Why Competitiveness of Light Manufacturing Industries Matters to East African Countries: In the Case of Ethiopia, Rwanda, Tanzania, and Uganda

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Abstract: - Competitive manufacturing industries help in modernizing the agriculture sector which forms the backbone of the country's economy and reduces the heavily dependent of people on agricultural income. The purpose of the study assesses the competitiveness of manufacturing sectors in East African countries (Ethiopia, Rwanda, Tanzania, and Uganda) and explore the policy, strategies, and agreements of the countries to enhance the competitiveness of the manufacturing sectors, analyse the government's supporting package and identify the constraints that hinder the manufacturing sector's competitiveness. The result finds that most of the light manufacturing industries' products produced are used to meet the needs of domestic demand even though the rate of employment increased. And their export performance was very weak. Therefore, the government focuses on the quality of human aspects and export goods than quantity through enhancement of the strategic plans to remain a competitive manufacturing industry.

Key-Words: - Competitiveness, transformation, industry, policy, strategies

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1 Introduction

The rapid and profound technological change, production value chain, and the emergence of new competitors create a competitive manufacturing industry. The competitive manufacturing sector plays a catalyst role, core engine, and foundation to enhance economic growth and structural transformation of the agrarian societies which depend on agricultural income, [27], through forward and backward linkage, managerial knowledge, and new technology, [25]. Many policymakers and scholars recognized that a healthy and competitive manufacturing sector is a fundamental path and source of productive growth and development through the adoption of new technology, generates fast structural change, drives development, alleviates poverty, and reduces unemployment, [25].

Knowing the existing reality happening in the international market and the significant role played by the manufacturing sector, the East African countries have designed and started implementing a vision of 2036 [23], the Central Free Trade Agreement to integrate the African economy, designed transformational policies, and green strategies from 2011/12 to 2025/6 to enhance manufacturing productivity and competitiveness, [20].

One of the objectives of these strategies launched in March 2018, is to create a single market for goods and services in Africa that aims to unlock manufacturing potential and facilitate a competitive manufacturing industry crucial for absorbing a massive number of workers and placing them into productive and decent-paying jobs which were practiced in some Asian and developed countries. These all indicate how competitive manufacturing industries can generate fast structural change, drive development, alleviate poverty, and reduce unemployment, [25].

However, East African Countries, where manufacturing continues to play only a marginal role, have not benefited from increased flows of FDI and their presence in the international market to achieve the best results in a competitive market in a certain activity as long as a new scenario offer opportunities to gain competitive advantages and retain them, [22], and the policymakers understand the main features and benefits of competitiveness, act upon and transform the agriculture sector into manufacturing industries, [27], and ability to remain strong and unaffected in competition compared with similar entities in a volatile environment as a result of production factors, market demand, and support of the government to ensure stable development and competitiveness of domestic enterprises.

Thus, taking the internal and global situations into account, manufacturing industrial policies were designed and implemented at various times to create not only as many job opportunities for the youth as

possible but also to facilitate the progress of the entire industrial development. However, World Economic Forum's Global Competitiveness Index 2014 and 2015 identified that the developing manufacturing sector has been constrained by inefficient government bureaucracy, foreign currency regulations, access to finance, and technology, inadequate market and supply of infrastructure, and lack of peace and stability are mounting challenges in East African countries that could jeopardize the manufacturing sector and African development in general. Therefore, this study explores the key issues existing in the country that enhances competitiveness and structural constraints that have hindered the East African (Ethiopia, Rwanda, Tanzania, and Uganda) manufacturing sector from growing and competitive.

2 Problem Statement

The African economic growth is promising and encouraging; however, this growth could not be accompanied by the structural transformation of the manufacturing industry that created productive employment lifting workers from the low-productivity agriculture and informal sectors into higher productivity activities that achieved the objective of economic growth and sustainable development, [9].

Africa has shown the capacity to create millions of productive jobs because of ever-growing labor costs and natural resource advantages, having special advantage access to high-income markets for exports, and growing domestic and regional markets. The structural transformation designed by the countries enhances the productivity of some medium and large firms, including massive, small, and informal firms providing low-quality products to the domestic market. However, with a wide range of subsectors and factory sizes, the major constraints of manufacturing input cost and quality, are finance, trade logistics, entrepreneurial capacity, and worker skills. In Africa, the economic contribution of the manufacturing sector is still low, and export to GDP contribution share has been falling. Manufacturing in Africa is heavily dependent on resource-based manufacturers; dominated by small firms most of which are informal with weak technological capabilities and their performance varies from one country to another, [7]. Growth and competitiveness of the manufacturing sectors indicated weak and institutional failures have been faced by a poor business environment and limited access to finance.

2.1. The Objective of the Study

The general objective of this study is to assess why the competitiveness of manufacturing sectors are matter to East African countries (Ethiopia, Rwanda, Tanzania, and Uganda), The specific objective of this study:

-to explore the policy, strategies, and agreements of the countries to enhance the competitiveness of the Manufacturing sectors;

-to analyze the government's supporting package to create a competitive manufacturing sector in the countries;

-to identify the constraints that hinder the manufacturing sector's competitiveness and forward some solutions for further policy implications.

3 Definition of Competitiveness

Competitiveness is defined by various authors at different times and situations. Adamkiewicz-Drwiłło, [1], defend a firm's competitiveness as making suitable products for the market and fulfilling the competition requirements (product range, quality, reasonable price as well as optimal sales, and methods of promotion), [3], its share in the competitive market, and Altomonte et al., [4], the ability to exchange the goods and services which is abandon in home country Whereas WEF, [17], competitiveness is the set of institutions, policies, and factors that determine the level of productivity of a country. Porter's theory enables a business environment that supports continual innovation in products, processes, and management Siudek, A. Zawojska, [26].

Thus, factors that have a direct impact on manufacturing competitiveness include the firm's operations and strategy, quantity, and quality of production factors, technology, and innovations as well as supporting related industries. Besides, monetary and fiscal policy (employment and market conditions), and political stability sets general conditions creating opportunities for higher the firm's competitiveness.

3.1 Policies and Strategies to Enhance Competitiveness of Manufacturing Sectors

The African Continental Free Trade Area Agreement, signed by 44 of the AU's 55 member states in Rwanda, Kigali, on March 21, 2018, is one of the single continental markets for goods and services, with free movement of businesspersons and investments. One of the goals of this agreement is to enhance competitiveness at the industry and enterprise level through exploiting opportunities for

scale production, continental market access, and better reallocation of resources.

Moreover, it generates a greater diversification of African economies, through technology transfer and higher competition among countries and firms that will favour technical progress and stimulate investment. Furthermore, it provides African leaders with greater negotiating power to eliminate barriers to exporting from developed countries. Finally, a healthy and competitive manufacturing sector is a fundamental path to economic growth and development and crucial for absorbing a massive number of workers and placing them into productive jobs which were practiced in countries like the United States, United Kingdom, France, Japan, and Germany. These are all indicated how industrialization can generate fast structural change, drive development, alleviate poverty, and reduce unemployment, [25].

Despite their manufacturing potential and promising trajectories, most African countries have remained in a relatively crunch of factories. This limited industrial development represents a missed opportunity for economic transformation and quality employment generation that alleviates poverty.

3.2 Policies and Strategies of the Selected Countries

The Ethiopian government and relevant support institutions have started to implement a series of economic reforms have been made the Structural Adjustment Programme in 1991, the Agricultural Development Led Industrialization Strategy, in 1993, the Interim Poverty Reduction Strategy Paper of 2000, Sustainable Development and Poverty Reduction Program of 2002, Plan for Accelerated and Sustained Development to End Poverty 2005, and Growth and Transformation Plan (GTP) 2011 and 2015 and GTP II 2016/19 to bring fast economic growth in the country and reforms of the fiscal and Monetary policy and aimed to achieve Middle-Income Status by 2025 with rapid Economic Growth - annually by 11% in 2025, increased contribution of the industrial sector to GDP: from 15% in 2015 to 28%, manufacturing (%GDP) - 5%(2015) to 18% by 2025 and agro-processing (%GDP) - to 3.39 by (2020). The priority sectors identified in these strategies are leather and leather product, textile and garment, agro-processing, construction, chemical, and mining since it has ample low-cost labour, giving it a comparative advantage in less-skilled, labour-intensive sectors, and abundant natural resources serving both domestic and export markets, [10]. However, the performance of the manufacturing sub-sector has not been appreciated, and there is remained to be done to create a competitive and growing manufacturing sector.

The United Republic of Tanzania adopted the Long-Term Perspective Plan which advocates socio-economic transformation, and the Integrated Industrial Development Strategy of 2011-2025, confirming the Government becomes pragmatic with industrialization as the main catalyst to transform the economy, generate sustainable growth, and reduce poverty, [27].

To create a competitive manufacturing sector and improve the enabling environment for investment, Rwanda designed a new investment code and one-stop investment promotion centre in 1998 and formed technical and financial assistance, including loan guarantees and liberalization of selected economic sectors to attract private investment, [19]. In coffee and tea factories important for the manufacturing sector for job creation, skills development, and growth. However, Rwanda's manufacturing sector and its relatively moderate export contribution underscore the importance of tackling the obstacles to the economy's growth and competitiveness like financial and real constraints of transport costs since Rwanda is one of the landlocked countries in Africa.

Uganda is the other east African country, undertaking and establishing the policy and institutional framework of the Green Growth Development Strategy which is intended to operationalize the broad green growth principles highlighted in Agenda 2030, [13]. However, Uganda's economic policies affect the industrial sector's comparative advantage, export, and domestic competitiveness; and not be able to export internationally, [25].

3.3 The Need for Competitiveness Manufacturing Industry in Africa

According to 2019 data, Africa is home to 1.3 billion people, representing close to 17 percent of the world population. Yet the African continent only generates three percent of the world's gross domestic product. This emphasizes a major disparity in income distribution between Africa and the rest of the world which calls for manufacturing industrial competitiveness key to achieving the continental goals that are not yet encouraging due to several reasons, [28].

Competitive manufacturing industries help in modernizing the agriculture sector which forms the backbone of the country's economy. It also reduces the heavily dependent of people on agricultural income by providing them with jobs in the sectors.

Thus, industrial development is a requisition for the eradication of unemployment and poverty in each country. It brings down regional disparities by establishing industries in tribal and backward areas. The export of manufacturing goods expands trade and commerce and brings in much-needed foreign exchange. With regards to the manufacturing sector, Africa's share of world market value added is around 2 percent; the average world market value added per capita is almost nine times higher than Africa's. Industrial competitiveness is the capacity of countries to increase their presence in international and domestic markets whilst developing industrial sectors and activities with higher value-added and technological transfers, [27].

Like other Sub-Saharan African countries, the East African Countries: Ethiopia, Rwanda, Tanzania, and Uganda of the competitive manufacturing sector can offer a viable path for transforming the industrial structure and creating productive jobs, in the leather, apparel, wood, metal, coffee, and tea as well as agribusiness sectors. transform their economic structure and strive for productive job creation which is effective in countries like China, Vietnam, and Zambia and relevant for Sub-Saharan Africa, [16]. Thus, African countries need to have a clear idea about the most promising and competitive manufacturing subsectors and then identify, prioritize, and avoid the most serious obstacles in those subsectors. Need to keep targeted policies selective, sustainable with comparative advantage, and in line with the country's scarce resources and capabilities.

3.4 Manufacturing Sector in East Africa

In Africa, the economic contribution of the manufacturing sector is still low, and the export and GDP contribution share has been falling and characterized by commodity exports. Manufacturing in Africa is heavily dependent on resource-based manufacturers; dominated by small firms most of which are informal with weak technological capabilities and their performance varies from one country to another, [7].

However, the growth and competitiveness of the manufacturing sectors indicated weak and institutional failures faced by a poor business environment and limited access to finance. In East Africa, the manufacturing sector's GDP contribution varies by country. For example, in 2013, the manufacturing sector in Kenya was 11.7%; in Ethiopia, 10.6% in Uganda; 7.4% in Tanzania, and 5.1% in Rwanda 2014, [2]. However, in Rwanda, the industrial sector has remained stagnant in the past decade.

Manufacturing industrial growth guided by a strong, proactive developmental state is the key to rapid and successful development. However, due to the high cost and poor reliability of logistics, comparatively low labour productivity, and foreign exchange difficulties, the existing industrial businesses in Ethiopia struggle to make a profit. These issues threaten the long-term viability of existing industries and discourage future investments. As the World Bank's Investment Climate, [15] mentioned, the light manufacturing industry is a fundamental foundation and seed for industries that link the urban-rural sectors. However, the quality and coverage of infrastructure are low, and the inadequacy stems largely from resource and capacity constraints leading to low productivity, and inefficient allocation of resources that lacks competitiveness in the international market.

4 Value Chain in the Manufacturing Sectors

A value chain is an approach that is used in formulating competitive strategies, understanding the source of competitive advantage, and developing the linkage and interrelationship between activities that create product value in the manufacturing sector, [22].

In countries like Ethiopia, Rwanda, and Tanzania, the Governments have designed integrated home-grown policies and strategies that promoted both domestic and foreign direct investment to enhance the economic growth of the country through its local design development home-grown paths, and unique industrial policy to support the manufacturing sector. However, the push on competitiveness, the status of the manufacturing industries and the existence of available resources, and enabling socio-political situation, demand to design and implementation of applicable manufacturing strategies, [27] These were focusing on developing policies and strategies, shifting toward building manufacturing industrial capability to sustain broad-based, rapid, and equitable economic growth, which required human capital, production capacity, coordination, and the relationship between partners as well as various actors in the value chain.

And encouraging both the farmers and the private sectors to focus on production capacity with high value-added and demand products in the market. However, enhancing and expanding infrastructure, and logistic facilities is very important to the value of a product and trade facilities. Thus, becoming part of a global value chain is key to the

competitiveness of the manufacturing sector to increased productivity and better allocation of resources while requiring finance, [14], access to marketing, [9], technology, and human power.
The major exports of the countries are traditional and agricultural commodities with tobacco, coffee, cotton, cashew nuts, tea, cloves, and gold (Tanzania). coffee live animals, oilseeds, flowers, and khat, gold (Ethiopia) and coffee, tea, and minerals like tin, coltan, wolfram, and cassiterite (Rwanda) to Japan, China, United Arab Emirates, the Netherlands, Germany Saudi Arabia United States Russia, and India.

5 Methodology

In our research, we will analyse the competitiveness of the manufacturing sector of these countries in comparison to the world economy, not to each other. We will use the "Revealed Comparative Advantage (RCA)" Index developed by, [6], to quantify such competitiveness. According to this index, the competitiveness of the manufacturing sector (RCA_{it}) can be calculated as follows.

$$RCA_{it} = \frac{MES_{it}}{MES_{wt}} * 100\%$$

Here, MES_{it}- is the share of the export volume of the manufacturing sector of the country in the total merchandise export, and MES_{wt} − - is the share of the export volume of the manufacturing sector in the total merchandise export in the world.
By evaluating the impact of the competitiveness of these countries on a) employment in these countries and b) the share of the volume of production in the manufacturing sector in GDP, we can determine how important the manufacturing sector is for these countries. Such assessment we will do with Eq.s

$$EMP_{it} = \beta_{i0} + \beta_{i1} \times RCA_{it} + \varepsilon_{it} \quad (1)$$

and

$$MVASH_{it} = \beta_{i0} + \beta_{i1} \times RCA_{it} + \varepsilon_{it} \quad (2)$$

Here, EMP_{it}- - is the share of employment in the manufacturing sector in the country in the total employment, $MVASH_{it}$- is the share of the total GDP in the manufacturing sector in the country. β_{i0}, β_{i1} coefficients, ε_{it}-error terms

6 Some Essential Information about the Manufacturing Sectors of Ethiopia, Rwanda, Tanzania, and Uganda

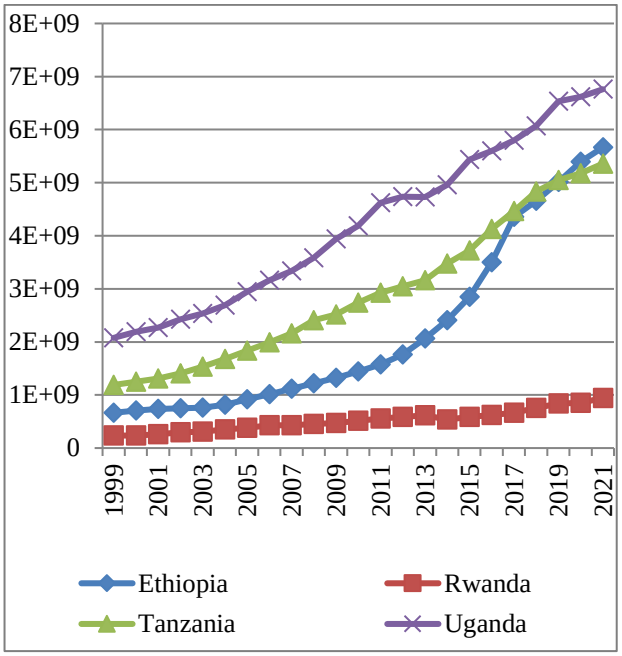

Fig. 1: Manufacturing. value added (mln. constant 2015 US)
Source: [29]

Examining the 20-year actual number trend for value-added in Fig. 1, Uganda was the largest, and Rwanda was the smallest year to year. Each country is evaluated from 2011-2015 and 2011-2020 to check the percentage increase.
The results indicated that Ethiopia had the highest increase with 80% and 242% in 5-year and 10-year respectively, followed by Tanzania with 27% and 77% respectively in value-added. Overall, all countries have shown an increase in the 5-year (2011-2015) and 10-year (2011-2020) period.
Unlike the increase shown in Fig. 2, the value-added % to GDP indicates a fluctuation in change depending on the country. Tanzania showed the highest decrease in GDP with 17% and 11% followed by Uganda with 2% and 8% in the 5-year and 10-year periods respectively. Ethiopia is the only country that indicated an increase in GDP with 19% and 43% in the 5-year and 10-year periods respectively in value-added to GDP. The world record showed a 2% increase in 5 years with no change in the 10 years (2011-2020).

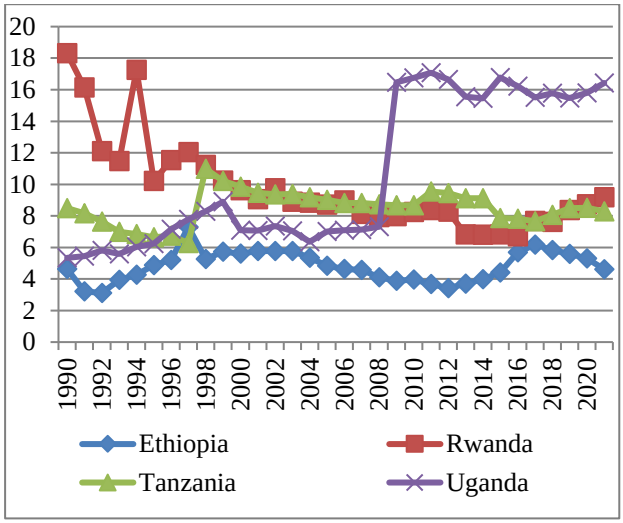

Fig. 2: Manufacturing, Value added % to GDP
Source: [29]

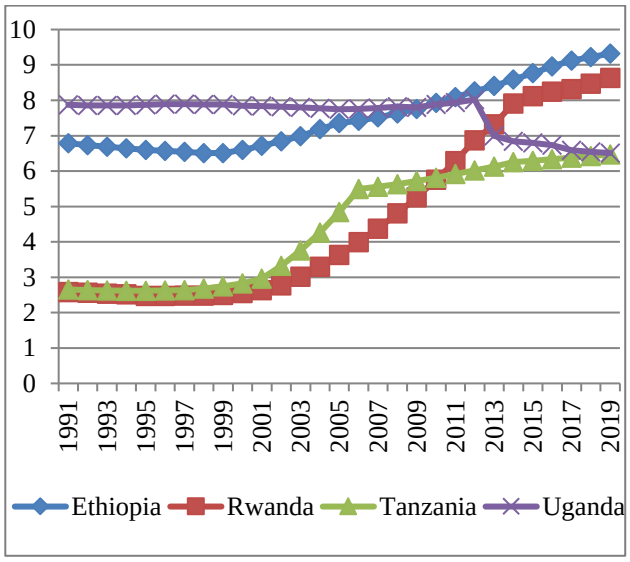

Fig. 3: Employment in the industry (% of total employment)
Source: [29]

As shown in Fig. 3, Overall employment has increased in all countries except for Uganda. Even though Uganda showed a 1% increase from 2011-2012, there was a 14% and 18% decrease from 2011-2015 and 2011-2019 respectively. An increase in employment has been shown in Ethiopia and Tanzania. However, the highest increase was identified in Rwanda with 29% and 37% from 2011-2015 and 2011-2019 respectively. This indicated the manufacturing output is a labour incentive and gives serious attention to changing the skill required to perform the new task in the manufacturing sector. The employment decrease shown in Uganda is consistent with a decrease indicated by the world record with a 1% decrease from 2011-2019.

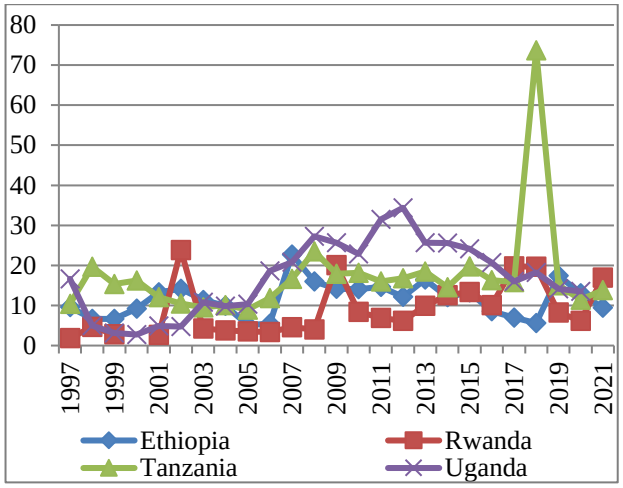

Fig. 4: Manufacturing export (% of total merchandise export)
Source: [29]

The total percentage of manufacturing export of the four countries is displayed in Table 4. The 5-year trend from 2011-2015 indicated that Rwanda had a dramatic increase with 94% followed by Tanzania with 23%. However, the 10-year trend from 2011-2020 showed a decrease in export in all countries except Rwanda which showed a 20% increase. During this period, Uganda displayed the highest decrease with 57% followed by a 29% decrease in Tanzania in total export. This implies that the countries were not achieved the minimum requirement of human capital and always depend on primary manufacturing exports as their main source of export income. The world export record from the World bank shows an 8% increase from 2011-2020, and this result is consistent with the increase shown in Rwanda which is transitioning better from primary export products and establishing strong integration with others to create economic stability.

7 Quantitative Assessment

We have analysed the positive and negative aspects of the state policy for the development of the light manufacturing industry in Ethiopia, Rwanda, Tanzania, and Uganda, as well as the manifestations of these efforts. It is obvious that, along with what has been done, in the end, any researcher and politician is also interested in a quantitative assessment of the mutual influence of the processes taking place in the light industry of these countries with their important socio-economic indicators. To this end, we have built an appropriate econometric model. First, we note that for this we used panel data, which have certain advantages over one-dimensional observations.

• Firstly, they allow you to increase the sample size (respectively, the number of degrees of freedom) without involving additional years. This is important for our case since the figures of the distant past could prevent the identification of an adequate assessment of the processes that have been deployed mainly in recent years.
• The panel approach avoids the influence of individual characteristics of individual countries and identifies common (and in some sense, objective) relationships.
In the countries under consideration, the main expectations from the development of any industry are:
c) Reduction of unemployment is an important factor in the fight against poverty.
d) An increase in exports, which is the main channel for the inflow of hard currency into the country.
For these reasons, we investigated the regression interdependence of these factors with activity in the light manufacturing industry. Note that the models are built using Eviews software based on panel data for the four countries discussed above for 2011-2019.

7.1 A Linear Model of the Impact on Employment

We offer the first generated model:

$$\underset{}{\text{EMP\_SHARE}} = \underset{(0.47)}{4.95} + \underset{(0.00009)}{0.00034} \times \text{MAN\_\$} +$$

$$+ \underset{(0.016)}{0.083} \times \text{MAN\_EXP}, \qquad R^2 \approx 0.89 \qquad (3)$$

where EMP_SHARE is employment in industry (% of total employment) (ILO estimate),
MAN_$ – value added in the manufacturing sector, (mln. constant 2015 US$),
MAN_EXP – exports in the manufacturing sector as % of total merchandise exports.
First, we note that the model has a high degree of statistical adequacy: the value of the determination coefficient is quite high ($R^2 \approx 0.89$), and the standard errors are quite small compared to the values of the regression coefficients, as a result of which the coefficients are of high significance.
Model (3) allows us to assert that an increase in production per million US dollars in 2015 in the light industry increases the share of employment of this industry in total employment in the country by 0.00034% points and that an increase in the share of the manufacturing industry in total exports of goods by 1% point increases the share of employment in this sector by 0.083% of the point.

7.2 Logarithmic Model of the Impact on Employment

To estimate the corresponding elasticities, a logarithmic version of the previous model is also constructed.

$$\underset{}{\text{LOG(EMP\_SHARE)}} = 0.29 + \underset{(0.34)}{0.17} \times$$

$$\times \text{LOG(MAN\_\$)} + \underset{(0.004)}{0.14} \times \underset{(0.003)}{\text{LOG(MAN\_EXP)}},$$

$$R^2 \approx 0.89 \qquad (4)$$

As can be seen from formula (4), this model also has very good statistical indicators, and reveals the elasticity coefficients of the share of employment in the light manufacturing industry relative to general employment in the country:
 by the volume of production in this industry, equal to 0.17;
 by the share of the manufacturing industry in total exports of goods equal to 0.14.

7.3 Logarithmic Model of the Impact on the Export of the Industry

This model describes the dependence of the share of the manufacturing industry in total exports of goods on the employment level in the light industry introduced above:

$$\underset{}{\text{LOG(MAN\_EXP)}} = -1{,}14 + \underset{(1.47)}{1{,}92} \times$$

$$\times \underset{(0.73)}{\text{LOG(EMP\_SHARE)}} \qquad R^2 \approx 0.57 \qquad (5)$$

To avoid the appearance of multicollinearity, we do not include the volume of production in the sector as a regress or the model.
Although this model is inferior to the previous ones in statistical qualities, it also seems quite satisfactory. For example, the regress or coefficient is significant at a significance level of 2%, and the autocorrelation here is much smaller: DW ≈ 1.5.
According to the model, it can be concluded that an increase in the employment rate in the light industry by 1% leads to an increase in the share of manufacturing in total exports of goods by 0.7%.
1. As expected, the development of the light industry has a positive impact on reducing poverty and increasing the share of this sector in exports.
2. The dependence on employment in the industry is not elastic in terms of the volume of production in

it. This can be explained by the capital intensity of the industry under study.
3. The dependence on exports in the industry is not elastic in terms of the level of employment in it. This can be explained by the fact that so far most of the light industry products produced are used to meet the needs of domestic demand.
If we use data for the years 1999-2019 in the models, the results will be slightly different.
To express the dependence of EMP_{it}-on RCA_{it}-as a result of performing panel analysis with the fixed effect of equations (1) and (2) with the following model:

$$EMP_i = \underset{(0.280111)}{5.923344} + \underset{(0.011428)}{0.027789} \times RCA_i \quad (6)$$

This time R^2 =0.460322.
$MVASH_{it}$-n RCA_{it}- while the dependence on

$$MVASH_i = \underset{(0.280111)}{5.923344} + \underset{(0.011428)}{0.027789} \times RCA_{it} \quad (7)$$

This time $R^2 = 0.460322$

We will evaluate the impact of competitiveness on individual countries a) on employment in these countries and b) on the share of production volume in the GDP by the time series method. The results were trained at this time. It is given in Table 1.

Table 1. Regression analysis between $(EMP_{it} - RCA_{it})$ and between $(MVASH_{it} - RCA_{it})$

	Ethiopia		Rwanda		Tanzania		Uganda	
	$\boldsymbol{EMP_{it}}$	$\boldsymbol{MVASH_{it}}$	$\boldsymbol{EMP_{it}}$	$\boldsymbol{MVASH_{it}}$	$\boldsymbol{EMP_{it}}$	$\boldsymbol{MVASH_{it}}$	$\boldsymbol{EMP_{it}}$	$\boldsymbol{MVASH_{it}}$
R^2	0.013970	0.253597	0.251626	0.148534	0.139795	0.138428	0.015320	0.467106
observations	21	21	21	21	21	21	21	21
β_0								
Coefficient	7.595990	6.033217	3.883392	8.807240	4.535551	9.259635	7.585038	6.294365
Std. Error	0.558826	0.485259	0.766457	0.355368	0.465149	0.239616	0.256159	1.568112
t-Statistic	13.59277	12.43299	5.066678	24.78344	9.750750	38.64356	29.61064	4.013978
Probability	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0007
β_1								
Coefficient	0.015692	-0.066727	0.119595	-0.039940	0.025370	-0.012995	-0.004673	0.214728
Std. Error	0.030244	0.026263	0.047317	0.021938	0.014438	0.007437	0.008595	0.052617
t-Statistic	0.518827	-2.540754	2.527526	-1.820563	1.757204	-1.747205	-0.543705	4.080974
Probability	0.6099	0.0199	0.0205	0.0845	0.0950	0.0967	0.5930	0.0006

Note: calculated by the author using the eViews software package

8 Conclusion

The competitive manufacturing sector is a fundamental path and source of productive growth and drives development through the adoption of new technology, generates fast structural change to alleviate poverty, and reduces unemployment, [25]. Remaining competitive in manufacturing requires enabling an environment that reduces costs, especially for those landlocked countries like Ethiopia, Tanzania, Uganda, and Rwanda to connect and coordinate with other countries.

As we indicate from the finding, the literature reviews all countries, design and establish African and national strategic plans and implement them accordingly. However, designing a strategy and having abundant human and natural resources alone could not bring the required result unless these strategies change the existing realities at the grassroots of the countries. Of course, value-added and employment except for Uganda in all countries increased but they should shift breakthroughs from the agriculture to manufacturing industries and create a strong integration with others to reduce the logistic and export costs. That is why the above target countries showed weak export representation even though Ethiopia is the only country that indicated an increase. The light manufacturing in the selected countries' products produced is used to meet the needs of domestic demand using the local technology and skills even though the rate of employment increased. Above all, *Uganda has* shown the worst situation in employment creation and export positions. Therefore, the government focuses on the quality of human aspects and export goods rather than quantity through enhancement of the strategic plans to remain a competitive manufacturing industry.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

-Rovshan Guliev carried out an introduction, literature review, methodology, and conclusion.

-Abrehet Mehari has collected information on the out manufacturing sectors of Ethiopia, Rwanda, Tanzania, and Uganda, as well as carried out a quantitative assessment.

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The authors have no conflicts of interest to declare that are relevant to the content of this article.