Analysis of the influence of industrial policies to the economic development: evidence from Tanzania

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Abstract: In Tanzania, recently studies explores that despite implementation of Industrial Policies since it has been launched during the year of 1996, these policies have never bring the desired goals of achieving economic development as targeted, and most importantly these policies were poorly implemented. The present study is undertaken to evaluate the influence of industrial policies to the economic development in Tanzania. With that regard, Simple regression method has been used to estimate the influence of industrial policies on macro economic growth.The influence of industrial policies to economic development is evaluated since the year of 1996 where the industrial policies launched and started to be implemented, as well it was the start of third government term in office (1996-2005) to the year of 2015 where it was the end of fourth government term in the office (2006-2015) in Tanzania.The study consider the data from the World bank, and Tanzania National Bureau of Statistics to evaluate the influence of industrial policies to economic development during the period of 1996 to 2015 in Tanzania. Findings of the study were quite interesting. The results shows that there is significant positive relationship between economic openness and industrial registration, GDP, investment, imports, exports and revenue during the period of 1996 to 2015. Apart from that, the result shows that the relationship between economic openness and employment is negative in the whole period of 1996 to 2015. This means that Industrial policies significantly influenced all macroeconomic economic development indicators (i.e.; industrial registration, GDP ,investment, import, export and revenue) Except employment.

Keywords: Tanzania, Industrial Policies, and Economic Development.

Introduction

Industrial policies are government measures aimed at improving the competitiveness and capabilities of domestic manufacturing firms and promoting structural transformation (UNIDO/UNCTAD, 2011). They support the generation of production and technological capacity in industries considered strategic for national development (Chang, 1994). The case for industrial policy remains strong and is in fact becoming stronger with technical change and globalization (Lall, 2003). However, the types of interventions needed are changing. As a structural force,

globalization reduces the feasibility of some strategies while increasing that of others (Tanzania Industrial Competitive Report, 2012).

In the decades after Tanganyika and Zanzibar created the United Republic of Tanzania, the government recognized the leading role the industrial sector would play in the transformation of Tanzania's economy. Over the years, efforts were made to liberalize the economy and change the system from a planned economy to a market economy, encouraging more active participation of the private sector to accelerate growth and increase the nation's prosperity. In this setting and considering the high dependence of Tanzania's economy on the agricultural sector, policymakers emphasized the need to build a competitive industrial sector to transform the economy. Industrial policies continue to be formulated to address the challenges that arise to this very day (Tanzania Industrial Competitive Report, 2012).

As Tanzania gears towards its vision of becoming a middle-income economy by 2025, the National Five-Year Development Plan 2016/17–2020/21 (FYDP II), published in 2016, identifies industrialisation as the main policy objective and key driver of economic transformation. Indeed, the 5th Phase Government is relentlessly pursuing industrialisation as an overriding priority in the implementation of FYDP II. Such emphasis follows consensus in the literature that industrialisation plays a critical role in economic development (Martorano et al., 2017). Despite the importance and priority attached to industrialisation, though, progress on the ground has been slow, especially hampered by the overwhelmingly large amount of finance needed to push progress in many of the FYDP II flagship projects. Last year, the Government of Tanzania (GoT) prepared an action plan for implementing FYDP II. Ongoing monitoring of implementation and progress towards industrialisation is necessary to ensure the industrialisation agenda remains on track (Kweka, 2018).

To achieve the targets articulated in the Tanzania Development Vision (TDV) 2025, GoT has resolved to promote industrialisation as the core policy objective. In 2005, GoT also prepared the Mini-Tiger Plan 2020 to implement the Vision. This Plan led to the establishment of special economic zones (SEZs) and export processing zones (EPZs). In 2011, GoT adopted the Integrated Industrial Development Strategy (IIDS) 2011–2025 aimed at building a competitive industrial sector. Lastly, the Long-Term Perspective Plan 2011/12–2025/26, prepared to facilitate achievement of TDV 2025, paved the way for three strategies each covering five years: FYDP I (to establish the prerequisite infrastructure and energy necessary for industrialisation), FYDP II (to promote industrialisation as an engine for economic growth) and FYDP III (forthcoming), (Kweka, 2018).

The targets set in FYDP II portray the central role of the industrial sector in driving growth and transformation. By 2020, FYDP II aims to have increased Tanzania's average industrial growth rate to 10.5%, raising the sector's contribution to GDP to 12.5% and boosting employment growth in the industrial sector by 5.4% (MITI, 2017a). The prioritised sectors include resource based industries – that is, agro-processing (textiles and garments, edible oil, meat and dairy processing, leather and leather products, fish processing, sugar production and cashew nuts processing); basic industries (Mchuchuma and Ngaka coal, Liganga iron ore and Engaruka soda ash projects, cement manufacturing and lapidary industries) and infrastructure and logistics services (Kurasini, Bunda and Bagamoyo SEZs). These priority sectors are similar to those suggested in Mufuruki et al. (2017), (Kweka, 2018).

The action plan for implementing FYDP II, published in July 2018, identifies four priority areas of intervention: (i) fostering economic growth and industrialisation, (ii) fostering human development and social transformation, (iii) improving the environment for business and enterprise development and (iv) strengthening implementation effectiveness. It also identifies a number of flagship projects, mostly on infrastructure (Kweka, 2018).

Despite the above policy initiatives, actual progress in implementing the identified projects remains limited. MoFP has compiled a report outlining the status of implementation of flagship and other projects identified in FYDP II. However, the information shown in the list of industrial projects suggests little progress has been made in terms of implementation. Furthermore, MITI's fast-tracking report (2017a) provides a list of priority industrial projects (Annex 1), which are categorised into Strategic Projects, Revival of Privatised Non-Performing Industries and Other Priority Projects. A review of the implementation of these projects indicates little, if any, progress has been made to date. A key constraint has been the limited availability of finance, for instance to pay compensation in acquiring industrial land and building basic supporting (offsite and onsite) infrastructure, (Kweka, 2018).

Motivation of the study and objective

In Tanzania, recently studies explores that despite implementation of Industrial Policies since it has been launched during the year of 1996, these policies have never bring the desired goals of achieving economic development as targeted, and most importantly these policies were poorly implemented. Apart from that, Other studies investigated the contribution of these policies to the economic growth (GDP) of Tanzania, Finally the study recommends further research to be done on contributions of Industrial Policies to the economic development of Tanzania.

Tanzania's gradual path to an industrial economy has been adventurous, full of challenges and mostly difficult. However, this is not due to the lack of policies Tanzania has drafted many policies for transforming the industrial sector since independence. Some of these policies were weak and some strong, but the main problem, as often pointed out by academicians has been poor implementation. "The results in terms of industrial development have failed to keep pace with the rhetoric," says John page from Brookings Institutions (The Citizen, 2018).

Apart from that, Kweka highlighted how desired outcome for implementing of industrial policies become difficult to be achieved. Kweka (2018) argued that, "In Tanzania Despite the policy initiatives, actual progress in implementing the identified projects remains limited. MoFP has compiled a report outlining the status of implementation of flagship and other projects identified in FYDP II. However, the information shown in the list of industrial projects suggests little progress has been made in terms of implementation. Furthermore, MITI's fast-tracking report (2017a) provides a list of priority industrial projects (Annex 1), which are categorised into Strategic Projects, Revival of Privatised Non-Performing Industries and Other Priority Projects. A review of the implementation of these projects indicates little, if any, progress has been made to date. A key constraint has been the limited availability of finance, for instance to pay compensation in acquiring industrial land and building basic supporting (offsite and onsite) infrastructure".

Above all, most important is Sansa (2019) recommend further research to be undertaken to investigate the contribution of industrial policies to the economic development in Tanzania.

Considering the fact that Industrial policies have never achieved the desired goals as suggested by different studies, added that these policies were poorly implemented, while other studies recommended further research to be done to investigate the contribution of these policies to the economic development. The present study is undertaken to investigate the influence of Industrial Policies to economic development in Tanzania during the period of 1996 to 2015.

Objective

The object of the present study is to investigate the influence of Industrial Policies to economic development in Tanzania during the period of 1996 to 2015. Time described as 1996 to 2005 the third presidential term, and 2006 to 2015 the fourth presidential term in Tanzania.

Literature review

Industrial policies are government measures aimed at improving the competitiveness and capabilities of domestic manufacturing firms and promoting structural transformation (UNIDO/UNCTAD, 2011). They support the generation of production and technological capacity

in industries considered strategic for national development (Chang, 1994). The case for industrial policy remains strong and is in fact becoming stronger with technical change and globalization (Lall, 2003). However, the types of interventions needed are changing. As a structural force, globalization reduces the feasibility of some strategies while increasing that of others (Tanzania Industrial Competitive Report, 2012).

With over 70 percent of the population employed in agriculture related activities, it is no surprise that the government adopted the 'kilimo kwanza' as its core development agenda. Nevertheless, industrialization has recently received increased attention with the introduction of the FYDP-I, LTPP and IIDS. However, it has certainly not yet received the policy attention it deserves with a view to its potential of productive job creation and economic transformation (Tanzania Industrial Competitive Report, 2012)

In the decades after Tanganyika and Zanzibar created the United Republic of Tanzania, the government recognized the leading role the industrial sector would play in the transformation of Tanzania's economy. Over the years, efforts were made to liberalize the economy and change the system from a planned economy to a market economy, encouraging more active participation of the private sector to accelerate growth and increase the nation's prosperity. In this setting and considering the high dependence of Tanzania's economy on the agricultural sector, policymakers emphasized the need to build a competitive industrial sector to transform the economy. Industrial policies continue to be formulated to address the challenges that arise to this very day, (Tanzania Industrial Competitive Report, 2012).

Manufacturing has strategic importance in technology and innovation for economic development since it explores new ideas and is a leading sector for technological diffusion, which has strong linkages and spillover effects associated with manufacturing. However, high production costs continue to frustrate industries across Africa. In Tanzania, much like the rest of sub-Saharan Africa, infrastructure bottlenecks such as disjointed road networks and power (p.172) shortages continue to define the manufacturing landscape. This in turn lowers the productive capabilities of nations with multiple reverberations, for example through increases in unemployment, shortage of goods and services, rise in price levels, and general increase in continental uncompetitiveness (Msami and Wangwe , 2016).

Tanzania's industrial sector has evolved through various stages since independence in 1961, from nascent and undiversified to state-led import substitution industrialization, and subsequently to deindustrialization under structural adjustment programmes and policy reforms.

The current development agenda, however, has brought industrial development back to be one of the policy priorities (Msami and Wangwe , 2016).

In Tanzania, industrialization has been characterized by shifts in roles of the state and private sector: starting with largely private sector driven industrial development up to the mid-1960s as reflected in the First Five-year Development Plan (1964–9), shifting to largely state driven industrial development from 1967 to the mid-1980s as reflected in the Second and Third Five-year Plans (1969–74 and 1976–81). It shifted back to private sector driven industrialization after 1986 as reflected in the Economic Recovery Programme (ERP) of 1986–9 and the Economic and Social Action Programme of 1989–92 in which liberalization and privatization were practised followed by initiatives to revert back to industrialization as a development agenda from the mid-1990s as indicated in the Sustainable Industrial Development Programme of 1996–2020 and the Integrated Industrial Development of 2011(Msami and Wangwe , 2016).

Industrialization is primarily a political project: ▪ Identifying and managing winners and losers e.g. traders and industrialists. ▪ Level and Pattern of Public investments: ▪Setting up the institutional framework for strategic investments and Implementation ▪ The experience of East Asia shows that the importance of industrial policy was partly reflected in the power vested in the ministries and other institutions responsible for industry. ▪ Encourage public–private dialogue with a view to facilitating design interventions. ▪ initiate national industrial policy experimentation and learning processes: ▪ Build industrial policy management capabilities among key actors primarily through learning by doing (Wangwe , 2018).

Successful industrial policies need to be accompanied by reliable energy policies – especially in a country like Tanzania, which is among the least electrified countries in the world. This column outlines how combining low-carbon energy solutions with energy-efficient use of carbon-based sources is not simply a good option for Tanzania, but a necessity. The country's development authorities would reap enormous benefits from a comprehensive policy of energy for industrialization, built through broad consultation with multiple stakeholders (Sheikheldin, et al 2018).

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Industrialisation has been recognised as the overarching policy priority guiding the design and implementation of all policies and strategies aimed at achieving the objectives of Tanzania's Five-Year Development Plan 2016/17–2021/22 (FYDP II). The Government of Tanzania (GoT) has taken key steps and initiatives to spur implementation of the industrialisation objective, including by preparing a national strategy, identifying priority projects, strengthening the institutional framework to address coordination challenges and developing supportive infrastructure projects (Kweka, 2018).

To achieve implementation of the industrialisation strategy and transformation of the economy, GoT needs to explore and adopt aggressive policies to support the competitiveness and growth of manufacturing firms. The following specific policy options and measures are recommended. 1. Promote measures to enhance competitiveness of the manufacturing sector, including reducing: (i) import duties on material inputs not produced locally (ii) corporate income tax (iii) electricity rates for the manufacturing sector from $0.12/kwh to $0.06/kwh. 2. Support efforts to improve productivity in existing factories by addressing skills shortages, including simplifying the process for hiring foreign experts for industry. 3. Review and streamline specific incentives for attracting mega investors by streamlining the roles of key institutions and procedures for attracting strategic investors, providing dedicated energy lines and gas infrastructure to industrial parks and SEZs and introducing a customs green lane to enhance efficiency in facilitating strategic projects. 4. Fast-track implementation of business environment blueprint reforms, including deliberate measures to simplify paying tax, tightening enforcement of customs and standards to ensure fair competition between domestic producers and importers, (Kweka, 2018).

The paper ended with policy options and strategies to enhance the impact of trade and industrial policies on poverty reduction. These included improving the business environment; reducing restrictive trade and customs regulations; improving customs administration, promoting entrepreneurship and promote the rural economy, (Nyoni, 2006).

Industrial policy has received renewed interest among researchers and policy makers in recent years because of failed industrial development in the developing world, the only exception being the Asian experiences(Higuchi and Shimada , 2019).

The Integrated Industrial Development Strategy 2025 (IIDS 2025) reviews the policies of SIDP in the context of the emerging economic environment and prepares a road map for implementation of the SIDP strategies so as to achieve the objectives of the industrial sector as

mandated under VISION 2025 targets, (Ministry of Industry and Trade United Republic of Tanzania , 2011).

Tanzania's industrial sector has evolved through various stages since independence in 1961, from nascent and undiversified to state-led import substitution industrialization, and subsequently to de-industrialization under the structural adjustment programmes and policy reforms. The current development agenda, however, has brought industrial development back to be one of the policy priorities, (Wangwe et al, 2016).

This 'new industrial policy' is systemic, working in alignment with other policy strands and supporting social and environmental goals; it affects the structure of the economy as the whole not only the manufacturing sector. Short-term actions, such as protecting employment in unviable companies, low prices for fossil fuels, or reducing wages in high-income economies are counterproductive. To pursue an industrial policy that targets society's ultimate goals without public micromanagement will be challenging. It could be achieved (i) by setting incentives, particularly those impacting on technical progress (e.g. to make it less labour-saving and more energy-saving), (ii) by the use of the important role governments have in the education and research sectors, (iii) by greater public awareness and (iv) if consumer preferences will call for socio-ecological transition.(Aiginger, 2014)

Why Industrial Policy? It is useful to recount briefly the motivating factors behind the push to industrialize, if only to place the subsequent policies in their historical context. The economic arguments pointed to the secular deterioration in the terms of trade for poor countries' raw material and agricultural exports, differing income elasticities of demand for agricultural and industry (Engel's curves), and more generally, how high productivity growth, considered the basis of rising per capita income, was only attainable through industrialization.[1] It also reflected the political pressures and interests behind economic autonomy following political independence in some countries, export pessimism from both the collapse of commodity prices and world trade in the 1930s, and the post-war protectionism in Europe and elsewhere. There was also a relatively hospitable international climate, in which US international agencies and multilateral institutions supported such initiatives. In this context, returning to a dependence on raw material exports was considered both economically unviable and politically problematic (Shapiro, 2007).

Industrial diversification can considerably reduce the vulnerability of Tanzanian industry, making it a key strategic component of the country's industrial policy. • A clear definition of suitable target sectors and product ranges for intra-industry diversification is necessary to encourage entrepreneurs to take the respective investment decisions. • For longer-term, inter-

industry diversification, the number of sub-sectors has to be strictly limited and concrete strategies to build the required competences need to be put in place. • The government needs to initiate a serious evidence-based dialogue with the private sector to identify viable target sectors based on business intelligence. •Promoting "self-discovery" and first movers into new sectors can be considered, but the enforcement of performance benchmarks and sunset clauses is indispensable (Tanzania Industrial Competitive Report, 2012).

Industrial policy is back on the agenda and the consensus is that it must be different 'this time' from the past. We redefine industrial policy for industrialised countries as a strategy to promote 'high-road competitiveness', understood as the ability of an economy to achieve 'Beyond-GDP' Goals (Aiginger, 2014)

The following equations are used to estimate the contribution of Industrial Policies on Tanzania GDP and Tanzania Industrial GDP of Tanzania Economy for the period of 1996 to 2015.

$\ln Y_t = \alpha_0 + \beta_1\, EOI_t + e_{1t}$ ………………….……………….(1) Where, $\ln Y$ is the natural log of Dependent Variable, EOI (economic openness index) is economic openness index. The α_0 is constant, and β_1, is coefficients parameter, (Sansa, 2019).

Data and methodology

For the study, time series data for the period of 1996 to 2015 of industrial registration, GDP, employment, investment, import, export and revenue were used to estimate the Influence of industrial policies to economic development in Tanzania.. The study consider the Word Bank data and Tanzania National Bureau Of Statistics Data for the period of 1996 to 2015 to be used. With that regard, Simple Regression Method in Double Log and Semi Log Linear Models were used to estimate the influence of industrial policies to economic development in Tanzania.

To evaluate the Influence of industrial policies to economic development during the period of 1996 to 2015 in Tanzania, the study formulate the following equation:

The Influence of industrial policies to industrial registration:

$\ln Y_t = \alpha_0 + \beta_1\, EOI_t + e_{1t1}$ ………………….……………….(1) Where, $\ln Y$ is the natural log of Industrial Registration, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

The Influence of industrial policies to GDP:

$\ln GDP_t = \alpha_0 + \beta_1\, EOI_t + e_{1t2}$ …………………….……………….(2) Where, $\ln GDP_t$ is the natural log of GDP, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

The Influence of industrial policies to Employment:

$lnEMP_t = \alpha_0 + \beta_1 \, EOI_t + e_1t3$ ……………………………………(3) Where, $lnEMP_t$ is the natural log of Employment,, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

The Influence of industrial policies to Investment:

$lnINV_t = \alpha_0 + \beta_1 \, EOI_t + e_1t4$ ……………………………………(4) Where, $lnINV_t$ is the natural log of Investment, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

The Influence of industrial policies to Import:

$lnIMP_t = \alpha_0 + \beta_1 \, EOI_t + e_1t5$ ……………………………………(5) Where, $lnIMP_t$ is the natural log of Import, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

The Influence of industrial policies to Export:

$lnEXP_t = \alpha_0 + \beta_1 \, EOI_t + e_1t6$ ……………………………………(6) Where, $lnEXP_t$ is the natural log of Export, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

The Influence of industrial policies to Revenue:

$lnREV_t = \alpha_0 + \beta_1 \, EOI_t + e_1t7$ ……………………………………(7) Where, $lnREV_t$ is the natural log of Revenue, E.O.I is Economic Openness Index. The α_0 is constant, and β_1, is coefficients parameter.

Empirical results and discussion

To investigate the Influence of industrial policies to economic development at Tanzania during the period of 1996 to 2015. The present study consider Descriptive and Analytical Quantitative Techniques to find the final outcome results. To write the study, strong literature review has been done.

Relationship between industrial policies and macroeconomic variables

To achieve the desired results, the study Consider industrial registration, GDP, employment, investment, import, export and revenue as the Dependent Variables and economic openness Index as Independent Variable to evaluate the Influence of industrial policies to economic development in the period of 1996 to 2015 in Tanzania.

Appendix 1 : Data collected from the word bank , and Tanzania Bureau of statistics during the period of 1996 to 2015 in Tanzania. Data consist of key macroeconomic development indicators, that are; Economic Openness Index(E.O.I), Industry Registration (IND), Gross Domestic Product (GDP), Employment (EMPL), Investment (INV), Import (IMP), Export (EXP), and Revenue (REVEN).

YEAR	E.O.I	IND	GDP	EMPL	INV	IMP	EXP	REV
1996	51.881	210	4.544	84.023	0	31.944	19.937	0
1997	41.908	210	3.525	84.071	0	25.69	16.218	0
1998	25.936	210	3.709	84.222	0	15.911	10.025	0
1999	25.013	210	4.864	84.132	0	14.85	10.163	0
2000	23.981	345	4.521	84.228	0	13.172	10.809	0
2001	28.021	345	6.071	84.36	0	14.188	13.832	0
2002	27.49	345	7.093	84.469	0	13.213	14.277	0
2003	30.438	345	6.673	84.676	0	15.35	15.088	0
2004	33.598	345	7.504	84.889	0	17.558	16.04	0
2005	36.959	1131	7.476	85.12	0	19.976	16.983	0
2006	42.768	1131	6.532	85.49	0	24.353	18.415	0
2007	48.058	1131	6.769	85.587	0	28.228	19.831	0
2008	49.027	1131	5.686	85.397	0	29.562	19.465	0
2009	43.533	1131	5.269	84.746	2.951	25.338	18.194	12.098
2010	47.64	1131	6.337	83.711	2.536	28.033	19.608	10.397
2011	56.166	1131	7.672	82.723	1.751	34.532	21.634	10.32
2012	54.37	1131	4.5	82.252	3.058	31.998	22.372	11.323
2013	48.631	1131	6.782	81.782	2.053	29.618	19.012	11.363
2014	45.356	434	6.732	81.652	0.712	27.287	18.069	12.238
2015	40.758	434	6.161	81.627	0.44	23.653	17.105	11.383
TOTAL	801.532	13612	118.42	1679.1	13.501	464.45	337.077	79.12

Appendix 2: Natural Logarithms Calculations for all macro economic development indicators (Source: From Appendix 1).

YEAR	EOI	IND	GDP	EMP	INV	IMP	EXP	REV
1996	3.95	5.35	1.51	4.43	0	3.46	3	0
1997	3.74	5.35	1.3	4.43	0	3.25	2.79	0
1998	3.26	5.35	1.31	4.43	0	2.77	2.31	0
1999	3.22	5.35	1.58	4.43	0	2.7	2.32	0
2000	3.18	5.84	1.51	4.43	0	2.58	2.38	0
2001	3.33	5.84	1.8	4.44	0	2.65	2.63	0
2002	3.31	5.84	1.96	4.44	0	2.58	2.66	0
2003	3.42	5.84	1.9	4.44	0	2.73	2.71	0
2004	3.51	5.84	2.02	4.44	0	2.87	2.78	0
2005	3.61	7	2.01	4.44	0	3	2.83	0
2006	3.76	7	1.88	4.45	0	3.19	2.91	0
2007	3.87	7	1.91	4.45	0	3.34	2.99	0
2008	3.9	7	1.74	4.45	0	3.39	2.97	0
2009	3.77	7	1.66	4.44	1.08	3.23	2.9	2.5
2010	3.86	7	1.85	4.43	0.93	3.33	2.98	2.34
2011	4.03	7	2.04	4.42	0.56	3.54	3.07	2.33
2012	4	7	1.5	4.41	1.12	3.47	3.11	2.43
2013	3.88	7	1.91	4.4	0.72	3.39	2.95	2.43
2014	3.81	6	1.91	4.4	-0.34	3.31	2.89	2.5
2015	3.71	6	1.82	4.4	-0.82	3.16	2.84	2.43
TOTAL	73.12	125.6	35.12	88.6	3.25	61.94	56.02	16.9

The influence of industrial policies to import during the period of 1996 to 2015 in Tanzania

The results of regression analysis shows that there is a significant positive relationship between Economic Openness and Import during the period of 1996 to 2015. The Results are statistically significant with R-Squared 0.9720 having significant at the 1 percent critical value.

The coefficient for Economic Openness is 1.1607(t=30,p<.001). This Implies that for each additional increase in Economic Openness, Import increases by 1.1607 points. The results Indicates that Industrial Policies Significantly Influenced the overall Import during the period of 1996 to 2015 in Tanzania. (TABLE 5).

TABLE 5: Regression Results Between Economic Openness and Import during 1996 to 2015.

Dependent Variable : InIMPtz

VARIABLES	COEFFICIENT	STD DEVIATION	T-STATISTIC	PROBABILITY
EOI	1.1607	0.0388	30	0
C	-1.1464			0
R-SQUARED	0.9720			
ADJUSTED R-SQUARE	0.9704			
S.E.OF REGRESSION	0.04714			
NUMBER OF OBSERVATION =20				

Source: Estimated by Author based on Appendix 7.

Appendix 7: Regression Calculation between Economic Openness and Import for the year of 1996 to 2015. (Source: Appendix Number 2 Of Natural Logarithms Computations).

YEAR	EOI-X	IMPT-Y	X^2	Y^2	XY
1996	3.95	3.46	15.6025	11.9716	13.667
1997	3.74	3.25	13.9876	10.5625	12.155
1998	3.26	2.77	10.6276	7.6729	9.0302
1999	3.22	2.7	10.3684	7.29	8.694
2000	3.18	2.58	10.1124	6.6564	8.2044
2001	3.33	2.65	11.0889	7.0225	8.8245
2002	3.31	2.58	10.9561	6.6564	8.5398

2003	3.42	2.73	11.6964	7.4529	9.3366
2004	3.51	2.87	12.3201	8.2369	10.0737
2005	3.61	3	13.0321	9	10.83
2006	3.76	3.19	14.1376	10.1761	11.9944
2007	3.87	3.34	14.9769	11.1556	12.9258
2008	3.9	3.39	15.21	11.4921	13.221
2009	3.77	3.23	14.2129	10.4329	12.1771
2010	3.86	3.33	14.8996	11.0889	12.8538
2011	4.03	3.54	16.2409	12.5316	14.2662
2012	4	3.47	16	12.0409	13.88
2013	3.88	3.39	15.0544	11.4921	13.1532
2014	3.81	3.31	14.5161	10.9561	12.6111
2015	3.71	3.16	13.7641	9.9856	11.7236
TOTAL	73.12	61.94	268.804	193.874	228.1614

The influence of industrial policies to export during the period of 1996 to 2015 in Tanzania

The results of regression analysis shows that there is a significant positive relationship between Economic Openness and Export during the period of 1996 to 2015. The Results are statistically significant with R-Squared 0.6343 having significant at the 1 percent critical value. The coefficient for Economic Openness is 0.6587(t=0.8237,p<.001). This Implies that for each additional increase in Economic Openness, Export increases by 0.6587 points. The results Indicates that Industrial Policies Significantly Influenced the overall Export during the period of 1996 to 2015 in Tanzania. (TABLE 6)

TABLE 6: Regression Results Between Economic Openness and Export during 1996 to 2015.

Dependent Variable : InEXPtz

VARIABLES	COEFFICIENT	STD DEVIATION	T-STATISTIC	PROBABILITY
EOI	0.6587	0.8239	0.8237	0

C	0.32			0
R-SQUARED	0.6343			
ADJUSTED R-SQUARE	0.6094			
S.E.OF REGRESSION	1			
NUMBER OF OBSERVATION =20				

Source: Estimated by Author based on Appendix 8

Appendix 8: Regression Calculation between Economic Openness and Export for the year of 1996 to 2015. (Source: Appendix Number 2 Of Natural Logarithms Computations).

YEAR	EOI-X	EXP-Y	X^2	Y^2	XY
1996	3.95	3	15.6025	9	11.85
1997	3.74	2.79	13.9876	7.7841	10.4346
1998	3.26	2.31	10.6276	5.3361	7.5306
1999	3.22	2.32	10.3684	5.3824	7.4704
2000	3.18	2.38	10.1124	5.6644	7.5684
2001	3.33	2.63	11.0889	6.9169	8.7579
2002	3.31	2.66	10.9561	7.0756	8.8046
2003	3.42	2.71	11.6964	7.3441	9.2682
2004	3.51	2.78	12.3201	7.7284	9.7578
2005	3.61	2.83	13.0321	8.0089	10.2163
2006	3.76	2.91	14.1376	8.4681	10.9416
2007	3.87	2.99	14.9769	8.9401	11.5713
2008	3.9	2.97	15.21	8.8209	11.583
2009	3.77	2.9	14.2129	8.41	10.933
2010	3.86	2.98	14.8996	8.8804	11.5028
2011	4.03	3.07	16.2409	9.4249	12.3721
2012	4	3.11	16	9.6721	12.44
2013	3.88	2.95	15.0544	8.7025	11.446

2014	3.81	2.89	14.5161	8.3521	11.0109
2015	3.71	2.84	13.7641	8.0656	10.5364
TOTAL	73.12	56.02	268.804	157.9776	205.9959

The influence of industrial policies to revenue during the period of 1996 to 2015 in Tanzania

The results of regression analysis shows that there is a significant positive relationship between Economic Openness and Revenue during the period of 1996 to 2015. The Results are statistically significant with R-Squared 0.3109 having significant at the 1 percent critical value. The coefficient for Economic Openness is 2.3756(t=1.8237,p<.001). This Implies that for each additional increase in Economic Openness, Revenue increases by 2.3756 points. The results Indicates that Industrial Policies Significantly Influenced the overall Revenue during the period of 1996 to 2015 in Tanzania. (TABLE 7).

TABLE 7: Regression Results Between Economic Openness and Revenue during 1996 to 2015.

Dependent Variable : In   REVtz

VARIABLES	COEFFICIENT	STD DEVIATION	T-STATISTIC	PROBABILITY
EOI	2.3756	1.3026	1.8237	0
C	-7.9264			0
R-SQUARED	0.3109			
ADJUSTED R-SQUARE	0.27167			
S.E.OF REGRESSION	1.5811			
NUMBER OF OBSERVATION =20				

Source: Estimated by Author based on Appendix 9

Appendix 9: Regression Calculation between Economic Openness and Revenue for the year of 1996 to 2015. (Source: Appendix Number 2 Of Natural Logarithms Computations).

YEAR	EOI-X	REV-Y	X²	Y²	XY
1996	3.95	0	15.6025	0	0
1997	3.74	0	13.9876	0	0
1998	3.26	0	10.6276	0	0
1999	3.22	0	10.3684	0	0
2000	3.18	0	10.1124	0	0
2001	3.33	0	11.0889	0	0
2002	3.31	0	10.9561	0	0
2003	3.42	0	11.6964	0	0
2004	3.51	0	12.3201	0	0
2005	3.61	0	13.0321	0	0
2006	3.76	0	14.1376	0	0
2007	3.87	0	14.9769	0	0
2008	3.9	0	15.21	0	0
2009	3.77	2.5	14.2129	6.25	9.425
2010	3.86	2.34	14.8996	5.4756	9.0324
2011	4.03	2.33	16.2409	5.4289	9.3899
2012	4	2.43	16	5.9049	9.72
2013	3.88	2.43	15.0544	5.9049	9.4284
2014	3.81	2.5	14.5161	6.25	9.525
2015	3.71	2.43	13.7641	5.9049	9.0153
TOTAL	73.12	16.96	268.804	41.1192	65.536

Summary of the findings

The present study investigated the Influence of industrial Policies to economic development in the period of 1996 to 2015 in Tanzania.To achieve the desired results, the study Consider industrial registration, GDP, employment, investment, import, export and revenue as the Dependent Variables and Economic Openness Index as Independent Variable to evaluate the Influence of industrial policies to economic development during the period of 2011 to 2017 in Tanzania.

Findings of the study were quite interesting. The results shows that there is significant positive relationship between economic openness and industrial registration, GDP, investment, imports, exports and revenue during the period of 1996 to 2015. Apart from that, the result shows that the relationship between economic openness and employment is negative in the whole period of 1996 to 2015. This means that Industrial policies significantly influenced all macroeconomic economic development indicators (ie; industrial registration, GDP ,investment, import, export and revenue) Except employment.

Conclusions and recommendations

Findings of the study were quite interesting. The results shows that there is significant positive relationship between economic openness and industrial registration, GDP, investment, imports, exports and revenue during the period of 1996 to 2015. Apart from that, the result shows that the relationship between economic openness and employment is negative in the whole period of 1996 to 2015. This means that Industrial policies significantly influenced all macroeconomic economic development indicators (ie; industrial registration, GDP ,investment, import, export and revenue) Except employment.

Recommendations

For the prosperity of Industrial policies to achieve the desired target goals of industrialization and economic development growth in general, the study offers the following recommendations;

Regarding the fact that the results of the study show that industrial policies had no influence in employment during the year of 1996 to 2015 in Tanzania. Industrial policies should be frequently reviewed linked and connected with investment policies and employment policies to have the same objectives and targets, most important should be properly , effectively and efficiently implemented focusing the Tanzania environment to achieve the desired goals in time.

Industrial diversification can considerably reduce the vulnerability of Tanzanian industry, making it a key strategic component of the country's industrial policy. •A clear definition of suitable target sectors and product ranges for intra-industry diversification is necessary to encourage entrepreneurs to take the respective investment decisions. •For longer-term, inter-industry diversification, the number of sub-sectors has to be strictly limited and concrete strategies to build the required competences need to be put in place. •The government needs to initiate a serious evidence-based dialogue with the private sector to identify viable target sectors based on business intelligence. •Promoting "self-discovery" and first movers into new sectors can be considered, but the enforcement of performance benchmarks and sunset clauses is indispensable (Tanzania Industrial Competitive Report, 2012).

References

1. Sansa, Nuhu A.,(2019). The Contribution of Industrial Policies on Agriculture Sector in Tanzania: A Quantitative Appraisal (December 20, 2019). Available at SSRN: https://ssrn.com/abstract=3507233or http://dx.doi.org/10.2139/ssrn.3507233.

2. Sansa, Nuhu A.,(2019). The Contribution of Industrial Policies to the Economic Growth of Tanzania (December 20, 2019). Available at SSRN: https://ssrn.com/abstract=3507237 or http://dx.doi.org/10.2139/ssrn.3507237.

3. Yuki Higuchi and Go Shimada (2019). Industrial Policy, Industrial development, and structural transformation in Asia and Africa. Paths to the Emerging state in Asia and Africa.

4. Josaphat Kweka (2018). Monitoring Policies to support Industrialization In Tanzania. An update and Policy Recommendations. Supporting Economic Transformation.

5. Jamal Msami and Samuel Wangwe (2016). Industrial Development in Tanzania.Manufacturing Transformation: Comparative Studies of Industrial Development in Africa and Emerging Asia.

6. Prof. Samuel Wangwe (2018). Industrialization for Inclusive development In Tanzania - Lessons from Experience. 2018 Annual Congress, Economic Society Of Tanzania. Bank Of Tanzania, 7th December, 2018.

7. Shekheldin, Gussai, Diyamett, Bitrina, Makundi and Hezron (2018). Energy Policy for Industrialization: Tanzania's big development challenge. GLOBAL DEV-Research that matters, Development that works.

8. Dr. Timothy S. Nyoni (2006) The role and scope of industrialization in enhancing the impact of trade policy on poverty reduction in Tanzania. Paper Prepared for Presentation at "The Second National Dialogue on Trade, Development and Poverty (TDP) in Tanzania; Giraffe Oceanic View Hotel, Dar es Salaam - 24th November 2006 .

9. Ministry of Industry and Trade United Republic of Tanzania (2011). Integrated Industrial Development Strategy 2025 December 2011.

10. Samuel Wangwe, 1 Donald Mmari, 1 Jehovanes Aikaeli, 2 Neema Rutatina, 1 Thadeus Mboghoina, 1 and Abel Kinyondo (2016). The Performance of the Manufacturing Sector

in Tanzania: Challenges and the Way Forward.Working Paper No. 22 . Africa Growth Initiative-Africa Development Group, United Nations University.

11. Tanzania Industrial Competitiveness Report (2012). United Nations Industrial Development Organization. Government Of the United Republic of Tanzania.

12. Karl Aiginger (WIFO), (2014). Industrial Policy for a sustainable growth path. Policy Paper no. 13. Welfare Wealth Work.

13. Helen Shapiro (2007). Industrial Policy and Growth. DESA Working Paper No. 53, ST/ESA/2007/DWP/54.

14. World Bank Data Indicators.

15. Tanzania Bureau Of Statistics Report(2018). Annual Survey of Industrial Production, 2016 Statistical Report. Ministry of Industry, Trade and Investment.

16. The Citizen Tanzania (2018). Why TZ fails to industrialise despite multitude of policies.By The Citizen Reporter @TheCitizen.Tz news@thecitizen.co.tz.