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INDUSTRIAL POLICY IN DEMOCRATIC REPUBLIC OF CONGO AS A TOOL OF ECONOMIC DEVELOPMENT FROM 2010 TO 2016

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Abstract:
Each economy specializes in certain economic activities depending on the level of development and the availability of resources. Countries undergo sectorial transformation and economic diversification, in order to attain a higher level of economic development. The main driver of these structural changes remains the private sector. The purpose of this study is to analyze the contribution of industrial policy to the DRC economic development for period 2010-2016. This is to evaluate the strength of the linkages between different industries and determine how the structure of the DRC's economic activities can guide the choice of development. Furthermore the study tried to find the causality of the industry policy and GDP, how much do the sectors predict the GDP. The mixed methods (quantitative and qualitative data) have been used for data collection and desk review method. Data have been analyzed by using SPSS. The reliability test, correlation analysis and multiple regression analysis were performed to provide answers to the research questions established for this study. The results show that the economic activities through Agriculture, Industry and Services are main tools of economic development in DR Congo. These three predictors' variables have the significant potential to influence or to predict the GDP. The findings also showed that there was a strong positive and statistical significant relationship between Agriculture sector, Industry sector, Service Sector and GDP.

Keywords: industrial policy, economic development, gross domestic product, trade, foreign direct investment

JEL: F63, O11, Q01

1. Introduction

Industry policy plays crucial role in economic development of a country. At the dawn of this twenty-first century, it is once again at the top of a country policy agenda. Industrial policy is viewed as a strategic effort by the state to encourage the development and growth of a sector of the economy (DCED, 2017).

To a significant extent, it generally pursues four main objectives: (i) promote growing output and income from wide range of economic activities, (ii) mitigate any possible risk, (iii) spread investment and (iv) facilitate industrial upgrading. Some of the main issues countries, such developing and emerging ones, deal with are structural change and economic diversification that are determinant to accelerate structural productive transformation, sustain growth, and create better jobs.

However, instability, failure, cautionary tales, global crisis and exposure to enhanced risk, particularly in Africa, East Asian and Latin American, lead to a demand for economic diversification. Thus, the economy becomes less vulnerable to fluctuations and changes. Various sources of income allow resilience, stability and sustainability. This new consensus is empirically supported by the wide variation of the pattern and process of structural transformation among countries; that is, growth enhancing in countries which successfully implemented industrial policies and growth reducing in countries that neglected investment in agricultural, manufacturing, services, infrastructure, and skills.

For instance, Salazar-Xirinachs et al. (2014) argued that East Asian countries used targeted measures to help them absorb know-how, technology, and knowledge from the rest of the world, to assimilate them at a tremendous pace and to diversify into new and more sophisticated products. The reason for this intense use of industrial policy is that product diversification and sophistication are found to be key policies to translate high growth to good quality of employment and poverty reduction (Hausmann et al. 2007; Hausmann and Klinger 2006; Felipe et al. 2012; Mishra et al. 2011). Therefore, diversification toward higher value products is crucial for developing countries to boost and sustain economic growth. To diversify, countries need to upgrade technology in their production and upskill their existing labor (ACET 2014). It is, however, worth noting that industrial policies have been country specific, depending on the exiting capabilities and institutional capacities (Ferraz et al. 2014; Hausmann and Hidalgo 2011; Chang 2010; Crespi et al. 2014).

Recently, most of African countries are increasingly renewing interest in well-coordinated and well-designed industrial policies, given the successful role that development states of East Asia demonstrated in designing and implementing policies. Their efforts to upgrade and diversify take place in an interdependent world economy where earlier industrializers have already accumulated both enabling capabilities and productive capacities that give their producers significant cost and productivity advantages and equip them to push out the technological frontier through research and innovation.

According to the public intervention, Greenwald and Stiglitz (2013) developed, in contrast, a complementary theory according to which the state plays a major role to the industrial upgrading and economic development. Due to the role of government in pursuing industrial policies, they concluded that industrial policy might not work in Africa because of deficiencies in governance. An important reason for this is that industrial policies have succeeded in some instances in which they were designed to correct market failures or even to correct other governments.

By reviewing different studies, the central question with regard to Africa's development remains how African countries can identify strategies to engineer structural transformation capable of sustaining and converting the recent high growth rate into better jobs and improvement of the standard of living. Therefore, it could be concluded from the outset that sector structure, diversification and governmental intervention undoubtedly have an influence on economic growth and development.

Very few studies have investigated the contribution of industrial upgrade and productive transformation to the development through different sectors in Africa, and especially in the Democratic Republic of Congo (DRC). This study is the analysis of investments into targeted economic activities that contribute the most to achieving economic development. Furthermore, the phenomenon of economic development through a structural transformation remains evident for DRC, as the country achieved unprecedented levels of economic growth since 2000 and continues to record insignificant results nowadays despite some positive performances raised these last periods.

More appropriate policy measures must be taken by the government for the revival of the industrial sector. This requires, on the one hand, a questioning of the current industrial policy in order to detect the strong points, the weak points as well as the prospects of its performance. On the other hand, a thorough examination of the mechanisms for implementing industrial policy is important in order to discover institutional flaws and propose solutions for their restructuring. It will be question of defining how the country can identify strategies to engineer structural transformation capable of sustaining and converting the recent high growth rate into better jobs and improvement the standard of living.

The study aims at analyzing the contribution of industrial policy on the DRC economic development. To achieve this purpose, this study would like to answer the following main research questions:

1. What are the national economic sectors targeted by industrial policy in the DR Congo?
2. Is the DRC's industrial policy contribution effective enough to boost the economic development? In other word is there any relationship between national industrial policy and national macroeconomic indicators?
3. What steps should be taken to improve the contribution of the DRC industrial policy on its economy outputs?

1.1 Overview on Economic activities of the national industrial policy during economic development

In most countries, there are target economic sectors that serve as drivers to achieve a higher level of development. The economic development can be earned as a policy intervention endeavor with aims of improving the economic and social well-being of people. Whereas economic development is progress in an economy, or the qualitative measure of this, economic growth is a phenomenon of market productivity and rise in GDP.

The DRC national industrial policy targets the primary, secondary and tertiary sector. These sectors are directly linked to the areas of Congolese economic exploitation. These are Agriculture, Industry and Services. These sectors are known as engines of the development.

During the period under analysis, the Congolese economy has been marked by a consolidation of the stability of its economic activities, despite the gloom of the world economy. A stable macroeconomic environment is the basic prerequisite for market efficiency.

Table 2.1: Targeted Sectorial breakdown of Gross Domestic Product

Primary Sector	Secondary Sector	Tertiary Sector
• Agriculture: o Food agriculture o Rente o Sylviculture • Breeding, fishing and hunting • Extractive industries	• Agro-industries • Other manufacturing industries • Electricity, gas and water • Construction and civil engineering	• Transports • Communication • Whole sale trade and details • Market services: Banks and insurance; other market services • Non-market services: Education, health, other non-market services • Imputed production of banking systems

Source: UNDP Report, Guide to Macroeconomic Framework in the DRC, 2015.

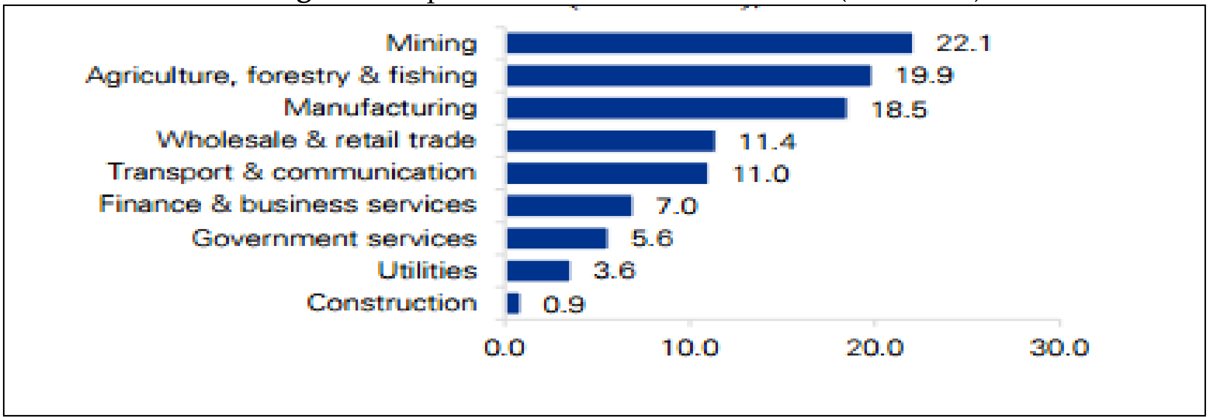
The main sectors which benefit from some dynamism in DR Congo are:

Table 2.2: Main sectors of economic activities

Up Stream	Down Stream
Mining Sector	Telecommunications and Information Technology Sector
Agriculture Sector	Transport Sector
Forest Sector	Energy Sector

Source: Report of the World Bank (2010) and the Ministries of Commerce, Small and Medium Enterprises (2010), Kinshasa.

Figure 1: Repartition of industrial activities (% of GDP)



Source: World Bank, The Heritage Foundation, World Economic Forum (WEF), Transparency International, 2016.

Productivity rise, favorable natural resources distribution, and physical and human capital contribute to economic growth and development (Cypher and Dietz, 2009). In less developed and developing countries, such DRC, specialization in raw material exports (Massol and Banal-Estanol, 2014) and agriculture sector are the determinant of economic growth.

However, along with economic development, the sector structure undergoes certain changes. Economic development is related to increase the share of industry sector, and decreasing the share of agriculture in GDP (Punnyasavatsut and Coxhead, 2002; Arandjelovic et al., 2013, Savic, 2014). The development of industry sector influences the service sector to gain more importance. Moreover, the industry sector becomes more profitable than agriculture. Also, development of industry sector causes changes in export structure and enables export of industrial, knowledge and technology supported products (Jednak et al., 2014). This change of sectors structure is usual during economic development, which is a complex process and should be measured by various economic, social and technology indicators (Milenkovic et al., 2014).

1.2 Overview on Economic situation of DRC and its indicators

1.2.1 General background

The Democratic Republic of the Congo's (DRC) rich endowment of natural resources, large population, and strategic location in Central Africa make it a potentially rewarding market for U.S. companies. However, the DRC's commercial and investment climate remains extremely challenging. Following decades of economic instability due to fiscal mismanagement, corruption and conflict, the government of the DRC (GDRC) implemented economic reforms aimed at creating sustainable growth, controlling inflation, maintaining the stability of the macroeconomic framework, reducing the weight of external debt and rehabilitating infrastructure. The GDRC's efforts from 2001 to 2014 yielded some improvement, but following a drop in mineral prices and the subsequent economic downturn in 2016-2017, significant challenges remain.

The estimated growth rate for 2016 was 2.4 percent, against 6.9 percent in 2015, and inflation was estimated at 12 percent in 2016, against 1 percent in 2015. Despite this, GDP remained close to level at $31.9 billion in 2016 versus $36.19 billion in 2015. The deterioration in the economy is in large part due to a fall in the global price of minerals and petroleum, as the latter constitute an estimated 95 percent of the DRC's export revenues, and by ongoing political instability.

The GDRC has made little progress in diversifying the economy which remains overly reliant on volatile global commodity markets. A tense political climate continues to discourage investment and divert attention from economic issues as of early June the government is still operating under the equivalent of a continuing resolution, without a formal budget.

Fiscal reforms implemented in 2015 helped stabilize inflation and the Congolese Franc (CDF), keeping inflation below 2 percent despite drops in commodity prices. Between 2011 and 2015, the CDF held steady against the dollar, trading at roughly $1 to CDF930. However, beginning in April 2016 the CDF began to lose ground against the dollar and in April 2017 was trading at approximately CDF 1400 per $1. Despite economic improvements between 2005 and 2013, chronic corruption, poor or nonexistent infrastructure, and political violence continue to plague the DRC. The majority of the DRC's population lives in poverty and is not active in the formal economy.

According to a 2012 study by the National Institute of Statistics, the DRC's informal sector represents 88.6 percent of total economic activity. A weak manufacturing sector, porous borders, and weak links between the capital, the periphery, and between the regions, have rendered the DRC an import-based economy. Low-cost consumer goods and foodstuffs smuggled into DRC from Angola and Zambia have undercut local production and resulted in large-scale capital flight. The country has three main economic hubs focused around large population centers with large commercial or industrial bases. These are: (i) Kinshasa and Kongo Central provinces: Kinshasa is the DRC's most populous city and its political and economic capital; (ii) Haut-Katanga and Lualaba provinces; (iii) North Kivu, South Kivu, Ituri, Bas-Uele, Haut-Uele, and Tshopo provinces.

Table 2.3: DRC Economic Indicators Data: 2010-2016

Indicators Years	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Population (million)	65.9	68.08	74.4	77.0	79.3	81.7	84.1
GDP per capita (USD)	285	310	359	387	421	464	446
GDP (USD billion)	20.52	23.85	29.3	32.7	35.9	37.9	37.6
Economic growth (GDP, annual variation in %)	7.2	6.9	7.2	8.5	9.5	6.9	2.6
Fiscal balance (% of GDP)	0.8	-1.0	1.9	3.1	1.2	-1.3	-0.1
Public debt (% of GDP)	22.2	23.8	23.2	19.1	16.8	16.1	21.5
Inflation rate (CPI annual variation in %)	23.5	15.0	0.9	0.9	1.2	1.0	18.2
Exchange rate (FC vs USD)	900.68	919.80	915.66	923.50	919.01	917.00	1165
Policy interest rate (%)	33.31	30.25	19.49	8.81	17.52	20.77	12.82
Current account (% of GDP)	-10.5	-5.2	-4.6	-5.0	-4.6	-3.1	-4.4

Current account balance (USD billion)	-2.2	-1.3	-1.3	-1.6	-1.7	-1.4	-1.2
Trade balance (USD billion)	1.2	-0.9	0.1	0.8	-0.4	-0.3	-1.6
Exports (USD million)	5.31	6.2	6.21	7.13	6.69	5.69	7.2
Imports (USD million)	4.22	5.03	5.83	6.59	6.41	5.64	6.1
Consumption/Domestic demand (% of GDP)	124.0	120.2	101.2	101.5	100.7	105.4	110.2
Investments (% of GDP)	26.6	29.2	15.9	17.1	17.2	19.1	16.1
FDI inflows (% of GDP)	13.6	6.5	11.3	6.4	5.1	4.5	3.1
FDI outflows (USD million)	7	91	421	401	344	508	611
ODA net (USD million)	3484	5526	2845	2584	2400	2599	3218
Unemployment rate (% of total population)	47.6	51.4	49.1	46.1	43.0	53.6	51.2
Poverty rate (% of total population)	72	71	64	74	63	87	82
Human development index	0.398	0.407	0.412	0.419	0.425	0.435	0.383
Mundial rank	187	187	187	186	176	176	176

Source: Congolese authorities: Estimates and projections of the IMF services; World Bank-Latest data available, 2015; OCDE, 2016.

Table 2.4: SWOT Analysis of DRC economic situation

Strengths	Weaknesses
- Vast and abundant natural resource wealth with good prospects for foreign direct investment (FDI), economic growth, and exports over the medium term; - Large amount of FDI inflows, - Favorable debt indicators due to debt relief in 2010 - Smooth economic growth. - Large population and land area - Enormous hydropower potential; and can theoretically supply 60% of Africa's total hydropower needs (Plenty of water) - Vast untapped potential in the minerals sector (cobalt reserves and massive deposits of copper, diamonds, oil, and gold). - The presence of the huge international banks, facilitating the flow of funds into the country without the risk of losing money in transfer fees. - The large market size - Presence of legal framework for joint ventures.	- Extremely poor Infrastructure, - Uncertain regulatory processes, - The inefficient bureaucracy. - Economic freedom is extremely limited, - Underdeveloped private sector - Fluctuations in international commodity prices and external demand due to the predominance of minerals exports - High fiscal and trade barriers, including a high corporate tax rate. - Limited banking infrastructure and access to credit - Insufficient inflows of US dollars caused the Congolese franc to weaken significantly in 2017, resulting in double-digit inflation - The informal sector accounts for more than 80% of the economy. - Lack of skilled labor.
Opportunities	**Threats**
These are: - Liberalize the country's trade and investment regimes, e.g. liberalization of the insurance and electricity sectors. - The influx of new banks and other financial institutions. - The weakness of the central state allows private investors significant leeway in avoiding burdensome legislation.	- Political instability makes investment uncertain - The economy is being adverse impacted by election uncertainty - Armed conflict in parts of the eastern region - Reforms are progressing slowly. - Lack of skilled people to boost private sector. - Uncertain of budget balance - The Central Bank has a very low level reserve

- Channeling the interest in the mining sector (demand for mining equipment) into financing infrastructure spending, - Reconstruction and extension of the infrastructure - The country is part of a trade agreement with its regional and multilateral partners (Southern African Development Community: SADC, etc.) which allows reduced tariff rates, no non-tariff barriers and reduced quantitative restrictions. - Large number of donor projects	of foreign currencies - The instability of national currency rate e.g. compare the USD rate - Lack of basic needs (with regard to food, clothes, employment and purchasing power) - Inaccessibility to the markets for both buyers and sellers of goods. - Delays in paying civil servants' salaries and rising food prices - The growth trend of poverty and unemployment indexes ; - Humanitarian insecurity - The infant mortality growth rate as a result of - Malnutrition - The declining level of literacy

Source: Author's summary of World Bank, Central Bank of DR Congo and KPMG reports (2017)

Consequently, the cooperation between DR Congo and its different economic partners can result, according to the case, in economic boom, recession, slump, recovery and sustainable development. These sequences of events particularly repeat themselves in relation to economic growth.

1.2.2 Overview on DRC macroeconomic policies

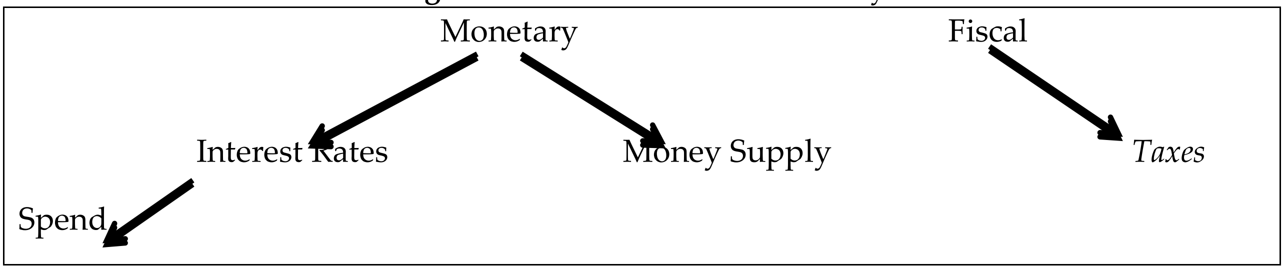
Macroeconomic policy in DRC is usually implemented through two sets of tools: fiscal and monetary policy. Both forms of policy are used to stabilize the economy, which can mean boosting the economy to the level of GDP consistent with full employment (ADB and ADF Reports, DRC: 2013-2017).

The extent to which the Congolese authorities are able to establish a track record of policy implementation will influence private sector confidence, which will, in turn, impact upon investment, economic growth, and poverty outcomes. Thus, prudent macroeconomic policies can result in (PEA Report, 2017): (i) low and stable inflation given that the inflation hurts the poor by lowering growth and by redistributing real incomes and wealth to the detriment of those in society least able to defend their economic interests; (ii) by moving toward debt sustainability, the national authorities will help create the conditions for steady and continuous progress on growth and poverty reduction and (iii) by building and maintaining an *adequate level of net international reserves*, the country can weather a temporary shock without having to reduce essential pro-poor spending.

Unfortunately, the external shocks have been particularly detrimental in DRC to the poor because they can lower real wages, increase unemployment, reduce non labor income, and limit private and net government transfers.

In effect, note that fiscal policies and structural reforms have naturally monetary policy implications if such reforms affect price developments. Therefore, a stability oriented monetary policy will take fiscal policy measures into account in its analysis.

Figure 2: Governmental Macro Policy



Source: Author's conception

It means that (i) Neutral fiscal policy: Government spending = Government revenue; (ii) Contractionary fiscal policy: Government spending < Government revenue and (iii) Expansionary fiscal policy: Government spending > Government revenue.

It should be noted that developing a macro structure or a macro framework is an iterative process. Initial projections may expose some tensions/imbalances between outcomes, goals and policies. The study deals with: (i) *nature, seriousness, and source of the imbalances and (ii) Possible remedies*.

In DRC, given the absence of credible enforcement mechanisms, ex-ante coordination between monetary and fiscal policies are unlikely to be successful. So, a clear division of responsibilities between monetary and fiscal actors is consistent with implicit policy coordination between national authorities in order to improve the understanding of the objectives and responsibilities of the respective policy areas and does not dilute accountability (Dabire, Bamou and Mutumbi, 2017).

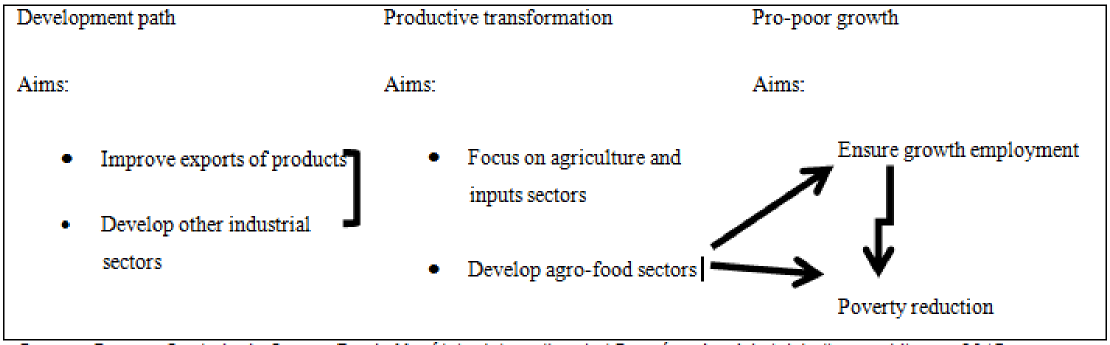
1.3 Overview on DRC Industrial policy

According to the substantial number of agreements signed and the national legal and institutional framework, the DRC industrial policy is a (large) set of innovation and skill formation, trade, sectorial, and competition policies employed by Congolese government to induce structural change and industrialization.

The process of productive transformation results in increased wages and reduced poverty. The most significant reason is that DRC has static comparative advantage and endowment in natural resources. Mining is the only industry which has attracted foreign investment in the economic development history of DRC. But, among others sectors, it is certain that the agro-food industry is the only sector in DRC which presents sizable markets for foreign and domestic investors to stay, produce, and conduct marketing. In addition, wider productive transformation can only be successful if a productivity based transformation of Congolese agriculture takes place. The increasing attention paid to growth, development and social capital in the global arena is silently, but steadily overthrowing the economic and social conflicts that are prevalent in most developing countries like DRC.

With the launch of ambitious programs called "5 projects", the implementation of a strategic document for Growth and Poverty Reduction (DSCRP) and the revolution of modernity, the DR already confronted with multiple challenges ranging from the structural reform of its economy. The strengthening of regional cooperation, the consolidation of monetary policy and the development of fiscal stimulus measures remain the only way towards the emergence and consolidation of the national economy.

Figure 3: Priorities of industrial development in DRC



Source: *Banque Centrale du Congo, Fonds Monétaire International et Données des Administrations publiques, 2015.*

1.4 Technical sheet on investment in the DRC

The economic growth of a Nation depends directly on the degree of investment achieved (Law No. 004/2002 of 21 February 2002 on the Investment Code, Explanatory Memorandum, P.1). The rate of investment has become one of the indicators that investors use to ensure a country's attractiveness, and subsequently, a development engine of DRC. The Investment Code allows investment projects of nationals and foreigners carried out in the DRC in the sectors not expressly reserved to the State or not excluded by the negative list, to benefit from a number of customs, tax advantages and parafiscal, as well as certain general guarantees (Article 1 of the Investment Code). The trends of the investments made are as shown in the table below:

Table 2.5: Volume of investments in the DRC from 2010 to 2016 (in USD)

Years	Investment Code					Code Minier	Grand Total
	Services	Industries	Agriculture and Forestry	Infrastructure	S/TOTAL Investment Code	S/ total Mining	
2010	52	53	14	2	121		
	527.661.064	932.720.736	323.160.114	23.320.012	1.806.861.926	3.848.505.917	5.655.367.843
2011	84	54	12	5	155		
	2.050.647.162	765.634.935	58.844.765	99.285.316	2.974.412.178	2.881.553.208	5.855.965.386
2012	72	59	9	2	142		
	2.641.194.227	1.247.601.016	53.770.894	37.983.892	3.980.550.029	9.415.896.365	13.396.446.394
2013	51	53	5	4	113		
	1.888.176.427	600.080.447	23.840.358	53.392.516	2.565.489.748	5.413.163.493	7.978.653.241
2014	61	61	3	2	127		
	2.480.334.902	921.568.581	5.433.030	180.097.302	3.587.433.815	3.608.256.664	7.245.608.149
2015	28	26	1	1	56		
	1.309.779.193	229.611.863	3.608.112	37.769.590	1.580.768.758	5.851.054.245	7.431.823.003
2016	26	35	0	4	65		
	2.735.682.942	1 828 889 020	0	187 750 690	4.752.322. 652		

Source: Direction des Services aux Investisseurs/ANAPI et la Commission d'approbation des listes du Ministère des Mines, Kinshasa 2017.

The volumes of investments have been steadily increasing from 2010 to 2012, declining slightly in 2013 and a decrescendo movement in 2014. Between 2015 and 2016, the volume of investment has increased compared to 2014. In Overall, this development is significantly influenced by the flow of investment from the mining sector. On the basis of the aforementioned table, we can see slow growth in investments of the Investment Code sector against a sharp increase in investment in the mining sector. Mining investments are made in the DRC by more than 80% by subsidiaries or branches of foreign companies.

1.5 Investment projects according to the areas of activity

This table shows the situation in terms of the number and costs of investment projects by sector of activity.

Table 2.6: Number and costs of investments projects by sector of activity in USD

Sectors of activity	2015			2016		
	Number of projects	Cost of projects in USD	Jobs to be created	Number of projects	Cost of projects in USD	Jobs to be created
Services	28	1 309 779 193	2 746	27	2 735 682 942	2 247
Industries	26	229 611 863	761	35	1 844 351 688	11 755
Infrastructure	1	37 769 590	340	4	187 750 690	484
Agriculture	1	3 608 112	46	0	0	0
Total	**56**	**1 580 768 758**	**3 893**	**66**	**4 767 785 300**	**14 486**

Source: Worked out by ANAPI, based on the reports from the Department of Services to Investors and Approval Commission of the lists from the Ministry of Mines, 2016.

Table 2.7: Trend of FDI flows from 2010 to 2016

	2015			2016		
	Number of projects	Cost of investment in USD	Jobs to be created	Number of projects	Cost of investment in USD	Jobs to be created
Foreign Direct Investments	38	577 869 714	2 380	41	4 605 650 580	13 197
Domestic Investments	18	1 002 899 044	1 513	25	162 134 720	1 289
Total	**56**	**1 580 768 758**	**3 893**	**66**	**4 767 785 300**	**14 486**

Source: Worked out by ANAPI, based on the reports from the Department of Services to Investors and Approval Commission of the lists from the Ministry of Mines, 2016.

1.7 Governmental Policy

Significant efforts must be made to operationalize the country's strategic frameworks for entrepreneurship and industrialization (DRC' President Speech, 2011).

In order to improve its integration into world trade, since the end of 2010 the Government has initiated a series of diagnostic studies with the support of the World Bank to develop its industrial policy. Even if the DRC arrived late to industrialization, it has an interesting opportunity in 2016 to adopt new business models dedicated to industrialization with the aim of attracting potential new investors in the various target sectors of activity. This change requires governments to take into account the achievements, difficulties, advantages and disadvantages of industrialization and integrate them into their visions and plans of action.

It aims to facilitate foreign trade operations, stimulate growth and increase the rate of mobilization of public revenue related to foreign trade through the creation of ANAPI, a "one-stop shop" within the country to promote several services to Foreign Direct Investments.

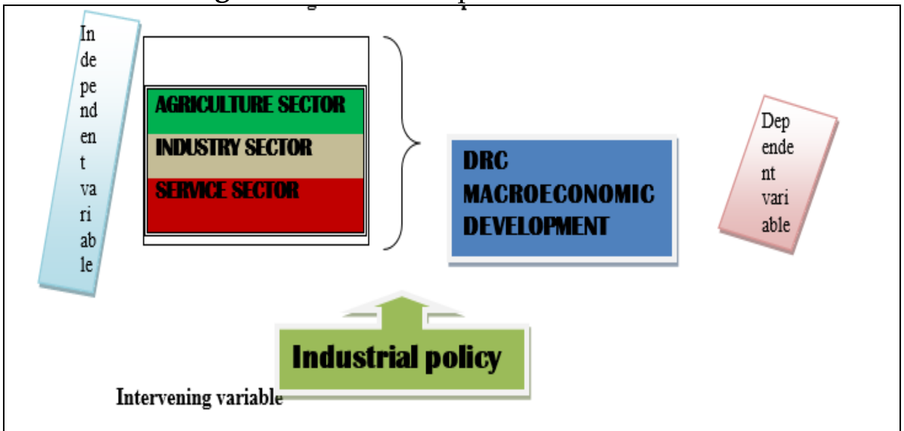
In such a context, a stable political and security environment is essential, as well as a future commitment by the authorities to implement the measures adopted in January 2016 for the consolidation and the economic recovery, in particular those aimed at increasing revenue, internal and economic diversification. The results of these investigations will enable the state to control the national income, the inter-sectorial investment, the purchasing power and consumption of the population, the exchange rate and the business climate inflation.

1.8 Theoretical model analysis

The theoretical analysis of the economic activities of the national industrial policy during economic development; the overview on economic situation of DRC and its indicators; the theoretical view on DRC Industrial policy and the DRC *Governmental Policy* allow the study to build the theoretical model (figure 4).

Indeed, taking into account two main variables of our study (industrial policy and economic development), the study proposed a theoretical model adapted to these two variables. This model is used to analyze the as a tools and strategies of the DRC economic development and also to the data available to meet the concerns of the study.

Figure 4: Relationship between variables



Source: Author composition, 2017

2. Methodology

2.1 Research Design

To analyze this concern, study particularly focused on the mixed method. However, the quantitative approach is taking more influence in processes of data collection and analysis. It seems that the contributions of the quantitative data are more than qualitative data. The study elaborates the design of the theoretical model of data analysis. The construction of this model will allow us to describe the variables selected in the analyses of secondary data collected in the different financial reports.

In this, Campbell (1979) is well known for its remarkable contribution to the development of the experimental model of quantitative approach in economy. As showed recently by many specialists in the research methodology, the quantitative data must contribute to the development of applied epistemology that integrates the two approaches (qualitative and quantitative approaches). The data of this study is based on 7-year data, in other words from 2010 to 2016. This period of time is important in the analysis of different contribution of industrial policy to the DRC economy (growth rate, employment and human development) through targeted sectors, in the context of global crisis.

Finally, data have been analyzed by using SPSS. The study used the reliability test by Cronbach Alpha to measure the internal consistency between the GDP and the Congolese targeted industrial sectors the correlation analysis and multiple regression analysis were compiled to provide answers to the research questions/hypothesis established for this study.

2.1 Data Collection and Instruments

This study used the mixed methods. It includes three methods of research: Documentary research for the collection of secondary data and archives housed in national reports. The Analytical method for a discriminatory analysis of the data collected and the provisions relating to the above mentioned problems. The descriptive method will facilitate the inventory of items collected during the above mentioned period. These three methods have been based on the following techniques: On the one hand, the technique of documentary analysis for access to the various sources of information and the necessary data and its analyses to the elaboration of this work. On the other hand, the interviews with the contacts for the data enrichment related to our concerns. Finally, we will use the inferential statistic by quantitative data analysis of the targeted economic indicators using IBM SPSS 21.

2.3 Data Management and Analysis

The study conducted three types of analysis for data collected.

2.3.1 Reliability analysis

Test of reliability by "Cronbach Alpha" refers to the degree to which a test is consistent and stable in measuring what it is intended to measure i.e. this is to measure the internal consistency between variables (dependent variable and independent variables). When you check your data (at least two) for internal consistency (how well they correlate with each other) you know that they measure the same thing if you get an alpha of at least 0.70.Cronbach's alpha > .70/.80 tells you that your items are consistent and the study also refers to the value of Standard error.

2.3.2 Correlation analysis

The correlation analysis also called correlation coefficient or coefficient of correlation of Pearson is a statistical measure of the linear relationship (correlation) between a dependent-variable (DRC economic development) and an independent variable (agriculture, industry and services sectors). The SPSS helps us to find the results. Represented by the lowercase letter **"r"**, its value varies between -1 and 1: (i) 1 = perfect correlation, (ii) 0 = no correlation, (iii) positive values means the relationship is positive (when one goes up so does the other), (iv) negative values mean the relationship is negative (when one goes up the other goes down). As the correlational analysis is used as the effect size of direction of the association, the coefficient of correlation (effect size) is interpreted thus: *"<0.1= week, <0.3=modest, <0.5=moderate, <0.8= strong and more that ≥ 0.8=very strong"* (Cohen et al, 2007, p.521).

2.3.3 Regression analysis

The regression analysis has been used to examine the effect of predictors/ the independent variable (Agriculture, Industry and service sectors) on the single outcomes/dependent variable (GDP). One examines whether if one variable e.g. Agriculture explains/impacts another variable (GDP). The equation of multiple linear regressions used is as follows: $\widehat{GDP} = b_o + b_1A_1 + b_2I_2 + b_3S_3$: Where

- $\widehat{GDP}$ is the predicted or expected value of the dependent variable (GDP)
- A_1, I_2 and S_3 represent respectively agriculture, industry and services sectors. These are distinct independent or predictor variables
- b_o is the change in GDP relative to a one change in A_1, holding all other independent variables constant
- b_1 through b_3 are estimated regression coefficients.

This regression equation is used to test the following hypothesis:

- There is a positive distributional repartition of industrial policy to the macroeconomic development (GDP), and positive contribution of industrial policy to the macroeconomic development
- There is a positive correlation between 3 economic sectors in DRC with DRC Gross Domestic Product (GDP)

- The effect of predictors/ the independent variable the Agriculture, Industry and service sectors has a significant positive effect on the single outcomes variable (GDP).

4. Results

Industrial policy is structured and regulated with regard to the many potentialities of the soil and subsoil available to the national economy. The level of inter and intra sectorial contributions of industrial activities is a factor likely to boost economic growth and ensure the social well-being of the population.

Research question 1: *What are the national economic sectors targeted by industrial policy in the DR Congo? In other word, which economic sector has the highest contribution to growth rate (share of GDP)?*

Recall that the DRC economic development is based on three main targeted sectors of industrial policy (Agriculture, Industry and Services sectors), directly linked with other economic activities (see Tables 2.1. and 2.2) and built a theoretical model on the variables of our study (industrial policy and economic development). With regard to data collection and its analysis, it should also be noted that three types of analysis of the data collected have been described, including reliability, correlation and multiple regression analysis. To analyze the contribution of industrial policy, at least three economic indicators are to be analyzed economic growth, employment and human development.

4.1 Overall contribution of national industrial policy on economic development

Table 4.1: Structural evolution of the Congolese economy from 2010 to 2016

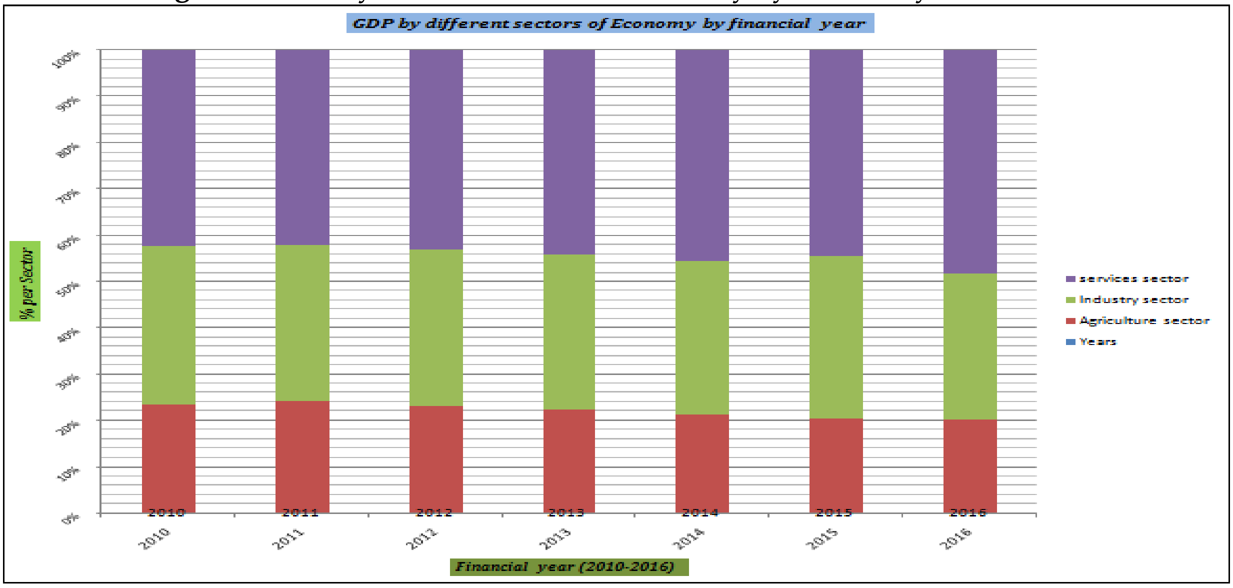
Years	GDP		Structure of GDP (%) Agriculture		Industry		Services	
	Value (billions USD)	Average per year	Value (% of GDP)	Amount (millions USD)	Value (% du PIB)	Amount (millions USD)	Value (% du PIB)	Amount (millions USD)
2010	20523285,374	1710273,781	23,34	4790134,806	34,38	7055905,512	42,28	8677245,056
2011	23849009,737	1987417,478	24,04	5733301,941	33,76	8051425,687	42,20	10064282,11
2012	27463220,380	2288601,698	23,12	6349496,552	33,64	9238627,336	43,24	12041911,81
2013	30014813,755	2501234,48	22,17	6654284,209	33,56	10072971,5	44,28	13290559,53
2014	34028119,332	2835676,611	21,15	7196947,239	33,19	11293932,81	45,66	15537239,29
2015	36188521,106	3015710,092	20,395	7380648.88	35,179	12730759,84	44,426	16077112,39
2016	31930856,410	2660904,701	20,1	6418102,138	31,7	10122081,48	48,1	15358741,93
Total	**203997826,1**	**14449818,84**	**154,315**	**44522915,77**	**235,409**	**68565704,17**	**310,186**	**91047092,12**
Mean	**29142546,58**	**2064259,834**	**22,045**	**6360416,538**	**33,62985714**	**9795100,595**	**44,31228571**	**13006727,45**
Annual estimation 2017	67,99		21,1		33,0		45,9	

Source: Statistics from AfDB, World Bank, IMF and BCC, 2010-2017, Author' calculations

The main activities benefited from the increase in overall investment volume of at least 29.3% since 2010 and the increase in the prices of mining products: cobalt, copper, etc.

Among industries in different sectors supplying the national economy, service companies have a larger contribution, about 44.3% on average (Table 4.1; Figure 5).

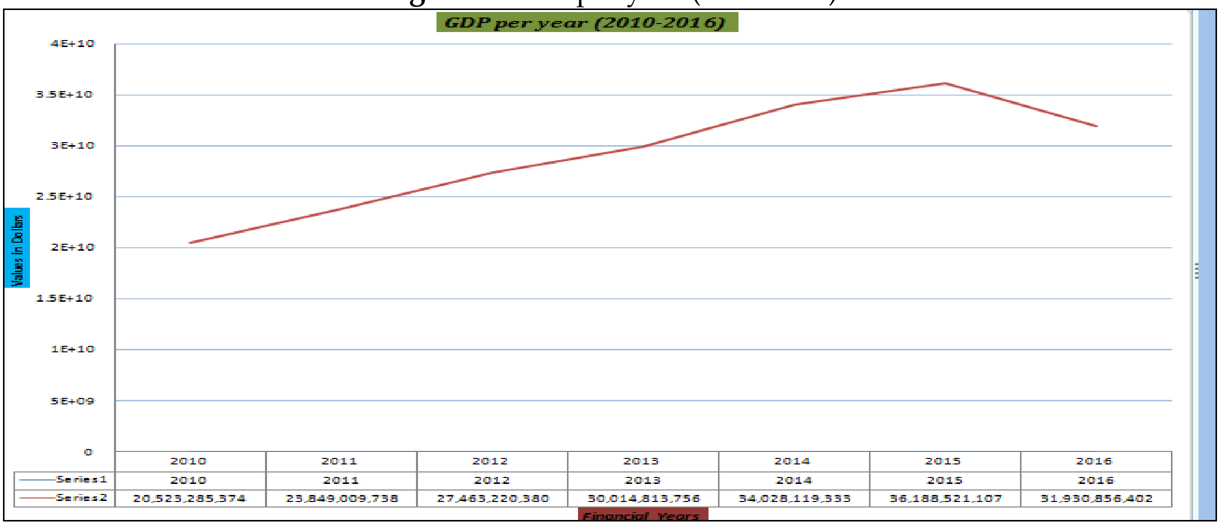
Figure 5: GDP by different sectors of economy by financial year 2010-2016



Source: Author creation from World Bank Data (2018)

Despite higher production in the services and industry sectors (extracts from industries and mines), business confidence was low and below the level observed more than ten years ago, emphasizing the challenges facing the economy in the middle of pervasive concerns about political violence and upheavals. Indeed, the economy of the Democratic Republic of the Congo (DRC) has nevertheless also shown some macroeconomic stability despite the adverse external environment as a result of lower prices of exported raw materials, starting with the copper ones.

Figure 6: GDP per year (2010-2016)



Source: Author creation from World Bank Data (2018)

The Congolese economy, endowed with several abundant resources wealth, large population and land area in the world has not been spared by the recent adverse effects of the industrialized and emerging countries, due to the dependence on the foreign exchanges and their decline world prices of commodities. The reasons below explain the trends of the GDP during to the above periods:

- **Increase of GDP curve: Among the strengths,** there are the abundant mineral resources (copper, cobalt, diamonds, and gold, tin); **s**ignificant hydroelectric potential**;** International mobilization to resolve conflicts in the Great Lakes region**;** Debt cancellation under the HIPC and ADM initiatives**.**
- **Decrease of GDP curve: in Weaknesses,** the study considers the sporadic tensions in the East of the country with the recurrence of rebellions; the political crisis following the Supreme Court's decision to postpone the presidential elections; the weak infrastructure (transport, energy, telecommunications) and governance deficit; the High poverty level and the inadequacy of foreign exchange reserves (approximately 1 month of imports).

4.2 Analytical contribution of national industrial policy on the economic development

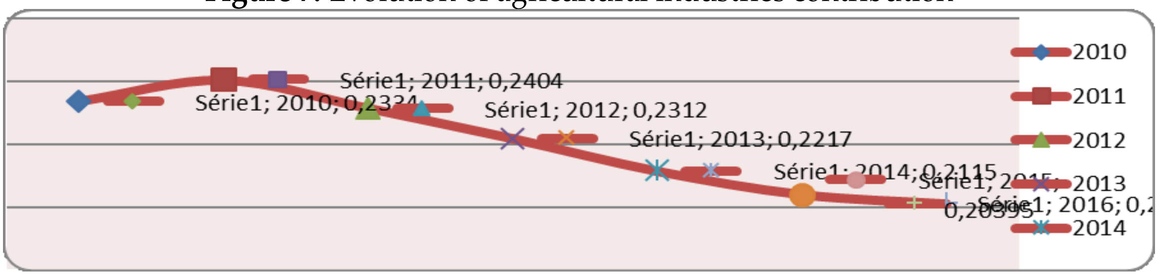
4.2.1 Agriculture sector

The Agriculture industries encircle a variety of procedures wherein natural resources give rise to a number of products. Agriculture Industry consists of different activities which include harvesting crops, plants, livestock feeding, grazing etc.

Agriculture is the basis of the Congolese economy. Its share in income has reached up to 50% in previous decades, partly because of the collapse of other sectors of the national economy, particularly in the mining sector. Of all the sources of growth, the agricultural sector has the greatest potential for reducing poverty. About 20,000 jobs can be created with an additional 10,000 hectares in production, two full-time agricultural jobs per hectare including production and downstream activities.

Despite the great growth potential of Congolese agriculture, it remains poorly exploited and does not meet the population's food expectations. Only 9% to 10% of land is currently cultivated. With regard to domestic production, it has been steadily declining for half a century and continues to persist with the fall in world prices in recent years. The regression of perennial or industrial crops such as coffee, cocoa, tea, rubber, palm oil, cotton, etc.) has been spectacular.

Figure 7: Evolution of agricultural industries contribution



Source: Author creation (2018)

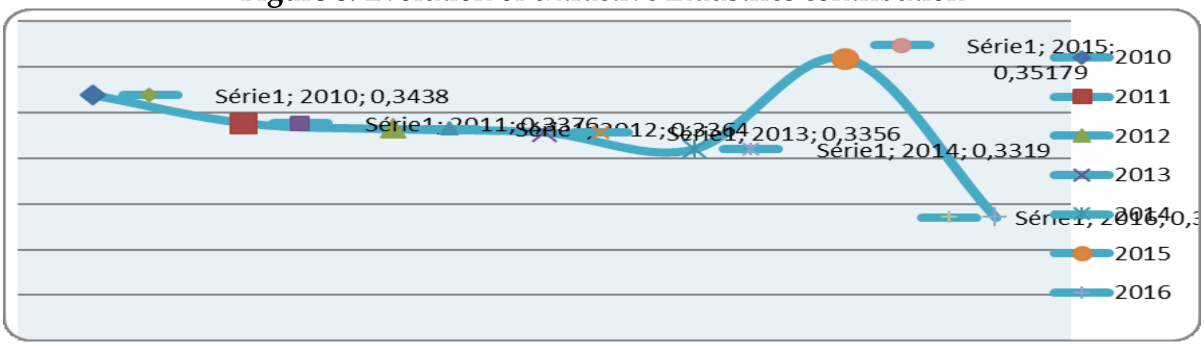
Contributions from the agricultural industries ranged from 23.34% to 20.1% with an average of about 22.045%. These contributions fell slightly between 2015 and 2016, respectively 20.395% and 20.1% (Figure 7).

4.2.2 Industry sector

Industrial production refers to the output of industrial establishments and covers sectors such as mining, manufacturing, electricity, gas and steam and air-conditioning. This indicator is measured in an index based on a reference period that expresses change in the volume of production output.

The analysis of the current economic situation of the DRC tells us that the country's resources come largely from the mining sector, particularly the extractive industries of raw materials. However, the country exports raw products and does not make fair profits, given that commodity prices in the international market are very volatile. This situation is far from guaranteeing full employment and reducing poverty in the D.R. Congo. Also, in the context of rising prices, its production remained weak because of the artisanal nature of its exploitation and fraud.

Figure 8: Evolution of extractive industries contribution



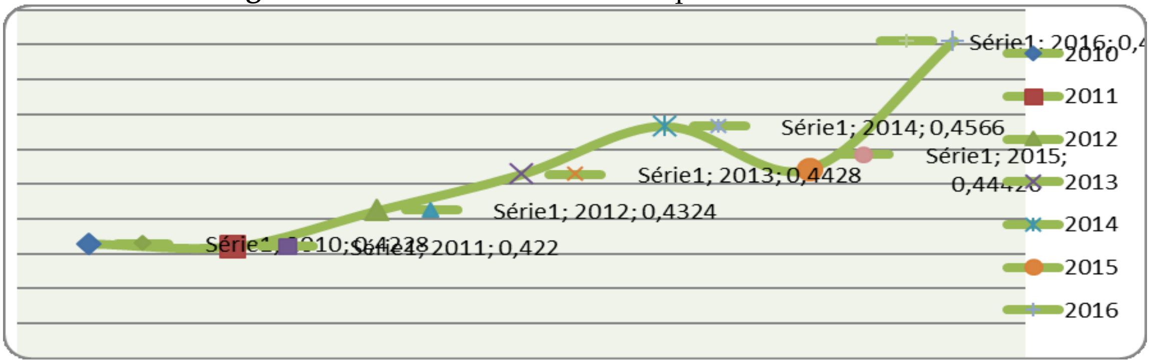
Source: Author creation (2018)

Industry sector also contributed on average 33.6298% to the macroeconomic balance of DR Congo. These contributions evolved from 1% between 2010 and 2015, i.e. 34.38% and 35.18%, with a remarkable decrease of 3.48% in 2015, or 31.70% due to the global crisis and to the drop in the world prices of goods (Figure 8).

4.2.3 Services sector

The service sector, also called tertiary sector, provides services, not an actual product that could be held in your hand. It is an important part of the DRC economy. Most of its sector business focuses on what is called the 'knowledge economy". They need to keep ahead of other businesses by understanding what their customers want and being ready to give it to them quickly and at low cost. One good example of this are banks which went through big changes in the late 21th century. Using information and communication, banks have vastly reduced the number of people they need to employ and lowered the cost of providing bank service.

Figure 9: Evolution of service enterprises contributions



Source: Author creation (2018)

Services sector also contributed about 44.312% on average to the macroeconomic balance of DR Congo. These contributions evolved from 1% between 2010 and 2014, i.e. 42.28% and 45.66%, with a remarkable decrease of 1.23% in 2015, or 44.43% and then, an increase of 3.67% in 2016(Figure 9).

4.3 Statistical results of the various sectors of economic activities in the DRC: 2010-2016

Research question 2: *Is the DRC's industrial policy contribution effective enough to boost the macroeconomic development? Is there any relationship between national industrial policy and national macroeconomic indicators?*

During the period under analysis, the Congolese economy has been marked by a consolidation of the stability of its economic activities, despite the gloom of the world economy. A stable macroeconomic environment is the basic prerequisite for market efficiency. The study used different statistical tests to determine whether the contribution of industrial policy to the DRC economic' output is significant or not in order to boost its national activities and ensure well-being of people, through each sector of economic activity. Remember that the documentary method was the most used and IBM SPSS software version 21 has been the major tool for verifying the data collected.

4.3.1 Reliability test

Table 4.2: Reliability test

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.863	.990	4

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Agriculture (Million USD)	.891
industry (Million USD)	.799
Sevice (Million USD)	.730
GDP Million in USD	.885

Source: Author' calculations, data from World Bank and IMF reports (2018)

The reliability of each variable in analysis has been tested using Cronbach's alpha method. The lowest value of acceptance for Cronbach's alpha suggested by Gardner (2001) was 0.7. The Cronbach's alpha value was found to be at 0.863, as shown by Table 5.2. Cronbach alpha reliability coefficient table for all the data range was from 0.730 to 0.891 across all the items. These data were showed that Agriculture, Industry and Service sectors were much closed with GDP in DRC.

4.3.2 Result on GDP Correlation analysis with 3 sectors

Table 4.3: GDP Correlation Analysis with 3 sectors

		GDP (Billion USD)	Agricultural sector	Industry sector	Service sector
	Pearson Correlation	1	.964**	.983**	.986**
GDP (Billion USD)	Sig. (2-tailed)		.000	.000	.000
	Pearson Correlation	.964**	1	.962**	.919**
Agricultural	Sig. (2-tailed)	.000		.001	.003
	Pearson Correlation	.983**	.962**	1	.943**
Industry Sector	Sig. (2-tailed)	.000	.001		.001
	Pearson Correlation	.986**	.919**	.943**	1
Service sector	Sig. (2-tailed)	.000	.003	.001	

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Author' calculations, data from World Bank and IMF reports (2018)

Bivariate correlation has been used to test the relationship between DRC economic sectors with GDP and the results showed that there is a positive and statistical significant correlation between GDP and Agricultural sector ($r=0.96$, $p<0.001$), Industry ($r=0.98$, $p<0.001$) and Service sector ($r=0.98$, $p<0.001$). The results also show the inter-correlation between sectors, the statistically significant positive relationship between sectors at $p=0.001$.

This implies that the three independent variables have the potential to influence the GDP of DRC. The Pearson correlation analysis showed that Agriculture is significantly positive correlated with industry sector r (.962), p=0.001, and Agriculture also is significantly positive correlated to Service sector, r (.919), p=.003. We can confirm the hypothesis stated that there is significant positive correlation between industry sectors with other sectors. The hypothesis number two of the study has been verified and confirmed that there is a strong positive and significant correlation between industry sectors with other sectors that must interact for GDP as whole production of the country.

4.3.3 Result on Multiple linear regression analysis

Table 4.4 Multiple linear regression analysis

Variables	**B**	**Std Error**	**ß**	**T**	p R2	
(Constant)	-132732802.295	39657660.54		-3.347	.044	
Agricultural sector	1.039	.017	.164	62.727	.000	663469.846 1
Industry Sector	.986	.009	.337	108.837	.000	
Service sector	1.002	.004	.517	241.300	.000	

a. Dependent Variable: GDP
b. Independent variables: Agriculture, Industry and Service sectors
B: Unstandardized Coefficient
β: Standardized Coefficient
F: Fisher distribution, where F (p-1, n-p) is table value and n: number of observations (7 years) and p: number of parameters (3 independent variables). α = 5% is the confidence interval: F (2, 4) = 6.94 < F = 663469.846 i.e. the null hypothesis is rejected, according to which there is no correlation between three independent variables and GDP.
Source: Author' calculations, data from World Bank and IMF reports (2018)

The multiple regression analysis was conducted to examine whether Agricultural sector, Industry sector, service sectors impact on the Dependent variable (GDP). The overall model explained 100% of variance in GDP, that can be explained by three independent variables (Agricultural, Industry and service Sector) which was revealed to be statistically significant, F = 663469.846, p<0.001. Agricultural predictor impacted with (ß= 0.164, p<0.001), Industry sector (ß= 0.337, p<0.001), Service sector (ß=0.517, p<0.001) are significant predictors of GDP.

4.4 Perspectives of industrial policy in DR Congo as tool of economic development

Research question 3: *What steps should be taken to improve the contribution of the DRC industrial policy on its economy outputs?*

To answer this research question, the study noted that several policies and measures have been underlined to address the exogenous shocks incurred during the periods reviewed; among which we briefly quote the following (PEA Report, 2012 and PEA Report, 2017):

4.4.1 General perspectives

An improvement in the country's short-and medium-term economic outlook has been determined mainly by the following factors: (i) the increase in the prices of the country's main export materials on the world market, (ii) a peaceful political environment through a consensus on the management of the transitional period opened since 2016 in connection with the non-organization of the presidential elections (iii) the continuation of structural reforms, including those aimed at improving the investment climate, strengthening the mobilization of internal resources and further diversifying the productive fabric; (iv) the increase in official development assistance, particularly in support of the organization of elections; (v) improving the supply of electrical energy, (vi) promote the development of SMEs and make it a real lever for the creation of a Congolese middle class and socio-economic development.

Under these conditions, the growth rate could be set at 4% in 2017 and 5.2% in 2018. The main levers for growth over the next few years will be the mining, transport and telecommunications sectors, manufacturing industries, trade, and agriculture. The DRC also intends to accede to the status of middle-income countries in 2021, the transformation of agriculture, becoming an emerging country in 2030, intensive industrialization and a country developed in 2050 and a knowledge society (UNDP-CD Perspectives, 2015-2018).

4.4.2 Specific perspectives

The study distinguishes two major levels of perspectives in DR Congo development, such as: strategic level and sectorial level

1. On the strategic level, the Democratic Republic of Congo has the Industrial Policies and Strategies Document (DPSI), whose overall objective is the optimal industrialization of the country for the purpose of a significant contribution from the sector to economic growth and poverty reduction. The DPSI is articulated around the following perspectives: (i) capacity building and industrial skills; (ii) The development of standardization and industrial property; (iii) Support for the safeguarding of the existing industrial fabric; (iv) Promotion of environmentally-friendly industrial development; (v) Strengthening the institutional capacity of the Ministry of Industry and Industrial development support structures; and (vi) the development of industrial spaces. The DPSI also targets the development of the small and medium-sized industrial enterprise, the expansion of female entrepreneurship and the employment of young people (UNDP-CD Perspectives, 2015-2018, idem).

2. On a sectorial level, the specific perspectives also may consider:

For Primary sector: the growth of the added values of the sub-sector (agriculture, livestock, fisheries and forestry) as well as the extractive industry sub-sector include:

- **Agriculture:** Implement a National Agricultural Investment Plan (ANAPI) that will boost agricultural production in the medium and long term. A significant improvement in agricultural productivity and the marketing of agricultural production is expected in the medium term; To promote sustainable agricultural sectors, at the forefront of food, and to develop agri-business in order to improve farmers' incomes; Reduce the vulnerability of the agricultural sector and the finalization of the institutional architecture of the agro-industrial park of Bukangalozo with the involvement of the private sector.

- **Industry (Extractive Industries):** The mining sector should remain the main driver of growth, thanks in particular to the acceleration of investments associated with the mining component of the investment implemented by the Sino-Congolese joint venture, SICOMINES for coping with the constraints that hinder the development of mining activity, including the supply of electricity.

For Secondary sector includes the growth of the manufacturing industries which is tested by the evolution of agricultural production, the electricity, the gas and the water. These are tested the Energy as a considerable tool. It was observed a considerable improvement in energy production capacity over the period 2015-2018. These include several hydroelectric power plants that are under construction: Zongo II (150 MW), Kakobola (10.5 MW), Katende (62 MW); The construction of the Inga III Dam for a capacity of 4,800 megawatts; The construction of several micro hydraulics across the country, particularly in support of agro-industrial park development projects.

For Tertiary sector is consisted of growth of transport and communication and strengthening of the wholesale trade and details.

- **Transport infrastructure**: the development of an integrated and international system linking all the economic poles of the country (provinces and special economic zones) to promote the emergence of a large internal market and ensure, at prices competitive, the interconnection of these poles with the external markets. The revitalization of the activities of the DCs (National Railway Company of the Congo) and the SCTP (Commercial Transport and Ports Company) should improve the fluidity of rail transport. The prospects for the modernization of airports (Kinshasa, Lubumbashi, Kisangani, Kolwezi), the ports of Matadi and Boma, the projected construction of the deep-water port at Banana on the Atlantic Ocean and the rehabilitation of boats from public companies as well as the renovation of roads of national interest should contribute to the increase of transport infrastructure and to the development of inter-provincial traffic which would promote the expansion of the wholesale trade and details.
- **Telecommunications**: The rapidly growing telecommunications sector in the DRC should continue to make a significant contribution to economic growth in the medium term. Important developments in new Information and Communication Technologies (ICT) are expected to have significant effects on growth between 2015 and 2018. The performance in this sector, due in particular to the modernization of the Kinshasa network and the construction of the National Bone Pack in fiber optic cables, should have training effects in terms of productivity gain and competitiveness for the economy as a whole.

5. Discussions

It is important to precise that the DRC's economy is very vulnerable to shocks of various kinds, due to its size, structure and interdependence with the rest of the world, as many other African economies.

5.1. Discussions on national industrial policy

Throughout this work, we have observed the structural distribution of the industrial policy in DR Congo and the adverse effects on it resulting from the collapse of world prices, in a context of generalized crisis, which has translated into a decline in the profitability of investments in the target economic sectors.

Indeed, the sector analysis of growth, based on data from the November 2016 Central Bank of Congo (BCC) economic outlook, indicates that it was mainly driven by the tertiary and secondary sectors, with respective contributions to growth of 1.3 and 0.8 point.

The performance of the tertiary sector is mainly driven by the transport and telecommunications sector thanks to the improvement of the ways and means of communication and the commissioning of several transport companies, as well as those related to trade. Banking and insurance activity fell sharply, reflecting the sluggishness of economic activity. The performance of the secondary sector was mainly driven by buoyant manufacturing industries, particularly food, beverages and tobacco.

Lastly, the poor performance of the primary sector stems from the underperformance of the mining sector, a key activity, which experienced difficulties mainly related to the volatility of commodity prices. The weight of the extractive sector in GDP is estimated at 22% on average over the 2014-2015 periods. The slump in commodity prices continues to weigh on mining companies' margins (Otchia C., 2015). In this context, some mining companies have made redundancies, mine closures or a general reduction in expenditures, with the aim of reducing their costs and thus better withstand the international situation.

The good performance of agriculture, particularly food in this sector, has made it possible to limit the poor performance of the primary sector in 2016. With a share of 16.5% of GDP, agriculture is the main economic activity of the country, generating around 70 % of the active population. The gradual transformation of this sector, through the improvement of productivity, the modernization of production systems and the construction of agricultural service infrastructures, will help support the diversification of the economy and thus reduce the volatility of growth. The agricultural sector fulfils an important role in the economy of the DRC. An estimated 70% of inhabitants are directly or indirectly involved in the agricultural sector. Agriculture's contribution to GDP has declined over the past five years from 23.3% to an estimated 20.6% in 2015. Likewise, the relative contribution of industry declined from 34.4% to 32.9%.

The industrial sector is dominated by mining and mining-related construction. The mining sector has been the main driver behind economic growth and should continue to stimulate growth over the medium to long term.

On a final note, the services sector's contribution to GDP increased from 42.3% in 2010 to 46.5% in 2015, with wholesale and retail trade, telecommunications, transport, and banking services dominating the sector (KPMG Report, 2016).

As a result, the DRC's external balances are especially vulnerable to exogenous trade shocks.

5.2. Discussions on economic development

In developing this work, we have also observed the almost insignificant impact of the contribution of industrial policy to the national economic development. As a result of its dependence on industrialized and emerging economies, the main indicators of the macroeconomic framework have not been spared in the context of an international crisis. This situation has taken hold on a number of levels, including: the weakening of the rate of increase of the growth rate and incomes; a decline in government revenue; the decline in budget support and the risk of re-indebtedness, the currency depreciation continues; the balance still in deficit on the balance of payments; the increase in the infant mortality rate and bitter misery; etc. The country's economic outlook is largely positive, but it is likely to be significant in the lead-up to the presidential elections and private equity in the private sector (KPMG Report, 2016; BCC Report, 2017).

These are the main macroeconomic results developed which the study retained:

1. About the Inflation, the Inflationary pressures have been muted since the end of 2012. Annual inflation averaged 1.2% in 2014 and increased slightly to 1.0% in 2015. We forecast inflation to edge higher from an average of 1.0% in 2015 to an average of 1.9% minimum in 2016. However, while exports were falling, imports should be maintained at a certain level, as Congolese consume mostly goods not produced by them. This situation put pressure on the exchange rate: the Congolese Franc suffered a significant depreciation of about 22.4% in the first quarter of 2016 to 18.2% at the end of year. This loss of the external value of the Congolese currency has also resulted in higher inflation in this highly dollarized economy. Thus, we advise to intensify efforts to de-dollarize the economy and increase foreign reserves.

2. About the Growth, the study noted that despite an increase trend recorded between 2012 (7.2%) and 2014 (9.5%), we can see that the DRC's economic growth have slowed down from 6.9% in 2015 to 2.6% in 2016. According to different indicators we expect that it may grow at least to 4.0% in 2017 to 5.2% in 2018. Our forecast was revised lower as a result of the mining sector's poor performance in 2016. Furthermore, the reduction in government spending will weigh heavily on economic growth with those businesses that are dependent on government infrastructure projects and services bearing the brunt of the cutbacks. We remain concerned about the impact of the economic slowdown in the globe, which will be felt by way of a decrease in external demand for the DRC's exports as well as decreased investment inflows. The county economic activity is also impacted by the election period.

3. Considering the Employment, the Industrial policy has certainly generated a number of jobs in DR Congo during the periods under review. Overall, job creation has varied from 2003 to 2012, from 625,300 jobs created in 2003 to 103,000 jobs created in 2012, with some spikes in terms of rise or fall related to external shocks. This decline is largely explained by the deterioration of the political climate and the current economic environment. However, this job creation does not evolve at the same height as demography. This mismatch between job creation and the demographic evolution shown above (see Chapter 3, table 3.1) is the result of a high rate of unemployment in DR Congo. This rate grew in 2011, stabilized by approximately 40% between 2012 and 2014, and finally grew between 51% and 54% in 2015-2016.

4. Considering the Poverty, DR Congo has more than 15 million households, of which 11.7% live in Kinshasa and 37.6% are urban. However, seven out of ten households are poor with a disparity between rural areas where about eight in ten households are poor and urban areas where fewer than seven out of ten households are poor. The average household size is 5 people. Unlike most sub-Saharan African countries, rural households are smaller than urban households (4.7% vs. 5.4%). This average size hides large disparities. As a result, the description of a population presupposes socio-cultural, demographic and economic aspects. Here, the economic aspects (poverty) are targeted as comparative factors of the other aspects. The poverty of the Congolese population has grown dramatically from 72 to 82%, 10% increase over the rate of 2010 and 2016.

5. Concerning the Human development index, as the all economists agree to measure the economic growth of nations by the development or living conditions of its people. The development of the DR Congo must go largely through its human development. The rapid population growth is likely to have serious consequences for the well-being of all humanity. As a result, we found that the DR Congo is far behind the other countries of the African continent in terms of its population and family planning policy, because its leaders have failed to see the link between population and development problems.

6. From the National development plan, study stated that the DRC does not currently have a national development plan. The National Strategic Plan for Development (PNSD) 2017-21 is currently being drawn up, with technical support from the United Nations Development Program (UNDP) and other international organisms.

Furthermore, it follows from all the ideas developed above that these contributions have relied in part major on the secondary and tertiary sector although their benefits still seem to be insignificant in improving the attitude National Economic and social improvement. In spite of the laws passed and promulgated in order to ensure the existence of a national industrial policy and its effectiveness, these were not efficient and significant through the various commercial transactions with the foreigner. Similarly, the measures taken by the Congolese authorities, inspired by solutions proposed by economists such as Gurtner and others, have not allowed DR Congo to be spared from the exogenous shocks of the crisis that the world market can experience.

6. Conclusion

From the outset, it should be recalled that this study focused on the demonstration of the different contributions of the industrial fabric to the economic development in DRC. The results gathered from our research allow us to highlight the essential ideas closely related to the two essential aspects of our field of analysis.

Indeed, these have swayed the country's macroeconomic balance. The DRC's economy is very vulnerable to shocks of various kinds, due to its size, structure and interdependence with the rest of the world, as many other African economies.

As we can see from above, it has been about presenting, analyzing and interpreting the results to allow us to test the three research hypotheses. Thus through the different data collected, we demonstrated how: (i) The main contributions of industrial policy in the Democratic Republic of Congo is essentially based on three main target sectors, as we have analyzed in the previous points; (ii) the target sectors of industrial policy in the Democratic Republic of Congo have contributed little to the consolidation of the economic activities of the country; (iii) the measures taken by the Congolese authorities, inspired by solutions proposed by Westerners, Orientals, as well as other African countries to mitigate the exogenous shocks of the global crisis due to the fall in world prices are slow to reach their efficiency for economic recovery and social development of populations.

According to the different findings, we are suggesting that:

- The production of high-value agro-food products must be complementary with marketing and transportation.
- The use of capital-intensive technology in agriculture might also lead to growth immiserating due to the significant inequality in assets, especially land.
- DRC should modernize agriculture with labor-using technologies and improve efficiency in the use of inputs to improve DRC's welfare through productive employment and well-coordinated industrial policies and for reducing poverty via the income growth effects.
- DRC government should increase investment in education and infrastructure development and upgrade agricultural value chains.
- In the long run, DRC should improve market and labor efficiency as well as financial intermediation.
- Reducing trade margins, for example by cutting the middlemen, should be implemented simultaneously with institutional reforms and policies that increase farmers' market power and improve marketing efficiency.
- Finally, the study suggests that in addition to mining exploitations, the DRC will have to intensify investments in the acquisition of new technologies, particularly in the agricultural sector (agro-pastoral production and transformation of goods)

and the service sector (transport and telecommunication, construction of basic infrastructures, marketing of local products, etc.).

References

1. ACET (2014) African Transformation Report: Growth with Depth. *The African Center for Economic Transformation,* Accra, Ghana.
2. Arandjelovic, Z., Petrovic Randjelovi and M. Marjanovic, V. (2013). Structural changes in the light of new industrial strategy. *Ekonomika preduzeca* 61, 373-385.
3. Chang, H-J. (2010, In *Khan SR, Christiansen J (eds) Towards new Developmentalism: Markets as means rather than master*). Hamlet without the Prince of Denmark: How development has disappeared from today's 'development' discourse. Routledge: Abingdon.
4. Cohen, L., Manion, L., and Morrison K. (2007). Research Methods in Education (6th ed). London: Routledge Falmer.
5. Crespi G, Fernández-Arias E, Stein E (2014) *Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation*. Washington DC: Development in the Americas (DIA) Inter-American Development Bank.
6. Cypher James, M., Dietz James, L (2009). *The Process of Economic Development, 3th Edition, Routledge*, New York
7. *DRC- Market Overview (2017):* http://export.gov/usoffices.
8. Felipe J, Kumar U, Abdon A, Bacate M (2012) Product complexity and economic development. *Structural Change and Economic Dynamics 23* (1):36-68. doi:http://dx.doi.org/10.1016/j.strueco.2011.08.003
9. Ferraz J.C., Kupfer D., Marques, F.S. (2014, In *International Labour Office*, Geneva). Industrial policy as an effective development tool: Lessons from Brazil. In Salazar-Xirinachs, J.M., Nübler I., Kozul-Wright, R. (eds). Transforming economies: Making industrial policy work for growth, jobs and development.
10. Gabriele, A. (2010, 52 (3), pp. 325-350, In *Comp Econ Stud*). The Role of the State in China's Industrial Development: A Reassessment.
11. Greenwald, B. and Stiglitz, J.E. (2013, In *Revue Industrial policies, the creation of a learning society and economic development*), In Stiglitz, J.E. and Lin J.Y. (eds) : The industrial policy resolution : The role of government beyond ideology. Basingstoke and New York: Palgrave Macmillan.
12. Greenwald, B.C., Stiglitz, J.E. (2013, pp 25-49, In *International Economic Association*), Learning and Industrial Policy: Implications for Africa. In Stiglitz, J.E., Lin, J.Y., Patel, E. (eds): The Industrial Policy Revolution II: Africa in the 21st Century. UK and New York: Palgrave Macmillan, Houndmills.
13. Gurtner, B. (2009). *La crise financière internationale et les pays en développement*, Geneva.
14. Hausmann, R., Hidalgo, C.A. (eds) (2011. *The atlas of economic complexity: Mapping paths to prosperity*. Cambridge: MIT Press.

15. Hausmann, R., Hwang, J., Rodrik D. (2006, Vol. No 5444: 1, In *Centre for Economic Policy Research Discussion Paper Series: UK*). What you export matters.
16. IMF (2016). *Annual Report of world financial situation. Washington DC*: World Bank
17. Jednak, S., Makajic Nikolic, D., Kragulj, D. and Vujosevic, M. (2014). Economic Activities Structure and Development: Evidence from Serbia, Management, 71, 29-38.
18. Klinger, B. (2006, n° 128, In *Working Paper, Center for International Development*). Structural Transformation and Patterns of Comparative Advantage in the Product Space. Harvard University.
19. Krugman, P.R. 1990. The age of diminished expectations (Washington, DC, The Washington Post Company).
20. Massol, O. and Banal-Estanol, A. (2014). Export diversification through resource-based industrialization: the case of natural gas. *European Journal of Operational Research*, 237, 1067-1082.
21. Mazzucato, M. 2013. *The entrepreneurial state: Debunking public vs private sector myths* (London, Anthem Press).
22. Milenkovic, N., Vukmirovic, J., Bulajic, M., Radojicic, Z. (2014). A multivariate approach in measuring socio-economic development of MENA countries. *Economic Modelling*, 38, 604-608.
23. Mishra et al. (2011, n°.5606, In Policy research working paper). Service Export Sophistication and Economic Growth. The World Bank, Washington, DC.
24. Otchia Samen, C. (2015, p.279, In *The Partial fulfillment of requirements*). Industrial policy, productive transformation and pro-poor growth in the Democratic Republic of Congo.Ville d'édition de l'ouvrage? : Nagoya University.
25. Perspectives économiques en Afrique 2012, www.africaneconomicoutlook.org, BAD, OCDE, PNUD, CEA.
26. Perspectives économiques en Afrique 2017, www.africaneconomicoutlook.org, BAD, OCDE, PNUD, CEA.
27. Punyasavatsut, C., and Coxhead, I. (2002). On the Decline of Agriculture in Developing Countries: A Reinterpretation of the Evidence. Staff Paper No. 457, Agricultural and Applied Economics, 47
28. Rapport de La Banque Mondiale (2010). *Etude diagnostique sur l'intégration du commerce*. Kinshasa: UCC.
29. Salazar-Xirinachs, J.M., Nübler, I., Kozul-Wright, R. (2014, In *International Labor Office*).Transforming economies: Making industrial policy work for growth, jobs and development. Geneva: Edition?
30. Savic, Lj. (2014). New Industrialization in Serbia-Reality or Delusion. *Management*, 70, 59-64.
31. Stiglitz, J.E., Lin, J.Y. and Monga, C. (2013, n° 6628, In Policy Research Working Paper). The rejuvenation of industrial policy. Washington DC: World Bank.

32. UNCTAD (2011). *Development-led globalization: Towards sustainable and inclusive development paths*, Report of the Secretary-General of UNCTAD to UNCTAD XII. USA: New York and Geneva.
33. UNCTAD (2013). *Trade and Development Report 2013: Adjusting to the changing dynamics of the world economy*. USA: New York and Geneva.
34. World Bank (2012). World Development Report 2013: Jobs. Washington DC: World Bank.