An Assessment of Uganda and Tanzania's Competitiveness in Prepared Foodstuffs within the EAC Market: A Comparative Analysis

Aaron Ecel*, Nankya M. Nakintu[†], Racheal Nakigudde[‡], Jimmy M. Otim[§] & Monica Gimbo^{**}

Abstract

This study examines the competitiveness of Uganda and Tanzania in the East African Community's (EAC) prepared foodstuffs trade, a market valued at \$2.5 billion in 2022. We analyze trade data from the International Trade Centre and UN COMTRADE (2013-2022) using CMSA, RCA, and TII indices for 'Prepared foodstuffs' (as defined by the Harmonized Commodity Description and Coding System). Our findings reveal contrasting contexts. Uganda's export growth stemmed from the composition of its exports, with products highly sought-after in the EAC. However, distribution inefficiencies and declining competitiveness in certain categories hampered further growth. Conversely, Tanzania's competitive edge initially boosted exports, but they were limited by neglecting high-growth EAC markets (distribution inefficiencies). By identifying product categories within prepared foodstuffs that require targeted interventions, this study highlights lucrative opportunities within the EAC market. This analysis goes beyond basic export values, exploring the underlying reasons for trade performance and providing valuable insights for policymakers and exporters in the region.

Keywords – Competitiveness, Prepared Foodstuffs, Tanzania, Uganda, East African Community

JEL Classification: F10, F14, F15

^{*} Department of International Business & Trade, Makerere University Business School, Kampala Uganda, eaaron@mubs.ac.ug, ecelaaron@gmail.com

[†] Department of Marketing, Melbourne Institute of Higher Education, Australia, mariah.n@mihe.edu.vic.au

[‡] Department of International Business & Trade, Makerere University Business School, Kampala Uganda rnakigudde@mubs.ac.ug

 $[\]S$ Department of International Business & Trade, Makerere University Business School, Kampala Uganda, jmotim@mubs.ac.ug

^{**} Department of International Business & Trade, Makerere University Business School, Kampala Uganda,mgimbo@mubs.ac.ug

1. Introduction

Under Regional Integration Agreements (RIAs), member states lower barriers to trade among themselves, aiming to increase intra-trade (Ejones, Agbola, Mahmood, 2021; Ngepah and Udeagha, 2018; Shinyekwa, 2015). In fact, Umulisa (2020) recommends increased intra-trade if member states of a trading bloc are to benefit from using a single currency and thus a monetary union. In the East African region, the East African Community (EAC) is considered a primary driver of regional integration (Umulisa, 2020) and is intended to boost intra-member trade. This arrangement confers preferential market access to its member states and therefore intuitively implying enhanced market access in comparison to non-members. Despite mechanisms in place to promote trade among member states, data on trade flows reveals a rise in imports from non-member countries, even though the trading bloc has low-cost producers (Kemigisha, 2023). In 2022, the value of imported merchandise into the EAC reached USD 79.5 billion, with only USD 5.6 billion coming from partner states. In fact, during the period 2018 to 2022, the EAC's average imports from fellow member states were just 8.2% (ITC / UN COMTRADE, 2022)

Prepared foodstuffs (processed foods) are a notable category with increasing imports from non-member states. Within the EAC, demand for prepared foodstuffs has risen significantly with the current market size valued at \$2.5 billion in 2022 (UN COMTRADE, 2024), indicating a growth rate of 133.9 percent since 2011. In fact, projections by Kwakwa (2023) suggest that by the year 2050, trade in Prepared foodstuffs within the Eastern and Southern Africa region could increase by up to 90 percent. This category encompasses nine chapters of the Harmonized System, comprising; preparations of meat or fish (HS.16), sugars and sugar confectionery (HS.17), and cocoa and cocoa preparations (HS.18), preparations of cereals, flour etc. (HS.19), preparations of vegetables (HS.20), miscellaneous edible preparations (HS.21), beverages, spirits & vinegar (HS.22), residues and waste from the food industries prepared as animal fodder (HS.23), and tobacco and manufactured tobacco substitute products (HS.24).

Sauer (2022) and Haggblade, Duodu, Kabasa, Minnaar, Ojijo and Taylor (2016) attribute this increased demand to rising incomes in the sub-Saharan region, consequently leading to nutrition transition, while Paremoer (2018) explains it as the rapid urbanisation occurring, altering demand towards Prepared foodstuffs, and shifting consumer buying habits toward supermarkets. In Tanzania, Saucer (2022) reveals that prepared foodstuffs accounted for an average of 70 percent of the total value of food consumed by rural Tanzanian households.

An analysis of trade flows reveals a significant share of the EAC's processed/prepared food imports originate from markets outside the Customs Union. It is perhaps unsurprising that Kemigisha (2023) reported that 'Eastern African countries are still value-addition-shy despite trade initiatives and that intra-regional trade within the EAC remains below 10 percent'. Despite significant effort, intra-EAC trade in Prepared foodstuffs remains below its potential. This discrepancy between the potential and the actual trade patterns raises questions about the competitiveness of EAC member states relative to external suppliers and the effectiveness of preferential trading terms, particularly Uganda and Tanzania, in exporting Prepared foodstuffs within the region. While Uganda and Tanzania possess diverse agricultural sectors abundant in raw materials for food processing (Woldemichael, Salami, Mukasa, Simpasa, and Shimeles, 2017), the extent to which they have leveraged these resources to gain a larger share of the East African Community (EAC) market for Prepared foodstuffs remains unclear. Understanding the competitiveness of these two countries in the Prepared foodstuffs sector is crucial for formulating strategies to enhance their competitive edge.

While studies such as Shinyekwa and Othieno (2013), Mahona and Mjema (2014), Leyaro (2021), Mjema, Mahona and Bagumhe (2012), Ouma(2017), Umulisa (2020), Demena and van Bergeijk (2022) have investigated intra-East African Community trade, there is a dearth of empirical studies that are sector-specific and decompose the member states' export performance to structural effects (product/commodity effect, distribution effect or competitive effect). Sector-level analysis is vital for a comprehensive understanding, enabling targeted interventions in the EAC's most profitable or lucrative sectors.

Against this background, the motivation of this study is five-fold. Firstly, the EAC is currently considering a monetary union, however, the persistent intra-trade deficit is likely to become a hindrance to the success of a single currency (Umulisa, 2020). Secondly, Umulisa (2020) revealed that the EAC has the potential to increase trade among its partner states by 122% of the normal trade level, however, to effectively address the existing intra-trade deficit, it is imperative to understand the factors influencing member states' export performance at a sector-specific level. Thus, the need for an analysis of commodity compositions to ascertain presence/absence in highly sought-after sectors, distribution effect to establish concentration in growing or declining markets and the competitive effect. Thirdly, in order for industry players in the region (processors, marketers, or transporters) to benefit from such a lucrative market, it is imperative to establish each nation's competitiveness. It is equally important to identify the most lucrative sectors

in the prepared foods' sector, so as to guide resource allocation of businesses/firms in the EAC region. Fourthly, there has been significant investment in agro-processing and value-addition within the region's agribusiness sector. For instance, Obura (2023) reported on an EU programme set to invest €40 million in the EAC to unlock the potential of agribusiness processing and enhance their competitiveness on the international stage. Therefore, it is imperative to ascertain the current state of competitiveness among member states, in order to devise targeted remedies aimed at improving their competitive edge. Finally, member states have varying comparative advantages, identifying which product categories each member thrives in can inform trade strategies and potentially boost intra-EAC trade.

Therefore, the purpose of this study is to investigate whether Uganda and Tanzania hold a competitive edge as exporters of prepared foodstuffs within the EAC market. Secondly, to attribute their competitiveness (or lack thereof) to either the commodity composition effect, distribution effect or competitive effect. Finally, given the critical role the EAC plays for both Uganda's and Tanzania's trade, we assess the strength of their trade relations with the trading bloc.

The remainder of the paper is organised as follows: section 2 covers the theoretical foundation and review of literature; section 3 focuses on the research approach/methodology; section 4 presents and discusses the results; section 5 concludes the findings and provides policy implications.

1. Literature Review

In this section, we present the theoretical foundation of the study and review selected studies on intra-EAC trade and intra-Africa trade in general.

2.1 Theoretical review

David Ricardo's (1817) theory of comparative advantage asserts that the basis for trade relations between two countries lies in the comparative differences in costs since production costs differ in each country. In essence, it argues that countries benefit from trade by focusing on producing and exporting goods they can produce relatively cheaper, even if they are not the absolute cheapest producer of that good. This specialization allows for efficient resource allocation and ultimately, greater overall production for participating nations. (Krugman & Obstfield, 2011; Katunze & Kuteesa, 2016). Although subjected to numerous discussions and critics, it continues to influence international trade (Beaudreau, 2016). Spirin (2021) asserts that the theory of comparative advantage stands on the principle that trade happening under comparative advantage and specialization leads to an

efficient use of resources, and thus comparative advantage continues to influence international trade and if properly implemented, it could stimulate intra-EAC and intra-Africa trade.

2.2 Empirical Literature

In relation to intra-EAC trade, Mkenda (2022) examined the patterns and dynamics of intra-regional trade in the East African Community between 2001 and 2020, by investigating trade intensity and comparative advantage within the East African Community (EAC) following its revival. The findings reveal that, while the initial results showed promising growth in intra-regional trade, the analysis revealed a decline likely caused by persistent non-tariff barriers. The study further showed that Uganda has a comparative advantage in the export of products in raw form. The study recommended reducing trade barriers and focusing on value addition for agricultural products. Mkenda's (2022) findings are in tandem with Ngepah and Udeagha (2018) who sought to investigate trade agreements in Africa by specifically assessing trade creation and trade diversion effects by applying the gravity model estimated using the Eicker–White robust covariance Poisson pseudomaximum likelihood method to a panel data from 1995-2014. The results for the EAC community show that 'trade benefits seem to decline with time.

Similarly, Umulisa (2020) estimated the EAC's trade benefits from promoting intra-regional trade by using the augmented gravity model of trade with the fixed effect filter estimation on 31 African countries from 2000-2016, and the findings show that the EAC's net trade effect for member states is positive although not significant for Rwanda and Burundi. It therefore recommends the full implementation of the customs union and the common market protocols as the primary focus of the partner states so as to bring welfare gains in the region.

Olney (2021) sought to understand why intra-continental Africa trade was low compared to North America, Asia and Europe, using the standard gravity model with a data set spanning all African countries over the past three decades. The findings reveal that African countries' exports to other African nations are more sensitive to distance and less sensitive to economic power compared to exports outside Africa. The study also reveals that improved infrastructure (particularly roads), trade agreements, and efficient customs processes significantly boost intra-African trade. Similarly, Tandrayen-Ragoobur, Ongono and Gong (2023) examined the association between Infrastructure and intra-regional trade in Africa. Their study used an infrastructure-augmented gravity model to examine the impact of infrastructural development on bilateral trade flows using a panel of 51 African countries from 2003 to 2015. Their findings reveal that strong

infrastructure in a country, especially transportation, electricity, and information and communication technology, significantly boosts its bilateral trade across Africa.

Leyaro and Hongoli (2022) examined diversification and intra-industry trade effects of the EAC in the context of Tanzania. The study used the disaggregated trade statistics at 6 HS code digits and applied the Grubel Lloyd Index (GLI) to examine the changing pattern of Tanzania's trade with its trading partners. Their study found a significant rise in intra-industry trade (IIT) between Tanzania and its East African Community (EAC) partners, Kenya and Uganda. The IIT index jumped from around 2% in 2000 to 10.3% for Kenya and 8.7% for Uganda. Their results also supported the benefits of the EAC's formation. The researchers predict that deeper EAC integration will lead to more Tanzanian firms exporting, fostering greater diversification and competitiveness in exports across all EAC member states.

Shinyekwa (2015) examined the extent to which the EAC agreement encourages more trade between member countries (trade creation) or simply shifts trade away from non-member countries to member countries (trade diversion), using the extended gravity model and a data set from 2001 to 2011 from seventy countries that trade with the EAC partner states. The findings revealed that the implementation of the EAC treaty has actually stimulated trade creation within the East African Community and challenged the notion that trade agreements between developing countries (South-South RTAs) primarily divert trade away from non-members. Similarly, Ejones et al. (2021) sought to empirically establish whether regional trade agreements (RTAs) promote trade. They applied an extended gravity model to a panel dataset of the EAC from 1990 to 2017. Their findings show that RTAs have led to an increase in imports from and exports to non-bloc countries, and this impact persists after 12 years and thus promoting RTAs could promote trade in the East African Community.

Buigut (2016) sought to assess the average trade effect of the EAC using the gravity model and accounting for country-pair fixed effects so as to control for time constant factors, in the period 2000 to 2013. The findings reveal that the average effect of the EAC customs union indicates a moderate positive impact on intra-EAC trade of about 22.1%. Ouma (2017) investigated the causes of intra-EAC agricultural exports. This study used five augmented gravity models, which were estimated using the Pseudo Poisson Maximum Likelihood (PPML) Approach. Using panel data for the period 2000 to 2012,

the study findings indicate that various factors such as GDP of exporter, GDP of the importer, exchange rate, distance between the economic centres, language similarities, adjacency and population of the exporter influence intra-EAC agricultural exports. The study recommended that EAC member states should consider measures to reduce currency value disparities among member states.

Fofack, Dzene and Hussein (2021) sought to estimate the effect of the African Continental Free Trade Area (AfCFTA) on intra-African trade, using the general equilibrium Poisson pseudo-maximum likelihood model augmented by a dynamic capital accumulation. Their findings predict that the African Continental Free Trade Area (AfCFTA) could boost intra-African trade by a significant amount (24%) in the short term and potentially even higher in the long. The findings further predict that the benefits would not be evenly distributed. Countries with lower levels of trade and integration within Africa before the AfCFTA are expected to see the biggest gains in trade and overall economic well-being.

The literature review shows that numerous studies have examined the concept of intra-EAC trade and by extension competitiveness. However, these studies typically lack a sector-specific approach and do not compare the competitiveness of individual member states. This study fills this gap by focusing on a single sector, prepared foodstuffs, with seven product categories. It then employs three analytical techniques to provide a more nuanced understanding of the competitiveness of both Uganda and Tanzania within the EAC market.

3. Methodology and Data Sources

This paper adopted three analytical approaches- RCA, Constant Market Share Analysis (CMSA) and Trade intensity Index (TII). The CMSA considered the period 2020 to 2022 in the analysis, while the 2015 to 2022 period was considered for RCA computations and the TII was based on the 2013 to 2022 period. The analyses were primarily based on secondary data obtained from the UN COMTRADE database, accessed through the International Trade Centre's Trademap Portal. This portal provides harmonised international trade flow data (imports and exports).

3.1 Description of the data

The study considered trade flow data (imports & exports) from both partner states spanning the period 2013 to 2022 and comprised products under

classification of 'Prepared foodstuffs' as defined by the Harmonized Commodity Description and Coding System (HS). The classification of prepared foodstuffs comprises nine chapters as presented in Table 1. These are categorisations of products/merchandise that make up the Prepared foodstuffs sector as per the World Customs Organization. The HS classification groups prepared foodstuffs into various chapters based on their ingredients, such as meat, fish, vegetables, fruits, cereals, beverages etc. Each chapter further subdivides into specific HS codes offering a detailed breakdown of the prepared foodstuffs. The sample frame excluded Chapters 22 (Alcoholic products) and 24 (Tobacco products).

Table 1: Showing the description of the data.

	`	Product Description
1.	Chapter 16	Preparations of meat, of fish etc
2.	Chapter 17	Sugars and sugar confectionery
3.	Chapter 18	Cocoa and cocoa preparations
4.	Chapter 19	Preparations of cereals, flour, starch / milk
5.	Chapter 20	Preparations of Vegetables
6.	Chapter 21	Miscellaneous edible preparations
7.	Chapter 22	Beverages, spirits & Vinegar
8.	Chapter 23	Residues and waste from the food industries; prepared
		animal fodder
9.	Chapter 24	Tobacco and manufactured tobacco substitutes; products

Source: Worlds Customs Organisation (2022). https://www.wcoomd.org

3.2 Model specification

3.2.1 Trade Intensity Index

When countries join a regional integration agreement, they become more important trading partners to each other. Such closer ties often lead to them trading more with each other than they would otherwise. The trade intensity index is a tool to measure the strength of such a relationship. The TII calculates this by comparing the share of one country's exports going to the other country, versus the share of the world's exports that go to that same country (World Bank, 2023). It has widely been applied in bilateral trade studies. For example, Maryam, Banday, and Mittal (2018) utilized it to examine intra-BRICS trade, whereas Kamal, Shad, Khan, Ullah, and Khan (2022) employed it to assess the robustness of Pakistan's trade ties in the ASEAN region. In this instance, it was utilized to examine if Uganda's and Tanzania's exports to the EAC market align with expectations considering their membership status within the EAC.

The TII is expressed as follows;

$$T_{ij} = (X_{ij}/X_{it})/(x_{wj}/X_{wt})$$
 (1)

Where x_{ij} and x_{wj} are the values of country i's exports and of world exports to country / region j and where x_{it} and x_{wt} are country i's total exports and total world exports respectively. An index of more (less) than one indicates a bilateral trade flow that is larger (smaller) than expected, given the partner country's importance in world trade.

3.2.2 Revealed Comparative Advantage - Balassa, 1965.

This study also sought to determine if both partner states have a comparative advantage in the export of Prepared foodstuff into the EAC, and for this, RCA index is considered as a widely acceptable analytical approach. Since the focus is in relation to both partner states, comparative advantage against imports of prepared foods in the EAC a modified version of the RCA index was adopted, i.e., thus aversion of the index that assesses a country's(s) exports of a particular product in relation to another country's / regions imports (EAC). This modification has been applied to studies such as Kuldilok et al. (2013) who examined the export competitiveness of Thailand's tuna industry. It is expressed as;

$$RCA_{imj} = (X_{ij}/X_i) / (X_{mj}/X_m)$$
 (2)

The Revealed Comparative Advantage (RCA) index, expressed by RCA_{imj} , indicates whether a country (i) has an advantage or disadvantage in exporting a specific product (j) to another country (m). It is calculated by comparing the share of product j in country m's imports from country i, against the share of all products from country i in country m's total imports. If the RCA_{imj} value is greater than 1, it suggests a comparative advantage for country i in exporting product j to country m. However, a value less than 1 indicates a comparative disadvantage (Kuldilok et al., 2013)

3.2.3 Constant Market Share Analysis

The logic behind the the Constant Market Share Analysis (CMSA) is that the export structure of a given country effects its export performance and that even if a country sustains its portion of each product in all geographical markets, its overall market share can decline if its exports to specific markets are experiencing slower growth compared to the global average (wilson, 2018). Amador and Cabral (2008) describes the CMSA as an accounting

method that enables the breakdown of the changes in the total market share of a certain country over time. The model is expressed as;

$$\Delta X = PE + ME + \varepsilon \tag{3}$$

Where;

 ΔX = the change in total exports from period 0 to period 1.

PE = the product or commodity effect due to the composition of exports.

ME = the market effect of distribution effect due to the destinations of the exports.

 $\varepsilon =$ the competitiveness effect.

The Product Effect (PE) assesses how a country's overall exports are influenced by its specialization in particular products. It measures the total shift in market share resulting from the concentration of a country's exports in a specific commodity. This effect is positive when a country specialises in a product experiencing increasing foreign demand. The Market Effect (ME) examines how a country's export destinations impact its overall exports. It assesses whether exporting to markets experiencing growing demand contributes positively. The Competitiveness Effect evaluates how both price and non-price factors influence a country's export performance. It is considered positive when the country's exports demonstrate a competitive advantage over global competitors (Wilson, 2018; Bonanno, 2016; and Pandiella, 2015).

4.0 Results & Discussion

4.1 Export structure

Table 2 shows Uganda and Tanzania's exports of 'prepared foodstuffs' in the period 2013 to 2022 and reveals that throughout the entire period, Uganda's exports of prepared foodstuffs were consistently higher than Tanzania's. Uganda's exports fluctuated throughout the period, but with a generally upward trend reaching a total export value of USD 370 million in year 2022, while Tanzania's exports experienced a significant increase from 2013 (\$67 million) to 2014 (\$188 million), followed by a sharp decline in subsequent years. Tanzania's exports showed a gradual increase from 2018 onwards to a value of USD 135 million in 2022.

Table 2: Showing Uganda & Tanzania's exports of Prepared foodstuffs (2013-2022)

	Exported Value in USD Thousand													
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022				
1. Uganda's Exports of PFs	214,164	195,144	197341	234198	271,839	330,489	246,101	251,262	300,161	370,968				
2. Tanzania's Exports of PFs	67,078	188,018	80,219	93,102	57,627	58,721	65,453	80,997	104,618	135,570				

Source: ITC / UN COMTRADE Data

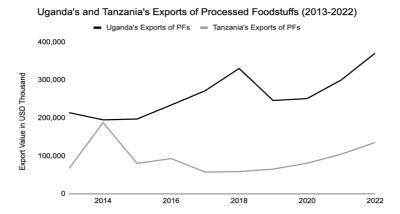


Figure 1: Uganda & Tanzania's exports of Prepared foodstuffs (2013-2022)

4.2 Revealed Comparative Advantage

In this section, the comparative advantage of Uganda and Tanzania in the EAC market are examined at the 4-digit level of the HS classification, and seven of the nine chapters that comprise the 'prepared foodstuff' sector are considered' (see Tables 4 & 5). The analysis considers the most sought-after product groups (4-digit) from each of the seven sectors/chapters and a total of 15 headings were deemed the most sought-after in the EAC market. Table 3 reveals that a substantial proportion of the prepared foodstuff sector imports into the EAC is dominated by 'sugars and sugar confectionery products (Chapter 17), averaging 40 percent in the period 2015-2022. This is followed by products under the category 'miscellaneous edible preparations' (Chapter 21) at 14 percent and 'preparations of cereals' (Chapter 12) at an average of 12 percent.

Table 3: Showing the EAC's imports of Prepared Foodstuffs (2015-2022)

		2015	2016	2017	2018	2019	2020	2021	2022	Average
(In	epared Food Stuffs nported Value in lions USD)	1.4	1.4	2	1.6	1.7	1.7	2.1	2.4	
1.	Sugars and sugar confectionery (HS 17)	39%	43%	52%	40%	40%	37%	35%	32.4%	40%
2.	Miscellaneous edible preparations (HS 21)	14%	14%	10%	13%	14%	19%	17%	15.3%	14%
3.	Preparations of cereals (HS 19)	14%	13%	12%	13%	11%	12%	10%	12.2%	12%
4.	Residues and waste from the food industries (HS 23)	4%	5%	8%	10%	11%	9%	12%	11.9%	9%
5.	Preparations of vegetables (HS 20)	5%	5%	3%	4%	4%	4%	4%	4.4%	4%
6.	Preparations of meat (HS 16)	3%	2%	1%	2%	2%	2%	1%	1.8%	2%
7.	Cocoa and cocoa preparations (HS 18)	2%	1%	1%	2%	2%	2%	2%	1.4%	2%
	rpotion of all epared Foods imports	81%	83%	87%	83%	84%	83%	82%	79.5%	83%

Source: Authors' computations based on UN COMTRADE & ITC's Statistics

Notes: Chapters 22 & 24 (Beverages, spirits & Vinegar and Tobacco respectively) were excluded from the analysis

The RCA analysis for the 'sugars and sugar confectionery' sector identified two products as most sought-after in this category. They include cane or beet sugar and chemically pure sucrose, in solid form products (17.01) and sugar confectionery not containing cocoa products (17.04). In 2022, the EAC market imported 'cane and beet sugar' products worth \$653 million and \$40 million worth of sugars and sugar confectionery products, representing a growth rate of 33 percent in the period 2015-2022. The RCA analysis revealed that Uganda holds a comparative advantage in 'cane and beet sugar' products (17.01) and a disadvantage in the sugar confectionery products (17.04). In comparison, Tanzania has held a consistent disadvantage in both products in the period 2015-2022.

Table 4: showing Uganda's RCA trends for the most sought-after Prepared Foodstuff in the EAC marketplace

Iai	Table 4: snowing Uganda's KCA trends for the most sought-after Prepared Foodstuff in the EAC marketplace													
	Chapter 17: Sugars and sugar confectionery													
17.01	Cane or beet sugar and chemically pure sucrose	2.3	2.8	2.9	1.9	1.3	2.8	1.7	1.4	2.2	5.4	-	Advantage throughout- Moderate rise	
17.04	Sugar confectionery not containing cocoa	1.0	0.4	0.2	0.2	0.4	0.7	0.6	0.6	0.8	1.4	-	consistent Disadvantage- Sharp rise	
			Chapte	r 18: C	ocoa ar	nd coco	a prepa	aration	s					
18.06	Chocolate and other food preparations containing cocoa.	n.a	n.a	0.5	0.4	0.4	0.3	0.2	0.1	0.3	0.7	-	Disadvantage & consistently low	
	Chapter 23:	Residue	es and v	vaste fi	rom the	e food i	ndustr	ies; pre	pared	anima	l fodd	\mathbf{er}		
23.09	Preparations of a kind used in animal feeding	n.a	n.a	0.1	0.6	5.8	7.1	0.1	0.1	0.1	0.1	-	Disadvantage to Advantage & sharp fall	
23.04	Oilcake and other solid residues	n.a	n.a	3.0	6.6	3.4	2.7	0.6	4.8	3.6	5.8	-	Advantage throughout- Moderate rise	
		Cl	napter 2	21: Mis	cellane	ous edi	ible pre	parati	ons					
21.03	Sauce and preparations thereof.	n.a	n.a	1.1	0.8	0.5	1.0	1.5	1.3	0.8	1.9	-	Fluctuating between advantage & disadvantage	

21.06	Food preparations, n.e.s.	n.a	n.a	0.1	0.1	0.3	0.2	0.3 0	.1 0.1	0.1	-	Consistently low
	Chapter	20: Pre	paratio	ns of ve	egetable	s, fruit,	nuts o	r other p	arts of p	olants		
20.09	Fruit juices, incl. grape must, and vegetable juices	n.a	n.a	1.3	1.6	0.4	0.3	0.1 0	.3 0.4	1.0	-	Advantage to disadvantage - Moderate rise
20.08	Fruits, nuts and other edible parts of plants	n.a	n.a	0.9	0.8	0.2	1.5	0.6 0	.1 0.0	0.1	-	Disadvantage & Consistently low
Table	4. continued											
19 Prep	parations of cereals,	flour, s	tarch or	milk								
19.05	Bread, pastry, cakes, biscuits n.a and other bakers' wares	n.a	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	_	Disadvantage & Consistently low
19.01	Malt extract; food preparatio n.a ns of flour, groats, meal	n.a	0.000	0.004	0.001	0.008	0.00	3 0.003	0.121	0.014	_	Disadvantage & Consistently low

													•
19.02	Pasta, whether or not cooked or stuffed with meat or other substance	n.a	n.a	0.004	0.002	0.003	0.016	0.014	0.013	0.017	0.007	_	Disadvantage & Consistently low
16 Prepar	ations of me	at, of	fish, of	crustac	eans, mo	olluscs o	or other	aquatio	c invert	ebrates			
16.04	Prepared or preserved fish	n.a	n.a	0.5	0.9	1.3	1.6	2.0	1.8	2.4	4.3	_	Disadvantage to advantage- Sharp rise
16.02	Prepared or preserved meat, meat offal	n.a	n.a	0.29	0.81	0.14	0.04	0.09	0.02	0.00	0.03	_	Consistently low - Sharp fall
16.01	Sausages and similar products	n.a	n.a	0.00	0.05	0.01	0.01	0.04	0.02	0.01	0.05	_	Consistently low

Source: Authors' computations based on UN COMTRADE & ITC's Statistics

The RCA analysis for the 'cocoa and cocoa preparations' sector identified one product (chocolate and other food preparations containing cocoa-HS18.06) as most sought-after in the EAC market (with an import value of \$ 28 million in 2022, representing a growth rate of 26.8 percent in the period 2015-2022). The RCA analysis reveals that both Uganda and Tanzania have consistently held a comparative disadvantage in the export of chocolate and other foods preparations containing cocoa. In 2022, UN COMTRATE (2024) reveals that the top supplying markets were United Arab Emirates (\$ 5.8 million), Egypt (\$4.9 million), South Africa (\$4.6 million) and Italy (\$1.5 million) collectively accounting for 60 percent of the supply into the market. From the results, it is evident that there is intra-EAC trade in 'chocolate and other foods preparations containing cocoa'.

The RCA analysis for 'residues and waste from the food industries'; 'prepared animal fodder (HS 23) considered 'preparations of a kind used in animal feeding (23.09) and Oilcake and other solid residues (23.04) as the most sought-after products in this category. The results reveal that Uganda's trend of comparative advantage in products under HS 23.09 moved from disadvantage to advantage, followed by a sharp fall to disadvantage, while the comparative advantage of products under HS 23.04 enjoyed considerable advantage all through, with a moderate rise in the period 2020 to 2022. In comparison to Tanzania, the results reveal a consistent comparative disadvantage for both products (RCAimj <1). Trade statistics from UN COMTRADE (2024) show that the EAC's imports of 'preparations for the kind used in animal feedings' surged from \$28.2 million in 2015 to \$173 million in 2022, reflecting a 512% increase. The top suppliers for these imports were non-EAC partner states, including the Netherlands (\$46.2 million), Belgium (\$28.7 million), Egypt (\$23.2 million), Zambia (\$8.9 million), and Vietnam (\$8.1 million). According to trade statistics from UNCOMTRADE (2024), shows that the EAC's imports of 'preparations for the kind used in animal feedings' were valued at \$173 million in 2022, up from \$28.2 million in 2015 (representing a 512% growth), and the top supplying markets, which are non-EAC partner states are; Netherlands (\$46.2 million), Belgium (\$28.7 million), Egypt (\$23.2 million), Zambia (8.9 million) and Viet Nam (\$8.1 million).

The RCA analysis of 'miscellaneous edible preparations' (HS 21) sector considered two product categories comprising 'sauce and preparations thereof' (HS 21.03) and 'food preparations -nes.' (HS 21.06). The results reveal that Uganda has consistently held a comparative disadvantage in products under 'food preparations -nes', while that of products under HS 21.03 has

been fluctuating between advantage and disadvantage, with a comparative advantage as of 2022. Tanzania has held a consistent comparative disadvantage (RCAimj <1) in both products (HS 21.06 and HS 21.03) in the period 2015-2022, however, there has been a sharp rise in comparative for 'sauce and preparations thereof' (HS 21.03). The EAC's imports of 'food preparations -nes' (HS 21.06) were valued at \$205.4 million in 2022, with most supply sourced from outside the trading bloc, with the exception of Kenya (\$29.3 million).

The RCA analysis of products in Chapter 20 (preparation of vegetables etc.) of the HS classification considered two products. The results show that both Uganda and Tanzania currently hold a comparative advantage in fruit juice (HS 20.09) exports. However, Tanzania is losing its advantage at an alarming rate (-90.3%). In the case of 'fruits, nuts and edible parts of plants' (HS 20.08), the RCA analysis reveals that both Uganda and Tanzania currently hold a comparative disadvantage (RCAimj <1). In 2022, much of the fruits juice (HS 20.09) were supplied by Argentina (\$12 million) and India (\$7.8 million).

The RCA analysis of products in Chapter 19 of the HS classification considered two products (preparations of cereals, flour, starch or milk) considered three products comprising bread, pastry and cakes (HS 19.05), malt extract (19.01) and pasta (HS.19.02). The results reveal that both Uganda and Tanzania have held a consistent comparative disadvantage in all three product categories. In 2022, the EAC's imports of these three product categories amounted to \$ 227 million, with exports of Uganda and Tanzania of bread, pastry and cakes (HS 19.05) only amounting to \$6.6 million and \$685, respectively.

For products under the 'preparations of meat, fish' (HS 16) sector, the RCA analysis considered three products comprising 'prepared or preserved fish' (HS 16.04), prepared/preserved meat' (HS 16.02) and 'sausages' (16.01), and the results reveal that, with the exception of preserved fish where Uganda has a comparative advantage, both Uganda and Tanzania have consistently had comparative disadvantage in the rest of the products considered in this category.

Table 5: Tanzania's RCA trends for the most sought-after Prepared Foodstuff in the EAC market

		2015	2016	2017	2018	2019	2020	2021	2022		
Chapte	r 17: Sugars and sugar	confectio	onery								
17.01	Cane or beet sugar and chemically pure sucrose.	0.000	0.000	0.001	0.036	0.011	0.000	0.001	0.036	_	Consistent Disadvantage
17.04	Sugar confectionery not containing cocoa.	0.05	0.02	0.07	0.07	0.12	0.07	0.05	0.08	_	Consistent Disadvantage
Chapte	r 18: Cocoa and cocoa p	reparati	ons								
18.06	Chocolate and other food preparations containing cocoa.	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.02	-	Consistent Disadvantage
Chapte	r 23: Residues and wast	te from t	he food i	ndustries	; prepare	d animal	l fodder				
23.09	Preparations of a kind used in animal feeding.	0.5	0.9	0.0	0.1	0.0	0.3	0.3	0.4	_	Consistent Disadvantage
23.04	Oilcake and other solid residues.	0.00	0.01	0.03	0.02	0.00	0.00	0.09	0.05	-	Consistent Disadvantage
Chapte	r 21: Miscellaneous edi	ble prepa	arations								
21.03	Sauce and preparations therefor.	0.00	0.02	0.05	0.06	0.01	0.02	0.17	0.77	_	Consistent Disadvantage - Sharp rise

21.06	Food preparations, n.e.s.	0.01	0.00	0.11	0.01	0.01	0.10	0.02	0.02	=	Consistent Disadvantage
Chapte	r 20: Preparations of ve	egetables	, fruit, nu	ıts or oth	er parts	of plants					
20.09	Fruit juices, incl. grape must, and vegetable juices.	13.81	15.01	0.90	1.98	2.20	1.63	1.46	1.34	-	Advantage to disadvantage -Sharp decline
20.08	Fruits, nuts and other edible parts of plants.	1.53	1.90	1.14	1.17	1.41	1.23	0.70	0.45	-	Advantage to disadvantage

Source: Authors' computations based on UN COMTRADE & ITC's Statistics

Table 5: continued

19 Pren	parations of cereals, flour, sta	arch or n	nilk								
19.05	Bread, pastry, cakes, biscuits and other bakers' wares.	0.03	0.05	0.04	0.02	0.02	0.01	0.01	0.01	-	Consistent Disadvantage
19.01	Malt extract; food preparations of flour, groats, meal.	0.001	0.000	0.003	0.003	0.000	0.000	0.000	0.002	_	Consistent Disadvantage
19.02	Pasta, whether or not cooked or stuffed with meat or other substances.	0.000	0.000	0.003	0.000	0.001	0.002	0.001	0.013	_	Consistent Disadvantage
16 Prep	parations of meat, of fish, of o	crustacea	ans, moll	uscs or o	ther aqu	atic inve	rtebrates				
16.04	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs.	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	-	Consistent Disadvantage
16.02	Prepared or preserved meat, meat offal.	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00	-	Consistent Disadvantage
16.01	Sausages and similar products.	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05	-	Consistent Disadvantage

Source: Authors' computations based on UN COMTRADE & ITC's Statistics

				Table	6: CMSA anal	yses			
		Total	Gain	Size of Pr	roduct Effect	Distrib	ution Effect	Competi	tive Effect
		2020-	2022	202	20-2022	202	20-2022	202	0-2022
Chapter 16	Uganda	565	100%	76.7	13.60%	346	61.30%	141.8	25.1%
	Tanzania	107	100%	0	0%	0	0%	107	100%
Chapter 17	Uganda	72,433	100%	15,085	20.80%	16,883	23.30%	40,465	55.9%
	Tanzania	-51	100%	175	-343.10%	-294	576.50%	68	-132.5%
Chapter 18	Uganda	59	100%	33	56.60%	715	1211.90%	-689	-1168.5%
	Tanzania	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
Chapter 19	Uganda	2,096	100%	2,352	112.20%	-408	-19.50%	152	7.20%
	Tanzania	1,833	100%	154	8.40%	-157	-8.60%	1,836	100.1%
Chapter 20	Uganda	1,470	100%	766	52.10%	2,115	143.90%	-1,411	-96%
	Tanzania	1,070	100%	881	82.30%	-255	-23.80%	444	41.5%
Chapter 21	Uganda	1,436	100%	187	13%	-718	-50%	1,967	137%
	Tanzania	6,296	100%	85	0.00%	-49	-0.80%	6,260	99.4%
Chapter 23	Uganda	1,436	100%	187	13%	-718	-50%	1,967	137%
	Tanzania	4,420	100%	16,984	384.30%	-1,777	-40.20%	-10,787	-244.1%

Source: Authors' computations based on UN COMTRADE & ITC's Statistics.

Exported Value in USD Thousand

4.3 Constant Market Share Analysis

Table 6 compares the competitiveness of EAC partner states in exporting prepared foodstuffs. The CMSA analysis for 'preparations of meat and related products' (Chapter 16) reveals that both Uganda and Tanzania experienced growth in exports to the EAC market during the period 2020 to 2022. The primary contribution to Uganda's growth is attributed to the distribution effect (61.3%), while Tanzania's growth is solely attributed to the competitiveness effect (100%).

The CMSA analysis for sugar and sugar confectioneries (Chapter 17) reveals that only Uganda experienced export growth during the period 2020 to 2022, with the competitive effect accounting for the majority of the export growth (55.9%). Tanzania did not experience any export growth in 'sugar and sugar confectioneries' during the same period, and most of the decline is attributed to the commodity composition effect (-343.1%). Similarly, only Uganda experienced growth in the export of 'cocoa and cocoa preparations' (Chapter 18), with most of the growth attributed to the size of the product effect (56.6%) and the distribution effect (1211.9%). However, this growth was offset by the competitive effect (-1168.5%). In comparison, Tanzania hardly exported any 'cocoa and cocoa preparations' to the EAC market and therefore did not provide enough data for a CMSA analysis.

The CMSA analysis for 'preparations of cereals, flour, etc.' (Chapter 19) reveals that both Uganda and Tanzania experienced export growth during the period 2020 to 2022. In Uganda's case, most of the growth is attributed to the size of the product effect (commodity composition effect) at 112.2%, while the competitive effect accounted for most of Tanzania's growth in exporting 'preparations of cereals and related products' into the EAC market. The analysis also reveals that the export growth in both countries was offset by the distribution effect (Uganda at -19.5% and Tanzania at -8.6%).

The CMSA analysis for 'preparations of vegetables and related products' (Chapter 20) reveals that both countries experienced export growth during the period 2020 to 2022. The distribution effect accounted for most of the growth in Uganda (143.9%), while the commodity composition effect accounted for most of the growth in Tanzania (82.3%). Uganda's export

growth was offset by the competitive effect (-96%), while Tanzania's was offset by the distribution effect (-23.8%).

The CSMA results also show that both Uganda and Tanzania experienced growth in exporting products under the category of miscellaneous edible preparations (Chapter 21). Growth in both countries is mainly attributed to the competitive effect (137%). However, growth in Uganda's exports was offset by the distribution effect, while Tanzania's was offset by both the size of the product and the distribution effect.

Lastly, the CMSA analysis for products under the category of 'residues and waste from the food industries, prepared animal fodder' revealed that both countries experienced export growth during the period 2020 to 2022, although Tanzania's growth was better. The competitive effect accounted for most of Uganda's export growth (137%), while the size of the product effect attributed to most of Tanzania's export growth. Growth in both countries was offset by the distribution effect. Additionally, the competitive effect also offset Tanzania's growth (-244.1%).

4.4 Trade Intensity

Table 7 and Figure 2 show trade intensity indices of Uganda and Tanzania for exports of 'prepared foodstuffs' into the EAC for the period 2013 to 2022, and it reveals that both partner states' trade relations with the EAC are as large as expected (TII > 1). While both countries' TII fluctuated in the period 2013 to 2022, that of Tanzania fluctuated to a greater extent ranging from 38.7 to 151.7, with an average of 79.2. The results also reveal that Uganda's TII was consistently higher than Tanzania's TII over the period, suggesting that Uganda was a more intensive exporter of 'prepared foodstuffs' into the EAC than Tanzania.

Table 7: Uganda & Tanzania's Trade intensity with the EAC in Prepared foodstuffs.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1. Uganda's TII	226	324	239	243	215	278	233	229	207	217
2. Tanzania TII	84.0	151.7	38.7	60.2	49.8	52.1	71.8	88.7	103.8	91.4

Source: Authors' computations based on ITC / UN COMTRADE DATA

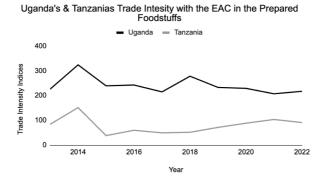


Figure 2: Uganda & Tanzania's Trade intensity with the EAC in prepared foodstuffs

5.0 Conclusion and policy implications

Uganda's CMSA analysis show that the size of the product effect was consistently positive for all sampled products in the prepared foodstuff sector. This implies that Uganda's exports consist of product groups that are highly sought-after in the EAC market. However, the distribution effect offset Uganda's export growth for three categories, namely Preparations of cereals (HS.19), Miscellaneous edible preparations (HS.21), and Residues and waste from the food industries (HS.23), suggesting that Uganda's exports of these products were not targeted towards rapidly growing markets within the EAC market. Furthermore, the competitive effect offset Uganda's export growth for two product categories (HS.18 and HS.20), indicating that Uganda lost its competitive edge due to factors such as price, quality, or marketing.

The findings of the CMSA analysis for Tanzania indicate that the distribution effect contributed the most to offsetting its export growth in prepared foodstuffs, suggesting that Tanzania's exports were not directed towards fast-growing markets within the EAC. On the other hand, the competitive effect accounted for most of Tanzania's export growth in prepared foodstuffs. Additionally, the size of the product effect accounted for growth in four product categories and offset growth in two product categories, namely Residues and waste from the food industries (HS.23) and Sugars and sugar confectioneries (HS.17). Lastly, Tanzania's absence in the exports of Cocoa and cocoa preparations (HS.18) into the EAC market is very pronounced. The Trade Intensity Index (TII) results indicate that Uganda had a more intensive trade relationship in processed foodstuffs with the EAC compared to

Tanzania over the period 2013-2022. RCA results reveal that both countries have comparative advantage in specific products. Uganda enjoys a comparative advantage in cane sugar (HS 17.01), animal feed preparations (HS 23.09) and fruit juices (HS 20.09), while Tanzania generally exhibits a comparative disadvantage across most product categories. However, a recent rise in competitiveness is seen in Miscellaneous edible preparations (HS 21.03).

5.1 Limitations of the study

This study offers a preliminary understanding of Uganda and Tanzania's prepared foodstuff competitiveness in the EAC market, but some limitations could be addressed for a more exhaustive picture. Both the RCA (7 years) and CMSA (3 years) analyses would benefit from a longer time frame to capture stable trends. Additionally, using the 6-digit HS code level in RCA would offer greater product specificity; in this study, RCA analyses were done at the 4-digit HS code level, and hence further studies could focus on specific chapters and exhaustively analyze them.. While RCA and CMSA are valuable tools, they are static and fall short of predictive abilities.

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Annex A1

Product label	EAC's imports from the EAC					EAC's imports from world					
		Value in	US Dollar	thousand		Value in US Dollar thousand					
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	
All products	3,235,182	3712100	4372187	5386492	5,624,304	45,154,009	47,857,161	44,457,729	57,197,799	79,587,611	
Mineral fuels, mineral oils and products of their distillation (HS 27)	106,921	120,444	94,398	618,204	1,096,130	7,505,189	7,579,460	5,419,804	9,766,519	24,047,787	
2. Cereals (HS 10)	285,427	187,398	263,242	607,200	485,634	1,570,043	1,604,074	1,691,474	2,205,531	2,565,458	
3. Salt; sulphur; earths and stone; plastering materials, lime and cement (HS 25)	243,224	263,759	298,196	384,717	454,273	938,568	1,003,988	1,017,795	1,489,319	2,474,598	
4. Iron and steel (HS 72)	204,412	239,872	229,935	302,612	411,743	2,006,748	2,167,909	2,065,245	3,100,302	3,422,515	
5. Animal, vegetable or microbial fats and oils (HS 15)	93,740	82,860	90,486	153,959	190,831	1,239,416	1,136,667	1,520,609	2,006,051	1,961,088	
6. Sugars and sugar confectionery (HS 17)	130,338	113,898	103,854	154,938	187,686	642,681	697,321	645,386	747,716	782,933	

7. Beverages, spirits and vinegar (HS 22)	81,114	85,786	97,375	122,358	170,557	273,281	284,647	288,828	371,531	495,454
8. Plastics and articles thereof (HS 39)	104,325	96,607	113,396	135,707	155,415	2,016,308	2,017,853	1,966,803	2,761,698	3,303,098
9. Soap, organic surface- active agents, washing preparations (HS 34)	103,192	112,691	125,824	140,706	152,139	239,150	254,128	268,939	322,361	330,835
10. Articles of iron or steel (HS 73)	48,710	58,194	70,627	101,836	136,892	1,184,624	1,298,197	1,187,941	1,704,139	2,026,574

Source: ITC / UN COMTRADE Data