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A theoretical review of Competitiveness as a Strategy for sailing through the turbulences in International Trade: A focus on Leather Industry in the East African region

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Abstract

The study undertook a theoretical review of Competitiveness as strategy for sailing through the turbulences in International Trade by focusing on Leather Industry in the East African region. The objective of the study was to find out the theories and models that can be used to measure competitiveness in international trade. Data was collected from literature and several documents that are related to theories on trade and competitiveness. It was found out that the various models and theories were used to measure competitiveness in international trade for leather products such as the Diamond Model, Comparative Advantage, Competitive Advantage and the Revealed Comparative Advantage (RCA). It was concluded that the Revealed Comparative Advantage (RCA) methodology, which is referred to as the Balassa Index (BI) is the observed pattern of trade which identifies the economic sectors that enjoy a comparative advantage and compares a country to its trading partners or the world. However, choosing the right model or theory that is appropriate to measure competitiveness in international trade for leather products by government agencies remains a challenge. It was therefore recommended that, government agencies should always undertake a cost benefit analysis of each competitive model and theory so that they are able to choose best appropriate and most advantageous model or theory that can be used to for measuring competitiveness in international trade.

***Keywords**: Competitiveness, Model, Trade, Diamond, Comparative, Theory.*

Introduction

Global competitiveness dynamics are still evolving rapidly, propelled by technology shifts, market innovations and the new era of availability of empirical evidence supporting the right strategies (Garanhel, 2025). Competitive strategy in this context is a long-term plan of action crafted by an organization to gain and maintain competitive advantage in the marketplace (Kitov, 2025). The force and manner of competitive advantage that exists in both domestic and international markets is therefore vital knowledge for firms on the prowl to maintain or grow their market limitations (Asana, 2025). The companies thriving in 2026 are not necessarily those with the brightest ideas, but they are the ones that turn ideas into actionable growth plans and pivot when circumstances demand it (Sterling Cooper Consultants, 2026). The general leather products sector so to speak, is a lot more of a growth business. The global leather products market size was valued at around USD 68.7 billion in 2022 and expected to reach USD 88.0 billion by 2028, growing with a more than CAGR of above 5% during the forecast period (LinkedIn, 2024). Likewise, Fortune Business Insights (2024) stated that the leather goods market was worth USD 440.64 billion in 2022 as well as is expected to grow from USD 468.49 billion in 2023 to reach USD 738.61 billion by the end of the forecast period at a percentage CAGR of six point seven throughout the analysis period.

Among the principal leather-producing countries are the U.S.A., Brazil, China, Italy, India, Argentina South Korea, Russi. Other significance players in global trade of this

strategic level are Mexico Spain and Turkey, Pakistan and Latin American countries. The leather industry maintains a central focus within international trade (FAO, 2016). The sector enjoys significant comparative advantages, with Africa hosting over three billion livestock (around a third of the world's livestock population) and an estimated annual contribution of 10.7 percent of the world raw hides and skins production. These resources make the continent a potential major player in the world leather value chain. Africa has more than enough raw materials to feed its leather industry, yet they constitute less than 4.5 percent of the global leather trade estimated at around USD 400 billion (Matekere, 2025). Recent continental initiatives have been expected to enhance value added production and trade across many sectors of African economies: the Africa Continental Free Trade area (AfCFTA) in particular (East African Community, 2025). In addition, although African hides and skins have long provided high quality raw materials to European luxury leather makers, more entrepreneurs are creating home-grown brands targeting high-end markets as they seek greater domestic value-addition and a larger global market share for the continent (African Business 2025).

The momentum of regional economic integration has also reached the shores of Sub-Saharan Africa (SSA) and in many instances countries belong concurrently to more than one regional economic community. According to scholars, the proliferation of Free Trade Agreements (FTAs) throughout the continent has been a response to both historic trade barriers such as fragmented domestic markets; lack of industrial capacity; landlocked issues, and beyond (Abrego et al., 2020). East African Community (EAC), in this context, has continued to the Common Market level as one of the most condensed regional economic integration arrangements within Africa (UNECA, 2020). Strengthening regional integration, through common transport corridors developed by partners, has improved infrastructure connectivity and regulatory harmonization initiatives which have increased internal competitiveness at national and sub-national levels. Both measures have allowed for a reduction in trade barriers, the facilitation of cross-border commerce, and an increasingly favourable environment for industrial growth and regional economic development.

Trade liberalisation is generally accepted as a means of increasing economic efficiency and competitiveness, by allowing firms to take advantage of larger markets and greater economies of scale. In addition, the exposure of domestic firms to international markets intensifies competition which in turn promotes innovation, productivity gains and practical experiences that reduce learning time necessary for business growth. Trade liberalisation presents opportunities for consumers as well, through a larger choice of products (as well as services) enabled by technology and the diffusion of innovation across borders. According to Engel et al. (2021), these developments lead by example in boosting competitiveness and economic performance (Ossa, 2015). As stated by The World Bank (2004), free trade establishes long-term competitiveness by building infrastructure, improving institutions and more generally enhancing policy frameworks and creating a sound environment for business development and economic governance.

The competitiveness is determined by multiple economic and institutional factors. The Economic Commission for Africa (ECA, 2004) demonstrates that technological progress, knowledge accumulation, performance of policy and quality of governance and institutions all come together to shape the path to economic development and competitiveness. These factors not only determine the path of growth an economy is going to take, but also its ability to compete in regional and global markets. Likewise, United Nations Conference on Trade and Development (UNCTAD, 2006) supports that regional integration may accelerate economic growth while also improving the competitive position of the member states tying them to a trade agreement. One of the methods used to measure competitiveness is Balassa's Revealed Comparative Advantage (RCA) Index, which measures competitiveness based on a country in anequots ratio of exports for a particular product or sector and international trade patterns. According to Johannes (2006), the RCA is still one of the most employed indices for gauging international trade competitiveness and comparative strength of industries or products.

The other well-known competitive framework is famous Porter National Diamond Model of country competitiveness. This model was created by Porter (1990a) to account for the competitiveness of nations based on four intercommonalities of factor conditions, demand conditions, firm strategy, structure and rivalry and related supporting industries. The framework highlights the influence of national policies and business environment on the competitive advantage, especially through the development of productive factors and innovation capacity. Many other specific possible ways to measure competitiveness are mentioned in the literature and they indicate a variation of theoretical views and usefulness of different types of analyses with the same data performed by various authors. Laursen (2015), Moyi and Kimuyu (1999), Richardson and Zhang (1998) as well as Yilmaz (2002) confirm that several frameworks have been proposed to measure competitiveness in various contexts and sectors. However, the leather industry has weakened due to the

increase in exchange rates, falling behind inflation figures, and so is going through an economically difficult period. While it was stated that the industry experienced a 26.7 percent loss in exports in the first half of 2024 their general expenses increased from 40 percent to 63 percent in the current outlook. The main objective of the study was to find out the theories and models that can be used to measure competitiveness in international trade.

Literature Review

International trade is an important aspect of the leather industry, with hides, skins, leather and leather products all extensively traded globally (Leather UK, 2024). The leather industry stood at a crossroads in 2025. With increasing environmental regulations, evolving consumer preferences, and technological advancements, businesses are facing both unprecedented challenges and remarkable opportunities. As global demand for leather goods persists, the industry must navigate pressing issues like sustainability, resource efficiency, and innovation to remain competitive (Salcedo, 2025).

Value addition in the leather and related products market is anticipated to reach US$334.7m in 2025 and to increase by an average annual growth of 0.35% (CAGR 2025–2029) (Stastita, 2025). Trade boosts national productivity and effects positively in the national competitiveness, according to a consensus in the research. Bhagwati (Cho & Moon, 2013). Literature has shown that even in highly competitive economies, the best performers tend to be concentrated in a few key areas that give good profits, attract the finest personnel and attain better productivity levels (Porter, 1990b). We have seen that the result of highly competitive economies is a rise in the standard of living of the population (Alexandros & Metaxas, 2016). Competitiveness is thus not an objective in itself but should contribute to greater living standards for the inhabitants.

International experience of competitive strategy in international trade for leather products

Over the past three decades, the rise of regional trade integration has become a hallmark of the global trading system. By 18 February 2021, there existed a total of 769 notifications for both live and inactive Regional Trade Agreements (RTAs) globally. Of these, 552 notifications were still in force, which accounted for a total of 341 RTAs. The consistent growth in the quantum of trade agreements since the early 1990s signifies a stronger commitment by countries to liberalize and further integrate their economies, particularly following the proliferation of market-oriented policies across many economies (Wacziarg & Welch, 2008). Alongside these, the world leather business has also witnessed huge expansion and change. The Global Leather Market: valued at USD 36.64 billion in 2024, is projected to reach USD 67.18 billion by 2033, growing with a CAGR of 6.97 percent during the forecast period from 2024 to 2033. In terms of leather, Europe is projected to remain in the lead in 2025. Meanwhile, the business sector continues as a changing environment amid stricter policies on environmental protection and sustainability (Salcedo 2025), rising demand for cleaner production processes, tumultuous transitions between industrial processes, and many more that provide both challenges and opportunities to businesses working in this sector.

The Leather and Related Products as a highly lucrative sector still present with ample fraction of opportunities for value creation in economic growth. Under the 2025 forecast region, value added throughout at around US$334.7 million as of 2025 from US$331.5 million in 2021 using a CAGR of 0.35 percentage between now and then (Statista, 2023). Europe and North America represent predominant sources of demand for luxury and premium leather goods, buoyed by increased incomes driving higher levels of spending on consumer luxury goods. Nonetheless, changing consumer patterns and a rise in disposable income across the regions are making way for high-end leather goods in Asian markets (Business Research Insights & Solutions, 2025). The leather Africa market data shows that, due to its livestock resources, and therefore significant comparative advantage in the global leather industry, Africa may and probably will be the largest producer and supplier of hides and skins in an expanding world market. Although blessed with this resource endowment, the continental share of the greatest US$ 400 billion worldwide leather trade remains lower than 4.5 % as of late (Matekere, 2025). Of particular importance trade history is the use of African hides and skins as raw material to European luxury leather manufacturers, yet a number of African entrepreneurs are now setting up national premium leather brands wanting to create domestic value addition and local industries, which supports a stronger African GLVCC (African Business 2025).

Competitive strategy and international trade for leather products in Africa

African countries have adopted regional integration as another means of expanding trade, economic cooperation and development in the region (Yang & Gupta 2007). On the continental level, Regional Trade Agreements (RTAs) have proliferated: 69 active and inactive notifications as of 18 February 2021. Meanwhile, total RTAs in force during the same period grew to 45, but only 42 continued operating. The trend also demonstrates that African countries continue to recognise the relentless pursuit of economic integration as a key strategy for overcoming the deficiencies associated with smaller and fragmented domestic markets and expanding intra-Africa trade. As a

result, many countries simultaneously belong to two or more regional economic communities, through overlapping memberships created specifically to deepen trade links and enhance access to markets (Wacziarg & Weldh, 2008). In many parts of Sub-Saharan Africa (SSA), much progress has been made towards regional integration, enabling trade in a variety of products, notably the border of leather and related products. Therefore, the leather industry has become an important pillar for regional trade and industrial development strategies (Anil, Henrique & Amanda, 2022).

The East African Community (EAC) leather value chain has the potential to play a substantial role in industrialisation, employment and overall socio-economic development (EAC MARKUP II, 2025). A number of member states have already carved out leading positions in the sector. In Ethiopia for instance, the country exported around US$28.6 million raw hides and leather products in 2021, while Kenya has a relatively developed footwear manufacturing industry estimated at about US$94 million (Matekere, 2025). However, the potential for Tanzania to become a key actor in global leather production is considerable, with the second largest livestock population in Africa consisting of approximately 27.4 million cattle, 18.4 million goats and 7.8 million sheep (LinkedIn, 2025) Uganda is also increasing its capacity for leather production with local initiatives like the Kawumu Leather Industry in Luwero District, set to manufacture shoes and shoe soles for both domestic and export markets (Nexus Media, 2025). While there are opportunities and ample livestock resources on the continent, Africa's share in global leather production amounts only to about 8 percent of world cattle hide production and around 14 percent of global goat and sheepskin output. This limited input can be mainly explained by the persistent export of raw and semi-finished leather items instead of value-added production processes that could harness higher economic opportunities from this sector (African Business, 2025).

Free trade agreements (FTAs) and competitive strategy for leather products

FTAs aim to facilitate free trade by removing hurdles to international trade and restricting protectionist policies that may limit economic development and competitiveness. Impacts of FTAs on national economies and industrial competitiveness can be studied from three basic dimensions: export performance, domestic industrial development and economic growth (Zainal Abidin et al., 2014). FTAs increase market access for industrial products through larger domestic exports of member countries (2014). In doing so, global markets can broadly be split between developed and developing economies. Developing-country markets are generally less open than those of the developed countries, with relatively low average tariffs on manufactured goods but high tariff peaks on some products for exporters. Conversely, the markets of developing countries sometimes still have substantially higher duties on industrial goods and do not hesitate to set more trade restrictions like import quotas, import licences and even non tariffs barriers (Zainal et al., 2014). Therefore, the binding of only a percentage of tariff lines is not enough to improve market access. Therefore, the question would be: how far other barriers to trade, dealt with in trade agreements affect the impact of reductions over tariffs?

FTAs serve as an essential tool of lowering tariffs and accessing global markets, thus facilitating production expansion through better export opportunities. The reduction of trade barriers allows firms to access an extended consumer base, benefiting from economies of scale and increased production efficiency while enhancing their competitiveness within regional and international markets. As highlighted by Urata (2002), enhanced market access and broadened possibility of exporting can deliver high advantage to firms situated in small economies, since the domestic demand is restricted. The practical benefits of this are especially important for labour-intensive sectors in EAC countries, as rising labour costs are increasingly undermining their competitiveness. Within this context, tariff reductions can be very important to increase the competitiveness of domestic industries against imports and exports from countries with lower production costs. Thus, FTAs can be used as a tool to facilitate industrial development and ultimately improve the competitiveness of exports, contributing to sustainable economic growth, which is indispensable for regional integration.

EAC Trade policy background

The original EAC collapsed in 1978 after political and economic policy differences among the member states (Kenya, Uganda, and Tanzania). As the new global trend of regionalism took root, the revival of the community became imperative, leading to the signing of the EAC treaty in Arusha in November 1999. In July 2000, the treaty was ratified by the initial three states, i.e. Kenya, Uganda, and Tanzania. Rwanda and Burundi later joined the community in 2007. South Sudan joined the treaty in 2016, making it a six-state partnership. The treaty's objectives are to widen and deepen cooperation in several areas, including political, economic, social, education, science and technology, health, cultural, defense, security, legal, and judicial affairs.

The integration path has included the setting up of a customs union as the starting point for the community and a common market. The final goal is the achievement of the monetary union, and eventually a political federation. According to EAC statistics (2019), intra-EAC trade has been increasing, with Uganda being the leading country with exports of up to US$ 1,531.2 million and imports of

up to US$851.4 million in 2018. Imports from Kenya were valued at US$559.3 million. Tanzania has remained a moderate player in intra-EAC trade, moving exports worth US$656.6 million and imports worth US$304.6 million.

The Customs Union has also contributed to increased intra-EAC trade between 2008 and 2018. During the same period, total intra-EAC trade increased from US$3.68 billion to US$6.54 billion (EAC, 2019).

Gaps in literature

There are three important gaps in the literature that needs to be filled in. First, no comprehensive study on the competitiveness of the leather industry has been carried out on a regional scale in Africa. Second, most of the studies on FTAs are on the general economy or other industries other than leather. Third, no study has combined the two contrasting methodologies; Porter's diamond theory, which is the most popular method of calculating competitiveness by managers, and the Revealed Comparative Advantage, which is still the most popular methodology for calculating competitiveness by econometricians

Methods and materials

This study used desktop approach based on several economic theories including those of competitiveness by Porter (1990) under exploratory design as in figure 1 below:

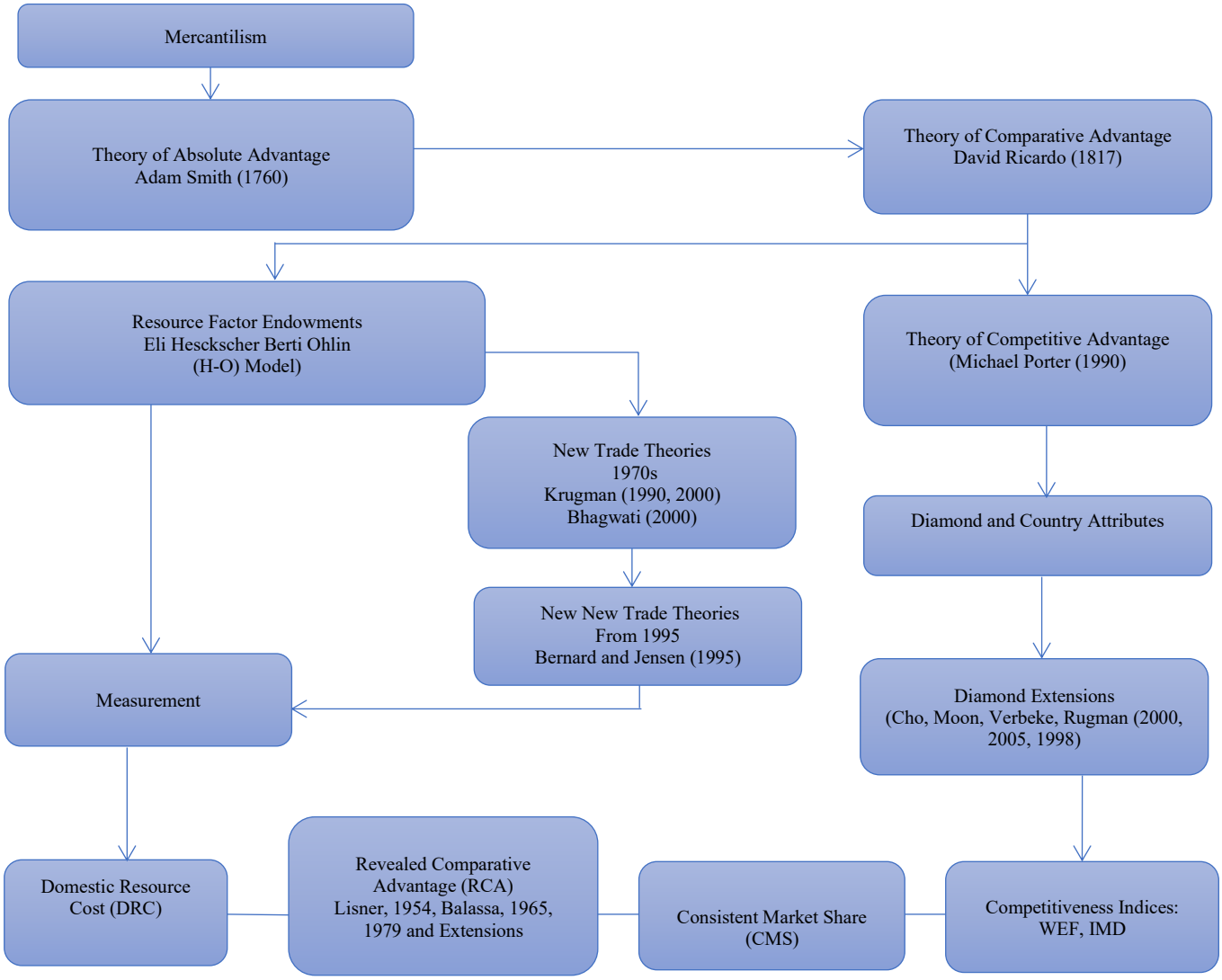

Figure 1: Summary of economic theories including those of competitiveness

***Source**: Cho and Moon (2000)*

The analysis of literature and different documents enabled the study to come up with suitable conclusions and recommendations that relate to the research objectives under this study (Creswell, 2011). To collect data, the researcher stretched to sourcing data from literature and a number of documents that related to theories on trade and competitiveness, then the role of Free Trade Agreements in promoting competitiveness in international trade in Horn of Africa and East African region (Creswell, 2014). The different literature and documents reviewed included a number of scholars for theories on trade and competitiveness, the international, continental, regional, national and local perspectives of leather industry. Also, a number of documents on various bi-lateral and multi-lateral

agencies such as World Bank involved in the regulation and funding of a number of programs, projects and activities associated with the leather industry. The collected data was analysed qualitatively using descriptions and narratives to come up with findings from where conclusion was made (Creswell, 2013).

Results and Discussion

The review of literature and a number other documents indicated the following as far as theories for competitiveness in international trade is concerned.

Competitive Strategy Theories and Models

Porter (1990) throws out the classical trade theories by boldly asserting that "national prosperity is created and not inherited. It does not grow out of a country's natural endowments, its labour pool, its interest rates, or its currency's value as classical economics insists". Instead, he proposed the Diamond model, which he opines is a comprehensive measure of competitiveness. The model has become one of the most popular and is often cited by management scholars. It has attracted attention from the academic community and has up to four extensions to it, showing that it can be considered as an influential model in competitiveness studies. Grant (1991) argues that Porter's model aimed to replace Adam Smith's seminal study, *The Wealth of Nations.* This view seems to draw support from Smit (2010), who argues that Porter's work on competitiveness is generally popular in management but ignored in economics, largely because of its lack of analytical power. Instead, it relies on logic rather than robust analytics. He argues that this fact is paradoxical since it is what makes it so popular in management.

Diamond theory of competitive advantage

Porter (1990a) created the Diamond Model to illustrate the factors of national competitiveness. He asks why some countries are more successful than others and why specific sectors are found in certain countries. Central to Porter's understanding about business competitiveness is the home base. The four aspects of the diamond work together to push industry competitiveness and to create an atmosphere that makes enterprises inside it to develop, grow and to become competitive. He also discusses the importance of chance events, and the role the government can play in determining whether a certain industry is competitive.

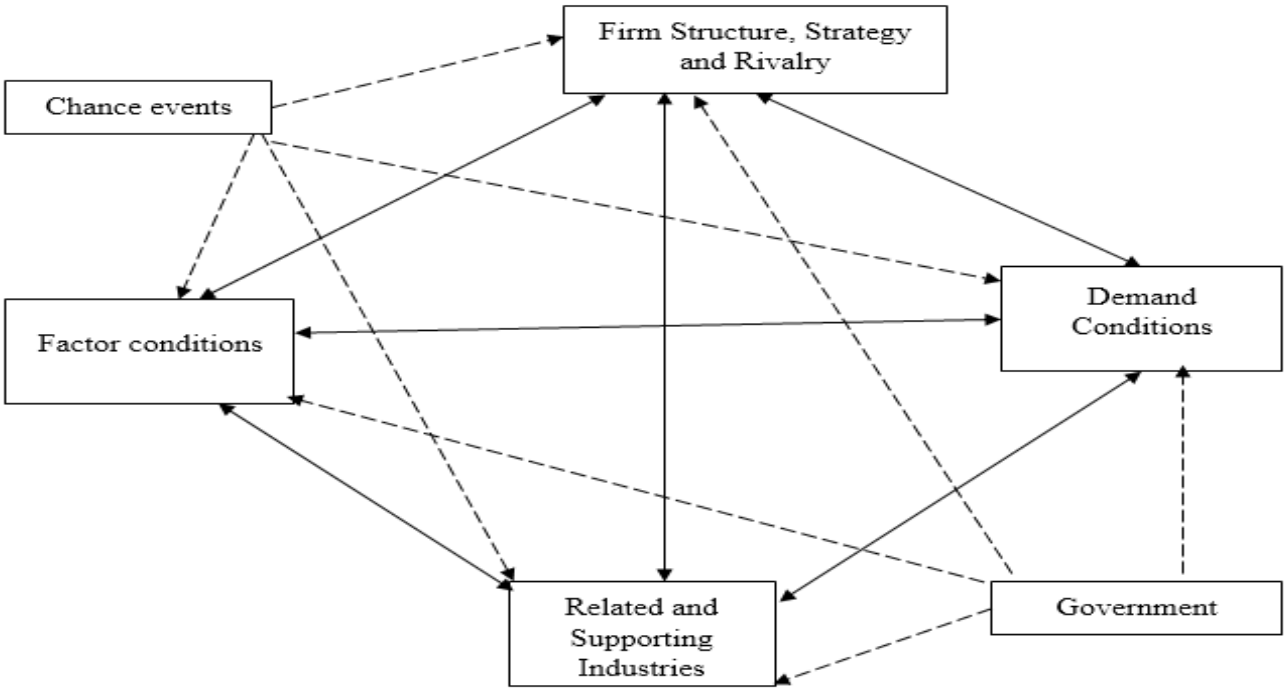

Figure 1: Porter's Competitiveness Diamond Model
***Source**: Porter (1990a, 1997)*

Four stages of economic development related to competitive advantage are reported by Porter (1990a) and they are factor-driven, investment-driven, innovation-driven and wealth-driven. This nomenclature is applied depending on the source of advantage in each nation. In the factor driven stage, the main advantage is due to fundamental and generic factors: cheap labour and abundant natural resources. This stage is a susceptible state due to the change of cost structure of input factors. At this level, the competition is primarily on pricing and technology is largely imported. All the developing countries are at this stage. The second stage is the investment driven stage. The ability to invest is the fundamental source of competitive advantage. This stage is

dominated by new production facilities and advancements in factor creation. Technology adoption and improvement, Size and expansion (but not complexity) of home demand are key feature. At this point, supporting and connected sectors are largely undeveloped and firm structure, strategy and rivalry play a role. The third phase is innovation-led. By now all the diamond facets have blossomed and are operating at peak performance. They are very collaborative and lead to the generation of a competitive advantage. The final stage is wealth driven and is characterized by a change in the motives of the firm, which leads to poorer production. Wealth preservation is a major motivation and competitive advantage tends to decay. Less investment and innovation mean fewer initiatives in upgrading.

From comparative advantage to competitive advantage

Classical economists concerned themselves with capital, raw materials and labour as major sources of comparative advantage. In many of his writings Porter (1979, 1985, 1987, 1990b, 1990a, 1998, 1999) articulates the position that while this may have been true back then, it is no longer as important in the present world where competition has been globalized. There is outsourcing and production abroad that overcomes the earlier difficulties mainly due to advances in technology, communication and new developments in infrastructure. Innovation, technology, firm efficiency, proprietary designs and knowledge yield a more lasting competitive advantage than transient endowments.

This finding has evolved new thinking away from comparative advantage to competitive advantage according to Porter (2008). Cai and Leung (2007) have shown the differences and similarities in competitiveness, comparative advantage, and competitive advantage. Cho and Moon (2005) made some important contributions to the theory of competitive advantage. They observed two important conditions for such a theory: one, comprehensiveness, which means having more than one variable and; two, dynamism to capture changes in national competitiveness. This approach should go beyond the traditional trade theories. They concluded that Porter's theory had met this important consideration, regardless of its limitations.

Who competes?

A scrutiny of the competitiveness models attests to the significance of Porter's contribution. But the competitiveness debate is not without other important perspectives. Krugman (1994) is perhaps the most distinguished of them. While he is not against the concept of competitiveness, *per se*, he thinks that the debate has been blown out of proportion. As he writes in the Foreign Affairs Vol. 73(2), Krugman calls the debate on competitiveness a dangerous obsession. He contends that national competitiveness in the sense of countries competing like corporations is an illusion. He concludes that competition is between corporations such as Coca Cola and Pepsi (Krugman, 1994). On the other hand, Grant (1991), in a critical paper, assesses Porter's Competitive advantage of Nations and lauds it, but also faults, some aspects of his work as "indeterminate". The theory about national competitive advantage reviews relationships and four factors that influence the "national diamond" and determine a firm's ability to compete internationally.

Grant observes that Porter has done a better job in explaining the factor conditions in a more sophisticated manner than the traditional Heckscher- Ohlin models. The theory also makes another major contribution by distinguishing the four stages of competitive development in a country.

This can be better summarized by a quote from Stiglitz (2007): "to achieve competitiveness, you need strong competition since this leads to innovation, which in turn increases productivity, the key driver of competitiveness in the long term". From this standpoint, Stiglitz (2007) articulates a position on competitiveness that resonates well with Porter (1990, 1998, 1999) and Krugman (1994); that it is not necessary to create few firms or monopolies to be competitive. Porter's research on the Italian leather clusters and sanitary and ceramic tiles industry proves this assertion to be correct.

Measurement of Competitiveness as a strategy

Studies on competitiveness have been carried out by the International Institute for Management Development (IMD) and the World Economic Forum since the 1990s. There have been refinements in terms of factors and methodology over the years to improve the findings. The Institute of Industrial Policy Studies in Singapore is also engaged in the measurement of competitiveness for developing and small countries. The theoretical basis for the measurement of competitiveness is now a combination of both microeconomic and macroeconomic analysis. The stage of each country's development is also taken into consideration during the calculation of the rankings. Siggel (2006) concludes that revealed comparative advantage (RCA) indicates the competitive advantage of a sector or country over a foreign one.

Revealed comparative advantage (RCA): The Balassa Index

Balassa (1965) proposed the Revealed Comparative Advantage (RCA) methodology for measuring competitiveness, which has also been referred to as the Balassa Index (BI). The RCA is the observed pattern of trade that identifies the economic sectors that enjoy a

comparative advantage and compares a country to its trading partners or the world. The RCA index estimates the competitiveness of the exports of a country in relation to the exports of other trading partners. It is a ratio of ratios, also called relative trade shares (Richardson & Zhang, 1998). The double usage of the modifier *relative* indicates the index's attempt to evaluate comparative advantage, which is itself a relative concept: "the relative competitiveness of a country's industry to that of its other industries, relative to global norms".

Despite these limitations, literature shows that the Balassa Index is still extensively used to measure the competitiveness of countries according to Yu et al., (2009). For instance, in a study on Kenya's RCA of manufactures, Moyi and Kimuyu (1999) use the RCA index to assess the capacity of Kenya's manufactured exports to withstand competitive pressure in the international market. The authors determined variations in RCA from 1988 to 1992 and concluded that Kenya's specialization was positively skewed towards regional markets, with intra-Africa trade showing a steady increase. This outcome shows that, at least for Kenya, free trade agreements in Africa are positively contributing to this trend.

Many studies that have measured sector competitiveness or trade performance are based on the RCA methodology and have affirmed its robustness. These include Johannes (2006), Muendler (2007), Balassa (1979, 1986), Cai and Leung (2007), Richardson and Zhang (1998), Valentine and Krasnik (2000), then Seleka and Dlamini (2020). Table 2 below discusses the development of the RCA index. The use of indices dates back to Lisner (1954) when he initiated the first empirical measure of the RCA index. Since then, it has been refined and made better. Balassa (1965) built on the Lisner measure and introduced a more comprehensive measure of RCA.

Balassa's theoretical underpinnings of RCA

In 1965, Balassa proposed the RCA, the usage of ratios to determine industry competitiveness. The theoretical strength of the Balassa index is based on its ability to calculate the export behavior of a product or sector relative to those of competitors and the world. The index is seen as deterministic and can provide sector competitiveness while avoiding distortions of import taxes. Balassa (1965) relied on international specialization theories to determine the pattern of comparative advantage.

He specifically relied on the theory of comparative advantage and the Heckscher-Ohlin theory. These provided the theoretical basis for Revealed Comparative Advantage as a measurement of comparative advantage, and specifically to show trade patterns and specialization. Balassa (1965) argued that "export performance of individual industries in a particular country can be evaluated by (a) comparing the relative shares of a country in a world of exports of individual commodities and (b) indicating changes in relative shares over time. He observed that in either case, the data has to be comparable through normalization.

Table 2: Summary of the measures of comparative advantage

Index	Author (year)	Equation	Main Features
Balassa Index (BI)	Balassa (1965)	$BI_i^j = \frac{X_i^j / \sum_i X_i^j}{X_i^w / \sum_i X_i^w}$ (1)	The most extensively used index
Hillman Condition	Hillman (1980) Hinloopen and Van Marrewijk (2001)	$1 - \frac{x_i^j}{x_i^w} > \frac{x_i^j}{\sum_i x_i^j}(1 - \frac{\sum_i x_i^j}{\sum_i x_i^w})$ (2)	Guarantees a concordance between the BI and pre-trade prices
Symmetrical RCA (SRCA)	Laursen (2015)	$SRCA_i^j = \frac{BI_i^j - 1}{BI_i^j + 1}$ (3)	Corrects the asymmetry of the BI
2Additive RCA (ARCA)	Hoen and Oosterhaven (2006)	$ARCA_i^j = \frac{X_i^j}{\sum_i X_i^j} - \frac{X_i^w}{\sum_i X_i^w}$ (4)	Corrects the asymmetry of the BI; allows for comparing different commodities
Normalised RCA (NRCA) Yu, Cai, and Leung (2009)	Yu et al. (2009)	$NRCA_i^j = \frac{X_i^j}{\sum_i X_i^w} - X_i^{w*} \frac{\sum_i X_i^j}{(\sum_i X_i^w)^2}$ (5)	A new measure that corrects several problems of the BI

***Note**: Where x represents export flow; j represents the country analysed; i represents the commodity/sector analysed; w represents the selected region of reference.*

***Source**: Cunha and Forte (2017).*

Conclusion and recommendations

From the review of literature, it was found out that the various theories and models such as the Diamond Model, Comparative Advantage, Competitive Advantage and the Revealed Comparative Advantage (RCA), were used to measure competitiveness as a strategy in international trade for leather products. The Diamond model, as a comprehensive measure of competitiveness, has become one of the most popular and is often cited by management scholars. It has attracted attention from the academic community and has up to four extensions to it, showing that it can be considered as an influential model in competitiveness studies. There is now new school of thought away from comparative advantage to competitive advantage. There are differences and similarities in competitiveness, comparative advantage, and competitive advantage in terms of comprehensiveness, which means having more than one variable and dynamism to capture changes in national competitiveness. The Revealed Comparative Advantage (RCA) methodology, which has also been referred to as the Balassa Index (BI) is the observed pattern of trade that identifies the economic sectors that enjoy a comparative advantage and compares a country to its trading partners or the world. The Revealed Comparative Advantage (RCA) indicates the competitive advantage of a sector or country over a foreign one.

However, choosing the right theory or model that is appropriate to measure competitiveness in international trade for leather products by government agencies remains a challenge. It was therefore recommended that government agencies should always undertake a cost benefit analysis of each competitive theory or model so that they are able to choose best appropriate and most advantageous theory or model that can be used to measure competitiveness in international trade. Secondly, the leather and leather products industry, which is among the labor-intensive industries whose competitive position in exports has weakened due to the increase in exchange rates falling behind inflation figures, is going through an economically difficult period. While it was stated that the industry experienced a 26.7 percent loss in exports in the first half of 2024 their general expenses increased from 40 percent to 63 percent in the current outlook. Despite these challenges, business leaders must consider macroeconomic factors when looking ahead to the second half of 2024 and 2025.

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