

Gender, Value Chains and MSMEs in Africa: Exploring Primary Survey Data for the Pharmaceuticals Sector

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ABSTRACT

This Trade Report explores the nature of the pharmaceuticals sector in Africa specifically from the perspective of medium, small and micro enterprises (MSMEs), utilising a new set of primary field survey-collected data. This is done by firstly considering the background relating to value chains at the global and regional chains in general, the current, post Covid-19 context and importance in terms of the AfCFTA process. Thereafter the paper directly explores the data by profiling its dimensions and then analysing patterns of enterprise female ownership, trade relationships and trade direction, as well as patterns of self-reported value chain 'position' in terms of the most important dimensions in the data.

Keywords: Value chains, Pharmaceuticals, MSMEs, Data analysis

About the Author

JOHN STUART is an economist and policy analyst with special interests in trade, economic integration, technology & ICT and economic modelling. He has researched and written extensively for tralac and also consulted to various organisations including the UN Economic Commission for Africa and the OECD. He holds an M. Com degree in Economics from the University of Natal (Durban). He currently serves as a tralac Associate.

Gender, Value Chains and MSMEs in Africa: Exploring Primary Survey Data for the Pharmaceuticals Sector

By John Stuart¹

Introduction

The pharmaceuticals sector is an essential yet challenging sector, crucial for addressing the continent's unique health needs. The value and necessity of this sector was underscored by the recent Covid-19 pandemic, when many African countries discovered their vulnerability in their dependence on pharmaceutical imports from the rest of the world. That experience led many African countries to prioritise the development of their domestic industries, to reduce dependency on the rest of the world and to potentially increase intra-African trade. This value chain encompasses several stages, including research and development (R&D), active pharmaceutical ingredient (API) production, formulation and manufacturing, distribution, and retail.

Regional Value Chains (RVCs), as seen in Africa and South-East Asia, are a localised form of Global Value Chains (GVCs), where countries within a specific region collaborate in creating a final product through value addition at various stages. In Africa, the participation in value chains is predominantly 'forward', focusing on exporting raw materials for processing elsewhere, which leads to a loss of potential economic benefits like growth and diversification. To shift from merely exporting raw materials to adding more value, it is crucial to identify the potential of specific sectors or industries, leveraging

¹ I am grateful to Trudi Hartzenberg for valuable feedback on an earlier draft.

This trade report is one of four exploring the same theme, focusing respectively on the broad agricultural/agro-processing sector, the clothing, textile and leather sector, the pharmaceutical sector and the cosmetics & personal care sector. These papers consequently share certain identical narrative content.

I would like to thank the Enterprise Analysis Unit of the Development Economics Global Indicators Department of the World Bank Group for making their data available.

resources, labour, capital, and infrastructure. This involves not only developing underutilised RVCs but also designing policy to create new horizontal value chain connections, while not neglecting the needs of the MSME and female-owned contingents of the industries.

This paper explores the nature of the pharmaceuticals sector in Africa specifically from the perspective of medium, small and micro enterprises (MSMEs), utilising a new set of primary field survey-collected data. This is done by firstly considering the background relating to value chains at the global and regional chains in general, the current, post Covid-19 context and importance in terms of the AfCFTA process. Thereafter the paper directly explores the data by profiling its dimensions and then analysing patterns of enterprise female ownership, trade relationships and trade direction, as well as patterns of self-reported value chain 'position' in terms of the most important dimensions in the data: inter-sectoral comparison, female ownership, entity size and REC membership.

Global and regional value chains for African development: potential, current context, AfCFTA context and gender considerations

The potential of global and regional value chains for development

Global and regional value chains (GVCs and RVCs) offer significant benefits to developing countries, primarily in fostering economic growth, diversification, and industrial development. Participation in these chains can lead to technology transfer, as companies from developed countries often bring advanced technologies and management practices to their operations in developing countries. This, in turn, can improve the productivity and competitiveness of local firms (Taglioni and Winkler 2016).

Additionally, integration into GVCs and RVCs can provide access to international markets, allowing developing countries to benefit from economies of scale and to specialise in specific stages of production where they have a comparative advantage (World Bank 2020a). This specialisation can lead to an increase in value-added activities and, consequently, higher income levels.

Furthermore, GVCs can stimulate job creation and skill development, as local workers gain experience in various aspects of production and international business practices (UNCTAD 2013). Moreover, RVCs, specifically, play a crucial role in promoting regional integration and cooperation, which can be pivotal for smaller economies in accessing larger markets and negotiating trade agreements (African Development Bank Group 2014). However, it is important to note that the benefits of GVCs and RVCs

are not automatic and depend on the ability of a country to effectively engage and upgrade within these chains.

Threats to GVC development in a post Covid-19 world: de-globalisation

In the post-COVID-19 landscape, Global Value Chains (GVCs) are facing significant disruptions and transformations. One of the primary threats is the rising trend of 'de-globalisation', characterised by a shift towards more protectionist trade policies by several countries. This shift challenges the traditional model of GVCs, which relies on the free flow of goods and services across borders (Baldwin & Evenett 2020). Additionally, there's a growing inclination towards 're-shoring' and 'near-shoring', as companies aim to reduce their dependency on distant suppliers and minimise supply chain vulnerabilities exposed by the pandemic. This involves bringing production processes back to the home country (re-shoring) or moving them to geographically closer countries (near-shoring), thereby shortening and simplifying supply chains (UNCTAD 2021b).

Another emerging concept is 'friend-shoring', which entails relocating supply chains to politically stable and friendly countries to mitigate risks associated with geopolitical tensions (Financial Times 2022). These trends collectively signify a move away from the highly integrated, cost-driven GVCs of the past, towards more regionally focused, resilient, and politically stable supply chain structures. While this shift could lead to greater supply chain resilience, it also poses challenges in terms of potentially higher costs and reduced efficiency due to the loss of scale and specialisation benefits that traditional GVCs offer (World Economic Forum 2021).

The African context: the AfCFTA as a framework for African industrialisation

The AfCFTA sets the stage for promoting and expanding regional value chain (RVC) development. As Africa is on the brink of embracing free trade and heightened economic integration in various areas, there is a need to focus on enhancing and deepening value chain trade among member states. These efforts could address several key issues (Stuart 2023a):

1. Counteracting Africa's deindustrialisation, characterised by a steadily declining share of manufacturing value-added in total value-added. Over the last thirty years, African economies have increasingly relied on primary and services production, hindering their ability to enhance their industrial activities. RVCs allow for a level of specialisation that individual countries might find challenging to achieve alone, as evidenced by the industrialisation of South East Asian

countries in the last century. While that model of industrialisation has become more challenging, the approach through RVCs remains viable for African countries.

2. Minimal intra-African trade, which currently stands at about 14% of Africa's total trade (ITC Trade Map 2022). Despite being integral parts of global value chains, primarily as forward-linked primary producers, African countries have limited integration among themselves. Several factors contribute to this, including the low complementarity of African economies. Nevertheless, intra-African trade liberalisation under the AfCFTA, geographical closeness, active industrial and trade policies, and public-private cooperation could alter these dynamics. Value chain relationships, which are robust in economically similar regions like Europe and South East Asia, hold similar potential for African economies.

Furthermore, the involvement of the private sector, particularly the engagement of larger firms, is essential. This is because the most effective value chain configurations often involve cross-border, intra-firm value transfers (UNCTAD 2015).

3. Gender disparities in business ownership and leadership within African economies. By analyzing sector-specific variations, policies can target industries where training and capacity building for female entrepreneurs and workers can help increase their participation and compensation. Concurrently with the promotion of high-potential value chains, female enterprise participation and ownership can be enhanced (see Stuart 2022).

The final point above is expanded on in the next sub-section.

The potential of RVCs for women entrepreneurs

Participation in Regional Value Chains (RVCs) can offer significant benefits to female-owned and managed businesses in developed countries, particularly in terms of enhanced market access, increased competitiveness, and opportunities for business growth. Engaging in RVCs enables these businesses to tap into new markets within their region, which can be less daunting and more accessible compared to global markets, due to geographic proximity, shared cultural and regulatory environments, and existing regional trade agreements (European Commission 2020). This access can lead to increased sales and revenue growth.

Moreover, RVC participation can drive competitiveness for female-led enterprises. It encourages these businesses to adopt higher standards in quality, efficiency, and innovation to meet the demands of regional markets, thereby improving their overall competitiveness (OECD 2019). Participation in RVCs also often involves collaborations with other regional businesses, which can facilitate knowledge and technology transfer, vital for business modernisation and development (World Bank 2020b).

Furthermore, RVCs provide opportunities for scaling up. Female entrepreneurs can leverage the networks and partnerships formed within RVCs to scale their operations and diversify their products and services, crucial for long-term sustainability (UNCTAD 2021a). Importantly, engaging in RVCs can also empower female entrepreneurs by providing them with a platform to overcome traditional gender barriers in business, enhancing their visibility, and enabling them to contribute more significantly to economic growth and development in their regions (International Trade Centre 2020).

Exploring African MSME primary survey data for value chain and gender insights

The tralac MSME gendered value chain survey 2023

Overview of the survey process and purpose

The primary objective of the survey was to maximise respondent participation within the limits of available resources and budget. The survey was spearheaded by two main field researchers, with Beru Lilako overseeing the Kenyan segment and Nana Banyin managing the survey in Ghana. An important aspect of the survey design was the use of an online form, which eliminated the need for face-to-face interviews, thereby enhancing efficiency and reach.

The survey was conducted in two distinct phases. Initially, it focused exclusively on Kenya and Ghana, but the scope was subsequently broadened in the second phase to encompass a total of 21 countries across East, South, and West Africa. To ensure inclusivity and a wider reach, the survey was made available in both English and French. The French version garnered 53 responses from countries like the Democratic Republic of Congo, Cameroon, Mauritius, Senegal, and Uganda, while the majority of the responses, 506 out of the total 559, were collected through the English version.

Comparison with similar recent surveys

When compared to other recent surveys, several distinctions become apparent. For instance, the World Bank Enterprise Surveys (World Bank Enterprise Surveys 2022), which have been ongoing for over two

decades since 2002, encompass 162 countries, including 44 in Sub-Saharan Africa and 5 in North Africa. These surveys offer a comprehensive analysis of various business dimensions, particularly the challenges posed by the business environment, but they do not address constraints related to the utilization of Preference Trade Areas (PTAs).

The Intracen non-tariff measures (NTM) surveys (ITC 2023), with responses from around 30,000 participants in 70 countries, explores the experiences of companies with NTMs. However, these surveys have a different focus compared with the survey conducted for this research.

Additionally, there is the ACBI Pilot Project from 2020 (ACBI 2020), which initially covered Zambia and Cameroon before expanding to seven countries. This survey examined the business environment, Free Trade Agreement (FTA) usage, and challenges related to FTA utilisation, including some questions relevant to value chains.

Lastly, the survey conducted by Stuart and MacLeod in 2021 (Stuart & MacLeod 2021) under the auspices of UNECA also warrants mention. This study focused on PTA utilization and the business environment, offering insights into areas similar to the current survey's objectives and methodology.

Main demographic features of the survey

Geographic coverage

Figure 1 presents a geographical distribution of survey responses within the pharmaceuticals sector with the balance of the sectors. The location of the bubbles over country locations reflects the origin of the responses and the sizes of the bubbles on the maps are proportional to the number of responses. Each bubble is divided between pharmaceuticals entities response numbers and the rest of the sectors in total.

It is clear that the pharmaceutical sector has a distinctive pattern of representation. Notable concentrations of pharmaceutical sector responses are evident in SACU member countries South Africa, Lesotho, Eswatini and Botswana, reflecting their established or emerging pharmaceutical industries. The presence of this sector is also marked in countries like Cameroon, Senegal and Mauritius, indicating a reach into diverse economic landscapes.

By contrast, the pharmaceutical sector does not exhibit as widespread a presence as the agribusiness sector. Nonetheless, it is clear from the survey responses that the pharmaceutical sector has critical

nodes of activity within certain economies, possibly aligned with national health policies (Covid-19 has spurred a desire within many countries to localise pharmaceutical production), regional health challenges, or the presence of pharmaceutical production facilities. The survey thus underscores the sector’s strategic importance and its diverse geographical footprint.

Table 1 provides a breakdown of responses by main REC membership².

Table 1: REC Distribution of responses

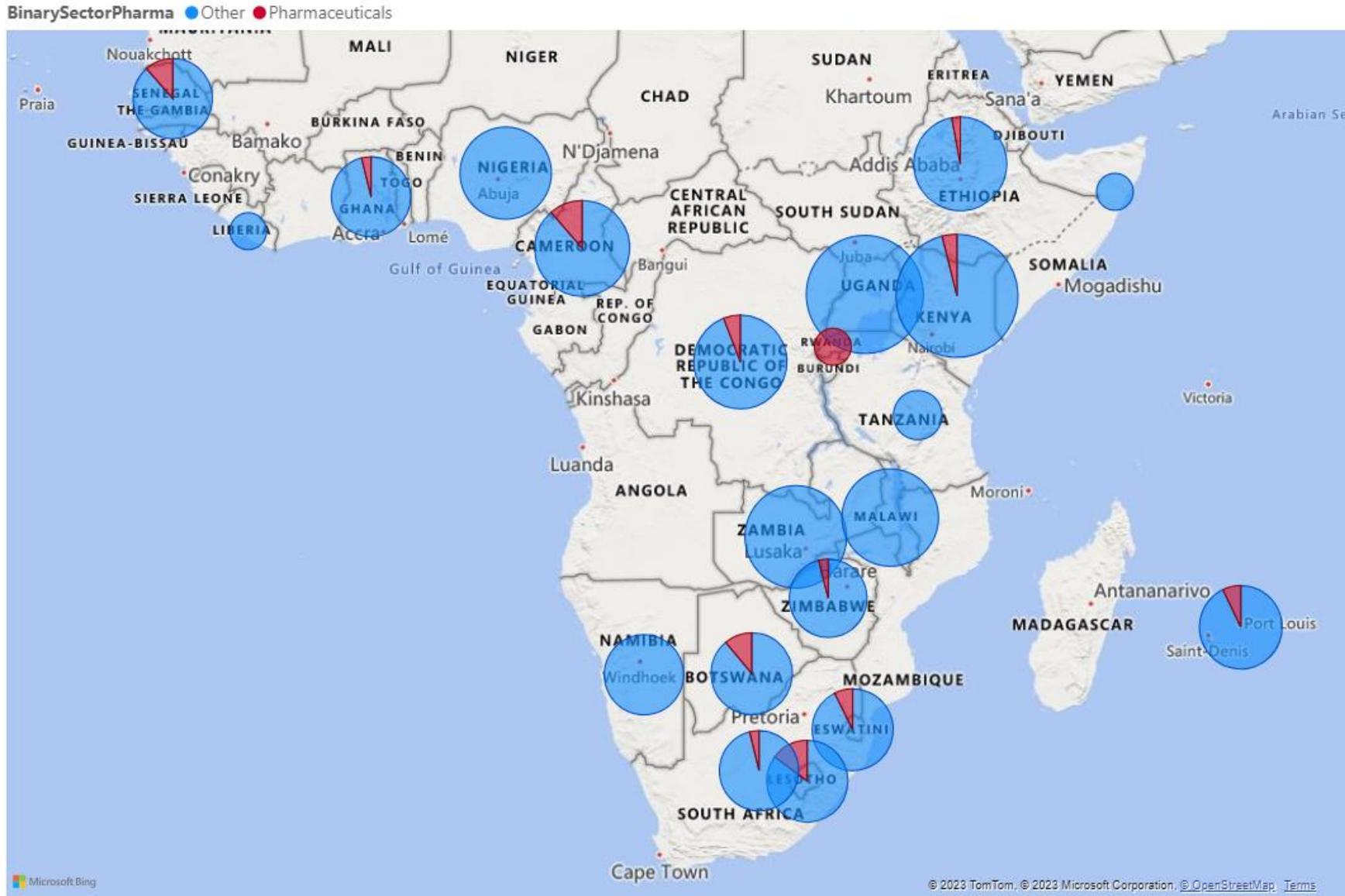
REC	Other	Pharmaceuticals	Total
SADC	95%	5%	100%
EAC	97%	3%	100%
ECOWAS	95%	5%	100%
ECCAS	89%	11%	100%
COMESA	97%	3%	100%
CENSAD	100%	0%	100%
All	95%	5%	100%

Source: Author’s calculations based on tralac gendered value chains primary database

Across the RECs, this sector seems over-represented in ECCAS and under-represented in the EAC and COMESA (SADC holds to the average), but it should be noted that this is just a consequence of sampling and not necessarily representative of the relative importance of the sector in these regions.

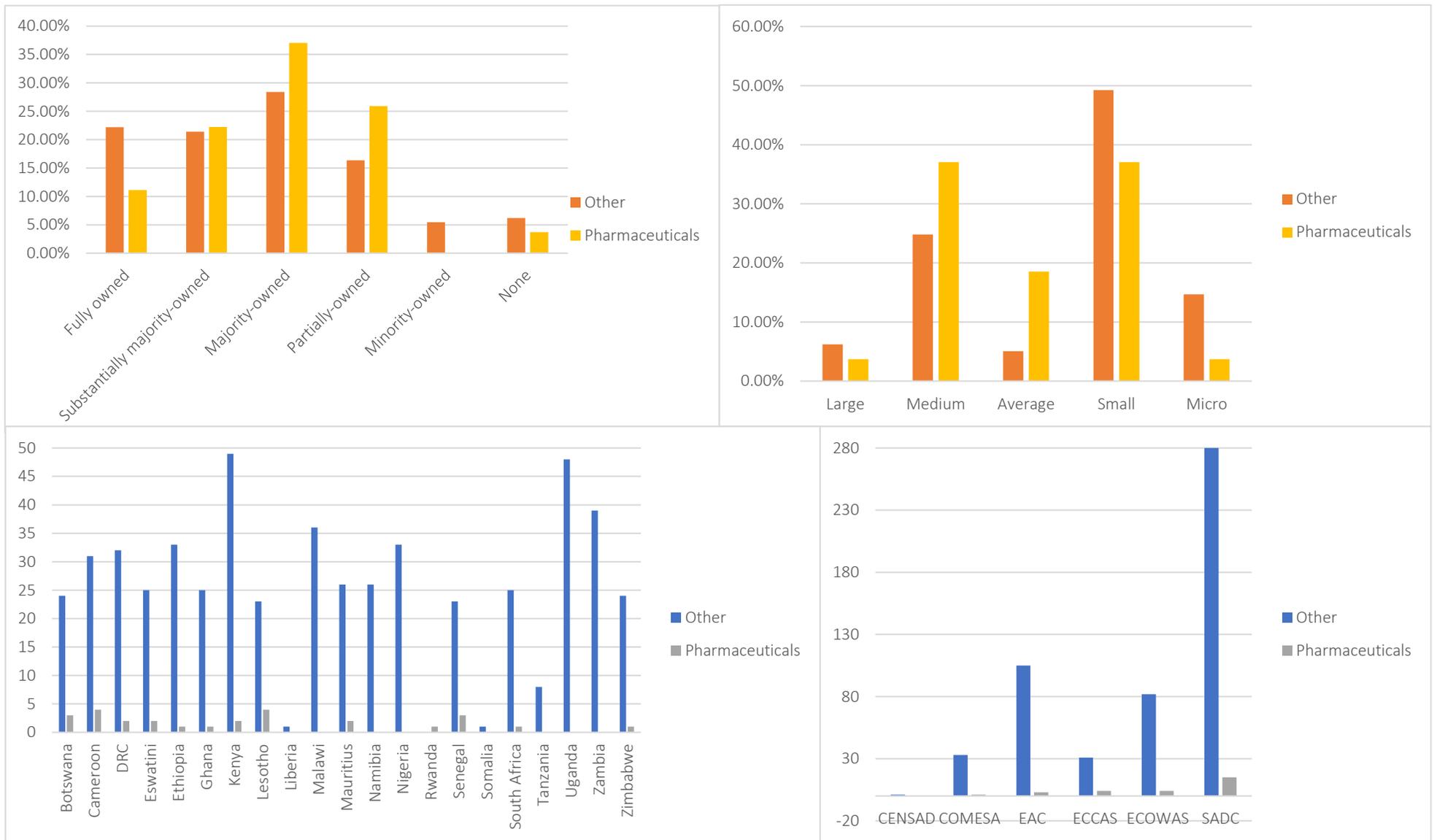
² Due to overlapping REC memberships among many of the represented countries, each country was assigned a ‘main REC’ membership, where the choice was driven by the extent of integration offered by the REC.

Figure 1: Geographic distribution of responses: Pharmaceuticals sector



Source: Author's construction based on tralac gendered value chains primary database

Figure Group 1: Demographics clockwise from top left: female ownership, entity size, REC distribution, country distribution



Source: Author's construction based on tralac gendered value chains primary database

Female ownership, entity size distribution and country distribution

Two very important dimensions that were captured for each responding enterprise were the extent of female ownership – captured as a percentage ownership but utilised as a categorical variable too – and entity size. The latter is usually interpreted as follows:

1. Very large: more than 250 employees
2. Large: 100 to 249 employees
3. Medium: 20-99 employees
4. Small: 5-19 employees
5. Micro: 1-4 employees

In addition, respondents were allowed to choose the category ‘average’ if they were unable to categorise their entity size any other way. The category ‘average’ is therefore somewhat ambiguous but fortunately is not a very large category in the sample. It has been ranked between ‘small’ and ‘medium’ for the purposes of the visualisations.

Female ownership percentage responses were classified by the author to the following categories:

1. 100% owned: fully owned
2. 75-99% owned: substantially majority owned
3. 50-74%: majority owned
4. 25-49%: partially-owned
5. 1-24%: minority owned
6. 0%: none

Figure Group 1 comprises four charts that provide an analysis of female ownership and entity size, alongside the REC (which has already been discussed above) and country distribution for the pharmaceuticals sector. The female ownership chart indicates that the sector has an above average representation in the middling ownership categories, pointing to a notable presence of female entrepreneurship within pharmaceuticals. However, there are less than average fully female owned businesses, suggesting potential barriers to complete ownership by women that may warrant attention.

The entity size distribution within the sector is skewed towards the middle size categories, which may reflect the sector's composition of small-scale distributors and medium-sized manufacturers, pivotal in the pharmaceutical supply chain. These middle size enterprises could also indicate a middle ground where entities might be on the brink of scaling up.

Looking at the REC distribution, there is a contrast in the representation of pharmaceutical sector responses, with SADC showing the greatest proportion among the RECs. This suggests a concentration of pharmaceutical activities within this community, possibly due to targeted industrial policies or investment climates conducive to pharmaceutical sector growth. Within SADC, the sector is relatively important to Lesotho, Botswana and Lesotho. Outside of SADC, Cameroon and Senegal are significant in the sample.

Trade relationships and trade direction

The primary survey questionnaire contained a question relating to the trade partners of the responding entity:

“Which African and non-African countries do you trade the most with? (list maximum 3 for each, in order)”

Each respondent had the option to return up to three trade partners, while many listed as many as five. There was no aspect to the question that required the specification of a trade direction, that is, whether the relationship with the listed countries was an import or export relationship. However, when cross-referenced with other questions, such as whether the respondent utilises preferential trade areas (PTAs) and what the respondent entity's position is in the value chain, it is possible to gain further insights on the trading nature of the respondent entity.

In order to assess the relative predominance of trade relationships among the respondents, the trade partners were ranked in the order they were returned and each rank turned into a weight. These weights were then aggregated for countries and sectors; the calculated data for the pharmaceuticals sector is provided in the Appendix. This data could then be used to construct 'network' type diagrams, showing the trade connections between countries in the survey. The left hand side (LHS) chart in Figure Group 2 overleaf visualises this data. No 'arrowheads' are included in the link between the country nodes because the direction was not specified by the respondent. However, the thickness of the link

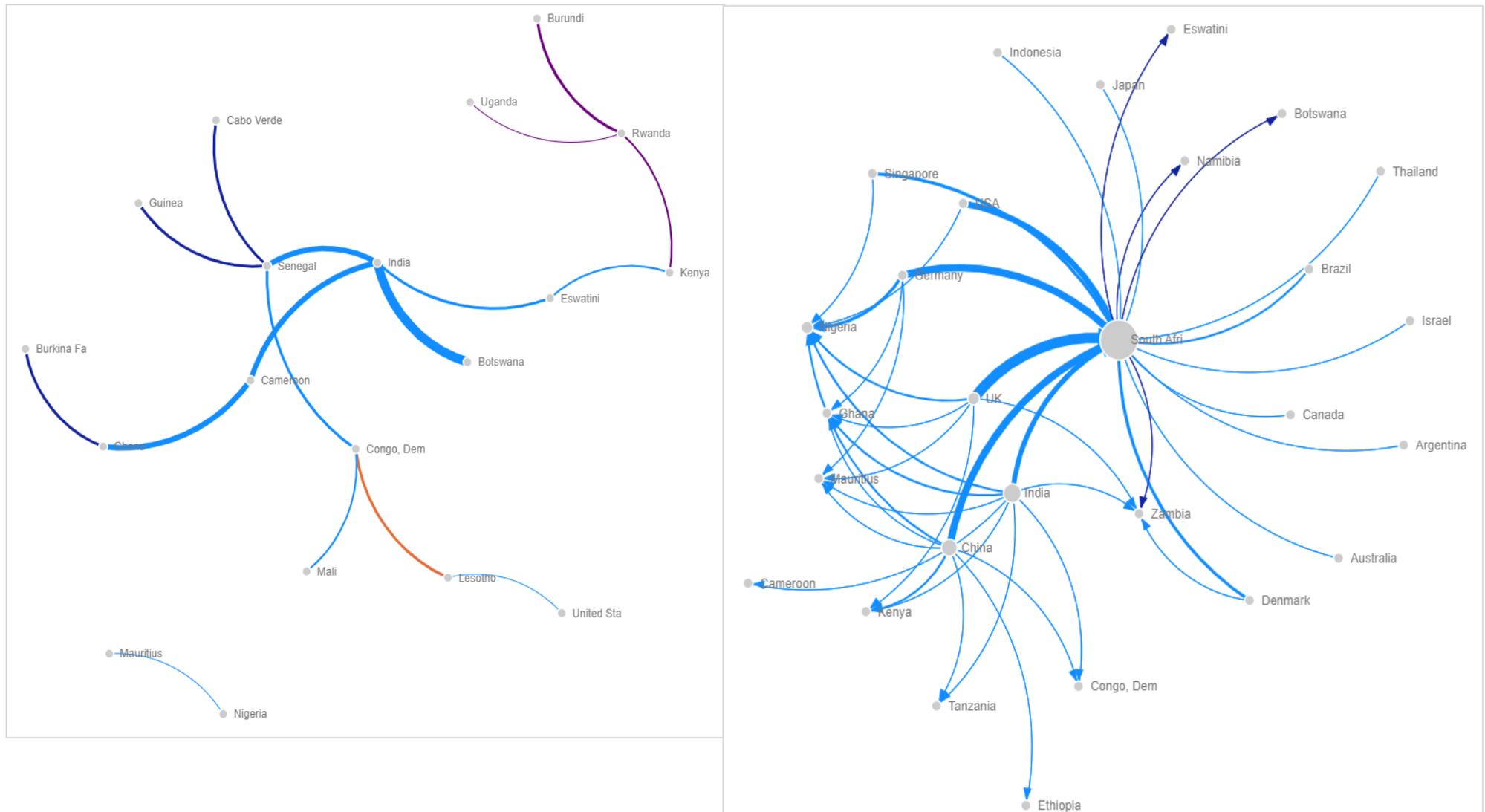
reflects the weight, or predominance of the link in the survey. In addition, the colour of the link reflects whether there is a mutual REC membership between the two trade partners³.

Comparison with Eora directional value chain data

The right hand side (RHS) chart in Figure Group 2 overleaf is a directional trade chart constructed using tralac's directional value chain database, which is derived from the UNCTAD-Eora value chain database (UNCTAD 2022). This visualisation features arrowheads on the links, indicating trade direction. The country with the arrow pointing away from it is the value originator and the value receiving country is the value exporter. The survey MSME data therefore reflects trade relationships in general, whereas the aggregate value chain data strip pharmaceuticals reflects the directional relationships between originator country (base of arrow) and exporter country (arrowhead).

³ Due to overlapping REC memberships among many of the represented countries, each country was assigned a 'main REC' membership, where the choice was driven by the extent of integration offered by the REC.

Figure Group 2: Trade relationships visualised: LHS - survey-derived trade relationships, RHS - UNCTAD-Eora derived directional trade relationships (value truncated)



Source: Author's construction based on tralac gendered value chains primary database (LHS) and author's construction based on tralac directional value chains database (RHS)

The same data used in the visualisations is also summarised in Table 2, where the main regions' trade relationships are ranked in order from top to bottom. This data aids the understanding of the relationships depicted in the charts.

As has been observed in related trade reports dealing with the agribusiness and CTL sectors, there is a significant pattern in the trade relationship visualisations found in the extent of intra-African trade within the survey's MSME (and mostly small) respondents. There are trade relationships between EAC members Kenya, Rwanda, Uganda and Burundi (purple links) as well as between certain ECOWAS members (dark blue links). However, there are also important trade relationships between non-REC members such as between Cameroon and Ghana, Senegal and Congo (DRC) and Eswatini and Kenya. The most important extra-African country in this sector is India, which is important to five African countries in West, Central and Southern Africa.

By contrast, the aggregate value chain data (RHS chart in Figure Group 2) shows a preponderance of trade in this sector with countries in the ROW, with the extent of intra-African trade at only 2% (Table 2). The pattern for the aggregate data – which has been *top-sliced* to contain the complexity of the chart – is that of one important African hub – South Africa – and several important originators of pharmaceutical value. These are India (seen also in the MSME survey data), the UK, China, Germany, the US and Singapore. These originators export value not just to South Africa but also to Mauritius, Ghana, Nigeria, Kenya and Zambia. The only significant intra-African trade relationships in the aggregate data are those between SADC countries: originator South Africa and exporters Eswatini, Namibia, Botswana and Zambia.

A conclusion that can be drawn from this data, in common with the agribusiness and CTL sectors, is that MSMEs appear to be more involved in intra-African trade than larger businesses, an important insight for policy and strategy relating to trade facilitation and small enterprise support. Therefore, strategies to facilitate intra-African trade and integration should not neglect the role and importance of MSMEs.

Table 2: Comparison of trade relationships by main region: survey MSMEs (LHS) and aggregate value chain data (RHS)

Region	Weight	Region	Exports
Sub-Saharan Africa	59%	Europe	44%
South Asia	38%	East Asia and Pacific	24%
North America	3%	South Asia	16%
North America	0%	North America	12%
South Asia	0%	Latin America & Caribbean	2%
North Africa	0%	Sub-Saharan Africa	2%
CIS	0%	CIS	0%
Total	100%	Total	100%

Source: Author’s calculations based on tralac gendered value chains primary database (LHS) and author’s calculations based on tralac directional value chains database (RHS)

Relative position in the value chain

The ‘position in the value chain’ refers to the whether the enterprise is primarily a producer of raw materials, intermediate goods (in a variety of beneficiated states) or finished goods for final consumption. The product states that lead to value chain trade are strictly speaking those that will require further processing in a different country, but for our purposes we are interested in all relative positions in the value chain, for the potential insights into trade and industrial policy that they can yield.

While the survey featured multiple questions relating to import and export value chain participation, for this final section on relative value chain participation we are focusing only on the following one:

“If you import, what is the best description of the beneficiation state of products that you import?”

The answer options given were as follows:

1. Finished goods – Africa
2. Finished goods – non-Africa
3. Intermediate goods – Africa
4. Intermediate goods – non-Africa

We therefore regard an entity that imports finished goods as the ‘final’ stage in the value chain. This entity may or may not add packaging (if the items are in bulk) but there is the possibility that only services value will be added to the products. For example, business services, financial services, transport services and ITC services (for example if the items are traded through a website). Nevertheless, the adding of services to the value of the product still represents a late stage (or ‘upgraded’) stage in the value chain.

On the other hand, if an entity imports intermediate goods it will presumably do one of two things:

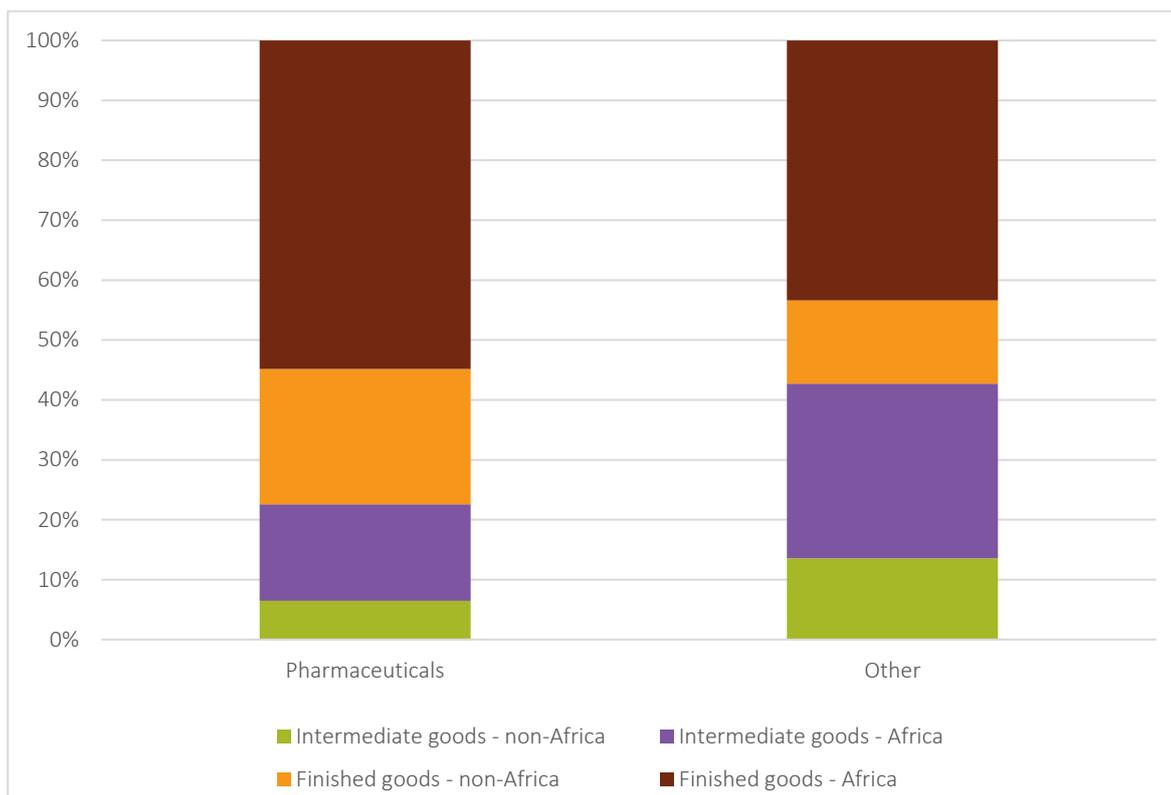
1. Further beneficiate the products and sell them locally or cross border as more processed intermediates
2. Further beneficiate the products and sell them local or cross border as finished goods.

Value chain position vs other sectors

Figure 2 and the associated data in Table 3 allow comparison of the relative value chain position of the pharmaceuticals sector compared with the balance of the sectors.

The pattern for pharmaceuticals differs somewhat from the aggregate. While the aggregate for other sectors’ imported component of finished goods is 57%, for pharmaceuticals it is much higher at 77%. This of course implies that its intermediate goods component is smaller, and this is the case at only 23% (versus 43%). This reflects the greater reliance by MSME’s in this sector on imported product, being far less able to manufacture or beneficiate product when compared with larger enterprises. It is debatable whether policy makers should target MSMEs for value chain development in this area, given the undoubted scale economies aspect.

Figure 2: Position in value chain: pharmaceuticals sector vs other sectors (graphical)



Source: Author’s construction based on tralac gendered value chains primary database

Table 3: Position in value chain: pharmaceuticals sector vs other sectors (tabular)

Sector	Intermediate goods - non-Africa	Intermediate goods - Africa	Finished goods - non-Africa	Finished goods - Africa	Total
Pharmaceuticals	6%	16%	23%	55%	100%
Other	14%	29%	14%	43%	100%
ALL	13%	29%	14%	44%	100%

Source: Author’s calculations based on tralac gendered value chains primary database

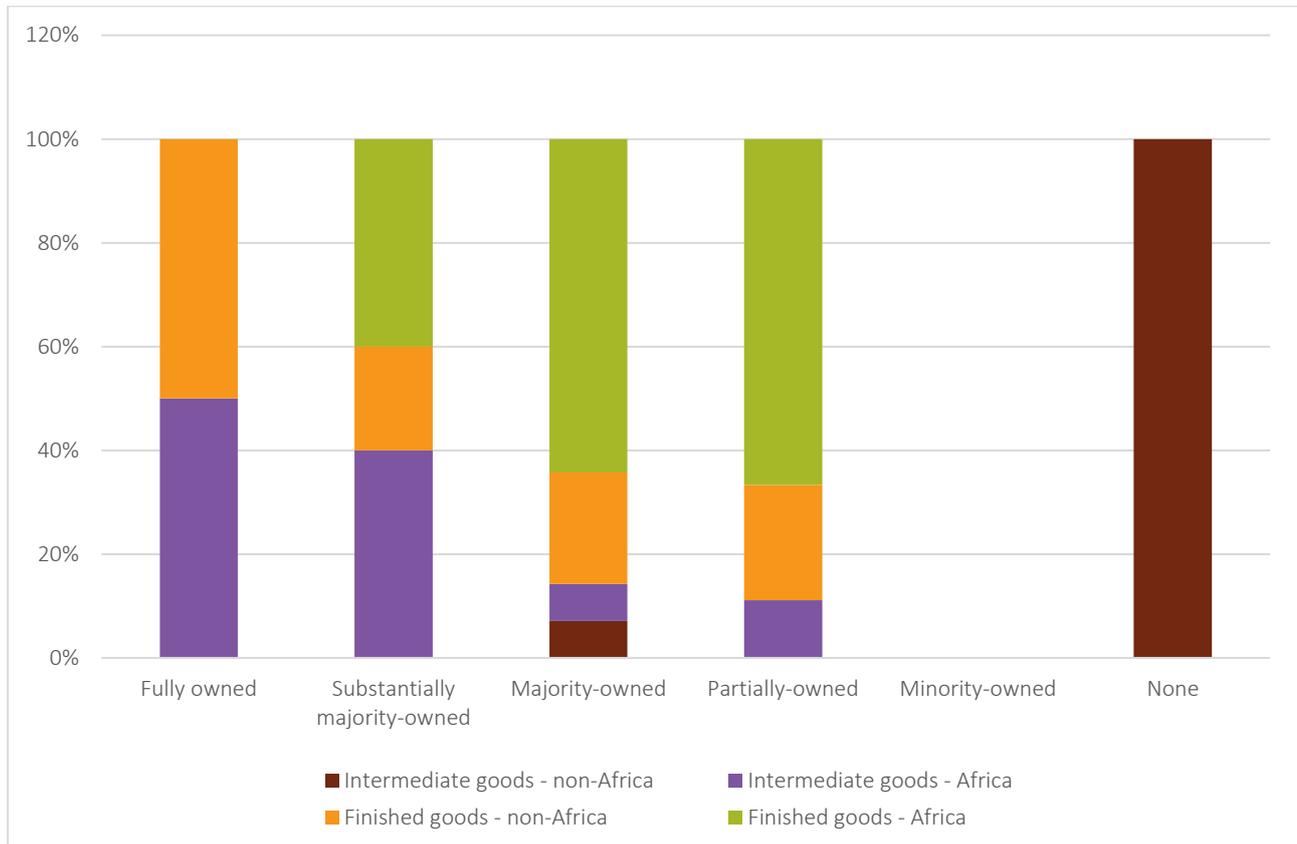
What is also interesting though, is that to the extent that intermediates are imported, the degree of reliance on non-Africa sources is smaller than for the balance of sectors.

Value chain position and gender, size

The same data analysed by gender-based ownership is presented in Figure 3 and Table 4. The category ‘minority owned’ is missing from this data subset, there having been no responses for that category.

The 'fully owned' category is interesting in that imports zero finished goods from Africa whereas the categories 'majority owned' and 'partially owned' report the bulk of their imports (about two thirds) as being finished goods from Africa. Also, of the ownership categories reporting some female ownership, a small minority import non-African intermediate goods.

Figure 3: Position in value chain: gender dimensions (graphical)



Source: Author's construction based on tralac gendered value chains primary database

Table 4: Position in value chain: gender dimensions (tabular)

Female Ownership	Intermediate goods - non-Africa	Intermediate goods - Africa	Finished goods - non-Africa	Finished goods - Africa	Total
Fully owned	0%	50%	50%	0%	100%
Substantially majority-owned	0%	40%	20%	40%	100%
Majority-owned	7%	7%	21%	64%	100%
Partially-owned	0%	11%	22%	67%	100%
None	100%	0%	0%	0%	100%
All	6%	16%	23%	55%	100%

Source: Author's calculations based on tralac gendered value chains primary database

The enterprise size data is given in Table 5. The dominance of finished goods imported from Africa, as was seen in the aggregate sectoral data, is seen in this table, with all enterprise sizes listed (there is no 'large' category in this data), showing reliance on finished goods.

Table 5: Position in value chain: size dimensions (tabular)

Entity Size	Intermediate goods - non-Africa	Intermediate goods - Africa	Finished goods - non-Africa	Finished goods - Africa	Total
Medium	8%	8%	25%	58%	100%
Average	0%	0%	38%	63%	100%
Small	10%	40%	10%	40%	100%
Micro	0%	0%	0%	100%	100%
All	6%	16%	23%	55%	100%

Source: Author's calculations based on tralac gendered value chains primary database

Since the sample size for the pharmaceutical sector is smaller than for the agribusiness or CTL sectors, it is also to be expected that certain dimension patterns may not be as distinct as in the larger sector samples.

Value chain position and main REC membership

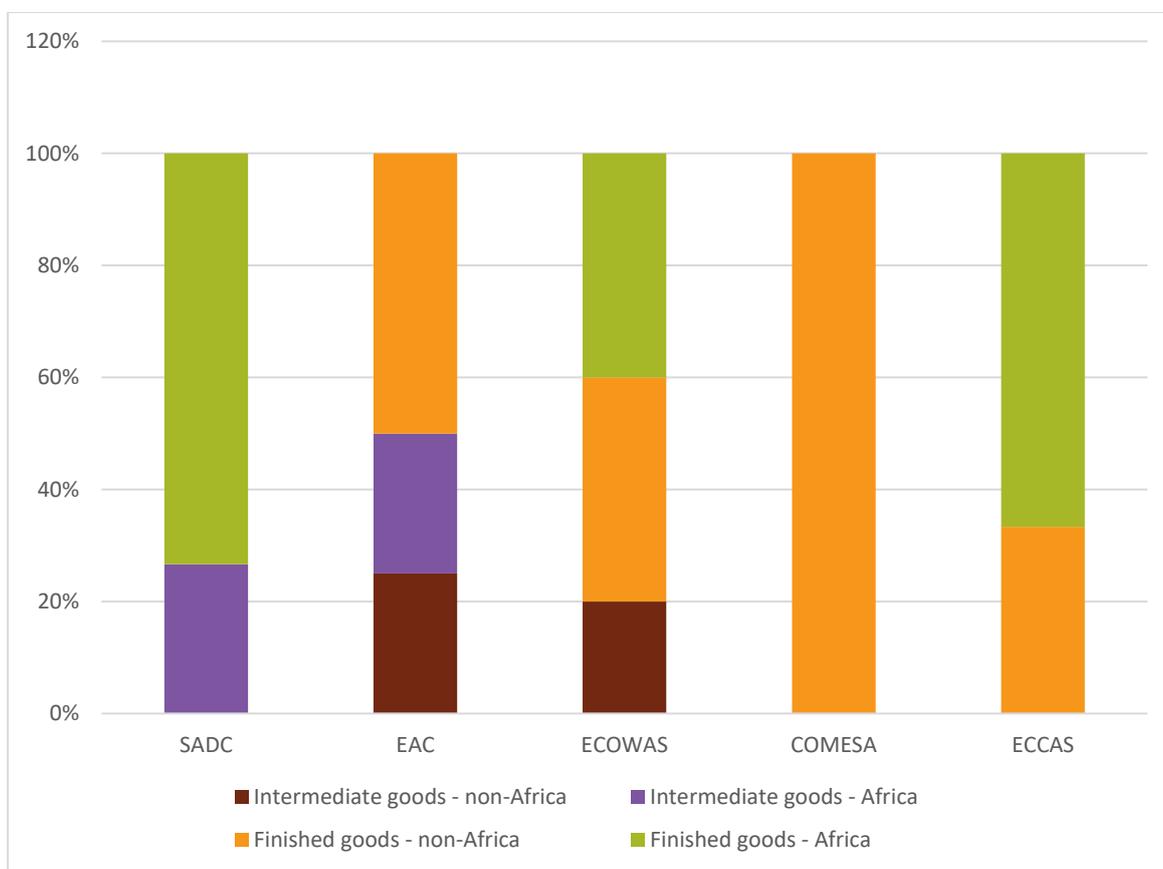
Finally, it is possible to analyse value chain relative position for the REC dimension as well, where each country is assigned one main REC membership. This data is presented in Table 6 and Figure 4.

This data invites comparisons to be drawn between the three RECs: SADC, EAC and ECOWAS. While SADC's imports are entirely from other African countries, only a minority of EAC or ECOWAS' imports are. Secondly, while SADC's imports are predominantly finished goods, the EAC's are split between the two, meaning there is some beneficiation of these goods in that regional community. On the other hand, the ECOWAS' imports are 80% finished goods, equally split between African and non-African sources. Of the other RECs, ECCAS countries are about two-thirds dependent on African sources for their imports.

In summary, the extent of regional beneficiation of pharmaceutical goods is less than for the aggregate, but there are important differences between RECs, with the EAC importing nearly double the

proportion of intermediate goods than any of the other RECs. This suggests that some regional beneficiation takes place.

Figure 4: Position in value chain: REC dimensions (graphical)



Source: Author's construction based on tralac gendered value chains primary database

Table 6: Position in value chain: REC dimensions (tabular)

REC	Intermediate goods - non-Africa	Intermediate goods - Africa	Finished goods - non-Africa	Finished goods - Africa	Grand Total	Total - Intermediate	Total Africa
SADC	0%	27%	0%	73%	100%	27%	100%
EAC	25%	25%	50%	0%	100%	50%	25%
ECOWAS	20%	0%	40%	40%	100%	20%	40%
COMESA	0%	0%	100%	0%	100%	0%	0%
ECCAS	0%	0%	33%	67%	100%	0%	67%
All	6%	16%	23%	55%	100%		

Source: Author's calculations based on tralac gendered value chains primary database

Conclusions and recommendations

This paper explored the nature of the pharmaceutical sector in Africa specifically from the perspective of medium, small and micro enterprises (MSMEs), utilising a new set of primary field survey-collected data and with a focus on gender and value chains. Three main topic areas were covered, the dimensions of the survey respondents, aspects of trade direction and aspects of relative position in the value chain.

The pharmaceutical value chain in Africa presents several opportunities for growth and development, particularly in local manufacturing, R&D, and distribution networks. Addressing the challenges in this sector is vital for improving healthcare outcomes, achieving self-sufficiency in pharmaceuticals, and strengthening the continent's resilience against health crises. With appropriate investments, policy support, and regional collaboration, Africa's pharmaceutical sector can significantly contribute to public health and economic development.

Research and development in the African pharmaceutical sector are still nascent. The continent bears a significant burden of diseases, both infectious and non-communicable, yet it accounts for a small fraction of global pharmaceutical R&D. This lack of research capacity limits the development of drugs tailored to the specific health needs and genetic profiles of African populations. Initiatives like the African Medicines Regulatory Harmonization (AMRH) program aim to foster an environment conducive to R&D activities.

The analysis of gendered MSME survey data permitted a range of insights to be drawn. A key comparison was made between the survey data and the UNCTAD-Eora value chain database, highlighting differences in trade direction and value chain positions. The pharmaceutical sector shows significant trade with countries outside Africa, particularly India, which is a major trade partner for many African countries. One finding in common with the analyses of other sectors in the survey is that MSMEs in this sector appear to be more involved in intra-African trade than larger businesses, an important insight for policy and strategy relating to trade facilitation and small enterprise support.

We also examined the relative positions of entities in the value chain, whether they are importers of intermediate goods or finished products. This analysis provides insights into trade and industrial policy. The pattern for pharmaceuticals differs somewhat from the aggregate. While the aggregate for other sectors' imported component of finished goods is 57%, for pharmaceuticals it is much higher at 77%.

This reflects the greater reliance by MSME's in this sector on imported product, being far less able to manufacture or beneficiate product when compared with larger enterprises.

Analysis by gender ownership shows that mid female-owned categories in the pharmaceutical sector heavily depend on imported finished goods from Africa, with some use of non-African intermediate products. Finally, regarding the REC dimension of value chain positional analysis, SADC is more integrated within the African pharmaceutical value chain, while ECOWAS and EAC show varied dependency on African and non-African imports.

The findings of this paper suggest that support for pharmaceutical MSMEs in general and female-owned MSMEs in particular could strengthen African value-chain development and reduce outside dependency on this critical product group. Supporting the sector would involve prioritising MSMEs in industrial policy strategy and also addressing the requirements of female-owned businesses, which tend to be found on the smaller end of the scale. Trade facilitation efforts, which are already a part of the action plans of many African trade promotion agencies, should also prioritise the MSME and female-owned MSME sectors.

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Appendix

Table 7: Trade relationship weighted data plus REC assignment: Pharmaceuticals sector

Source	Destination	DestinationRegion	SourceREC	DestinationREC	Weight
Botswana	India	South Asia	SADC	ROW	14
Cameroon	Ghana	Sub-Saharan Africa	ECCAS	ECOWAS	9
Cameroon	India	South Asia	ECCAS	ROW	9
Congo, Dem. Rep.	Mali	Sub-Saharan Africa	SADC	ECOWAS	4
Congo, Dem. Rep.	Senegal	Sub-Saharan Africa	SADC	ECOWAS	5
Eswatini	India	South Asia	SADC	ROW	5
Eswatini	Kenya	Sub-Saharan Africa	SADC	EAC	4
Ghana	Burkina Faso	Sub-Saharan Africa	ECOWAS	ECOWAS	5
Lesotho	Congo, Dem. Rep.	Sub-Saharan Africa	SADC	SADC	5
Lesotho	United States	North America	SADC	ROW	3
Mauritius	Nigeria	Sub-Saharan Africa	SADC	ECOWAS	3
Rwanda	Burundi	Sub-Saharan Africa	EAC	EAC	5
Rwanda	Kenya	Sub-Saharan Africa	EAC	EAC	4
Rwanda	Uganda	Sub-Saharan Africa	EAC	EAC	3
Senegal	Cabo Verde	Sub-Saharan Africa	ECOWAS	ECOWAS	5
Senegal	Guinea	Sub-Saharan Africa	ECOWAS	ECOWAS	5
Senegal	India	South Asia	ECOWAS	ROW	9

Source: Author's calculations based on tralac gendered value chains primary database