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# The effectiveness of industrial development strategy in Ethiopia

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**Abstract**
Prioritizing the development of fastidious sectors or regions is habitually part of Least Developed Countries Development Approaches. We study a consummate example of such policies in Ethiopia, using geographic and sectoral disparity in the form and scale of the policy for recognition. Using analytical outline of policy-related principles, criteria and indicators (PCI) we show that the policy was disastrous: There was no improvement in productivity, productive assets, or employment. The strategy failed due to low legitimacy of industry development policy from the existing stakeholders. Lastly, result indicates that due to skills gaps, budget, unapparent guide lines, the rate of industrial development was declined by 25 percent.
**Keywords: Industrial Policy, Ethiopia, Manufacturing, principles**

## 1. Introduction

The industrial development has long been regarded as the main engine of economic growth and structural transformation (Prebisch, 1950; Singer, 1950 as cited in Mulu, 2013). Proactive industrial policy has been vital for making the industry development through strong commitment to global integration and private sector driven growth; a wise and strong government guiding private sector; securing sufficient policy tools for industrialization; constant policy learning through concrete projects and programs; internalization of knowledge, skills and technology as a national goal; effective public-private partnership (PPP) and collection and sharing of sufficient industrial information between government and private entrepreneurs (Rodrik, 2004; Hausmann and Rodrik, 2003 as cited in Mulu 2013).

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It is nowadays broadly accepted that industrial policy might work well in countries with strong meritocratic communal services as well as political checks plus balances. These chiefly comprise Organization for Economic Co-operation and Development (OECD) affiliate states as well as various other lofty or higher-middle income-countries. Korea, Taiwan, Singapore, Brazil as well as Chile are regularly cited as examples of countries that fruitfully used industrial policies to catch up with the affluent countries of the OECD. Most observers, nevertheless, are moderately sceptical when it comes to the function of industrial policies in squat and lower-middle-income countries. According to all accessible supremacy indicators, these countries nearly without omission lag far following with regard to government efficiency, intelligibility, and answerability. Consequently, even though these countries apparently face principally brutal market collapse, there is a huge query mark as to the capability of their governments to interfere in markets in ways that amplify communal wellbeing (Chang, 2006).

What's more, manufacturing industry began to materialize in the 1950's in Ethiopia much prior than in many of the Sub-Saharan African countries whereas modern industries began to come into view in the second half of the 1950s intending to import substitution strategy (MoI**,** 2013).The industry development policy has also magnetized substantial foreign investment participation in the industrial sector in the country (MoI**,** 2013).

Nevertheless, in actuality, economic narration is full of malfunctions of industrial policies. In any case, the suitable policy jumble is implausible to be the same as in affluent countries since both the requirements as well as the capability for communal intercession fluctuate significantly. Yet, in stark disparity with the aforementioned achievement cases of catch-up improvement, petite is acknowledged about the superiority as well as the outcomes of industrial policies in squat and lower-middle-income countries.

The aim of this article is to lend a hand in filling this fissure. Unique notice is given to the evaluation of the effectiveness of industrial development policy and the relevance of industrial policymaking in promoting industries. It ends by proposing industrial policy.

## 2. Background: the History of Ethiopian industrial policy and development phases

Modern industry development emerged as an economic entity at the turn of the 20$^{th}$ century in Ethiopia. The underpinning of a strong central government, urbanization, establishment of railways and the growth of foreign relations had augmented the demand for imported manufacturing commodities. This has in turn promoted the establishment of import-substituting factories domestically and in so doing modern manufacturing enterprises began to materialize in the 1920$^{s}$ (Mulu, 2013).The industrial development has initiated to get impetus in the 1950s after short-lived disruption in the WWII period and also discernible by initiation of a wide-ranging plan to promote the country's industrial & economic development (Mulu, 2013). During this period, a number of new industries, which significantly contributed to the development of the national economy, were established. The 1950s are also spotted by the commencement of a

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comprehensive plan to stimulate and guide the country's industrial and economic development in general. Hence, the industry development has started to get momentum in the country afterwards.

The Imperial regime (1958-1973) had executed the three successive development plans. A conscious move to promote industrial growth began in the middle of the 1950s with the formulation of the First Five Year Plan (FFYP) that covered the period 1958-1962, the Second Five Year Plan (SFYP) and the Third Five Year Plan (TFYP), were instigated between (1963-67) and 1963-1973 respectively. The implementation of the initiatives had attracted foreign investors and boosts the manufacturing sector in the country (World Bank, 1985). However, the overall industrial base was suited weak by the end of the Imperial regime. Consequently, foreign ownership accounted more than 65 percent of the total number of medium and large-scale manufacturing establishments in Ethiopia (Eshetu, 1995 as cited by Mulu, 2013).

**Table 1**: History of Industry Development in Ethiopia

| Parameters | Imperial period(pre 1974) | The dergue regime (1975-91) | The EPRDF regime (post - 1992) |
|---|---|---|---|
| Guiding policy | Market oriented | Command economy | Market oriented |
| Public private role | Private-led | State-led | Private-led but also strong state role |
| Ownership structure | Dominance for foreign owned enterprises | Dominance of public-owned enterprise | Dominance of domestic private owned enterprise |
| Target industries | Import-substituting and labor-intensive industries | Import-substituting industries and labor intensive but also basic industries | Export-oriented and labor intensive industries |
| Envisaged key player | Foreign investment | Public sector investment | Domestic private sector |
| Policy instruments | Protection of domestic market through high tariff and banning of certain imports of provision of economic incentives. | Protection of domestic market through high tariff and quantitative restrictions financing and ensuring monopoly power for the state owned enterprises | Direct support for selected export sectors through capacity building other means provisions of economic incentives |
| Government role | Infrastructure and human resource development and ownership of selective industries | Mainly government ownership | Infrastructure and human resource development and ownership of selective industries capacity building of the private sector |

**Source:** Mulu, 2013

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Modern medium and large-scale manufacturing sector, which employs ten or more people and use power-driven machinery (hereafter MLSM) created no more than 60,000 jobs in total and it was predominantly foreign owned and dominated by import substituting light industries (Mulu, 2013).

The Dergue regime (1974 to 1991) has no specific industrial policy per se until the middle of 1980s, but declared "a socialist economic policy' that lead to nationalized most of the MLSM enterprises with setting a variety of controls on the private sector & market. Nationalized enterprises restructured under state corporations. The manufacturing sector shriveled and the private sector virtually reduced into micro & small manufacturing activity. The Ten Year Perspective Plan 1984/85-1993/94 has been in place for Public investment program of the indicative portfolio of projects and production targets in the regime (Mulu, 2013). In 1985/86, one decade after the revolution, the state-owned enterprises (SOE hereafter) managed to command 95 % of the value added and 93 % of the employment of all MLSM enterprises in the period. The manufacturing sector was also mostly affected by the turmoil of the period and exhibited about 40 % decline in value added in 1991 alone. The number of establishments in the MLSM sector also shrunk from about 380 in 1987/88 to 275 in 1990/91 with a corresponding decline in employments.

The Federal Democratic Republic of Ethiopia (FDRE hereafter) led government (since 1991) was the first decade (1991-99) marked by various reforms reversing the command economy, and implemented three phases of IMF/WB sponsored reform programs. In 1998 government adopted Export Promotion Strategy. A full-fledged Industrial Development Strategy (IDS hereafter) was formulated in 2002/03. IDS has been practical implemented by various sub-sector strategies and successive development plans such as; Sustainable Development and Poverty Reduction Program (SDPRP hereafter) 2002/03-2004/05 and the Plan of Action for Sustainable Development and Eradication of Poverty (PASDEP here after) 2005/06-2009/10 and The Growth and Transformation Plan (GTP here after) 2010/11-15/16 (Mulu, 2013) (See Table 1). Thus, industry development has got due attention recently and supported by different reform program for firms promotion.

### 2.1. The industrial Investment priority areas and infrastructure facilities

The industrial policies of Ethiopia have discrete attributes of the guiding vision or policy, ownership structure, industrial development laws, target, indicator of activities, principles and market orientation. Additionally, industry development policy of Ethiopia was import substitution and private sector-led (from early 1950s to 1974, the Imperial regime); the import substitution and state-led (from 1974 to 1991, the Dergue regime), and the export-orientated and private sector-led (since 1991, the Ethiopian People's Revolutionary Democratic Front, (EPRDF hereafter). Then, industrial development of Ethiopia has passed through many successful process of development plan. Consequently, the industry sector has played vivid role in contributing the accomplishments of development efforts of the country.

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The industry sector in general and the manufacturing sector in particular were given outstanding national importance following the formulation of the national industry policy in 2002 by the FDRE. This policy was designed within the framework of global environment principles of free market economy shows the acceptance of the private sector as the engine of the industrial development strategy; Agriculture-led Industrialization; Export-led Industrialization; focusing on Labor Intensive Industries; using Coordinated Foreign and Domestic Investment; and mobilizing the whole society for industrial development(MoI ,2013). The industry policy of 2002 has also identified priority sectors such as textile and garment, leather and leather products industry, chemical, metal, agro-processing industry and construction industry, which deserve attention to build the platform for the industry to take its key leading role in the economy. Moreover, industry policy is the corner stone for future industrial development in Ethiopia (MoI, 2013).

According to Kenichi Ohno (2015) the evaluation of industry policy of Ethiopia is a need of the execution further improvement , deficient infrastructure , limited action to improve business climate and etc under developed. Thus, industry development policy needs the implementation of the policy due attention as well as the components and instruments of policy preparation.

Cognizant to the policy, the accessibility of infrastructure services that support industrialists especially access to electric power has increased to 47% in 2011 from about 8% in the 1990s. The per capita energy consumption increase from 20KW to 100KW and 6000 towns and rural areas have been electrified during the same period (The Ethiopian Herald, 22 May 2012). The planned power mix by 2015 is envisaged to be Hydro 9000MW, Wind 890MW, Geothermal 70MW and Solar 30 MW. Currently Ethiopia is exporting 35 MW to Djibouti, and in the near future 100MW to Sudan and 400MW to Kenya (Addis Zemen Daily, April 24, 2012 as cited in MoI**,** 2013).Recently, the increased accessibility of infrastructure in the country has created an opportunities for industrial entrepreneurs to utilize the infrastructures developed in country for different purposes. Thus, industry has magnetized in country with creating different job opportunity, technology transfer, increased foreign exchange earnings and other benefit that support development effort of the country.

**Table 2**: Evaluation of industry policy sub-components of the scorecard based on policy research

| | Evaluation of industrial policy sub-components | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | M | U | T | E | R | G | H | I | J | k |
| Policy ownership | 5 | 3 | 3 | 4 | 5 | 5 | 5 | 3 | 5 | 2 | 4 |
| Vision of top leaders | 5 | 3 | 3 | 4 | 5 | 4 | 5 | 4 | 4 | 3 | 4.1 |
| Policy drafting procedures | 2 | 1 | 2 | 2 | 3 | 4 | 4 | 1 | 3 | 2 | 2.4 |
| Capacity of policy | 3 | 2 | 2 | 3 | 3 | 4 | 5 | 2 | 2 | 2 | 2.8 |
| Mindset of individuals | 3 | 2 | 1 | 2 | 4 | 4 | 4 | 2 | 3 | 2 | 2.7 |
| Budgeting staffing | 4 | 2 | 2 | 4 | 5 | 5 | 5 | 1 | 3 | 2 | 3.3 |
| Ministerial coordination | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 2.1 |
| Involvement of stakeholders | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2.5 |

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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring &evaluating methods | 3 | 1 | 1 | 2 | 5 | 5 | 5 | 1 | 3 | 2 | 2.8 |
| Impact on real economy | 2 | 2 | 0 | 4 | 3 | 5 | 5 | 2 | 3 | 2 | 2.8 |
| Average | 3 | 1.9 | 1.7 | 3.1 | 3.9 | 4.3 | 4.4 | 2 | 3.2 | 2 | 3.0 |
| Grade | B | D | D | B | B | A | A | B | B | C | B |

Notes:

1. Evaluation: 0(non-existent or worse), 1(little), 2(some), 3(moderate), 4(good), 5(excellent)
2. Evaluation of policy prepared and implemented by the government only; results obtained by the
3. Private efforts; international cooperation or external conditions are not included
4. Letter grade: A+(4.5 or above),A(<4.5),B(<4), C(<3),D(<2),F(<1)

L=Industrial human resource
M=Domestic enterprise development
U=Business climate
T=power and logistic
E=Export promotion
R=Strategic FDI marketing
G=Industrial parks
H=supporting local industries linkage
I=Productivity technology &innovation
J=Standards and testing
K=Average

**Source:** Kenichi Ohno, 2015

**2.2. The performance of industrial investment**

The average annual growth of industry in Sub Sahara Africa (SSA hereafter) and Ethiopia from 2001-2011 are 9.1 % and 4.2% respectively while, the average annual growth of industry in SSA and Ethiopia from 2004-2011 are 10 % and 4.3% respectively (Mulu,2013).Moreover, the industry growth rate of Ethiopia is low compared to average industry growth rate of SSA. Therefore, the government of Ethiopia has to work on industry development in order to increase the industrialist participation in the country. The 1974 revolution of Dergue regime had a significant impact on the manufacturing industries and economic dislocation. The Private sector capital investment come to an end and labor's marginal productivity began to decline from l974/75 to l977/78. This shows that the average annual growth rate of l8.9 % , 3.1 % and 3.8 % per annum for l978/79 and l979/80, l980/81 and l984/85 and 1985/86 to 1988/89 respectively.

However the main characteristics of the manufacturing sector in l975 inherited encompasses a predominance of foreign ownership and foreign managerial, professional, and technical staffing; heavy emphasis on light industries; inward orientation and relatively high tariffs; capital-intensiveness; underutilized capacity; minimal linkage among the different sectors; and excessive geographical concentration of industries in Addis Ababa. The industrial investment in country has been improved in recent time with increasing foreign and domestic private entrepreneurs in expansion of industry projects in the country.

The industrial development of Ethiopia operates within the framework of the country's overarching economic development policy, ADLI. The vision & targets of MoI depicts hat

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Leading country in light manufacturing sector in Africa by 2025, increased contribution of industrial sector to GDP from 15% in 2015 to 28 % by 2025 and Manufacturing (%GDP) of 5% (2015) to 18% (2025) (MoI,2016). Moreover, The Government has made principles, targets activities performed and other strategy of implementation for industry development in the development plans like Sustainable Development and Poverty Reduction Program (SDPRP hereafter) 2002/03-2004/05 and the Plan of Action for Sustainable Development and Eradication of Poverty (PASDEP here after) 2005/06-2009/10 and The Growth and Transformation Plan (GTP here after) 2010/11-15/16. Now, let us see the performance level of industry development in the development plans of the FDRE.

### **2.2.**1. **Sustainable Development and Poverty Reduction Program (SDPRP**)

The Ethiopian economy was on a down-ward trend, with average GDP growth of 2.3% and per capita GDP growth of -0.4% in the 1980s and early 1990s while the 1990s and 2000s have registered positive growth, with an average real total and per capita GDP of 3.7% and 0.7% per annum, respectively (MoFED,2002).The country began implementation of the integrated development plans in 2002, the first being the Sustainable Development and Poverty Reduction Program (SDPRP) of 2002/03-2004/05 began to register better economic performance, with an average GDP growth of 6.7% per year and an average annual per capita income growth rate of 3.65%.The second and third years of SDPRP period annual economic growth, with annual rates of 11.9% and 10.6%, respectively. Since then, the country has maintained high growth rates (MoFED, 2011).

Since 2003/04, GDP and all sub-sectors grew 10% or more but industry contribution to GDP remain stagnant (≤14%). Manufacturing contribution to merchandize export remains low (≤ 9%). This is due to increasing import dependence and weak domestic linkages exports increasingly constrained by lack of quality of inputs in domestic market despite efforts to address them (Mulu, 2013). Thus, it is very important to the policies and instruments need to be instituted has to work on identifying emerging bottlenecks and more importantly policies need to be framed with a view of addressing constraints along the whole value chain and also horizontal linkages.

### **2.2.2 Plan of Action for Sustainable Development and Eradication of Poverty (PASDEP)**

Industrial development in the implementation of past development plans of PASDEP was supported micro, small, medium and large industries particularly those using agricultural inputs. The targets and accompanying government supports of industrial developers were explicitly stated in the country five-year development plans. The industry development plan in PASDEP was mainly focus on strengthening small scale manufacturing enterprises for the foundation of the establishment and intensification of medium and large-scale industries. On other hand, the strategic priority projects of industrial sectors of the plan were Textile and Garment, Leather and Leather Products, Sugar Industry, Flowers and High-Value Fruits and Vegetables, and Cement Industry. The target set for the industrial development during the PASDEP period was to register

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an average annual growth rate of 11.5% and thereby increase the sector's share in the overall GDP from 13.6% in 2004/05 to 16.5% by the end of 2009/10. But, the average growth rate and share of real GDP achieved in PASDEP of industry sector was 10% and 12.9% for the period of 2004/05 and 2009/10 respectively(MoI,2013).According to government data on PASDEP depicts the real GDP, agriculture, industry and services grow at average of 11%, 8%, 10% and 14% per year respectively. Foreign investment has increased from less than 820 million USD in 2007/08 to more than 2 billion USD in the first half of the 2010/11 fiscal year (IDS, 2011; MoI, 2013).On the other hand, the industries were created around 1.5 million jobs during the five years implementation of PASDEP. The share of industry contribution to GDP is 11% in 2009/10. However, textile and garments factories and other industrial sectors performed poorly during the plan period in the country. Thus, the performance of industry in plan period was below the expected plan.

By the end of the PASDEP period the actual exports were; Textiles only 8% of the USD 500 target .Hides &Leather 23% of USD 273 million target .Other leather products 3.7% of USD 227 million target (Mulu, 2013) .Comparing with the base year 2004/05 the growth of textile exports was in fact impressive four fold up to 2010 and even further by 2011. Export performance of the Textile & Leather was unsatisfactory. A recent study on the light manufacturing in Ethiopia(Dinh, et al., 2012) indicate that the most obstacle for the apparel sector is poor trade logistics and accompanied by absence of competitive input industries (textiles).The most binding constraint in the leather export is the shortage of quality processed leather.

### 2.2.3 Growth and Transformation Plan (GTP I)

The overall goal of the industrial development strategy is to bring about structural change in the economy through industrial development. A total of 583 Billion Birr is required for the implementation of the thirteen-year plan (2013-2025). Top priority and most urgent projects are selected by the government in collaboration with the private sector and development partner countries for implementation. These projects demand about 173 billion Birr for the coming three to four years, specifically it is aimed at by increasing the share of the industry sector as % of the GDP from the current 13% to 27% by 2025, and also increasing the share of the manufacturing sector as % of the GDP from the current 4% to 17% by the year 2025(MoI, 2013).

The industrial development in Growth and Transformation Plan was focused on the promotion of micro and small enterprises, supporting the development of medium and large-scale industries, industry zones development, public enterprises management, privatization, labor intensive industry; use agricultural products as input; export-oriented and import substituting industries; and industries of faster technology transfer. The industry sector development GTP I focus on the way of encouraging export based and import substituting industries, vertical and horizontal linkages between agriculture and industrial sector was significantly promoted (MoFED, 2010). The priority industrial projects of GTP I were agro-processing, textile and

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garment, Leather and leather products, metal and engineering, and chemical and pharmaceutical sectors of manufacturing industries. Moreover, taking 2009/10 as the base year, the Growth and Transformation Plan I (GTP I hereafter) sets industry target under a base case to high case scenario of 10.2% to 21.4 % (Dessalegn et al., 2016). But, the performance of industry in GTP I is below expected. This is due to ambitions plan and targets were not realistically achievable.

**Table 3**: GTP I set real GDP projections targets under base-case and high case scenarios

| Base year 2009/10 | Base year | Five years 2010/11-2014/15 | |
|---|---|---|---|
| | 2009/10 | Base case | High case |
| Agriculture and allied activities | 6 | 8.1 | 14.9 |
| industry | 10.2 | 20 | 21.4 |
| service | 14.5 | 11 | 12.8 |
| Real GDP | 10.1 | 11.2 | 14.9 |

**Source:** MoFED, 2010; Dessalegn et al., 2016

The goal of GTP is to change the structure of national economy from one predominately agriculture based in to industry and service led (Dessalegn et al., 2016). Since then, it is imperative for fast track development of industrial and service sectors of the economy by encouraging private domestic and foreign investment by offering incentives. Industry is set to grow from 10.2 % achieved during the base year to high of 21.4 % under the GTP's high case scenario (Dessalegn et al., 2016). Additionally, the country planned to gain USD 644.2 million revenues from industrial sectors exports in 2011/12 in GTP I, but the actual was USD 255.4 million (about 40 %) of the target during the fiscal years, which suggests below target planned. Therefore, the government has to plan industry development projects based on the available actual financial and human capability to perform in the industry sector.

The share of industry in the GDP contribution remains low compared to the agriculture and service sector. The share of industry contribution to GDP are 13.0 % and 15% in 2000/01 and 2010/11 and thereby industry is expected to overtake agriculture in GDP contribution with 32% contribution as compared to 29% in agriculture by 2025(MoFED, GTP, 2010; FDRE, IDS, 2011).To achieve these goals, the government has created an independent institution, Ministry of Industry in 2010/11.Additional, the industrial development strategy has pursued the green economic development path.

**Table 4:** Performance of Industry development in GTP I

| Indicators | 2010/2011 performance | 2011/12 performance | GTP targets 2014/15 |
|---|---|---|---|
| Real GDP Growth Rate | 11.4 | 8.5 | 11.4 |
| Sugar Production(000 ton) | 0.28 | 0.26 | 2.25 |
| Leather and Leather products (in Million USD) | 104.1 | 112.1 | 496.87 |
| Textile Industries Export(in Million USD) | 62.2 | 84.6 | 1000 |
| Growth rate of industrial value added (%) | 15 | 13.6 | 23.7 |

**Source:** Dessalegn et al., 2016

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The government was planned the ambitious target plan for the textile & leather investment projects to generate US$ 500 million by the end of 2009/10 respectively while the textile industry of private sector value of US$ 1.6 billion was envisaged. The targets was also planned to create self-sufficiency in fabrics and government planned to invest directly in the textile sector through joint venture with foreign investors. However, the leather industry plan was to change the mix of exports toward processed and finished goods, to upgrade the capacity of tanneries and the finished products to produce finished leather products, discouraging hides &skin export through imposing above 150 % tax. However, the ambitious targets of industry development targets were not successful as expected in the development plan of the country. Therefore, it is vital to set targets of industrial projects development based on the available input, and others capacity of the country for sustainable development.

### 2.3. Industrial Policy Orientation

The industry development has got due attention as the national importance following the initiation of the industry development strategy in 2002. This policy was designed within the framework of global environment of the principles of free- market economy that take account of accepting the private sectors as the engine of the industrial development strategy; following of the direction of Agriculture-led Industrialization; following export-led Industrialization; spotlight on Labor Intensive Industries; using coordinated Foreign and Domestic Investment; and mobilizing the whole society for industrial development (MoI, 2013). The policy has also identified priority sectors that deserve attention to build the platform for the industry to take its key leading role in the economy. The major priority industry sub sectors were textile and garment, leather and leather products, chemical, metal, agro-processing industry and construction industry. Moreover, industry policy has created a framework conducive environment for industrial development in the country.

## 3. Methods and Procedures

This study examines the effectiveness of industry development strategy of Ethiopia, in order to build a picture of the overall policy environment of industry development strategy through national strategies and action plans. Analytical framework of policy-related principles, criteria and indicators (PCI) were used to assess the effectiveness of the IDS. The details of this methodology are presented in Table 1. The PCI approach were analyzed from secondary sources of IDS and primary document, Industry road map of 2013-2025 and industrial performance level from different development plans of the country and deploying questionnaires to 211 respondents as presented in Table 2. Quantitative and qualitative data sets, collected from both primary and secondary sources, were used to quantify the application of each principle. Primary data were collected using questionnaires of a 5-scale Likert scale 25 for experts and 2 for 1 NGO and 1 think tank of for Oromia Region in order to measure respondents' perceptions towards the effectiveness of industry development to particular indicators.

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Besides, to supplement and defy quantitative data concerning the effectiveness of industrial strategic plan of manufacturing industry, interviews were carried out with 43 stakeholders directly involved in operating manufacturing industry in Sululta town. Interviewed stakeholders included government administrators, public–private association experts, local residents, aged people, communal activists, and industry owners. Interviews were conducted from September to December 2020 in a semi structured format. Interviews were exploited to better recognize the continuation and character of strategic plan of manufacturing industry.

**Table 5:** Policy-related effectiveness principles, criteria and indicators (PCI) used for this study

| Principle | Criteria | Indicator |
|---|---|---|
| Industry development strategy is intended for ease implementation | Industry development policy objectives are explicitly articulated | • Targeted objectives<br>• Time lines or road map<br>• The means for getting funds |
| | An auxiliary instrument for execution accompanies the policies. | • Proclamation and regulations<br>• Time lines<br>• Subsidiary instruments |
| The legitimacy of industrial development policies shall be recognized by stakeholders | Key stakeholders' interests are represented in policy-making processes. | Existing policy platforms provide the representation of key stakeholders both government and civil society for the industry development endeavors. |
| | Policy-making is evidence-based | The policy formulation process is preceded by, Policy think tanks and research institutions provide evidence-based analysis to support the policy process |
| Industry policies shall be coherent with national development policies | Policy statements on industry development acknowledge national development goals. | Reference was made to national development in the national industry policy. |
| | Industry policy actions are consistent with strategies | Industry policy strategy documents and national development goals. |
| Industry policy shall promote transparency | Industry policies provide for the establishment and Operational of mechanisms | Mechanisms and modalities exist to promote transparency of industry development |

**Source**: Bird et al., 2013

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**Table 6:** Number of respondent with proportions of participating Institutions

| No | Institution | Number of respondent | Percentage |
|---|---|---|---|
| 1 | Oromia Investment Commission | 34 | 25.93 |
| 2 | Oromia Industry Development Agency | 20 | 18.5 |
| 3 | Oromia Environment, Forest and Climate Change Authority | 33 | 18.5 |
| 4 | Oromia Bureau of Urban Development and Housing | 29 | 14.8 |
| 5 | Oromia Industry Development and Park Development | 35 | 7.41 |
| 6 | Oromia Public Enterprises Supervisory Authority | 31 | 7.41 |
| 7 | NGO's/Civil Society | 29 | 7.41 |
| | Total | 211 | 100 |

**Source**: Questionnaires

Further, the study has used the questionnaires to different institution, which have directly and indirectly an influence on success of industry development. The quantitative analysis is used to evaluate the understanding or perception of the senior experts of the line institution, NGO and think tank. Accordingly, 27 questionnaires are employed to evaluate the effectiveness of industry development strategy of Ethiopia. PCI Approach of policy evaluation instrument is used in order to know the perception of experts, NGO and think tank on industry development strategy of the country

## 1. Results and Discussion

Interview with key stakeholders and data collected revealed that the growth and development of the selected industrial sectors has contribution for attaining of the Ethiopia's vision of becoming one of the middle income countries by the year 2025. Likewise, manufacturing Road Map of Ethiopia has developed for 13 years with Strategic Plan of Phase 1 for enhancing productivity Priority Sector Industry (2013-25) ,Phase 2 for diversifying and emerging new key industry (2016-25) and phase 3 for building up high-tech industry (2021-2025) with 10 key industries in 3 categories of light manufacturing industries (textile, leather, agro-industry, electronics ),basic & import substitution manufacturing industries (steel, equipment, chemical and pharmaceutical) and strategic industries ( energy, ICT and bio-technology) (MOI,2016). According to the information obtained from key stakeholders, the Government has also identified 8 industrial parks and 17 Integrated Agro Industry Growth Corridors (MOI, 2016). Consequently, the share of the manufacturing sector in the industry is targeted to be 37% by the year 2021 however the results indicate that 23% only. Moreover, findings indicate that industry development has been a base for structural transformation from agriculture led to industry led development of the country. Thus, to differentiate the gaps the principle, criteria and indicator (PCI hereafter) are ease of implementation; legitimacy,

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coherence and transparency in the implementation of industry development strategy of the country were analyzed as follows:

**4.1. Ease of implementation**

Policy document review revealed that the Government has initiated five strategic objectives to guide the implementation strategies and programs for industry development. And are further expand and develop the existing manufacturing industry priority sectors; diversify the manufacturing sector to new sectors; enhance enterprise cultivation and entrepreneurship; increase public, private and foreign investment; and develop and operate industrial zones and cities.

**Table 7:** Industry Development policy rating

| Criteria | Indicators | Rating effectiveness of the policy (%) | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| Ease of implementation | Targeted objectives | 3.3 | 2.3 | 47.5 | 33.2 | 13.7 |
| | Timelines | 5.2 | 8.3 | 30 | 47.2 | 9.3 |
| | The method for mobilizing financial resources | 12.6 | 14.3 | 40.3 | 30.7 | 2.1 |
| Subsidiary instruments | Subsidiary instruments | 17.4 | 16.1 | 23.7 | 34.7 | 8.1 |
| | appropriate subsidiary | 61.2 | 17.3 | 12 | 8.3 | 1.2 |
| Average | | 19.9 | 11.6 | 30.7 | 30.8 | 7.84 |

**Source**: own Computation from data collected, April, 2020

**Note:** 1. very low (<30%) 2. low (30-50%) 3. moderate (50-70%) 4. high (70-90%) 5.very high (> 90%)

Nevertheless due to skills gaps, budget, clear guide lines the rate of industrial development was declined by 25 percent. Besides, findings found by MOI (2013) propagated that , key implementation strategies are ensuring conducive business environment; availing competent human resource; availing quality industrial inputs for value-addition; developing and diversifying local, regional, and global markets; enhancing technology transfer; and developing and providing institutional support.

Besides, data compiled in rating industrial development policy indicate that the average value is 7.84% (see Table 7), which very law in solving the existing problems. Hence, accordingly, the responses from questionnaires show that about 54 % of the local residents in one way or another feel that industrial policies have negative impacts (increasing living costs) for the local residents. However, 30% of the local stakeholders feel that the establishments of local industrial policies have positive impacts (revenue generation and job creation) for local and regional residents (see Figure 1).

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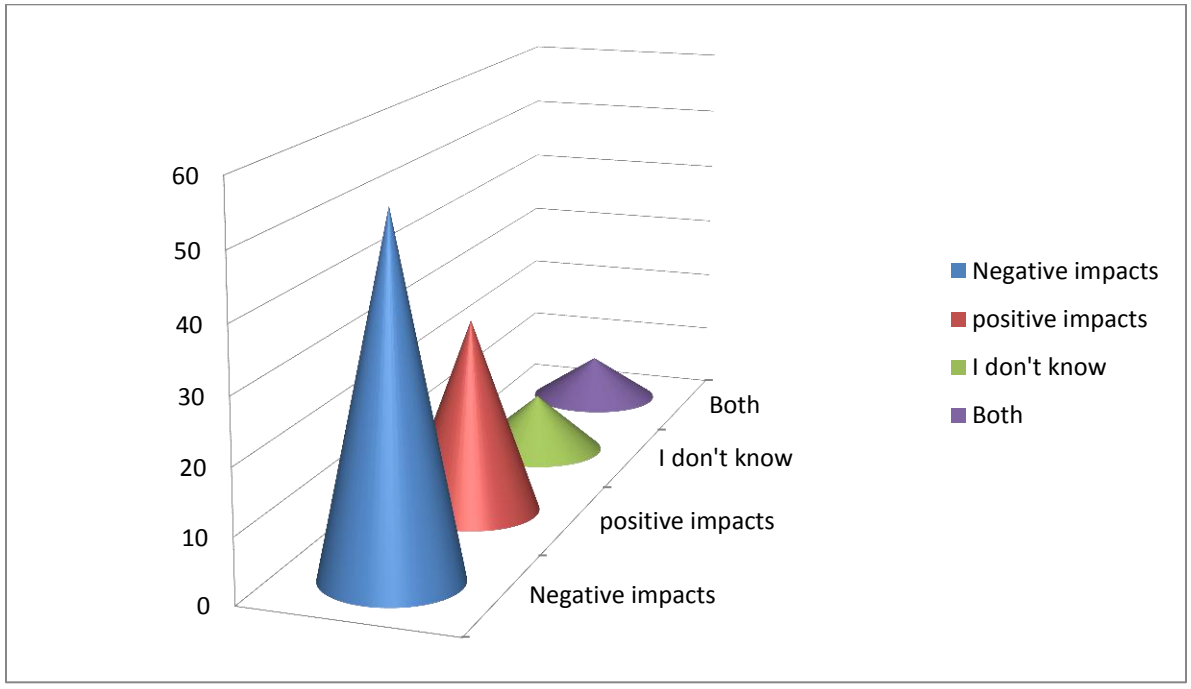
**Figure 1**: Responses from respondents' regarding effectiveness of industrial strategic plan




Source: Source: Field survey, 2020

**4.2. Legitimacy of the policy**

The IDS was reviewed in terms of whether key stakeholders' interests had been present in the policy making process and whether the policy was evidence-based. Findings indicate that the stake holders' involvement was very law (11.95) as indicated in Table 8. This result shows that the policy has less legitimacy.

**Table 8:** The legitimacy of Industry development policy shall be recognized by stakeholders

| Criteria | Indicator | Rating effectiveness of the policy (%) | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| Stakeholders involvement | Strategy making platform exist | 22 .7 | 20 .7 | 30 .3 | 12.2 | 14.3 |
| | Representativeness of key stakeholders | 23.1 | 17.2 | 28.2 | 18.3 | 13.2 |
| | Strategy making process | 6.4 | 19.3 | 30.1 | 36.1 | 8.1 |
| Strategy making evidence | The strategy formulation process | 28.3 | 22.1 | 26.2 | 15.3 | 5.2 |
| | Strategy think tanks and research institutions | 17.2 | 13.4 | 36.8 | 30.1 | 3.5 |
| | Strategy documents | 2.3 | 1.3 | 40.3 | 28.7 | 27.4 |
| Average | | 16.6 | 15.66 | 31.9 | 23.4 | 11.9 |

**Source:** own Computation from data collected, April, 2020**.**

**Note:** 1. very low (<30%) 2. low (30-50%) 3. moderate (50-70%) 4.high (70-90%) 5. very high (> 90%).

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**4.3:** Coherence of industry development strategy

Compiled data indicate that the coherence of the IDS with the national development plans was very low as it presented in Table 9.

**Table 9:** Coherence in Industry development strategy

| Criteria | Indicator | Rating effectiveness policy (%) | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| Coherence of the industry development strategy | Acknowledgement of national development goals | 4.6 | 1.7 | 12.7 | 47.7 | 34.8 |
| | Harmonization of industry development strategy documents and national development goals | 9.6 | 3.7 | 19.6 | 35.4 | 32.1 |
| Average | | 7.1 | 2.7 | 16.15 | 41.5 | 33.45 |

**Source**: own Computation from data collected, April, 2020

**Note:** 1.very low (<30%) 2.low (30-50% 3.moderate (50-70%) 4.high (70-90%)

**4.4. Transparency in Industry development finance delivery**

Result obtained from rating effectiveness of the policy document (see Table 10) and finding found by Mulu (2013) confirm that the Ethiopian industrial policy made a distinction between 'developmental' and 'rent seeking' private sector. In this regard, the government provides generous incentives and support programs to build the private sector capacity (**carrots**) and recently introduced a number of measures (**sticks**) alleging to 'discipline' the 'rouge' private sector. Further, there are critics that the instruments (carrot and stick) are not transparent and the policy makers tend to 'patronize' the private sector instead of encouraging competition & innovation. There is also emerging concern that the public investment expansion is dwarfing the private sector. Therefore, it is very important to support industrialist to make them efficient and effective in complementing the development efforts of the country.

**Table 9:** Transparency in industry development finance delivery

| Criteria | Indicator | Rating effectiveness of the policy (%) | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| Transparency of the industry development strategy | Are there mechanisms and modalities exist to promote transparency? | 16 | 4.3 | 15.2 | 35. | 29.4 |
| Average | | 16 | 4.3 | 15.3 | 35. | 29.4 |

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**Source**: own Computation from data collected, April, 2020

**Note:** 1.very low (<30%) 2.low (30-50% 3.moderate (50-70%) 4.high (70-90%)

## 5. Conclusion and Recommendations

### 5.1. Conclusion

Industrial policy is a contested issue, especially for low-income countries. On one hand, it is widely accepted that these countries need proactive policies to master the transition from low-productivity resourced-based societies with large informal sectors to more productive, knowledge-based and formalized patterns of productive organization. On the other hand, deliberate interventions aimed to channel resources into preferential activities may well end up reducing allocative efficiency and creating perverse incentives for investors and bureaucrats alike. This is especially true for low-income countries, where political checks and balances tend to be weak.

The Ethiopian government has demonstrated impressive dedication and ability to create the preconditions for a market-based and socially inclusive industrial transformation. It is strongly committed to investing in technological learning in order to build new competitive advantages. This becomes evident in ambitious programmers to strengthen the technical and industrial development system and to set up new industries as well as supporting institutions for specific sectors, e.g. for textile, leather and horticultural products. The government has defined priorities for diversification and industrial development. Agricultural demand-led industrialization and export promotion play a key role in its strategy.

Nevertheless, Result obtained from rating effectiveness of the policy document (see Table 10) and finding found by Mulu (2013) confirm that the there are critics that the instruments (carrot and stick) are not transparent and the policy makers tend to 'patronize' the private sector instead of encouraging competition & innovation. Further Ethiopian industrial policy made a distinction between 'developmental' and 'rent seeking' private sector. In this regard, the government provides generous incentives and support programs to build the private sector capacity (**carrots**) and recently introduced a number of measures (**sticks**) alleging to 'discipline' the 'rouge' private sector.

The challenges faced by policy-makers in designing industrial policy for Ethiopia and elsewhere reveal why previous, aggregate-based, studies have been largely inconclusive. The application of the approach of this paper to similar policies in other Least Developed Countries, like the accumulation of knowledge for richer countries, would allow the identification of what makes for successful industrial Policy in Least Developed Countries more generally, and which aspects of the policy's failure are particular to Ethiopia.

### 5.2. Policy options and Recommendations

To attain realization of the industrialization policy and transformation of the economy, Government of Ethiopia needs to explore and assume forceful policies to hold up the competitiveness and development of manufacturing industries. The following specific policy options and measures are recommended.

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1. Encourage measures to boost competitiveness of the manufacturing sector, including reducing:
    (i) Import duties on material inputs not fashioned locally
    (ii) Corporate income tax
    (iii) Electricity rates for the manufacturing sector from $0.12/kwh to $0.06/kwh.
2. Support efforts to get better productivity in accessible factories by dealing with skills shortages, together with simplifying the procedure for hiring far-off experts for firm.
3. Appraise and modernize detailed incentives for attracting mega investors by streamlining the roles of key institutions as well as procedures for attracting strategic investors, providing fanatical energy lines and gas infrastructure to industrial parks and commencing a customs green lane to augment efficiency in assisting strategic projects.
4. Fast-track implementation of business environment blueprint reforms, including purposeful measures to abridge paying tax, tightening enforcement of customs and standards to guarantee fair antagonism amid home producers and importers.

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