explanatory variables explain about 59% of the systematic variation in manufacturing value added (industrialisation). The F-statistics of 7.707 is highly significant at the 1% level, validating the existence of a relationship between industrialisation and the explanatory variables. Also, the Durbin-Watson statistic of 1.955 shows that the model is free of serial correlation.

Post estimation Tests

In this section, we present and discuss the results of our diagnostic tests. These tests are conducted to ensure that the results are not in violation of any of the crucial properties and assumptions of the ordinary least squares (OLS) regression method. They are also useful for ascertaining the validity of our estimates and their reliability for policy analysis.

Diagnostic Tests

Table 6: Diagnostic Tests Results

	F-statistic	Prob
Normality Test (Jarque-Bera)	0.7819	0.6763
Breusch-Godfrey Serial Correlation LM Test	0.1565	0.9243
Heteroskedasticity Test (ARCH)	0.0170	0.8968

The Jarque-Bera normality test shows that the model is normally specified while the result of the Breusch-Godfrey serial correlation LM test indicates that there is no serial correlation in the model. Also, the autoregressive conditional heteroscedasticity (ARCH) test indicates the absence of heteroscedasticity in the model. Thus, the diagnostic results imply that the model is efficient as none of the crucial assumptions of OLS is violated.

Stability Analysis

The stability of the model is examined using the plots of the cumulative sum of recursive residual (CUSUM) and the cumulative sum of squares residual (CUSUMSq). The plots are shown in Figures 4 and 5 below.

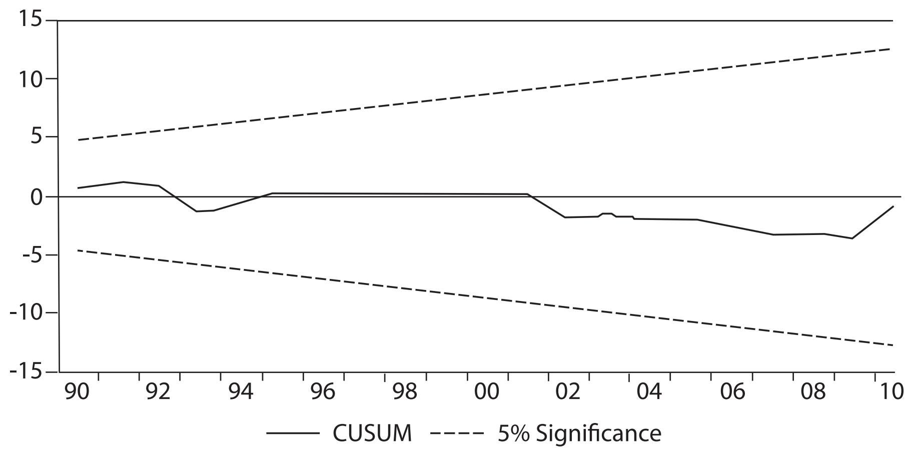

Figure 4: Plot of Cumulative Sum of Recursive Residuals (CUMSUM)

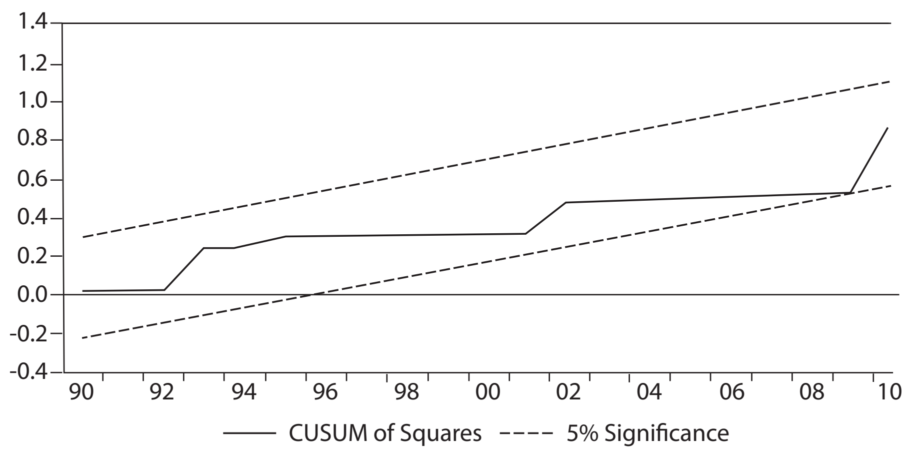

Figure 5: Plot of Cumulative Sum of Squares Residuals

The Figures show that the plots of CUSUM and CUSUMSQ lie within the 5% critical bound, thus providing evidence that the model is stable and therefore suitable for policy discussions.

Conclusion and Policy Recommendations

This paper employs cointegration and error correction method to examine the relationship between FDI and industrialisation in Nigeria with data spanning 1981–2015. Our empirical results show that FDI is a negative and insignificant determinant of industrialisation in Nigeria both in the short run and long run. It is imperative to state that the result is unsurprising given that FDI inflows in Nigeria have been concentrated in the extractive sector and more recently, the communication sector, rather than in the manufacturing sector. Another plausible explanation for the result may be the "absorptive capacity hypothesis" which holds that the beneficial effects of FDI spillovers are conditional on complementary domestic conditions such as an educated workforce, institutional and infrastructural quality, well developed financial system and favourable business climate (Jude and Levieuse, 2013).

Also, we find that trade both in the short run and long run significantly harms industrialisation in Nigeria. This result can be explained from the perspective of Nigeria's trade structure which is largely dominated by oil exports, imports of manufactures, as well as a bias in favour of foreign consumables. Nigeria's narrow export base dominated by the extractive sector (crude oil) subjects the manufacturing sector to the boom and bust cycles associated with fluctuations in crude oil prices. In addition, Nigeria's trade practice is not geared towards promoting value addition which has become a necessary condition for industrialisation in today's global economy (Economic Report on Africa, 2015). Furthermore, capital accumulation both physical and human is necessary for industrialisation in Nigeria as suggested by our empirical output.

Based on our empirical findings, we provide suggestions because Nigeria's efforts to achieve FDI-led industrialisation have been unimpressive in the past three decades. It is a truism that the gains of FDI are not automatically and evenly distributed across sectors. Spillovers and backward linkages are very crucial in guaranteeing that FDI contributes to structural transformation and growth; hence policies and programmes must be geared towards these objectives (Sutton et al., 2016). In this context, the country should selectively attract FDI with high level of manufacturing and technological contents, which will be supportive of industrialisation. Hence, there should be a paradigm shift from attracting multinational corporations (MNCs) which are merely sales subsidiaries to attracting foreign firms that encourage value adding manufacturing in Nigeria. Furthermore, to quell the subjugation of domestic firms by the foreign ones, there has to be some level of synchronisation between the two. Consequently, government at different levels should galvanise efforts to design the appropriate policy environment and incentive structures that would focus on attracting high-technology oriented foreign firms while allowing local entrepreneurs to take on the task of promoting other sectors that serve as backward linkages to the MNCs. This would eventually pave the way for the process of export-led industrialisation.

In addition, trade policy and practices must be deliberately tailored towards promoting industrialisation. Again, the presence of sufficient domestic institutions and complementary policies are necessary. There is need for investment in infrastructure such as electricity, roads, and sectors with forward and backward linkages necessary to lower production costs and boost manufacturing value added as well as investment in research and development.

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An Ethnological Analysis of the Influence of Mobile Money on Financial Inclusion: The Case of Urban Zambia

Edna Kabala, Rosemary Mapoma, Chitimba Nalutongwe, Diana Muyani, John Lungu

Copperbelt University

Abstract

The issue of access to financial products has been a public policy issue since 2005 when the first FinScope Zambia study was conducted. The 2015 study indicated that 40.7% of adults were financially excluded. This article investigates the influence of mobile money on financial inclusion using urban Kitwe and Kalulushi as case studies. We employ an ethnographic methodology to understand the extent to which mobile money has encouraged the unbanked population to access financial products and services. The findings indicate that mobile money has a positive influence on financial inclusion. It is easier to open accounts with mobile money kiosks than with formal banks. Mobile money services are conveniently located where the unemployed, aged and other segments of the unbanked population are found. They use mobile money services to send and receive money, pay utility bills and purchase airtime. Since mobile money services positively influence financial inclusion in urban settings, we recommend that they should be made widely available in rural areas. Furthermore, there is need to increase financial education and knowledge about mobile money systems and operations across populations in both urban and rural areas.

Keywords:

Mobile money, ethnography, financial inclusion, mobile service providers.

1. Introduction

Financial inclusion has traditionally been associated with the use of banking services offered by the formal financial system. The current interpretation of financial inclusion is diverse. Recent literature discusses the provision of financial services at affordable costs to the disadvantaged and low-income segments of society (Demirgüç-Kunt and Klapper, 2012; World Bank, 2017). This entails the use of basic banking services like deposits, loans, payments, and money transfers. One platform that has helped in the promotion of financial inclusion is mobile money. Mobile devices have become an important tool in promoting financial inclusion for previously unbanked populations in developing countries (Kanobe et al., 2017).

Sub-Saharan African countries have advanced rapidly in the use of mobile phones since the early 2000s. World Bank data revealed in 2012 that mobile phone subscriptions had grown at an annual average rate of 208% in sub-Saharan Africa (World Bank, 2012 cited in Fanta et al., 2016). Zambia experienced a high uptake of mobile phone usage with about 63% of the adult population owning a mobile phone in 2017 (World Bank, 2017). In 2018, there were 11.3 million mobile subscriptions in an estimated population of 16.4 million (CSO, 2018).

The increasing use of mobile phones has created opportunities for the dispersal of digital financial services such as mobile money. Mobile money services have been facilitated by a joint exertion between the mobile phone users and mobile network operators (IGC, 2016; Chikumbi and Siame, 2018). The use of mobile money has largely been driven by convenience, timeliness, accessibility, affordability, and security. The FinScope survey of 2015 shows that Zambia has had a significant increase in the number of financially-included adults from 37.3% in 2009 to 59.3% in 2015 (BoZ, 2016). As the number of mobile service providers in Zambia grew, more financially-excluded families have been reached through the use of mobile money services (Chikumbi and Siame, 2018). However, the penetration of mobile money is still quite low. Opportunities still exist to accommodate more of the financially excluded adults. The IFC reported in 2014 that only 7% of the 4.6 million registered mobile subscribers had active mobile money accounts (World Bank, 2014). By 2017 the *Zambian Business Times* quoting Lazarous Kamanga, Director of Banking and Payment Systems at the Bank of Zambia, stated that 12% of the 12.9 million registered mobile subscribers had active mobile money accounts (*Zambian Business Times*, 2018). The number of mobile money users is still low and requires improvement. This will only be possible if "mobile telecom and mobile money infrastructure are developed" (Fanta et al. 2016: iii).

The positive relationship between mobile money and financial inclusion has been discussed at the national level (FinScope, 2015)[1]. Yet, it is not clear whether this evidence applies to all districts in Zambia. Is it possible to generalise the relationship between mobile money and financial inclusion? This study focuses on the influence of mobile money on financial inclusion in two urban districts of Zambia. The rest of the article is as follows. We define mobile money and financial inclusion and discuss the importance of mobile money services in section two. The third section reviews the literature on mobile money services. The fourth section explains the methodology we have used. The fifth section discusses the findings from the two case studies. We conclude the article with policy recommendations in section six.

2. Mobile money and financial inclusion in Zambia

Digital financial services range from mobile banking, internet banking to mobile money services. Mobile money is defined as a financial transaction made by using a Subscriber Identification Module (SIM)-enabled device such as a cellular phone via a mobile network (Donovan, 2012). Unlike mobile banking which is the transfer of money from a bank account via a mobile network operator, mobile money brings about a physical movement to money by enabling it to flow from one location to another (de Bruijn et al., 2017). Mobile money can be viewed as the provision of a range of financial services via a mobile phone and a mobile network operator.

The poor are thought to be financially-excluded. In this regard, poverty is not limited to the lack of money, food or shelter; it is the lack of access to instruments and means which poor individuals can use to improve their livelihoods. The exclusion from access to formal financial services is a major hindrance to eliminating poverty from society and can potentially slow down economic growth. Demirgüç-Kunt et al. (2008) estimated that more than half of the households in developing countries have no accounts with financial institutions. The main reason is in the difficulties in accessing affordable finance. This does not mean that financially-excluded individuals are not financially active or not knowledgeable about finance. It merely implies that the poor rely more on informal mechanisms to raise funds, save, repay debts and manage risks. However, these informal mechanisms exclude them from a wider scope of financial services such as bank credit, insurance, money transfer and brokerage. The enhancement in product options available to financial service providers worldwide has been as a result of an increase in the number of mobile money channels.

DeAssis (2016) defines financial inclusion as "all initiatives that make formal financial services Available, Accessible and Affordable to all segments of the population." Financial inclusion needs to be inclusive and sustainable in order for it to have a bearing on all parties involved and the economy as a whole. Specific consideration should be given to individuals who traditionally are not included in the formal financial sector. This is usually because of such factors as the level of income, gender, geographic location, risk profile, literacy levels or the type of activity they engage in.

The rise in mobile money services gives millions of people an opportunity to access finance and be formally included. A success story is the Safaricom's M-PESA experience in East Africa (Jack and Suri, 2011, Hughes and Lonie, 2007; Ngambi, 2016). The M-PESA model is premised on "building the payment 'rails' on which a broader set of financial services can ride," wrote the authors of one report (Mas and Radcliffe, 2010). There is evidence from East Africa that the use of mobile money has led to an increase in the incomes of families and to economic expansion as a whole. For example, in Kenya, a study conducted by Kikulwe et al. (2014) revealed that mobile money usage is associated with significantly higher income groups. Kikulwe et al. (2014) found that the estimated treatment effect of 61.5 thousand Ksh (745 US$) implies an income increase of 40% relative to the mean income of non-users of mobile money.

Zambia was one of the early adopters of mobile money services. The first services were introduced in 2009 (BoZ, 2016). The country has since then seen a number of players come on board the digital financial services platform. These include MTN mobile money, Airtel money, and Zoona. These were spearheaded by the telecommunications companies, the Mobile Network Operators (MNOs). These service providers have been driving inclusive finance by taking advantage of the main ideas behind the demand for consumer goods that are low priced in nature and target the mass market (Ngambi, 2016). The positive strides made have been possible due to developments in technological infrastructure, the interoperability of payments systems and a regulatory framework on mobile money. Consumer interests have been safeguarded by ensuring that mobile money services are safe and secure. This has, in turn, contributed to an increase in the number of players in the digital financial services platform. (BoZ, 2018; Chikumbi and Siame, 2018). These improvements have led to a flourishing environment for digital financial services. The Government through the National Financial Inclusion Strategy (GRZ, 2017) has demonstrated that it is actively committed to the expansion of mobile money services. It has emphasized delivery channels' accessibility. It has promoted "diversity, innovation and customer-centricity of products" (Chikumbi and Siame, 2018: 1).

3. Literature Review

In this section we explore the literature that highlights the link between mobile money and financial inclusion, and shows the importance of mobile money in the socio-economic discourse. We review the literature on mobile banking and mobile money as a tool for financial inclusion.

3.1 Mobile Banking and Mobile Money

Mobile banking and mobile money are terms that may appear to refer to one and the same thing. The two terms are different. Mobile banking, also known as M-banking, allows a user to operate a bank account using their mobile phone. This is as long as the registered mobile phone is linked to their bank account. A bank customer would be able to perform basic operations using his or her mobile phone. The common services accessed through mobile banking are account balance checks, transferring funds, airtime purchases and bill payments.

Mobile money allows users to do similar transactions on a mobile phone.

However, in this case, the focus is on making mobile payments from an account that is not held in a conventional bank account. A mobile money account is held with the service provider where a mobile phone is linked to a pool of cash that has been pre-funded. The account holder is able to engage in transactions similar to m-banking. The only limitation in this case is that the user would not access such banking services as medium-term to long-term loans. To open a mobile money account does not require as much documentation as establishing an account with a conventional bank. The major requirement is that the mobile money account holder must have a registered mobile phone number with the mobile network operator.

Thus, mobile money is a range of financial services that consumers access through mobile phone devices (Donovan, 2012). Mobile banking is the provision of banking services with the aid of mobile devices (Agrawal, 2009). Tiwari et al. (2006) posit that mobile banking is any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and/or completed by using mobile access to computer-mediated networks with the help of an electronic device. Studies have found that the mobile money facility is targeted at members of the population who are 'unbanked'. These can be of varying educational levels, i.e. the literate, semi-literate and illiterate. These cannot easily access financial services in the formal way (Donovan, 2012; Jack and Suri, 2011). Increasingly, however, even the literate and banked have adopted mobile money services because of convenience.

Mobile money services have proved to be key to inclusive finance and poverty eradication for the underserved and financially excluded individuals. This is because mobile network service providers have proved to be reliable (Donovan, 2012). These do not operate in isolation and must collaborate with agents and consumers. MNOs engage agents to reach the end-users of the product. This is part of their business model. An agent is an appointed dealer who offers mobile money services to customers. Agents capitalise on various factors such as the high number of subscribers that an MNO has, the established technological infrastructure, the airtime channels of distribution and the strong brand affinity (Ngambi, 2016). Agents play a key role in transforming the customers' cash into "electronically stored value and back into cash as and when needed" (Chikumbi and Siame, 2018: 1). The agents benefit from commissions earned, cost saving, accessibility, privacy of users' information and transaction, suitability and convenience (Donovan, 2012) The impact of mobile money services depends on the benefits that accrue to the agents and consumers. The services available to customers include: bill payments, transferring (sending and receiving) money between parties, purchase of airtime, cash out points, store of value (saving money) and transferring money from a bank account (Fanta et al., 2016).

3.2 Mobile money as a tool for financial inclusion
Mobile money has contributed to financial inclusion. M-PESA in Kenya is a success story that can be emulated across the developing world (Donovan, 2012). This platform has extended financial services to the unbanked, thereby improving productivity and at the same time lowering the cost of transactions (Jack and Suri, 2011; Peruta, 2017). Financial inclusion is the provision of financial services to groups that have no access to formal banking services. Demirguc-Kunt and Klapper (2012) see financial inclusion as the absence of price and non-price barriers in the use of financial services. Financial inclusion is achieved when a range of basic financial services that include credit, savings, insurance and payment are provided (Gardeva and Rhyne, 2011). The main goal is to expand access to basic financial services. This will result in economic growth, social and economic empowerment, reduction of poverty and the promotion of a culture of saving among citizens. The mobile money facility breaks the barrier created by traditional banks that excludes the majority of people from accessing financial services.

The determination of financial inclusion has evolved from only considering adults that owned accounts with conventional banks. Today, financial inclusion is a broader measure that includes ownership of accounts held with mobile money providers (Demirguc-Kunt and Klapper, 2012; Demirguc-Kunt et al, 2015). The inclusion of accounts held with mobile money providers is necessitated by mobile money becoming part of the mainstream modes of banking in today's financial system in both developed and developing countries (Aker and Mbiti, 2010; Donovan, 2012). The measure of financial inclusion now cuts across ownership and use of a range of financial products and services in the financial system. Among them are access to credit, ownership of savings accounts, insurance products, receipt of remittances, and other forms of financial transfers (Demirguc-Kunt et al., 2015).

Mbidde (2017) studied the utilisation of mobile money services in rural Uganda. The study found that, although mobile money services were mostly used for airtime purchases, the service was contributing to financial inclusion. Seven in every ten household members often used mobile money service for cash withdrawals and deposits. Further, six in every ten household members used mobile money to settle bills. Sackitey (2018) suggests that, undoubtedly, mobile money contributes to achieving financial inclusion in Ghana. In the SADC region, the use and benefits of mobile money services vary. In most cases, the uses overlap. For example, in "South Africa, Botswana, Malawi, Mauritius, and Mozambique the most common use of mobile money services is the purchase of airtime. At the same time, in South Africa, Botswana, Malawi, Tanzania, Zimbabwe, and Madagascar the service is also used to send and receive cash"

(Fanta et al. 2016: 1-9). In Zambia, however, it is primarily used for local money remittance. Mobile money service is mainly for transactional purposes and serves as an alternative to cash payments (Ngambi, 2016). Instead of paying cash for goods, mobile money can be used to make payments for goods and services. These include subscriptions for cable TV (Multichoice/DSTV Zambia), and electricity and water bills. This can be done via a mobile money account using a cell phone in the comfort of a home and at a convenient time (Dzokoto and Imasiku, 2013).

The World Economic Forum (2018) suggested that mobile money as a tool for financial inclusion has the potential globally to provide access to financial services to two billion financially-excluded adults. Furthermore, about 200 million formal and informal micro, small, and medium-size enterprises make use of mobile money having failed to access financial services from conventional banks in developing economies (Demirguc-Kunt and Klapper, 2015).

The process of financial inclusion is enhanced by mobile money through the provision of financial services that are also provided by conventional banks. The services include checking of account balances, fund transfers, bill payments, loans and encouraging a culture of saving. The low cost of transacting using mobile money enhances the positive impact that mobile money has on financial inclusion. Savings arise from the inexpensive transfer of money and the reduced travel time. Most mobile money service providers are nearby. Such low costs directly translate into money saved by the mobile money account holder (Donovan, 2012).

3.2.1 Transferring Funds and Remittances
Mobile money is a fast, easy, and convenient means of making and receiving payments. It creates an opportunity for payments and remittances to be done within a short period of time. Aker et al. (2011) looked at the effects of using mobile money accounts for delivery of cash transfers versus traditional methods in Niger. They found that mobile money reduced the overall transaction costs of recipients, while offering an increase in freedom, flexibility, and privacy. A qualitative pilot study in rural Cambodia identified the benefits of time, security and convenience for micro-entrepreneurs who use mobile money services in rural areas (Vong et al., 1212).

Some studies have focused on the use of mobile money in remittances. Mobile money service allows users to benefit from remittances from either family members or friends living abroad (Alleman and Raoport, 2010). This alone results in improved economic well-being for the recipients. Furthermore, mobile money users can send and receive money from their business partners. The use of mobile money increases money circulation and boosts local consumption for the rural people. This tends to increase economic activity (Allen et al., 2014). The flow of remittances to rural areas increased economic activity by enabling "just-in-time" transfers that make capital available whenever it is needed (Allen et al., 2014).

Thulani, et. al. (2014) studied the usage of mobile money and financial inclusion among rural communities in Zimbabwe. They found that the usage of mobile money by the unbanked rural people is very high, especially for sending and receiving remittances. However, the use of mobile money for saving and loan acquisition was not very popular. Users were still relying on their traditional methods of saving and borrowing.

Morawczynski (2011) found that in Kenya incomes and savings for rural mobile money users increased due to remittances. A similar study by Mbiti and Weil (2011) found that the introduction of M-PESA in Kenya increased the frequency of remittances. This, over-time contributed to financial inclusion in the country.

Munyegera and Matsumoto (2016) investigated the impact of mobile money on household welfare in Uganda. The study revealed that households that used mobile money received more frequent and higher remittances. This increased the per capita expenditure on consumption, health, education, and semi-durables. It further contributed to their socio-cultural conditions. It is estimated that, over time, between 20 and 30 per cent of the remittances received could be used for savings and investment (GPFI, 2015).

3.2.2 Insurance and Savings

As mobile money facilities gain more ground, the ability to provide insurance, credit and savings is likely to increase as more consumers will demand such services. For instance, a micro-insurance product, Kilimo Salama, that used M-PESA to provide compensation to smallholder farmers had insured 12,000 farmers. Ten percent of these received compensation of up to 50 % of their insured inputs in their second year of operation (Sen and Choudhary.2017).

Qwik loan, a mobile money services facility in Ghana enables anyone to access the loan facility on the mobile money platform. This is without filling in complicated forms and providing documentation which the applicant may not even have (Mutisi, 2017).

Nandhi (2012) contends that mobile money services function as phone-cum savings accounts. It enables people without a formal bank account to engage in a safe and efficient way of saving. Demombynes and Thegeya (2012) used mobile savings data for 6,083 individuals collected by the Financial Sector Deepening – Kenya (FSD-Kenya) in 2010 to show that mobile money actually increases the level of savings and improves the efficiency and regularity of saving.

Mbiti and Weil (2011) analysed how M-PESA is used and its economic impact. They found that the increased use of M-PESA lowers the likelihood of people using informal savings mechanisms but raises the possibility of them being banked. Other studies have looked at mobile money as a hedging facility. Jack and Suri (2011) assert that mobile money users saved money in mobile money accounts to store funds which would be safe from theft and would make them inaccessible to other family members. They indicate that savings have the potential of adding social value to those constrained by costs from opening a bank account. Mobile money saves time involved in travelling large distances between the household of the user and the closest formal savings establishment. Since mobile money provides easy access to a savings device and easy saving, it is possible to conclude that mobile money users are likely to save more.

3.2.3 Accessibility

One of the barriers to financial inclusion is accessibility. Mahmood and Sahai (2011) consider accessibility as a barrier to financial inclusion. This is because conventional banks have no outlets in areas they perceive not to be profitable. In addition, the less educated and the low-income earners might feel intimidated to access services from conventional banks due to the tranquil atmosphere in the banking halls. Thus, mobile banking service providers have taken this opportunity to serve the 'unbanked' population for as long as there is mobile connectivity. Clients can transact anywhere thereby using time efficiently.

3.2.4 Security

The making of payments using mobile money has gained momentum over traditional payment systems However, there are concerns over the security of the payments. Security, risk and privacy of data are key factors in the decision of a customer to switch from traditional to modern payment systems. If a service provider is capable of assuring security and minimising the risk of money and data loss, a loyal customer base is guaranteed. This is because security and risk are the primary factors that subscribers evaluate prior to choosing a modern money transaction service (Casaló et al., 2007; Ali et al., 2011). One way to enhance the security of the mobile money system is to pair mobile money accounts with national identity systems. This way, a subscriber can even send money across geographical locations more safely than other alternatives like in-person transfers. With reduced cash handling by clients, the risk of being robbed in public is reduced. Mobile money has privacy and autonomy since it is less visible than cash.

3.2.5 Convenience

Kaura (2013) stressed that service convenience is a significant attribute in services retail shops, electronic banking and online shopping and a key decisive factor for time constrained customers. Mobile money removes the geographical constraint between the provider and the user of the service, thereby bringing about convenience. There is a reduced response time for an account holder wanting to borrow money. This is because the borrower does not incur transport costs in order to have access to the funds. There is instant disbursement of funds. This is compared to the lengthy vetting that one would be subjected to at a conventional bank. Banking may be performed throughout the day and in any place. Furthermore, many people use phones for socio-networking and entertainment, making mobile money part of a convenient package as all services are available on one device.

3.2.6 Affordability

Affordability is associated with the cost of a product. This refers to cost savings and operational efficiencies that a customer or firm may accrue as a result of the adoption of a technology (Boadi et al., 2007). Transaction costs are related to using the system, for example costs associated with sending and receiving money (Boateng, 2011). Micheni et al. (2013) suggest that if consumers perceive that the cost of mobile money is acceptable they will adopt and use it more easily.

Traditional banks have a chain of charges. These include transaction fees for withdrawing cash (whether from an Automatic Teller Machine [ATM] or over the counter), statements, balance inquiry, and monthly ledger fees. Kempson et al. (2004) term this practice as price exclusion. Generally, the rates for mobile money services are considerably lower than other alternatives. McKay and Pickens (2010) found that transactions on the mobile money platform were relatively cheaper than those of conventional banks. This makes mobile money a preferred alternative for the unbanked. Further, they found that branchless banking (including mobile money) was 19 percent cheaper on average than alternative services. Similarly, in Kenya M-PESA was one-third to one-half as expensive as alternative systems (Mbiti and Weil, 2011).

Broadly, our literature review on the use of mobile money for financial inclusion shows that mobile money has contributed immensely to financial inclusion in many countries. Most of these studies have employed the quantitative approach. Quantitative data was collected and analyzed. In addition, most of the studies were done in rural areas. It was understood that most of the unbanked population lived there. While financial inclusion studies document the positive effects of mobile money, they lack rigorous evidence with respect to how culture (perceptions and attitudes) impacts on the relationship between

mobile money usage and financial inclusion. This is because the quantitative approach objectifies human experience by simply translating people's actions into statistics. The quantitative approach fails to capture the perceptions, attitudes and emotions that influence decisions to use mobile money services. In line with this concern, this study provides qualitative empirical evidence based on the ethnographical understanding of mobile money use as a catalyst to financial inclusion in Zambia.

4. Methodology

We have employed an ethnographic approach to understanding the influence of mobile money on financial inclusion in Kitwe and Kalulushi. Ethnography has made valuable contributions as a complement to quantitative research techniques in economic thematic areas. Ethnographic practice involves combining multiple research methods in order to best answer a research question or questions[2]. The main advantage of ethnography in studies that are normally quantitative in nature is that it adds extra quality to data collected and analysed in case studies. In particular, it has the ability to amplify a research experience during anthropological fieldwork research. Anthropological research can have a profound influence on the social, economic, and political spheres in which many economists and researchers operate. Designing social and economic policies for development requires use of methods like ethnography to increase understanding of social and economic problems.

Ethnography gives researchers experience in objectively recording data during fieldwork. It allows researchers to gain experience in interacting with and collecting data from key informants. This is an important aspect to consider especially in research studies that are recent and whose past data may not be available. Ethnography also allows researchers to apply fieldwork techniques such as focus group discussions and portraits.

A major strength of ethnography is the duration of being in the field. A long interaction with the field enhances one's knowledge and comprehension of social and cultural practices. The practice of ethnography consists of several methods[3]: observation, participation, interviewing, conversation, keeping a logbook and diary, interacting and the famous "thick description". The combination of the ethnographic method with qualitative surveys, visual methods and semi-structured interviews brings a level of in-depth knowledge to case studies (Bruijn et al., 2017).

An ethnographic methodology was utilised in this study. The researchers employed participant observation along with semi structured interviews for the enquiry. There were altogether 63 mobile money agents in Kitwe and

Kalulushi. Out of these, the study focused on the 50 mobile money agents and tellers who were considered as the main intermediaries for driving the process of banking the unbanked. The 13 other agents and tellers were non-operative at the time. The study also incorporated 62 respondents from two communities in Kitwe and Kalulushi. These are Mindolo and Mine areas respectively. The respondents were purposively picked and were willing to participate. This category of respondents was included because they lived in poorer communities relative to other communities like Riverside in Kitwe or Town Centre in Kalulushi. The latter are relatively affluent. The variations in terms of where the respondents live was very important for the researchers to understand if location of the respondent explains their use of mobile money services. Therefore, a total of 112 respondents comprising of agents, tellers and community members from Mindolo and Mine area were interviewed. The majority of the respondents came from Kitwe. It had 42 agents and 34 other respondents. Kalulushi had 8 agents and 28 other respondents. The dominance of Kitwe is because it is a large city and has developed commercial and industrial areas. There are many agents located in Kitwe's central business district. They are also located in communities like Parklands, Riverside, Buchi, and Chimwemwe, among others. On the other hand, Kalulushi is a small town, it therefore, provided fewer respondents than Kitwe. There were fewer agents given the limited business traffic that comes with a smaller population. While Kitwe had many locations for businesses run by mobile money agents, Kalulushi agents operated their businesses mainly from the main market, bus stop and Patason (Central Business District for Kalulushi). A few agents ran their businesses from shops, stalls and bars in selected streets around homes in the mine area. However, both respondents from Kitwe and Kalulushi provided important information that could explain what exactly motivates them to use mobile money services leading to financial inclusion.

Ethnographic studies among business people offer abundant and valuable data on access to financial services. However, the people involved must be treated with respect. They should be provided with ethical considerations that compensate for their participation in the research. The ethical approach adopted was to inform the respondents that their participation in the study was voluntary. They were free to opt out if they did not feel comfortable to answer any questions. Respondents were asked if a recording of their responses could be done. A majority declined. The respondents were also advised that the information obtained in the study was confidential with consent to be obtained where any actual citation of their response was to appear in any report.

5.Findings and Discussion

There has been an increase of providers of mobile money services in Kitwe and Kalulushi. Recent providers are Zamtel and banks such as the Zambia National Commercial Bank (ZANACO). However, the focus of this study was on respondents who used or operated under Airtel Money, MTN Money and Zoona service providers. The three providers were chosen as they have a longer presence in the Zambian mobile money system. Among the three mobile money service providers, we focussed on Airtel and MTN money services. These involve an agent to open accounts or assist users with accounts on any of the mobile network platforms. We expected that users and providers of mobile money services from Airtel and MTN could better explain the extent to which savings accounts are opened and other transactions are carried out by users and operators. Much attention was given to financial inclusion, the usage of mobile money services and the gender influences affecting mobile money usage in Kitwe and Kalulushi.

5.1 Mobile money and Financial Inclusion

In 2018, Zambia had 11.3 million mobile subscribers in an estimated population of 16.4 million (CSO, 2018). The country has experienced a high uptake of mobile phone usage. It is estimated that about 63% of the adult population owned a mobile phone in 2017. The growth in mobile phone usage has influenced the use of mobile money services. Almost every respondent indicated that they have a mobile phone and that they are able to access their mobile money accounts through a code given by mobile network operators. There are those who do not know how to make mobile money transactions despite them having mobile money accounts. We found that they prefer to use the services of agents and tellers who are found in very close proximity to their homes and work places. Respondents indicated that mobile money accounts are used for savings, remittance of money to social networks, purchase of airtime and payment of utility bills. Interestingly, mobile money accounts were also useful as a means for paying salaries for some respondents that worked as house servants, brick layers and shop attendants. Respondent 1 of Kitwe stated that:

> *As a business man, I have mostly kept my money at home. This includes money in terms of profit and even capital for reinvestment. I have never trusted the bank. The bank is full of charges and then they require you to have specific identification to get your money through the counter. Banks also charge you a lot just to have your own money. For example, people pay K5 to access their money through an ATM. In order for one to deposit their money over the counter, some banks charge as much as K100. Now in this day and age when money is so hard to find, one would rather keep their money in an account that*

> *will charge less or keep it at home where they can see it or even use it without incurring a cost for withdrawal. So when MTN money came about in 2011, I thought that I try to just keep my profits there. I monitored how my money was being kept and I was only charged a bit of money to withdraw. The kiosks are also found at many places around town and where I operate from. The convenience in location and affordability of the mobile money banking services made me opt to use MTN money compared to staying unbanked and risking my money getting stolen at home. Through the use of MTN mobile money, I have been able to also evade relatively high costs of depositing and withdrawing money at formal banks. I can safely say that mobile money with its affordable cost and convenient location allows us, who do not have bank accounts held at formal banks, to also be banked. The nature of banking is within our comfort zone since to go to the bank, you must dress very smartly and look a certain way. But to bank with mobile money, you can just take a walk in casual clothes and shoes and you will not feel out of place at a kiosk as you go to deposit or withdraw your money, which is more motivating to stay banked. By how they look, the mobile money kiosks and mobile money as a whole assures the safety of our funds, investments and insures us against theft from those that would know we have money in our homes.*

Respondent 2 of Kalulushi shared a similar view on the importance of banking within one's environment of comfort. She added:

> *For some of us who are old, you don't have to walk too far to deposit money that is remitted to you. You don't have to go to town, you can find the kiosk right within the market and where people will accept how you look to stay banked. They will welcome you even if you have not bought new shoes or you don't appear to work. At the bank, they do smile at you, but one can tell that they are used to serving those that come with a lot of money and looking good in clothes that appear to be new. For people like us, MTN mobile money works to help us maintain our little savings that our children who work send.*

Out of the 112 respondents, 65 were male while 47 were female. We found that men are more likely to hold mobile money accounts than women. They actually used the services that come with Airtel Money and MTN Mobile money accounts more than women. This is likely because most households in Kitwe and Kalulushi are headed by men. These work as miners and casual workers. Sometimes, the employer, especially in Chinese companies, pays cash

or asks that employees open some formal bank accounts. On the other hand, some respondents reported that mobile money accounts can easily be opened at any time without many requirements. There are no introduction letters that formal banks request for. Thus, most working men interviewed, especially casual workers, find it much easier to be paid through mobile money accounts. Furthermore, we found that the majority of men owned both a formal bank account and a mobile money bank account. This was for easier transactions and money transfer to their family members, among others. These respondents affirmed that mobile money advances financial inclusion. They are able to save money, send money, lend money and pay bills more easily through their accounts. Respondent 3 of Kitwe explained that:

> *A long time ago, you could not send money so easily to those who depend on you. Now, with mobile money, you can easily send money to their accounts as long as they have a phone. It also doesn't matter what sort of phone one has, mobile money and banking through it can still be done. So even if I have a formal bank account, a mobile money account becomes a necessity. For us on the Copperbelt, with retrenchments and constant job insecurity in the mining sector, one needs to have an account that is not expensive to maintain and can even help you save on transport to some places like town as you go to pay bills. These days, every ngwee counts and that's why we use mobile money accounts. Mobile money has really helped us use banking services a lot more now than just saving or sending money informally like before.*

The study had 8 respondents above the age of 45 years. The other 104 were below this age. As stated earlier, we found that mobile money account ownership is low among women, and the aged in both Kitwe and Kalulushi. Respondent 4 of Kalulushi shared:

> *As women who are mainly house wives, it is not easy to even open a mobile money account because you do not have any source of regular income. With retrenchments of our husbands from copper mines, we can't afford to open mobile money accounts even if they are very useful. Mobile money accounts are cheaper than formal bank accounts in terms of opening charges, maintenance and even transactions that one can do from there. Despite the fact that I don't have a job and depend only on my husband's income, I desire to one day have a mobile money account. I think it's an easier way to stay banked and still use the convenient services that come with it like paying Go-TV and electricity bills.*

The study found that only 3 respondents using mobile money were formally employed while the rest were not. The popularity of mobile money accounts among the unemployed and those without regular incomes in both Kitwe and Kalulushi provides an opportunity to expand financial services to this category of people. The study observed that the expansion of financial services is possible since the majority of the unemployed and the aged without incomes have access to mobile phones. They obtained support in form of remittances from their friends and relatives through mobile money. Although the unemployed had lower levels of mobile phone ownership, they had higher levels of mobile money adoption than those that were in employment. This demonstrates the potential of mobile money to expand financial services to the unemployed and aged given the wider accessibility of mobile phones.

Both agents and their customers were very specific in relation to the use of mobile money. For those that use the network operated mobile money services like Airtel and MTN, mobile money was mostly used to purchase airtime, send and receive money and, to a lesser extent, to pay bills and to access saving. Those that use Zoona mostly used it for remittance of money across social networks. The majority of the respondents were found to use MTN money services.

Most adults used mobile money to purchase airtime, send or receive money, and pay bills. There was little evidence of mobile money motivating users to access insurance services. In fact, most of the respondents indicated that they have no information about the importance of opening mobile money accounts to enable access to insurance products and services. Generally, access to savings, credit and insurance products using mobile money is rare[4]. This implies that further innovation in the mobile money sector is required to make various financial products available to segments of people that are financially excluded because of lack of such products and services.

We found evidence of the lack of information about the safety of mobile money accounts. This is a widely cited barrier to mobile money account ownership and financial inclusion. Out of the 112 respondents the majority indicated that they lacked information and education on how money moves from one person to the next through the codes that are dialled. The lack of information about the safety of the mobile money platform to hold people's savings has nurtured distrust in the mobile money system. This may cause many people not to open mobile money accounts, even though they do not have formal bank accounts. Respondent 5 of Kitwe had this to say:

> *I have not owned a mobile money account after my bank account was closed because I don't trust those little banks. When one comes to think about it, we have no idea who owns these same kiosks and when they will leave with our money. Just look at Zoona kiosks these day, one day it's here, the next it's gone. We barely see any of these kiosks around. Now if*

> *that is MTN or Airtel money where they even encourage you to save your money, you could be doomed. They have all your savings, your details and everything they need to know about you. Yet, you know nothing about how they make it possible to transfer money from one person to the other, who is watching over your savings to ensure that they are safe and that no one steals even K1 from you. Further, there is no information on who should be held accountable for any loss in money incurred at booths. We have heard of tellers stealing money or money going missing across Zoona, MTN and Airtel mobile money services. We have no information on how such cases are dealt with to ensure people's money is safe. We don't even know who to follow if money should go missing and the kiosk where you deposited the money closes down and disappears altogether. There is just too much information asymmetry that makes me less keen to open a mobile money account. I would rather keep money in my wallet near me and can actually see its safety with me.*

The implication of respondent 5's view is that financial education programmes aimed at enhancing peoples understanding of mobile money and the systems through which it is secured are important in enhancing financial inclusion. More information about the insurance of people's savings and how money transfers and bill settlements occur is crucial in promoting increased adoption among the financially excluded. Furthermore, mobile money literacy programmes that educate people on a wide range of mobile money products, their usefulness in management of funds and how they help individual users to live a better life, would be useful in promoting financial inclusion.

Respondent 6 of Kalulushi shared the view that knowledge of safety of funds and operations of mobile money businesses is very important. She had this to say:

> *In as much as mobile money is helping people to use financial services cheaply, we need to be taught to trust the system. We can only learn if knowledge is shared on how these systems work. Here in Kalulushi, we had Zoona which was very popular in 2014- 2015. People sent and received money through it and the booths would be crowed during the month end when people got paid. All of a sudden, a lot of Zoona booths closed and no one is as interested in using it as they are in using MTN mobile money. I can imagine if these booths closed while someone was just from sending money to their relative or friend, then even where the person is supposed to be receiving money from the booth also closed. There would be confusion caused by lack of knowledge as to why and when these booths will close… I do have an MTN mobile money account*

but I don't keep more than K200 just in case even MTN closes like Zoona since the service providers don't communicate to us.

Our findings further indicated that mobile money is more likely to be owned by individuals who do not own formal bank accounts. In this case, we note that Mobile money adoption negatively influences formal bank account ownership. Yet, to a large extent, mobile money positively influences financial inclusion. The channel through which financial inclusion is encouraged by using mobile money is largely through the influence of social networks. Respondent 7 explains:

Those of us who can't meet the minimum requirements of being banked with these big banks have the option of using mobile money. Mobile money helps us save and we can even borrow money these days with MTN Money. When you don't have money for mealie meal at home, you can borrow at a small interest and be able to pay it back later. This way mobile money helps us save and access credit to help us cushion the effects of poverty and lack of finances. I personally have questions about the safety of my money but because I have seen many people using it and no one I know has complained of money missing, I continue to rely on it for my savings. I will continue to use mobile money and also encourage others who are in my social network to use it too…

From the cases discussed above, it is clear that mobile money services are serving as a tool for the financial inclusion of the unbanked sections of society. The major reasons given are that mobile money services are easily accessible and that account maintenance costs are affordable relative to the charges in the formal banking sector. The respondents also indicated that to access services at a mobile money kiosk was very easy. One does not need to dress formally as would culturally be expected if one was to go to a formal bank. Even though this is not a requirement by the formal banking establishments, society has set standards for itself which have worked to exclude those who cannot afford better clothing.

Mobile money customers were usually utilising them for sending or receiving money. This was basically because mobile money kiosks were located in residential areas where they could conveniently be accessed. The other services utilised were saving and borrowing money. This is especially the case with MTN-Money. Other common services were the purchasing of air time and the receiving of wages. Some employers (especially the Chinese employers) preferred paying wages through mobile money accounts. Although there are all these advantages to the use of mobile money, some members of the communities were sceptical. Some felt that the mobile money services were risky to use. One of the reasons

given was that kiosks kept on changing locations. Some pointed to instances when money allegedly went missing. The mobile money providers could not provide reasons or information as to how they had dealt with such cases.

In terms of usage by gender, it is clear that in these two districts of the Copperbelt, men dominated the use of mobile money services. Women who participated in the discussions indicated that in most instances, it is men who had a regular source of income. Most women were housewives dependent on their spouses' income.

6. Conclusion and Policy Recommendations

This study aimed at investigating the influence of mobile money on financial inclusion. We use the case studies of urban Kitwe and Kalulushi. We employed ethnographic methodology in order to gain an in-depth understanding of the extent to which mobile money has encouraged the unbanked to access financial products and services. The findings indicate that mobile money positively influences financial inclusion. It is easy to open accounts with mobile money kiosks that are readily available in communities around Kitwe and Kalulushi. Mobile money services are conveniently located in places where the unemployed, aged and other segments of the unbanked population are found. We found that people use mobile money to send and receive money, pay utility bills and purchase airtime. Others save money which they use to finance needs such as payments for education, shelter and food. The implications of the findings are that since mobile money positively influences financial inclusion in urban settings, it could be scaled up in rural areas. In areas that are not connected to the national grid, other sources of energy such as solar power, diesel or petrol generating sets for charging mobile phones can be promoted. This could serve as a means to increase access to financial services and savings facilities. Furthermore, there is need to increase financial education and knowledge about mobile money systems and operations across populations in both urban and rural areas. This will encourage those that currently use mobile money to remain banked and inspire those who do not to open mobile money accounts. Ultimately, this growth in financial inclusion may lead to poverty reduction and access to economic and social amenities through mobile money services in both urban and rural areas.

Endnotes

1. See FinScope report of 2015 p.13
2. https://study.com/academy/lesson/the-role-of-anthropology-in-social-economic-political-domains.html
3. See: https://einaudi.cornell.edu/fast-moving-world-money-and-payments-anthropology-finds-niche

[4] Most of the respondents for instance indicated that one could only save up to K5000 in their account at that time. So there was need to broaden the band of savings so that people could be motivated to save more for the lower costs that come with mobile money.

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Book Reviews

Sishuwa Sishuwa
University of Cape Town; University of Zambia

The Specter of Global China: Politics, Labour and Foreign Investment in Africa by Chin Kwang Lee. (Chicago: University of Chicago Press, 2017). 209 pp.+ xvi.

The first two decades of the twenty-first century witnessed increased interest and awareness of China's geopolitical and economic interests in Africa. Many in the West present China as a neo-colonial power out to extract the continent's natural wealth and as a malevolent investor that pays exceptionally low wages, has a poor safety record and employs thousands of Chinese nationals in jobs that locals could perform. In the mid 2000s, this narrative was adopted by African opposition parties seeking to wrest power from incumbent parties by presenting ruling elites as colluding with Chinese investors to exploit locals.

Nowhere was this more pronounced than in Zambia, where China's involvement in the mining and construction sectors became one of the key campaign planks of the then opposition Patriotic Front, led by Michael Sata. Using xenophobic language, Sata denounced Chinese investors as 'infestors' and embraced the Western consensus about China's role in Africa. His anti-Chinese rhetoric in turn provided raw material for a flurry of academic publications that questioned China's practices in Africa. This is the wider context that appears to have spurred sociologist Chin Kwang Lee to write her fascinating book, *The Specter of Global China: Politics, Labour and Foreign Investment in Africa*. If the central research question that motivated her study was clear – is Chinese state capital different from global (i.e. shareholder) private capital? – the choice of Zambia for her multi-year fieldwork was only logical.

Using a multitude of sources including company labour files, observations and interviews with workers, managers and politicians, Lee argues that Chinese state capital is more benevolent than global private capital and offers significant leverage to the host country in ways that global private capital, which is preoccupied with profit maximisation, does not. "Chinese state capital, rather than being more dominant and influential, has made more compromises to accommodate Zambian state and labour demands than global private capital has" (p. 28). To be sure, both are based on the export of capital and the exploitation of labour. A major difference is that while global private capital employs fewer local people at relatively higher wages, Chinese state capital employs more labourers, which helps reduce unemployment, translates into more people with a steady income, and increases revenue for the host state (in tax payments). The net result is that Chinese state capital provides relative stability and allows for a synergy between its imperatives of accumulation and the development needs of the host society.

The Specter of Global China also corrects a misconception dominant in much of the conversation on China in Africa that Chinese state enterprises do not interfere in the political affairs of the host country. Lee demonstrates that they do. Their closeness to incumbent regimes is political and regularly finds expression through top-level deals. In other words, representatives of Chinese state enterprises who want government contracts or seek to invest in a sector typically go knocking on the doors of local state officials. This is a practice also shared by what Lee refers to as shareholder capital. The key difference, however, is that shareholder capital, stemming from a Euro-American sphere of influence, operates within various bilateral and multilateral guidelines that set political and ethical conditions such as on democracy and human rights. China does not set such conditions, in part because she lacks both the moral standing and the hypocrisy of her rivals who, while disparaging China's studied disinterest in local African politics, invest in undemocratic environments such as Saudi Arabia.

The book also rejects the popular characterisation of China's state-driven investment in Africa as neo-colonial or imperialistic. Lee explains that the use of such terms does not lend itself well to historical comparisons. "There is no military occupation by China in Africa, no chartered companies with exclusive or sovereign trading rights, no religious proselytizing – all things that typically accompanied colonialism over the past century or two" (p. xi). It is also misleading to frame China as an imperial power, the author insists, because "there is scant evidence" to support this assertion especially when one considers imperialism as "a form of political control of foreign lands that does not necessarily entail conquest, occupation, and permanent foreign rule but which presupposes the will and ability of an imperial centre to define as imperial its own national interests and enforce them worldwide in the anarchy of the international system" (p. 153).

While the West's relations with Africa have historically and today been framed as part of the "civilising mission", the continent's engagement with China has been characterised, including in this book, as "state to state relations". If the former is deeply problematic and colonial, the latter obscures the unequal power relations at play. In substance, Lee's argument is correct. Although it is deploying economic and soft power to maximum effect, China has neither imposed its language as the lingua franca, acquired any territories in Africa, nor admitted to a civilising agenda.

The Specter of Global China does have problems, however. One is that it underplays the leverage that the Chinese state corporations have on African states. The other is that of knowledge framing, especially in relation to the uncritical use of loaded concepts such as capital and state. Relations of capitalism are dominated by the state, which in the modern era controls and exports finance capital, as opposed to commodities. By framing the capital from Europe and the United States as 'global private capital', Lee downplays the hidden state power behind these multinational corporations and makes it seem as if the investment transactions are simply dictated by market forces. A key reason why global private capital is so powerful is that the shareholders are indirectly backed by the state infrastructure in their countries of origin and Western-aligned global institutions such as the World Bank, International Monetary Fund and the European Union.

In a sense, the narrative that 'China is a neo-colonial power in Africa' is overplayed by the West and reflects in part the attempt by the United States and major European countries to deflect attention from both their existing and continuing appropriations of Africa's natural wealth, especially in the extractive industries, and the very highly unequal relations that characterise the continent's relationship with Western countries. Embedded in an economic system and financial regulatory architecture that forces weaker states to capitulate to the whims of the so-called global private capital, Africa is still colonised by the West – in real economic terms and symbolically. China's entry into Africa threatens to disrupt these established relations of power and the unease of Western governments derives from the fear of losing a grip on countries that serve as a source of raw materials.

A brief discussion of these dynamics would have enhanced what is an otherwise insightful and fascinating work that enriches our understanding of China in Africa today.

Austin M. Cheyeka
University of Zambia

A New History of African Christian Thought: From Cape to Cairo.
Ngong, D.T. (Ed.) (New York & London: Routledge, 2017),
225pp.

Any scholar or student of religion will be attracted to this book and desire to read it because of its attractive title. Edited by David Tonghou Ngong, the book has thirteen chapters written by scholars based in both the global north and south. The book was in the making for six years, beginning as a course on African Christianity taught at Baylor University in 2010 by Professor Ngong.

Divided into two parts - early African Christian thought and modern African Christian thought - the chapters are logically connected and hang together very well. Together they address how particular theological expressions that have developed in the continent have addressed or failed to address the issues which Christians in particular and the people in general were and are still experiencing.

The introductory chapter by the editor explains the objective of the book. It describes the ideological context in which Africa has been constructed and gives the central organising principles of the book. It also provides the historical contexts of the chapters. This new history of African Christian thought from Cape to Cairo challenges the limiting of African Christian thought only to contemporary African Christianity, excising Ethiopian and Coptic Christianity and early Christianity in Egypt and North Africa, suggesting that the northern part of Africa is not properly Africa. In order to construct a history of African Christian thought that reflects the long history of Christianity in the continent, some important moments of the story of Christianity in the continent, beginning with the place of Africa and Africans in the biblical story of salvation and some expressions of early Christianity in Egypt and the Maghreb or Western North African (present-day Libya, Tunisia, Algeria and Morocco) are discussed. This is followed by a discussion of expressions of early Christianity in the Nubian Kingdoms and Axum and finally the encounter of Africa and the West and the Christianity that ensued from that encounter is discussed (pp. 5-22). This was too ambitious to deal with in an introduction, but the editor synthesised the central themes and provided several sources in the notes, which are quite useful for the reader. In dealing with early Christianity in Africa, the pivotal role of Alexandria in the development of Christianity is highlighted as well as the development of the monastic life. Further, a very significant early African Christian theologian in the name of St. Augustine of Hippo is accorded attention.

In introducing how Western Christianity became contemporary African Christianity, Ngong draws the attention of the reader to the two phases of the Christianisation of sub-Saharan Africa, fifteenth century and nineteenth century. The introduction to the book ends with current Christianity in Africa derived from the nineteenth century renewal of Western Christian missions, but also driven partly by the colonisation of Africa after the Berlin Conference of 1884-5. In line with the argument on page 4, that Christianity flourishes on the continent when its life and thought are seen to address critical issues that face the Christians and peoples of the continent, the introductory chapter ends with the role of Africans in the promotion of Christianity which included the rise of African Independent churches; the development of a number of theologies such as Black theology, Inculturation theology and African liberation theology and African theology.

In chapter 1, David Ngong elucidates the theological significance of the presence of Africa and Africans in the Bible, which he highlighted in the introduction. Joel Elowsky looks at the "Early Alexandrian Theology as a Way of Life" in chapter 2. He confines his discussion to the theological issues. But as he states on page 40, he could only touch the surface of a few of the many different doctrines and practices engaged in Alexandrian theology. He points out that this theology was conditioned by various philosophies of the day. Notably, Elowsky shows how almost all Alexandrian theology is informed by Origen's doctrine of God, more specifically the Trinity and Christology. Most interesting is the connection that Elowsky makes between the doctrine of the spirit formulated by Origen and African Traditional Religion. He argues that the tendency in African Traditional Religion and in much of contemporary African Christianity to attribute a disproportionate amount of what happens in one's life to the spirit world, is no different from what was obtaining in second and third century Christianity in Africa.

Further, Elowsky argues that Origen's Alexandrian African cosmology confesses with scripture that God is the one who indeed brings healing, but God may also use human instruments and tools to bring about that healing. We are reminded that in light of the continuing AIDS crisis, the healing of diseases and illnesses is very important to African cosmology. In concluding, Elowsky argues that early Alexandrian theology is early African theology because it reflects African values and patterns of thought, pairing right doctrine (orthodoxy) with right living (orthopraxy) and it celebrates diversity within unity, truth against heresy, spirituality grounded in the spirit, all within the context of a communal approach to faith and life (p. 50).

In chapter 3 Ngong addresses the topic "Africa and the Christian Doctrine of God". It is an incontestable historical fact that the development of the Christian doctrine of God demonstrates that the language that came to determine how

Christians are to understand God as three in one and one in three (Trinity) was largely developed by African Christian leaders such as Tertullian, Origen, Arius, Athanasius, Cyril of Alexandria and St. Augustine of Hippo.(p.54). Ngong questions what he deems as a racist belief of missionaries who came to sub-Saharan Africa in the 19th Century that Africans had no idea of God. This is interesting because Ngong's position in this chapter provides an excellent opportunity for debate, especially since Sub-Saharan Africa was a totally different context from the Sahara. We can ask: What were the beliefs (especially concerning God) of the peoples of North Africa before Christianity? There is consensus on the fact that in sub-Saharan Africa, the idea of God among different peoples was unique and there is a huge amount of literature on this. In short, Ngong's position is a reminder that Robin Horton's (1971) theory of conversion as well as Okot P'bitek's (1971) thesis of African Traditional Religion in Western scholarship have not been completely dismissed.

What cannot possibly be contested in this chapter, nonetheless, is the contribution which Africa has made to the development of the Christian doctrine of God (p. 55). In discussing the Doctrine of God, Ngong could not, of course, avoid discussing the heresies of Arianism and Nestorianism. He suggests in conclusion that contemporary African theology needs to engage Arianism, Nestorianism and other "heresies" to broaden the sources available for the development of contemporary African Christian theology. Here, one regrets the absence of any significant discussion of how the heresies will contribute to the development of contemporary African theology.

In chapter 4, Youhanna Nessim Youssef from Egypt writes about martyrs and martyrdom in Christian Egypt. After a brief statement on the theology of martyrdom, and a brief overview of the categories of martyrs in the Coptic tradition, he discusses the tradition of veneration of martyrs and saints in Coptic Christianity. Youssef points to Ignatius of Antioch as having developed a theory about the theology of Martyrdom at the end of the first century. Early in the third century Tertullian added that martyrdom is a new birth. Origen saw martyrdom as a duty for all Christians (p. 68). This chapter shows that Egyptian Copts remain potential martyrs to date. Tertullian's teaching that martyrdom is new birth gives Copts the strength never to give in to their persecution, even to the point of losing their lives.

Elias Bongmba in chapter 5 argues that Saint Augustine's debates and battles with the Danatists involved an excessive and aggressive pursuit of unity that led to intolerance. Bongmba's question in this chapter is why Saint Augustine invested so much into the dispute and fight with the Donatists. In the end he concludes from different analyses of Donatism, that the Donatists' intransigence and Augustine's excessive desire to restore them into union with the Church led to the suppression and extinction of Donatism which might have contributed to the eventual extinction of the North African Church.

In chapter six of the book, William Parsons analyses reflections on the psychological reception of Augustine's Confessions. The final part of the chapter offers ways to adjudicate between psychoanalytic literature and the historical, literary and theological perspectives. This is commendable. From the Confessions of Augustine, psychologists have concluded that his mother, Monica, hypermoral, frigid and hostile towards sex, fostered an erotic attachment in Augustine; and that she was domineering, controlling and ultimately won the battle with her submissive son. So, from the Confessions was derived a psychiatric personal history of Augustine. Studies of the Confessions went as far as establishing a link between his upbringing and his later theology. Parsons reports the responses from numerous quarters to the oedipal studies based on Augustine's confessions. Showing examples of critics of the oedipal approach in two and half pages provides an excellent summary of vast material. In sum, Parsons acknowledges that there is consensus that psychological analyses of Augustine's spiritual journey are worthwhile and should continue taking on board the multidisciplinary approach.

Part II of the book starts with Laurenti Magesa on Inculturation Theology in Africa. In defining inculturation Magesa makes use of Fr. Pedro Arrupes definition cited on p.110 of the chapter. After a lucid explanation of inculturation, Magesa brings us to Pope Paul VI, who, speaking to the African bishops in Uganda in 1969, encouraged them to develop "an African Christianity." The question is: Has there been inculturation after all? Only to some extent, Magesa concedes, because as he rightly points out, the most significant achievement in the inculturated practice of the faith can be observed, not in the mainline churches, but in the vast numbers of African Instituted Churches (AICs).

Gerald West in the eighth chapter of the book looks at African Liberation Theology; Inculturation theology, South African Black theology, Tanzania Ujaama theology, and African Women's theology. West uses the present tense when discussing African Liberation theology, but we are not quite sure how many of the theologies he has illuminated are active. However, the issue for West is that each of the variants of African theology could be considered a liberation theology, for they each reach beyond the academy and into local communities. This is incontestable indeed.

Chapter nine is written by Rothney Tshaka with passion. He demonstrates that the United Reformed Church in Southern Africa (URCSA) is not a genuine Black Church. He makes a bold claim that, "continuing a history of compromise with former oppressors and new governors, academic theology in South Africa today seems to have entered a compromised phase. Black Theology as a critical theology has been replaced by contextual theology because whites who were involved in the liberation struggle felt left out by the idea of Black Theology" (p.136). What is Tshaka's problem? On page 136 he argues that, "it seems that in a democratic dispensation, black theological language is changed to some 'neutral theology' because the latter best embodies the spirit of a rainbow nation brought about by the negotiated settlement called the new South Africa". In conclusion, Tshaka argues that, today more than ever, Black Theology of Liberation must give answers to the questions of those on the underside who want to make sense of what their citizenship means in present-day South Africa if they are not able to gain access to the basic necessities of life (p.146). Tshaka has a point worth debating given the situation of the majority of blacks in South Africa.

In chapter 10 of the book, Mathew Michael discusses "African Evangelical Thought and its History, Trends and Trajectories". His point is clear: there are now more Christians with evangelical convictions on the African continent than there are in the traditional hinterlands of evangelical Christianity in the West; and African evangelical Christianity is not founded in the luxurious climate of wealth and affluence, but rather in a condition of pain and continuous suffering. This is a point that has been described by those who have written about Pentecostalism in Africa. Michael argues that through theological education, teaching and discipleship, evangelical missionaries left a vibrant evangelical heritage in postcolonial Africa. This is an important point and great missiologists from Henry Venn (1796-1873) and Rufus Anderson (1796-1880) down to David Bosch (1929-1992) have pointed out the importance of indigenisation of churches.

In mapping a pattern in African popular evangelical thought Michael posits what is all too familiar to us about evangelicals in Africa – literalism, use of the Bible as an oracle, vibrant worship with thrilling songs, passionate sermons and moving liturgy, etc. He also posits the dominant trajectories in African evangelical thought such as the dominance of evangelical theological expression in mainline churches. Additionally, he argues that African independent churches could be treated as an important evangelical trajectory and the most widespread trajectory being Pentecostal or/and Charismatic churches.

The eleventh chapter of the book is written by two women and entitled, "The Conception of the Circle of Concerned African Women Theologians: Is it African or Western?". We are informed about the "Circle of Concerned African Women Theologians" which was launched way back in 1989. The argument of the two authors is that the Circle is definitely African and that its agenda in respect of African women's liberation is consistent with African culture, and the fact that it was conceived in an ecumenical environment does not

imply that it had a Western origin. The chapter is essentially a reply to if not a rebuttal of Carrie Pemberton (2003) who alleged that the Circle had absorbed the ideas of white North American Women. The authors go to great lengths to show what shaped Mercy Amba Oduyoye's theological position. The argument is that the net effect of institutions, family and persons enabled Mercy Amba Oduyoye to establish the Circle with colleagues she was able to find between 1980 and 1987. Furthermore the two authors argue that in coming up with the Circle, Mercy Amba Oduyoye was informed by the African context regarding what was possible, as well as what was already being done, in Africa.

The twelfth chapter by Frans Wijsen is on African Roman Catholic Theology and its history and current issues. Of course Wijsen could only briefly deal with the topic. From the statement by Pope Paul VI: "You may and you must have an African Christianity" to the African Bishops in Kampala in 1969, Wijsen makes an apt point that maybe more than in any other Christian denomination, the tension between global and local is a feature of African Roman Catholic Theology (p.192).

Wijsen first addresses the question of African Theology as far as the Roman Catholic Church is concerned. He has a battery of questions about "African" and what makes "African" and what makes "African Theology" theology? It was when a group of young African priests, according to Wijsen, published Des Prétres noire sínterrogant in 1956 that Roman Catholic African Theology was well and truly born. We are not provided details or the content of this publication and for someone without any knowledge of French, it is impossible to figure out what the meaning of the title of the publication is.

In any event, after problematizing the use of words "African" and "theology", Wijsen goes on to interrogate the meaning of Roman Catholic Theology. In classifying Roman Catholic African theology, he identifies three methods, namely: interests and areas of specialisation; distinguishing between generations of theologians, or the stages of foundation (roughly between the Second World War and the Second Vatican Council), development (roughly between the first African Synod up to the present). Thirdly Roman Catholic theology could be distinguished between institutions which are run by dioceses and bishops' conferences and those which are run by religious institutes. In dealing with regional centres including the ones he calls "Preferal voices" in Africa Wijsen provides the reader with theological activities at each centre. In conclusion, Wijsen is of the view and quite rightly so, that beyond inculturation theology, there are other concerns in Africa, such as dialogue with charismatic, evangelical or Pentecostal churches. This is an excellent piece of advice to the Catholic Church priests and their bishops. Paul Gifford (2008) has elsewhere advised African theologians to move on from the theology of cultures to theology of development.

The final chapter by Masiiwa Ragies Gunda is on contemporary African Christian thought and homosexuality. He explores the issues and trajectories of homosexuality in Africa revealing two dominant trends and trajectories: Outright rejection, and some voices such as Desmond Tutu's, Mercy Amba Oduyoye's, Musa Dube's and Women's theology. The anti-homosexual conception remains the dominant Christian thought on the subject in contemporary African Christianity and the "Foreign Factor" in the debate on homosexuality looms large because both pro-gay rights and anti-gay rights groups in Africa have developed partnerships with like-minded groups from other continents. This chapter also answers the question of how homosexuality is understood by Christians in Africa, through creative use of the Bible and Christian tradition, as well as a daft appeal to African culture which is presented as closer to the divine when compared to Western culture which is presented as anything but Christ-like. The use of the word 'daft' in reference to African culture is rather curious to those who may hold the view that African culture has huge influence on African Christian thought. And the argument that African theologians such as John Mbiti and ethicists like Benezet Bujo have expressed ideas that are central in the construction of the contemporary African Christian thought on homosexuality may be quite true, but the ordinary African opposed to homosexuality will likely not have read Bujo and Mbiti.

Conclusion

After reading the book two fundamental questions arise: Is it providing a new history of African thought from Cape to Cairo or proposing a new methodology of writing about African Christian thought? In other words, is it about historiography or a "new history"? The latter seems to be the case. The other question is: Did the African Christian thought of antiquity in the Sahara diffuse into the Sub-Sahara? Notwithstanding these concerns, this book is an excellent resource for African Christian history from Cape to Cairo.

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Daniela Atanasova
University of Vienna

Roads Through Mwinilunga: A History of Social Change in Northwest Zambia
Iva Peša. (Brill, 2019)
429 pp.

Based on a year and a half of research in Zambia in the period from 2008 to 2010, Iva Peša's *Roads Through Mwinilunga* is an ambitious historical study of continuity and change in the remotest district of Zambia's North-Western Province over the period of a century, from the 1870s to the1970s. This is a study that forgoes conventional historical periodisation in favour of a thematic approach emphasising the gradual nature of change, the endurance of existing patterns of social organisation and the deficiency of classifications such as precolonial/colonial/postcolonial that imply radical breaks with the pasts.

The book's overarching point about the coherent coexistence of both change and continuity in Mwinilunga District is elaborated in four thematic chapters that take up four areas of socio-economic life: agricultural production, labour migration, consumption and social relationships. The detailed discussions of these topics are preceded by a contextual first chapter that introduces the reader to the history of the Lunda ethnic group. This chapter also situates the study in relation to existing scholarship on the Lunda (or Lunda-Ndembu, as they are referred to in older studies), which as it happens is substantial, including Victor Turner's renowned anthropological studies from the 1950s and 1960s and continuing to more recent work by James Pritchett, also in anthropology.

As a historian, Peša does not revisit the work of these anthropologists, but engages with some of their ideas, specifically Victor Turner's predictions about the intensity and direction of future social change that he made based on observations in the 1950s. In each of the four thematic chapters, Peša investigates a hypothesis derived from existing scholarly narratives dating back to the work of Turner and the other anthropologists affiliated with the Rhodes-Livingstone Institute. What these hypotheses have in common is an assumption of linear, unidirectional change, with a general course of transformation from tradition to 'modernity', 'capitalism' and 'development'. This is the modernist metanarrative familiar to scholars of Zambia that was identified and critiqued by James Ferguson and a number of other scholars. Peša makes a valuable contribution to the effort of eroding this tenacious narrative by disproving on the specific example of Mwinilunga some of the claims ensuing from it.

For agricultural production, Peša shows that there was no straightforward transition from subsistence agriculture to production for the market, but that

Mwinilunga farmers' efforts were focused on sustaining 'the foundations of production', i.e. ensuring stable and predictable livelihoods. This was expressed in people's lasting attachment to cassava, a crop whose popularity was unabated throughout the twentieth century despite the postcolonial state's occasional efforts to promote the growing of maize and other cash crops. Subsistence and market production were not mutually exclusive; instead, the former often created the conditions for the latter. Labour migration, in turn, was not an unprecedented phenomenon leading to the wholesale upheaval of a formerly sedentary society. To the contrary, it was embedded in a pre-existing culture of mobility among the Lunda and resulted in an array of different migrant trajectories. Often, the aim of migration to cities was to achieve 'self-realisation' and prestige in the rural community.

In the case of consumption, once again there was no clear transition from self-sufficiency to reliance on mass-produced, industrial goods. In the course of the twentieth century, imported consumer goods did increasingly infiltrate day-to-day reality, changing status from luxury goods to widespread necessities. Nevertheless, goods acquired meaning through their insertion in extant social relationships and did not necessarily create dependence on the market. Finally, social relationships themselves proved far more enduring than expected. Although kinship relations did change, they neither lost in importance nor transformed in ways emphasising the centrality of the nuclear family or individualism. Settlement in villages endured too. People continued striving to become the heads of prosperous village households in a society where individual personhood was best realised in relation to others, and where the wealthy were expected to help their kin and thus acquire a following. 'Wealth in people' remained as important as wealth in goods and money.

Weaving all these threads into a common theme, the book develops a nuanced argument about the incremental and contested nature of historical change in Mwinilunga. Seen from such a long-term perspective, the changes brought about by colonialism and the advent of capitalism in this geographically remote and in many ways 'marginal' area of Zambia appear less as radical ruptures or discontinuity, but as gradual changes negotiated and made sense of through surprisingly resilient local social relations and practices. This drives home another point that Peša reiterates about the importance of studying the specific local forms that 'global', supposedly universal, processes take. Observed in its specificity, Mwinilunga cannot easily be characterised through labels of 'poverty', 'underdevelopment' or 'development', but emerges as an area of relative prosperity that has managed, if not always to resist, to at least appropriate and redirect capitalist advances according to its inhabitants' own needs and understandings.

Peša is of course careful to acknowledge that her findings may not apply to other areas of Zambia or Southern Africa, especially, I would add, those that have been closer to centres of intense capitalist production and resource extraction. The question arises if it is perhaps precisely because of the 'marginality' of Mwilinunga District to capitalist and national interests in Zambia that its residents have been so successful in sustaining their tradition, albeit in flexible and ever mutable ways. The reader is left wondering if the pattern of change accommodated within general continuity identified by Peša has persisted into the twenty-first century in Mwinilunga itself, bearing in mind the opening of new copper mines in neighbouring Solwezi District, for instance.

If there is anything more to be desired in a study accentuating the agency of Mwinilunga residents in their constant confrontation with forces of change is a closer encounter with some of the people driving the processes it relates. Peša does present a few life histories of migrants in the chapter on mobility, but this reader at least was left wishing for more personal stories and passages of 'direct speech'. Still, as Peša herself explains, the nature of the sources, many of them stemming from the colonial archives, and the time period in focus made accessing and including local voices difficult. Another question I would have liked to see explored is gender relations, especially how the imperative of 'self-realisation' might have functioned differently for women and men. Furthermore, Peša touches on some differences in wealth and resources when discussing mobility, but in general there is not much information on any divisions or hierarchies within Lunda society that might have made for different experiences of agricultural production, mobility or consumption. The picture she paints is of a society where almost anyone could strive to develop special skills and unique personhood that would place them in a position of authority. And with authority would come the responsibility of caring and providing for others.

Open questions notwithstanding, the ground this book already covers is striking. In fact, in its breadth and depth and as the first book of a young historian, *Roads Through Mwinilunga* is nothing short of exceptional. The author brings together a vast array of sources, both archival and oral, which she contextualizes and interprets with the aid of an impressive list of secondary literature, extending far beyond the field of Zambian history. With her meticulous and thoughtful approach, Iva Peša has set an example for students and scholars of African history alike.

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