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Structural change and industrial policy: A case study of Ethiopia’s leather sector

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Abstract

Recent empirical evidence underscores the vital role of industrial development in fostering structural change and promoting a country’s long-run development objectives. Devising sound industrial policy institutions emerges as a key policy option to promote the reallocation of human, physical and financial resources to high value added sectors of the economy. This paper examines the rationale for industrial policy, why it has been ineffective in most African countries and what policy lessons should be distilled from past experiences. Using the Ethiopian leather and leather product sector, it examines how industrial policies are formulated and implemented in practice. The paper concludes by highlighting key industrial policy instruments that other countries can take into account in order to accelerate industrial development and structural change in Africa.

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1. Introduction

Several developments in the global economy underscore the imperative for Africa to industrialize and engage in the production of manufactured and high value-added products. Industrialization is essential if Africa is to foster structural change and translate its recent high growth rates into significant social development. Promoting structural change hinges on sound industrial policies and selective government interventions that redirect an economy’s production structure towards more productive sectors. To this
end, manufacturing emerges as a key sector due to its ability to foster forward and backward linkages, dynamic economies of scale, innovation and technology diffusion and positive spillover effects within and across sectors. A key finding from recent empirical literature is that countries that diversify away from traditional sectors experience a decline in poverty rates and a sustained increase in technology accumulation and international competitiveness (Rodrik, 2013; Joachim and Poncet, 2012; McMillan and Rodrik, 2011; UNCTAD and UNIDO, 2011).

Whereas the theoretical justification for industrial policy is a strong one, its practicability raises numerous challenges. Proponents of industrial policy argue for it due to the presence of market and coordination failures, knowledge spillover and dynamic scale economies (Stiglitz et al., 2013; Rodrik, 2009; Pack and Saggi, 2006). While this notion receives considerable support, at least in theory, critics also point to the inability of governments to precisely identify sectors or firms that industrial policy should target. They also allude to corruption and rent-seeking induced by government intervention as well as deficiencies in the transparency and accountability of state policies. As a result, industrial policy is argued to reduce allocative efficiency in an economy by interfering with the price mechanism (Altenburg, 2011).

Earlier attempts by African countries to industrialize were mostly unsuccessful and economic production remains largely agrarian, subsistence and portrays limited value addition (Elhiraika and Mbate, 2014). Some of the main reasons for this failure include the defiance on comparative advantage, domestic policy failure such as unsustainable subsidies of production inputs and inappropriate monetary and fiscal policies, political economy issues, and structural impediments such as infrastructural and human capital deficits (Stiglitz et al., 2013; Mkandawire, 2015; Chang, 2013). As a result, manufacturing has either stagnated or declined over time. The share of manufacturing in Africa’s GDP has remained at around 13% between 1980 and 2010, compared to 31% in East Asia, where labour-intensive industrialization has induced high growth and addressed challenges to job creation, poverty and inequality (ECA and AUC, 2013).

In this context, the focus of industrial policy in developing countries has shifted away from its justification to its practical implementation (ECA and AUC, 2014; Rodrik, 2013). While there is a consensus on the need for industrial upgrading and state interventions, there are divergent views on whether industrial policy should favour a country’s comparative advantage or not (Lin and Chang, 2009). Practically, this raises concerns as to whether industrial policy should be based on commodities and natural resource endowment, which are abundant in most countries, or whether government interventions should help firms to venture into new sectors that are independent of natural resources as production inputs. In addition, there exist opposing viewpoints on whether governments should implement industrial policies that are sector specific — vertical policies — or those which are broad and neutral — horizontal policies (Lin, 2012). This paper uses the Ethiopian leather sector as a case study to shed light on these issues.

Irrespective of these opposing views, successful experiences from emerging economies strongly underscore the need for industrial policy to place greater emphasis on institutions and policies that promote strategic collaboration between the government and the private sector (ECA and AUC, 2014). According to Wade (2009), successful industrial policy encompasses several features, such as institutions that facilitate coordination between top political organs and the private sector and incentive schemes that target specific activities and possess an exit mechanism such that they are withdrawn if ineffective. In the African setting, empirical evidence tends to support the positive impact of industrial policy on industrial development. Roubaud et al. (2005) examine the role of Export Processing Zones (EPZs) in Madagascar. They show that EPZs have been the main driving force behind export growth as they have resulted in lower labour costs, high productivity and increased foreign investment due to favourable incentives targeted at domestic and foreign firms. Matshediso (2005) examines the role of
government policy in Botswana’s mining sector and attributes the recent growth experience to policies that enhance legal and fiscal frameworks conducive for investment. This is consistent with the argument of Morris and Fessehaie (2014) that Botswana beneficiation policy has deepened linkage development between domestic and foreign actors in the industrial sector, positively fostering an equitable distribution of diamond wealth in the country.

In the same vein, Hosono (2015) argues that effective industrial policy should focus on industrial structure up-grading, which encompasses technology advancement and production diversification. Using case studies from East Asia and Latin America, Hosono attributes the success of industrial policy to institutions, which play a catalytic role in accelerating transformation in five core areas. These include continuous dialogue with the private sector, constant learning and accumulation of knowledge, industrialization through dynamic comparative advantage, infrastructure development and innovation. Similarly, Rodrik (2009) attributes industrial development in South Korea and Taiwan to state interventions in coordinating public and private investment, visionary political leadership and education policies that enhanced skills formation. While these examples provide insights into key ingredients of successful industrial policy frameworks, devising institutions and policies to address these issues has proven to be a daunting task for most African countries, and industrial policy continues to raise scepticism among policymakers.

This paper builds on these insights by assessing successful experiences of industrial policy, focusing on how institutions address market failures and coordinate policies with different stakeholders, especially the private sector. This assessment is based on an in-depth case study of the Ethiopian leather and leather product (LLP) industry, a dynamic sector characterized by a vibrant industrial policy framework. Ethiopia is selected in order to provide insights on how industrial policy can be formulated from scratch and how structural change can occur in a country that is not endowed with significant natural resources or mineral deposits. This is consistent with a broad strand of empirical literature that shows a positive relationship between industrial development and economic growth, as well as the potential of the industrial sector to improve living standards and foster income convergence towards those of developed countries (Wells and Thirlwall, 2003).

This paper contributes to the growing literature on industrial policy in two ways. First, it identifies distinct industrial policy characteristics that other African countries can consider when designing their own industrial policies. This is a departure from the current literature, which draws industrial policy lessons for African countries from the East Asia experience. Second, the analysis focuses on the role of industrial policy institutions, a practical policy problem less addressed in the literature.

The rest of the paper is organized as follows. Section 2 examines the rationale for industrial policy as well as Africa’s prior industrialization experience. Section 3 provides stylized facts on Ethiopia’s industry performance while the LLP industry’s institutional and industrial policy framework is elaborated in section 4. Conclusions and policy implications are summarized in section 5.

2. Related literature

2.1. The rationale for industrial policy in fostering structural change

The state has a central and pivotal role in fostering structural transformation in an economy. According to the ‘New Structural Economics’, although markets are the basic and first-best mechanism for the effective allocation of resources, the state should provide an enabling environment for firms to thrive in (Stiglitz et al., 2013; Lin, 2012; Lin and Monga, 2011). By accelerating the transfer of resources (capital, labour and knowledge) from low to high productive sectors, industrial policy has the potential to promote and sustain inclusive economic growth. Theoretical and empirical literature points out the
importance of industrial policy in addressing distortions that constrain structural change. The first
distortion relates to the presence of market failures; the second to coordination failures; and the third to
technological accumulation and the acquisition of knowledge.

The traditional view in economics was that markets are efficient and state interventions should not
influence the allocation of resources across sectors. However, there is a growing consensus that markets
do not necessarily lead to efficient or desirable outcomes and the state has a role to play in this regard.
One of the well-known market failures that industrial policy can address is information and cost
discovery externalities (UNCTAD and UNIDO, 2011). According to Haussmann and Rodrik (2003),
information externalities deter firms from exploring new economic activities, especially in developing
countries where property rights are not enforced. This arises because the first firm to invest in cost
discovery bears all the costs, while rival firms learn from the outcome of the first entrant. Due to this free
riding problem, investment is minimal as no firm is willing to make any effort in the discovery of new
products. Industrial policy can thus be used to promote entrepreneurial entry, survival and compensation
for innovation through patent rights and copyright laws (Lin and Chang, 2009). In a cross-country study,
Yasar et al. (2011) provide empirical evidence that supports a positive and robust relationship between
firm performance and property rights. The authors show that institutions that secure property rights and
promote sound legal systems are a pre-requisite to increasing firms’ performance and productivity in
developing countries.

Another type of market failure relates to environmental externalities. These arise because firms,
motivated by profits, do not incorporate pollution and environmental degradation costs in their
investment decisions. Industrial policy can be relied upon to correct this, by supporting the development
of green technologies, as well as production processes that are environmentally friendly, resource
efficient and low carbon intensive (Hallegatte et al., 2013). In a study of industrial waste management in
Taiwan, Tsai and Chou (2004) empirically show the effectiveness of industrial policy in addressing air
pollution. They show that government policies such as providing financial support to firms to engage in
waste-reducing initiatives such as recycling have been effective in promoting clean production
techniques in the industrial sector.

The second need for industrial policy arises due to the presence of coordination failures (Pack and
Saggi, 2006). Coordination failures occur because the feasibility and profitability of most economic
activities is contingent on the existence of complementary investments. This implies that a firm is willing
to invest in a particular sector if there are other firms that support its production process. In the absence of
such an environment, entrepreneurial and domestic production may be adversely affected. Therefore, the
state has a responsibility to promote and coordinate collective investment decisions from independent
actors and firms (Altenburg, 2011). In an analysis of manufacturing firms in Ethiopia, Gebreeyesus and
Mohnen (2013) provide evidence that supports the importance of firm coordination and networks in
promoting technological innovation. The authors show that local business relations constitute the key
channel through which firms acquire knowledge on market opportunities, new products, competitors and
production techniques. In a case study of the flower sector in Ecuador, Hernandez et al. (2007) highlight
how industrial policy fostered coordination between production on the one hand and the transportation of
flowers to foreign markets on the other. The authors highlight the role of the association of flower
exporters in convincing the government to increase the number of cargo flights by its national airline in
order to promote the production and export of flowers.

Besides the need to correct market and coordination failures, industrial policy can address deficits in
technological accumulation and learning among firms. In developing countries, domestic firms rely on
existing technologies to boost their technological capabilities. However, adopting technology is usually
costly and time consuming, as most firms either lack the necessary information or access to existing
global technologies. In addition, inter-firm spillovers may hinder firms from investing in technology or
knowledge accumulation as labour is mobile across firms. Given that knowledge is a public good whose usage is non-rivalrous, the market becomes an inefficient provider, necessitating the government to encourage the private sector to conduct research and innovation by ensuring strong patent and copyright laws that secure property rights (Stiglitz et al., 2013). Empirical evidence tends to confirm that the income convergence of East Asian countries towards that of developed countries was accelerated by industrial policies that promoted constant learning and knowledge accumulation among firms (Rodrik, 2009). This is in line with firm-level evidence that shows that patent rights have a positive and significant impact on the ability of firms to allocate their investment resources to research geared at developing new production techniques (Allred and Park, 2007).

2.2. The evolution of industrial policy in Africa

The evolution of industrial policy in Africa can be categorized into three distinct phases. These include the import substitution policies (ISIs), which began after the independence era in the 1960s through to the 1970s, the structural adjustment programmes (SAPs) of the 1980s, and the poverty reduction strategy papers (PRSP) in the 1990s. During these periods, most governments implemented various industrial policy strategies and interventions to promote industrial development. However, analysis of these strategies shows that industrial production did not take off, and de-industrialization occurred in most countries. Manufacturing as a share of output and employment decreased or remained low over most of the period (ECA and AUC, 2013).

During the ISI phase, industrial policy emphasized the production of consumer goods, which were initially imported. These policies were implemented in the belief that there already existed a pool of domestic consumers who would provide demand for these goods. It was further contended that existing local firms would eventually upgrade their production structures from consumer goods to capital intensive and high value added products, promoting structural change in the country (UNCTAD and UNIDO, 2011). However, ISIs did not spur industrial development as they required substantive government support, which proved costly and unsustainable. ISIs emphasized supporting and protecting firms rather than nurturing their competitiveness and as a result, most firms were not competitive or efficient.

The failure of ISIs led to the implementation of the SAPs. The SAPs were founded on the belief that industrial development was hindered by poor economic policies such as real exchange rate misalignments, trade protection, the neglect of the agriculture sector and interest rate controls (UNCTAD and UNIDO, 2011). Countries were required to liberalize their trade markets, de-regulate interest rates, devalue their currency and privatize state institutions. A key component of the SAPs was the combination of trade liberalization and withdrawal of government support to domestic firms. This limiting of the role of the state led to the collapse of most domestic firms as they were not able to compete with established international firms. Mudenda (2009) analyses the impact of SAPs on domestic garment firms in Zambia. The analysis shows that trade liberalization led to an influx of cheaply manufactured textile products, and as a result, around 35% of existing domestic firms closed down. This evidence is also consistent with other studies such as Tekere (2001), who shows that trade liberalization resulted in the collapse of clothing firms in Zimbabwe; Mohammed et al. (2011) finds the same in the case of Sudan, whilst Grosen and Colkun (2010) argue that a decade of SAPs implementation in Tanzania did not address structural factors constraining industrial development.

Following the failure of both ISIs and SAPs, a third wave of industrial policy was implemented under the PRSP. During this phase, Africa’s lack of industrialization was attributed to the prevailing low levels of human development in the continent. Countries were required to channel their resources to social sectors, especially in education and health. However, PRSP did not translate to industrial development as emphasis was laid on providing basic education and health with no clear linkage to
developing industrial skills for high productive and value added sectors such as manufacturing (ECA and AUC, 2013).

2.3. Industrial policy challenges in Africa

Industrial policy in Africa is constrained by several structural and policy factors. First, industrial policy in most countries has not conformed to comparative advantage. Most countries have ignored their relative abundance factors and instead promoted capital intensive industries, which are not able to take off. This has instead resulted in high production costs, over-reliance on government support, inefficient production structures and lack of competitiveness (Lin and Chang, 2009). Empirical evidence from Teixeira et al. (2014) shows that sub-Saharan Africa fails to ignite industrialization due to the support for production processes that are beyond its human and financial capacities. The authors argue that most countries failed because they promoted capital-intensive sectors rather than capitalizing on their comparative advantage in labour and natural resources. Hornsby (2012) critically examines Kenya’s industrialization history in manufacturing private vehicles in the mid-1980s. The analysis shows that despite significant subsidies, the eventual collapse of the industry in 2001 was attributed to a lack of sufficient financial resources and technology, factors in which the country did not have a comparative advantage. These examples are reminiscent of several case studies of industrial policy failure highlighted by ECA and AUC (2013).

Both theory and empirics underscore the need for industrial policy to support firms that effectively exploit the economy’s comparative advantage. The Ricardian theory of international trade highlights the benefits emanating from specializing and trading in sectors of comparative advantage. However, due to market and coordination failures, the new structural theory as well as the new trade theory lays the foundation for state interventions to address these failures. Murphy (2007) examines the ability of firms to upgrade their industrial production capacity in rural Tanzania. Based on empirical analysis, the author finds that government support in building local firm capabilities through skills formation can foster industrial development. Mccormick (1999) presents an analysis of industrial clusters in Ghana, Kenya and South Africa. The author shows that the differences in effective clustering and industrialization can be attributed to state interventions. Successful cases portray the role of the government’s support in providing infrastructure and a policy environment that favours business activities and enterprises. In the same vein, Rijkers et al. (2010) shows that supporting firms through the expansion of access to capital is a vital factor that can increase the productivity of manufacturing firms located in rural Ethiopia.

Proponents of this comparative-advantage-following development strategy argue that industrial policy should target a country’s abundant resources, such as commodity endowment and labour. By focusing on the availability of these resources, domestic firms will capitalize on existing resources and become profitable in domestic and international markets. Subsequently, this will lead to an increase in investment, market share, and competitiveness in domestic, regional and international markets (Stiglitz et al., 2013). Muchie (2000) examines the drivers of industrial development in Ethiopia. The author shows that the success of the leather sector hinges on the country’s comparative advantage in livestock resources as well as government initiatives to boost skills formation and technology adoption.

Second, the absence of sound institutions, bureaucratic capacity and governance frameworks constrains industrial policy across Africa. Industrial policy is designed with minimal consultation with key stakeholders, especially the private sector. Institutions in charge of industrial policy are characterized by competing and conflicting objectives, and industrial policy decisions are captured by interest groups and the political elite (ECA and AUC, 2014). Duru (2012) presents the challenges of the Nigerian experience of industrial policy, arguing that political interference and rent seeking
practices have constrained its effectiveness. On the contrary, experiences of successful industrialization in both developed and developing countries underscore the importance of a visionary and highly skilled bureaucracy as well as government institutions that incorporate the private sector in the design and implementation of industrial policy (Hosono, 2015; Wade, 2009).

Third, industrial policy in Africa has disregarded country and sector specific conditions. Industrial policies are normally adopted from other countries without being tailored to local economic and political conditions. As a result, most policies turn out to be ineffective as they are not context specific and do not take into account a country’s endowments and initial conditions. Loewe (2013) presents a case study of industrial policy in Egypt. The author shows that its ineffectiveness could partly be attributed to minimal consultation with the private sector and state interventions that were only targeted to large and established firms. The analysis shows that industrial policies were not formulated in a clear and transparent manner, and they were not based on creating incentives for firms to engage in the production of high value-added products.

Chang (2013) examines four common industrial policy challenges argued to be the most binding in the African context. These include structural impediments such as climate, geography, culture and history; the abundance of natural resources; political economy issues; and bureaucratic capabilities. However, despite their validity, Chang argues that these arguments are largely theoretical and lack any empirical support. Chang argues that what African countries need is a deeper understanding of how to get industrial policy right by implementing sound and timely government interventions. Therefore, these arguments should shape the design and the form of industrial policy but not negate its importance in accelerating a country’s structural transformation process.

2.4. Industrial policy and state interventions

Despite the crucial role of industrial policy in spurring structural change, a contrasting body of literature argues that state interventions should not be used as they induce economic distortion through corruption and rent seeking (Rodrik, 2009). Corruption sets in as entrepreneurial firms are incentivised to demand favours rather than engaging in productive investment. This in turn distorts the proper functioning of the market and shifts economic rents and benefits to politically connected firms and the elite (Rodrik, 2009). It is also argued that the state lacks adequate information and capacity to identify sectors that industrial policy should target. Therefore, any failure in government intervention is more costly and harmful than the targeted failure to be addressed, and industrial policy is likely to result in supporting non-viable firms (UNCTAD and UNIDO, 2011).

Despite the validity of these claims, it has been argued that devising sound and effective institutions is vital in mitigating these failures (ECA and AUC, 2014). Bjorvatn and Coniglio (2012) develop a theoretical model, which shows that even in the presence of inefficient governments, industrial policy can provide a big push and enable developing countries to boost their industrial capacity. Successful experiences from the East Asian countries show that government failure was avoided through transparent and accountable institutions. Wade (2009) presents a case study of Taiwan and argues that the Industrial Development Bureau addressed these failures by designing incentives that had a sunset clause, promoting an educated bureaucratic workforce, and recognizing the private sector as a key player in the industrial process. Holcombe (2013) argues that industrial policy was successful in Japan and South Korea as it was targeted to turning small firms that had demonstrated their entrepreneurial and productivity capabilities into globally successful firms.

Given these successful experiences with industrial policy, most studies and policy documents (Hosono, 2015; Stiglitz et al., 2013) have focused on drawing industrial policy lessons for African countries from the experiences of East Asian countries. While this is insightful in drawing best practices,
blueprint approaches have often resulted in policy failure because they do not take into account country and context specific circumstances (Rodrik, 2009). Industrial policy tools such as directing FDI into high technology sectors implemented in Singapore and Taiwan, export processing zones and under-valued exchange rates in China, and trade liberalization in Korea are less likely to succeed in most African countries, given differences in initial and present conditions as well as heterogeneity in factor endowments and economic institutions. The next section presents a case study of industrial development in Ethiopia, with the aim of distilling policy lessons that are likely to be suitable in fostering structural change in other African countries.

3. Ethiopia’s industrial performance

3.1. Overview of Ethiopia’s industrial performance

The Ethiopian economy is among the fastest growing on the continent. Table 1 highlights the country’s key macroeconomic indicators since 2000. The table shows that the economy has recorded a double digit real GDP growth rate since 2004 (with the exception of 2009 as a result of the global financial crisis). Real GDP per capita growth has steadily increased from 3.3% in 2000 to 10.8% in 2004, reflecting improvements in purchasing power and standards of living, before slightly declining to 6.5% at the end of the period. Sectoral composition of aggregate output in the country shows that the industrial sector has gained momentum in recent years.

An analysis of the industrial sector shows that value addition has consistently remained above 10% of GDP during the period from 2000 to 2009, as a result of increased industrial activity and coherent industrial policies. Based on the country’s projections, the industrial sector is envisioned to be a major source of economic growth and job creation in the long run (MoFED, 2010). However, the manufacturing sector has oscillated around 5% of GDP, as performance in the cut flower, textiles and apparel, as well as wood, paper and pulp sectors has slowed down (AACCESA, 2015). Nevertheless, as discussed below, the leather and leather product sector continues to play a significant role in the country’s manufacturing sector. In fact, according to Oqubay (2015: 5), industrial policy in the leather sector has mirrored the experience of the East Asian countries, although it has been tailored to take into account industry specific factors such as its low industrial base, path dependency in the form of low value trap, and integration into global value chains. In addition, ‘the depth of political commitment to consistency of policy instruments and compatibility of policy institutions has been significant to the success of the leather sector’.

3.2. Background of the LLP industry

The LLP industry was established in order to capitalize on the country’s comparative advantage in livestock resources. The country is endowed with a cattle population of around 52 million, ranking it

Table 1
Selected macroeconomic and industrial indicators in Ethiopia.

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<tr>
<td>GDP growth (%)</td>
<td>6.1</td>
<td>8.3</td>
<td>1.5</td>
<td>2.2</td>
<td>13.6</td>
<td>11.8</td>
<td>10.8</td>
<td>11.5</td>
<td>10.8</td>
<td>8.8</td>
</tr>
<tr>
<td>GDP per capita growth (%)</td>
<td>3.3</td>
<td>5.5</td>
<td>1.0</td>
<td>6.6</td>
<td>10.8</td>
<td>9.2</td>
<td>8.3</td>
<td>9.0</td>
<td>8.4</td>
<td>6.5</td>
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<tr>
<td>Manufacturing, value added (% of GDP)</td>
<td>5.5</td>
<td>5.7</td>
<td>5.7</td>
<td>5.3</td>
<td>4.8</td>
<td>4.5</td>
<td>5.0</td>
<td>4.8</td>
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<tr>
<td>Manufacturing, value added (% growth)</td>
<td>7.5</td>
<td>3.6</td>
<td>1.3</td>
<td>0.8</td>
<td>6.6</td>
<td>12.8</td>
<td>10.6</td>
<td>8.3</td>
<td>7.1</td>
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<tr>
<td>Industry, value added (% of GDP)</td>
<td>12.4</td>
<td>13.0</td>
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<td>14.1</td>
<td>14.1</td>
<td>13.0</td>
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<td>10.8</td>
</tr>
<tr>
<td>Industry, value added (% growth)</td>
<td>5.3</td>
<td>5.1</td>
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first in Africa and sixth in the world. In addition, the sheep population is estimated at 27 million, placing it third in Africa and tenth in the world, while its goat population of 23 million ranks third in the continent and eighth in the world. The off-take rate (annual proportion of animals sold or consumed) for cow hides is estimated at 14%, 27% for goat skins and 40% for sheep (LIDI, 2013).

Given these vast resources, the country’s industrial policy prioritizes the LLP industry as one of the sectors that can foster structural change in the economy when aided by effective industrial policies. The LLP sector has been dynamic in nature, growing over time to fit into the country’s industrial development framework. In 2013, the sector comprised 29 tanning companies that added value to hides and skins, 16 medium and large scale footwear manufacturers with an annual production capacity of 15 million pairs, and 15 leather goods and garment companies that produced gloves, garments and bags (LIDI, 2013). Export performance has also been remarkable, as the sector has experienced rapid growth in export revenues from 880,000,000 birr (US$ 44 million) in 2004 to 2,200,000,000 birr (US$ 110 million) in 2012 (UNIDO, 2012). In addition, foreign direct investment has increased from 920,000 birr (US$ 46,000) in 2004 to 304,725,000 birr (US$ 15,236,250) in 2009, primarily due to inflows from China and India (UNIDO, 2012). As elaborated in the country’s industrial development plan, the government has devised several policies to boost investments and expand the sector.

The government has engaged several donor agencies in the development of its industrial policy. For instance, the United Nations Industrial Development Organization (UNIDO), in conjunction with the MoI, has implemented a technical assistance project aimed at upgrading tanneries and leather laboratories. It has also organized international trade fair collections to boost market access. The government benefits from advisory services from the Japanese government and the Japan International Cooperation Agency (JICA) has engaged the government in policy dialogue and sharing of best practices and industry experiences. It has also been involved in productivity enhancement of domestic firms, through technology transfer and boosting managerial skills.

The leather sector provides significant employment opportunities. Fig. 1 shows that employment has increased over time, from 6989 workers in 2000 to 10,707 workers in 2010, representing an annual growth rate of almost 5%. This has been vital in providing job opportunities and income to the country’s abundant labour force, consistent with theoretical assertions that the industrial sector can be labour intensive and instrumental in absorbing excess labour, especially that of unskilled workers.

In addition to creating job opportunities, the LLP industry acts as a source of earning and livelihood, contributing positively to poverty reduction. Fig. 2 depicts the trend of average monthly earnings, expressed in real birr (the local currency) for workers in major leather processing firms.

![Graph showing employment trends](image)

**Fig. 1. Employment trends.**

*Source: UNIDO, 2012.*
Over the period 2000 to 2009, the figure shows that monthly earnings in the leather, luggage and handbags sub-sector were consistently higher than those in the footwear sub-sector, given the high level of skilled workforce required in designing, sewing, coating and polishing of luggage and handbags. Although the figure shows a general downward trend in total monthly earnings of workers engaging in the leather industry – from almost 2000 birr (US$ 100) in 2000 to around 1000 birr (US$ 50) in 2009, these earnings are considerably higher than those of workers engaged in the exportation of raw and unprocessed leather products. For instance, in 2009, the average monthly earning for workers exporting unprocessed products such as raw hides and skins of sheep – which is the most profitable - was around 625 birr (US$ 31), an amount that is 375 birr (US$ 19) lower than the earnings of workers in the major processing firms (USAID, 2013). Therefore, workers engaging in value addition in the leather sector seem to receive on average higher earnings compared to those exporting unprocessed products such as hides and skins.

Finally, Fig. 3 shows the average monthly distribution of workers’ earnings in 2009 and reveals that the sector’s compensation is significantly skewed towards low and medium wage employees who normally constitute a large portion of the workforce. The figure shows that, per month, around 20% of workers in the leather and leather product industry (LLPI) earned between 200 birr (US$ 10) and 400 birr (US$ 20), while the national absolute poverty line in 2009 was around 315 birr (US$ 16) per adult equivalent per month, implying that some of the workers’ earnings were below the estimated amount needed to secure the basic necessities of life (World Bank, 2014). Disaggregating the average monthly distribution of earnings according to the different leather products, the analysis shows that this skewness is more pronounced in the footwear sub-sector, where around 30% of the workers earned between 200 birr (US$ 10) and 400 birr (US$ 20). That workers remunerations are on average low in the leather industry suggests that while industrialization is desirable, especially in contexts where labour is abundant and considered to be cheap and attractive to foreign firms, government interventions are crucial in ensuring that the process of industrialization is pro-poor. This might involve policies that enhance

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1 Average earnings in the LLP industry fell between 2005 and 2009 due to declining FDI (UNIDO, 2012). The Ethiopian LLP industry significantly relies on foreign investments from East Asian countries, an aspect that exposes its production processes to external shocks.
income growth but also income redistribution, ensure that industrialization does not lead to vulnerable employment, and is ultimately associated with poverty reduction through higher earnings (Fosu, 2016; UNIDO, 2006).

4. Industrial policy framework in the LLP industry

The Ethiopian government established the Leather Industry Development Institute (LIDI) in 2004 to foster the development of the LLP industry. LIDI is an independent federal government institution with the key mandate of formulating policies, strategies and programmes to develop the leather sector, enhance the development and transfer of technology, and serve as a one-stop shop for potential investors. According to Oqubay (2015), LIDI is equipped with modern technological facilities such as treatment plants, laboratories, computer-aided manufacturing software and training facilities, which are accessible to investors in the leather industry. LIDI aims to accelerate the rapid expansion of the sector by promoting both domestic and foreign investment, providing investors with production and marketing technologies as well as support services. It has formed partnerships with the Central Leather Research Institute in India in order to support the sector, with a special focus on small and medium enterprises and stakeholders located in rural areas.

The Ethiopian industrial policy framework is documented in the Plan for Accelerated and Sustained Development to end Poverty (PASDEP), the Industrial Development Strategy (IDS) and the Growth and Transformation Plan (GTP). These three blueprints highlight the government’s policies and strategies to eradicate poverty by fostering structural change through industrial development. PASDEP is the national plan and outlines the country’s strategic framework for a five-year period (2005–2010) while GTP indicates the targets to be achieved by 2015. PASDEP and GTP have been developed through consultations with different stakeholders such as national citizens, the private sector, civil society, non-government institutions and international development partners. This inclusive process has led to local ownership of the industrialization process and mitigated the risk of capture by special interest groups and political coalitions (Oqubay, 2015).

PASDEP emphasizes the need to establish an internationally competitive industrial export-oriented sector. It outlines three key areas for government intervention such as providing support to the private sector, coordinating and guiding investment decisions among different stakeholders and addressing market failures. PASDEP also emphasizes the need to create a sound macroeconomic environment
that supports entrepreneurship by establishing modern financial systems and addressing infrastructural deficits, especially in the transport and energy sectors.

While PASDEP outlines broad policy interventions, the IDS framework outlines four key principles that govern the LLP industry. The first principle underpins the private sector as an engine of industrial development. It underscores the need for the government to promote private sector development in order to boost competitiveness in terms of prices, quality and entry into domestic, regional and international markets. The second principle relates to supporting the implementation of an agriculture-led industrialization process. Given the country’s endowment in fertile agricultural land, the IDS framework underscores the strong interrelationship between the agricultural and the industrial sectors, and the need to promote synergies. It emphasizes the fact that growth in agriculture has a strong impact on the LLP sector through the provision of production inputs such as raw hides and skins.

The third principle focuses on labour-intensive industrialization. The IDS is based on a strategy of following comparative advantage, recognizing the need to promote sectors that utilize the country’s abundant resources and domestic raw materials. The last principle underscores the importance of mutually beneficial investment partnerships between domestic and foreign firms. This aims to supplement domestic investment, promote technology diffusion and boost managerial and technical capabilities.

4.1. Industrial policies implemented by LIDI

4.1.1. Provision of information and support to investors

One of the major roles of LIDI is to address information and cost discovery externalities by providing information to domestic and foreign investors regarding investment opportunities. LIDI prepares and disseminates project profiles to guide investment decisions, and conducts feasibility and market studies on behalf of prospective investors. By conducting studies and research on the industry, it provides advisory and consultancy services to investors regarding production processes, planning, implementation, technology selection and quality control. It provides information on potential market destinations and supports firms’ entry into regional value chains such as those in the Common Market for Eastern and Southern Africa (COMESA) and global chains such as African Growth and Opportunity Acts (AGOA) markets. According to a 2009 micro-level survey conducted by Oqubay (2015), 86% of firms viewed LIDI as an organization that works closely with stakeholders in the sector while 81% of the firms agreed that LIDI plays a key role in supporting domestic firms rather than imposing cumbersome regulations.

4.1.2. Enhancing human capital and technology accumulation

Consistent with the rationale for industrial policy, LIDI plays a vital role in promoting human capital development and the accumulation of technical and managerial skills in domestic firms. It creates strong links between the industry and institutions of higher learning. LIDI cooperates with universities in conducting joint research on product and human resource development. It has developed university programs in leather technology. It supports footwear and leather goods manufacturing technology courses in a total of 16 technical and vocational colleges and conducts tailor made training on manufacturing technology. Annually, approximately 500 middle level managers and technicians are certified by LIDI to work competently in the industry (LIDI, 2013).

In addition, an Engineering Capacity Building Program (ECBP) has been launched to enhance labour productivity via skills upgrade in the industry, through curriculum reforms in institutions of higher learning. The ECBP has aligned the education system with the industrial sector by introducing and reforming 79 undergraduate and graduate engineering degree programs. It also supports the
private sector by providing technical and managerial skills and linking domestic firms to international markets. According to a 2008 report\footnote{The Engineering Capacity Building Program in Ethiopia', 2008 Evaluation Report No.039 by the Federal Ministry for Economic Cooperation and Development in Germany.} published by the Federal Ministry for Economic Cooperation and Development in Germany, 9.7% of exports in finished leather and 13.1% in the footwear sector in 2008 were attributed to the ECBP.

4.1.3. Promoting public–private sector coordination

LIDI promotes coordination between the government and various private sector entities in order to avoid coordination failures. It collects data, analyses it and shares it with various users and key stakeholders with a view to aiding decision-making on investment opportunities. LIDI works in close collaboration with different stakeholders such as the Ministry of Industry (MoI), the Ethiopian Investment Agency (EIA), the Ethiopian Privatization Agency (EPA) and the Ethiopian Leather Industries Association to address market and coordination failures. This coordination has reduced cumbersome and bureaucratic procedures that constrain private investment and the growth of the industrial sector. For instance, registration and licensing of entrepreneurial ventures by MoI takes less than an hour. EIA, an agency of MoI, is responsible for providing information on investment opportunities and advising investors on the country’s regulatory framework. It also assesses the types of incentives a firm can benefit from, as well as assists firms in acquiring land for investment purposes. Privatization of state owned enterprises is handled by the EPA while LIDI offers managerial and technical expertise. This coordination ensures that the public and private sectors work in collaboration to identify existing challenges, solutions and opportunities in the industry.

4.1.4. Promoting green industrial production processes

LIDI promotes industrial policies that address environmental externalities such as environmental pollution that occurs in the production process and leads to environmental degradation. LIDI ensures that firms adhere to industrial pollution control standards by offering training on green technologies. Recognizing the high capital and operating costs associated with implementing green technologies, LIDI, in conjunction with the MoI, has established a common effluent treatment plant for 14 tanneries. It is also partnering with the China Leather and Footwear Industry Research Institute to establish a joint environmental laboratory. This will have the twin objective of promoting cleaner production technology and ensuring better waste management in the industry.

4.1.5. Competitive fiscal incentives

The government has established several fiscal incentives and investment friendly policies to improve competitiveness and private sector development. For instance, investors are granted custom duty exemption on imported capital goods, construction materials and spare parts up to 15% of the import value. This tax exemption is also awarded to imported inputs which are used in the production of LLP for export purposes. A credit guarantee scheme has been established to address inadequate financing and working capital requirements in the industry. Ethiopia has initiated bilateral investment treaties with more than 24 countries, avoiding investors’ double taxation and facilitating capital and profits repatriation. Domestic firms are allowed to employ foreign experts and management staff to boost their technical and managerial capacity, and the government operates a cost-sharing scheme that exempts income tax on foreign experts hired in the industrial sector. This scheme is aimed at supporting and building managerial and technical skills in domestic firms.

The government has also established the Export Trade Duty Incentive Scheme, which consists of four incentives schemes. These include a duty draw-back scheme, which refunds exporters 100% of the duty
paid on raw materials used in the production process; a voucher scheme, which is used to import raw materials required to produce export goods; a bonded manufacturing warehouse scheme for exporters; and a foreign exchange retention scheme. According to survey evidence from Oqubay (2015), 73% of leather firms in Ethiopia reported that the foreign exchange retention scheme was implemented effectively, while 60% of the firms were direct beneficiaries of the various export promotion incentives implemented by LIDI in 2009.

5. Conclusions and policy implications

This paper attempts to understand how industrial policy is designed and implemented in practice in the Ethiopian LLP sector. It finds that industrial policy institutions (IPOs) constitute key ingredients of an effective industrial policy framework and well-functioning institutions can address market, coordination and externality failures that hinder industrial development and structural change. The case study underscores five key policy interventions that other African countries can take into account in the process of designing their own industrial policy.

First, there is a need to institutionalize industrial policy in national development frameworks, delineating clear strategies, objectives, measurable targets and timelines. Monitoring and evaluation of these strategies should be conducted on a regular basis and industry policy instruments should be flexible and mirror the continually changing needs of the industry, private sector and global conditions. Second, this study underpins the need for IPOs to work in close collaboration with the private sector to identify challenges and opportunities in the industrial sector. IPOs should continuously interact with all stakeholders and provide support to domestic firms in terms of information, technology and market access. Promoting mutually beneficial public–private sector investment emerges as a key policy to improve competitiveness and productivity. Devising competitive fiscal incentives that support domestic firms, and addressing infrastructural deficits identified by stakeholders are central to promoting an investment friendly environment where industrial firms can thrive.

Third, the analysis accentuates the value of enhancing human capital through skills upgrading and technology accumulation. Bridging the skills gap is critical in boosting employment opportunities and labour productivity. Therefore, there is need to reform education curricula and ensure that industrial skills are an integral part of a country’s education system. Creating institutions of higher learning to offer training support can build capacities in domestic firms. Facilitating technological diffusion and innovation is equally important in enhancing productivity through cost-effective production mechanisms.

Finally, for countries with limited bureaucratic experience, donors and international development agencies can provide capacity building and policy advice. Aligning donor support with industrial development and sharing industrial experiences can provide African countries with much-needed expertise to avoid past mistakes of industrialization.

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