
TIME TO EXPORT AND EXPORT PERFORMANCE IN THE ECOWAS

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Abstract

Stimulating exports in an export-led growth regional economy is a critical focus in the policy initiative and strategy of ECOWAS Member States. Achieving this, however, may be a pipe dream when there are considerable time delays and prohibitive export transaction costs that inhibit exports. Against this backdrop, this study examines the link between time to export and export performance in the ECOWAS. The empirical results from using panel data and the system Generalized Method of Moments (GMM) estimation techniques for the period 2006-2022 demonstrate that time delays has a detrimental positive, implying that export on time positively drives exports. Cost to export (i.e. transaction costs of exports) is negatively and significantly related to export performance. Openness to trade, infrastructure (soft and hard), and trade credits, on the other hand, are significant export drivers. The exchange rate variable is not significant, due to the region's reliance on the export of few primary commodities that are essentially undiversified and low value-added. In the light of the findings, it is suggested that improved transport infrastructure (hard and soft), particularly, regional infrastructure development framework that provides comparative advantage in exporting time-sensitive goods and services be put in place. Increased export credits and finance, as well as capital accumulation to encourage the production of export-related goods are also important to regional export expansion.

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The views expressed in this paper are those of the author.

1. Introduction

Export performance plays a critical role in the development of any economy. Earnings from exports provide the foreign reserves required to stabilize the value of the local currency. Export earnings also supply the resources to import other inputs required in the production of goods and services for domestic use and exports. Increased exports, and the resultant export earnings positively stimulate welfare and human development in terms of foreign exchange, high revenue base, rising employment, increased per capita income, and the creation of effective linkages among other sectors (inter-sectoral complementarities) (Ozekhome, 2022). The proportion of exports from the sub-region constitutes insignificant share of the global exports (UNCTAD, 2022), accounting for a 0.65 percent in 2021. The poor export performance of most countries in the ECOWAS sub-region has been a subject of concern to policymakers, with its consequences on welfare and human development adjudged as the poorest in the world. With a low human development index (HDI) of 0.33, a value that is below the world average of 0.725 (World Bank, 2022). As the tide towards full economic integration of the sub-region is rising, the need to improve export performance becomes more crucial.

Against this backdrop, the importance of trade facilitation through export timeliness in terms of the required documentation and clearance processes, including time taken for deliveries to get to desired destinations at the planned or anticipated time of delivery) is central to any regional economic block like the ECOWAS (see Hildegund, 2006; Djankov, 2006; Ozekhome & Oaikhenan, 2019). Such delays, without doubt, reduce the intensity of regional trade flows, thereby constituting clogs in the push for greater regional economic integration in the ECOWAS. Considering such time costs on export patterns shows the extent to which the smoothness or sluggishness is associated with operations at one stage affects all the stages in an international production supply chain network. The significance of organizing and locating production for exports in a manner that guarantees the timely delivery of parts and components matters also. Timeliness is thus essential to the overall export cycle and the general efficiency of trade.

Literature posits that trading on time is vital to the management of the production chain (Nordas, et al, 2006). Delays associated with delivery increases the cost of holding stocks, impede the rapidity of responses to changes in orders made by customers', in addition to limiting the capability of speedy detection, fixation as well as replacement of defective components (Gamberoni, et al. 2010). In the light of these, the demand for export timeliness, especially the delivery of exports produces incentives that warrant the clustering of export production plants around the assembler or retailer (Harrigan & Venables, 2004). Given that the promotion of exports is key to any regional blocs in an export-led-growth strategy, with the attendant capability of accelerating regional trade and economic integration, the overall consequence of these cogs in the wheel of exports is that timeliness of exports deliveries in getting to endpoint at the planned or intended delivery time is affected; thus slow down the intensity of regional exports and trade, thereby derailing the economic integration (Ozekhome, 2020). In the ECOWAS, the regional trade policy is developed along the lines of boosting exports to member states, as well as to the rest of the world. Imports into the region are therefore, seen as complementary to the export of goods and services.

Traditional trade theories argued that removing trade obstacles, including distortions to an open and seamless trade would trigger greater intensity of trade through efficient and optimal allocation of resources and greater international competition (Edwards, 1992; 1998; Ozekhome & Oaikhenan, 2020). Jouanjean et al.,

(2015, Amoako-Tuffor et al. (2016) and Ozekhome and Oaikhenan (2019), in a fresh argument maintain that the eliminating the obstacles to trade adumbrated in the trade openness thesis remains a necessary and not sufficient conditions to increasing trade. This is because the elimination of trade barriers may not imply actual increased trade when there are considerably delays trade and costs in trade transaction (Jacks et al., 2008). The elimination of export barriers and distortions through faster and simplify trade procedures and processes are aimed at encouraging export expansion, especially the orientation of trade towards exporting sectors through simpler, harmonized and faster export transaction processes and procedures, since delays are impediments to trade (Ozekhome & Oaikhenan, 2019).

It seems indisputable that the growth miracle recorded by the economies of the East-Asian countries (comprising Singapore, South-Korea, Hong Kong and Taiwan) in an export-led growth is largely due to the trade reforms carried out by these countries, especially in a simplified and harmonized export transaction regime that largely favoured manufactured exports. In addition to trade facilitation, such as timeliness to export and good transport infrastructure, these economies witnessed remarkable and astounding trade and economic growth rates that significantly improved their standard of living to similar to the OECD. The spectacular export performance, provided by a stable and favourable macroeconomic environment, in addition to a supportive institutional frameworks not only allowed these economies reap considerable economies of scale, increased market size and greater degree of international competitiveness, but also afforded them the latitude to scale new and greater production possibility frontier growth maintained by the countries of the OECD (Block & Tang, 2004; Ozekhome, & Oaikhenan, 2019).

Improved exports encouraged by timeliness (export on time) has the capacity to significantly reduce export transaction costs, enhance productivity and technology, induce economies of scale, in addition to driving greater competitiveness and transactions with international firms (Jack et al., 2008). Available evidence show that the low export capacity among ECOWAS countries contrasts sharply with those of the Asian countries and the OECD. For instance, while the average time to export in the ECOWAS for the 2006-2020 period was 29 days, that of the regions of East-Asia and Pacific, Europe and Central Asia, Latin America & Caribbean, Middle East & North-Africa, and High income OECD countries were respectively, 20 days, 19.5 days, 21.5 days, 19 days and 11 days, respectively, making the region least performer amongst them. Also, while the share of ECOWAS exports in global exports stood at less than 0.70 percent in 2021, that of Asia accounted for over 41.4 percent of global exports and 37 percent of global imports, with Asia & Pacific exports standing at 41.0 percent of global exports in the same period (IMF, 2022). Given that exports constitute a core engine of growth, alongside investment, these regions were resilient even in the face of external shocks.

The weak export performance is attributed to considerable delays in export transaction, prohibitive cost to export, poor trade and transport infrastructure, being key factors in trade facilitation and other export hindrances (Ozekhome & Oaikhenan, 2020). While considerable attention has been directed to the determinants of export performance, there is nevertheless, a fragmentation and diversity of the literature. In addition, the nexus between time to export and export performance, has so far not received, any empirical attention in the ECOWAS region. Against this background, the objective of the study is to examine the nexus between time to export and export performance in the ECOWAS. In this direction, the paper contributes to the literature by investigating empirically the effect of export facilitation and other variables that reduces time delays in ex-

port transactions on export performance in the ECOWAS.

The existing studies in this direction (for example, Clark et al., 2004, Abert, et al., 2011; Marque-Ramos, 2011) are country-specific, aggregative and pertained to other world regions. None of these studies, including others, to the best of the researcher's knowledge, has been devoted to ECOWAS region, alongside the modelling of transport infrastructure in the export supply chain, as advanced in the new literature on international trade in contrast to the traditional literature, which has tended to over-emphasize openness-related matters, neglecting trade facilitation. Modelling these variables, particularly for a region like the ECOWAS characterized by poor quality transport infrastructure (e.g. ports, roads, railroads, pallets; air corridors sea-lanes, ICT, e.t.c), including other structural and institutional factors that affect exports capacity is important (see Mbekeani, 2010; Behars, et al., 2011).

In addition, given the fact that the quest to boost regional exports and integration would prove unachievable with poor export facilitation (e.g. time delays), anchored on the need for timeliness to export in the export transaction process, this study becomes relevant and compelling to policy and literature. With the growing policy deliberations on promoting regional exports and economic integration through the provision of a congenial trade environment in recent times, this study also becomes important and timely. The study utilizes the dynamic system-GMM, which considers countries' differences, unobservable influences as well as possible regressors' endogeneity and simultaneity to examine the nexus between time and export performance in the ECOWAS.

The remainder of this paper is organized as follows. Section 2 provides important stylized facts on the subject matter. A review of the theoretical and empirical literature associated with time to export, export facilitation and export performance is presented in section 3. The methodology, model specification and data are discussed in Section 4, while the empirical results and discussion are presented in section 5. The paper is concluded in section 6 with some evidence-based policy suggestions.

2. Stylized Facts

In line with the World Bank, the literature on export facilitation is basically discussed within four critical evolutionary periods i.e. 2006, 2008, 2010 and 2012. The focus on these episodes is hinged on the fact that apart from being evolutionary, these periods marked the most significant changes in the indicators of export trade facilitation in the ECOWAS. The indications by the World Bank (2015) is that among ECOWAS countries, as well as in other regions, and the world average comparison, the highest time to export (in days) was in Niger, with 59 days, respectively all through the period 2006- 2012 (Table 1). This made the country the worst performer in both the ECOWAS and the world. This is closely followed by Mali with 44 days in 2006, 38 days in 2008, and 26 days, respectively in 2010 and 2012. Nigeria had 26 days as time to export in 2006, 25 days in 2008 and 24 days respectively in 2010 and 2012. Senegal performed relatively better than any other country in the region, with 21 days in 2006, 15 days in 2008 and 12 days in 2010 and 2012, respectively. In terms of overall, regional comparison, the average time to export in ECOWAS was 30 days in 2006, 29 days in 2008, 27 days in 2010, and 26 days in 2012.

For East Asia and Pacific, the average time to export was 22 days in 2006, 20 days each in 2008 and 2010, and 19 days in 2012. Europe and Central Asia had 21 days in 2006, 20 days in 2008, 19 days in 2010 and 18 days in 2012. For the High income OECD, the average time to export was 12 days in 2006, and 11 days, re-

spectively for 2008, 2010 and 2012, making the region the best performer in the world (World Bank, 2015). Furthermore, between 2015-2020, the average time to export in the ECOWAS had risen to 33 days, resulting to about 10 percent further time delay in export trade transaction (World Bank, 2020). Regarding cost to export, the highest all through the comparable episodes, was also in Niger, with US\$2,743 in 2006, US\$ 3,343, respectively in 2008 and 2010, and US\$3,474 in 2012. This again, more than doubles the sub-regional average and world average for the periods. As a result, average export performance in the region as a share of global exports declined from a previous 0.72 percent to less than 0.67 percent within the period. Specifically, ECOWAS' exports of \$154 billion in 2019 represented a negligible 0.65 percent of global exports, and imported \$190 billion, a 0.8 percent of global imports, making the region a net importer in the global trade. Nigeria, the region's largest economy and exporter exported US\$70.7 billion, representing 46.1 of the regions total exports (WTO, 2020).'

At regional level, abstracting from the table, it is clearly observed that the highest export costs was in ECOWAS with an average US\$1,290, US\$1,455, US\$1,484 and US\$1,484 in the 2006 2008, 2010 and 2012 periods ,respectively. Middle-East and North-Africa had cost to export that was US\$ 997 in 2006, US\$1,003 in 2008, US\$1,035 in 2010, and US\$1,079 in 2012 (see Table 1). That of East-Asia and Pacific (the best performer), was US\$865 in 2006, US\$821 in 2008, US\$804 in 2010 and US\$839 in 2012 (little wonder, the region's spectacular export performance of over 220 percent in the reference periods). Overall, the ECOWAS region was the worst performer throughout the comparable periods (Ozekhome, 2019). In percentage terms, within the period, growth in export cost was 21.1 percent, rising further to about 28.7 percent in 2020 (World Bank, 2020). The world average cost to export, which in 2006 stood at US\$1,225 rose speedily to US\$1,390 in 2010, US\$1,484 in 2012, and US\$1,520 in 2020, representing about 13.47 percent increase in export cost in 2010, 21.14 percent in 2012 and 24.1 percent in 2020 from the 2006 level. A comparable upward trend occurred in the ECOWAS region. Despite this, cost to export was higher in ECOWAS than in other world regions, making it a fundamental export growth and regional trade integration impediment (Ozekhome & Oaikhenan, 2020). Overall, the connection between time delays and cost of export transactions with export performance show that the fall in export performance from a 0.75 percent to roughly 0.62 percent within the period 2006-2020, was associated with an increase in cost of transactions and time delays in exporting (World Bank, 2022).

Table 1: Time to Export (TTE) and Export Transaction Costs in Exports: Country/ Regional Averages

Year	2006		2008		2010		2012	
Country/Region (ECOWAS)	TTE (Days)	CTE (Per container USD)	TTE (Days)	CTE (Per container USD)	TTE (Days)	CTE (Per container USD)	TTE (Days)	CTE (Per container USD)
Benin	34	987	32	1,057	30	1,071	29	1,101
Burkina Faso	45	2,226	45	2,262	41	2,412	41	2,412
Cabo Verde	22	1,074	19	1,125	19	1,125	19	1,125
Cote d' Ivoire	23	1,494	23	1,745	25	1,710	25	1,740
Gambia	23	1,199	24	1,141	19	991	19	1,030
Ghana	21	624	19	805	19	815	19	815
Guinea	34	730	34	880	36	915	36	915
Guinea Bissau	27	1,445	27	1,545	25	1,545	25	1,448
Liberia	20	1,132	20	1,332	17	1,332	15	1,320
Mali	44	1,752	38	2,012	26	2,202	26	2,202
Niger	59	2,743	59	3,343	59	3,343	59	3,474
Nigeria	26	1,026	25	1,179	24	1,263	24	1,380
Sierra- Leone	31	1,082	29	1,248	26	1,373	24	1,185
Senegal	21	958	15	1,208	12	1,228	12	1,228
Togo	24	872	24	940	24	940	24	940
East Asia & Pacific	22	865	20	821	20	804	19	839
Europe & Central Asia	21	1,254	20	1,398	19	1,431	18	1,610
Latin America & Caribbean	22	1,045	19	1,137	18	1,146	17	1,224
Middle East & North Africa	24	997	23	1,003	20	1,035	19	1,079
OECD-High Income	12	917	11	1,038	11	1,045	11	1,053
South-Asia	35	1,110	33	1,269	33	1,570	33	1,600
Sub-Saharan Africa	37	1,642	35	1,872	32	1,992	31	2,100
West Africa (ECOWAS)	30	1,290	29	1,455	27	1,484	26	1,488
World	26	1,225	24	1,336	23	1,390	22	1,484

Note: TTE= Time to Export, and CTE= Cost to Export

Source: Author's computation from the World Bank World Development Indicators (WDI)

Statistics show that Europe accounts for 28 percent of ECOWAS total exports, with 23 percent absorbed by the European Union (EU). In addition, the EU accounts for 43 percent of the region's agricultural exports, as well as 48 percent of its food exports. ECOWAS exports is dominated by Nigeria and Côte d' Ivoire, that account for 77 percent and 10 percent of regional exports , respectively. The third and fourth places are occupied by Ghana and Senegal, with 4 percent and 2 percent, respectively. Following the traditional leaders is Mali that accounts for 1.7 percent of regional exports. Benin, Burkina Faso, Guinea, Niger and Togo each accounts for 1 percent of regional exports (ECOWAS, 2020). ECOWAS exports show little product diversity, with heavy reliance on extractive products (e.g. petroleum, natural gas, in addition to a few agricultural commodities, e.g. cocoa, rubber, groundnut and cotton).

The region's imports are more diversified than exports, with more than 80 per cent of the trade in ECOWAS carried out with other regions. The region's import represents 24 percent of total imports. Nigeria and Ghana accounts for a combined 59 percent of regional imports compared to 36 percent by the eight countries of the West African Economic and Monetary Union (WAEMU). The remaining five countries of the

ECOWAS account for a mere 5 percent of the regional imports. Trade in services, which should have encouraged regional growth in the ECOWAS is disadvantaged by institutional, regulatory and infrastructural constraints (ECOWAS Trade Statistics Report, 2022). Total value of ECOWAS exports of US\$20 billion in 1999 grew significantly to USD 100 billion in 2009, representing a 400 percent growth, and fell by over 15.5 percent within the period 2015-2020.

Between 2010 and 2016, ECOWAS share of exports oscillated between 5.1 and 11.4 percent, while imports share ranged between 15.2 percent and 18.5 percent, suggesting a net importer (Africa Competitive Report, 2019). Intra-regional exports fluctuated between 8.4 to 14.2 percent during the period. Intra-ECOWAS exports as share of total exports was 0.3 per cent in 2015 and 0.32 percent in 2017 (Africa Competitive Report, 2019). This is in sharp contrast to Europe, with 68.1 percent, Asia, 59.4 percent, America, 55.0 percent and 7 percent in Oceania (UNCTAD, 2019). Arising from the above and based on spontaneous empiricism, the central point about the effect of time to export on export performance is that delays in export transactions, including other elements of trade facilitation and drivers of export performance have significantly contributed to the poor export performance in the ECOWAS.

3.0. Literature Review

3.1. Theoretical Literature

The theoretical foundation of export promotion is rooted in classical international trade theories i.e. Absolute advantage theory by Adam Smith's as well as the theory of comparative advantage put forward by David Ricardo. These traditional trade propositions argued that elimination of obstacles to and other distortions would lead to trade expansion and encourage greater degree of exchange of goods and services in the international market, and accordingly a higher level of international competition. In addition, the integration-responsiveness framework, emphasized the importance of policy coordination, harmonization and cooperation among partakers of a regional and/or global market in the creation and development of competitive postures, in addition to greater market capacity through feasible policies and strategies that permeate political, economic, institutional and reorganizational imperatives. In theory, the creation of a favourable trade and institutional environment that encourages export on time represent resources of comparative advantage. Timely delivery of export goods (consignment) increases export frequency and thus, greater exports capacity (Bani, 2017). In addition, timeliness is critical to contract enforceability. In theory, ability to export on time, which is an essential aspect of trade contract or trade bargaining process significantly influences a country's export volume and pattern based on its comparative advantage (Li & Wilson, 2009; Gamberoni et al. 2010). The speed and intensity of integration of markets, regional trade as well as competitiveness are disrupted when essential transactions and interactions are delayed (Krugman, 1994; Hildegunn, 2006)

Reduction of complex trade procedures exemplified in the simplification and harmonization of process of trade will encourage greater economic openness, larger access to markets, in addition to opportunities, increased intra-regional and global competitiveness of exports and intensified level diversification of goods and services, by means of lesser time to export (export timeliness) and cost to export. It also stimulates dynamic regional and international value chain; encouraging international delivery of consignments and higher domestic production to meet export purpose when supply is consistently guaranteed and enhanced (Amoako-Tuffor, et al. 2016). Accordingly, transactions delays reduce export capacity and diminish the prospect for

regional integration. Improved and efficient export trade facilitation in terms of timeliness to export (e.g. shipments timeliness in reaching intended goods endpoint at the anticipated delivery time), including swift-ness and efficiency i.e.; speed, simplicity and predictability of formalities) in the clearance process by border control agencies, including customs, and other export transaction processes and procedures encourages greater exports. In also speeds up regional economies of scale, greater product competitiveness and increased international and regional value chain.

According to theory, the persistent increase in trade as well as the quest by many countries to speed up trade and regional integration within the global trading chain is not only dependent on a sustained open global economic system in the context of the elimination trade hindrances and distortions but on improved quality and efficiency of other trade-support structures. These structures constitute basic trade facilitation (e.g. time to trade, cost to trade and trade infrastructure). For instance, the quality of trade and transport –related infrastructure (e.g. roads, railroads, port, airports, flight lanes, pallets, shipping containers and terminals, ocean lanes, as well as signalling facilities, including the control of traffic) are important to trade (Ozekhome & Oaikhenan, 2019). Having well-connected superhighways, in addition to well-developed railroad, for instance, allows speedy and greater delivery of goods at point of disembarkation at the arranged or predicted time of delivery after once being dispatched at terminals without delay. In addition, delays in processing relevant trade documents and in tracking and tracing consignments and delays in terminal handling and clearance of goods, and the inability to certify product quality on time to allow easy and quick passage, amongst others, create significant obstructions to international trade (Gani, 2017).

The customs efficiency clearance process, including other agencies manning the control of borders (i.e. simplicity, speed and expectedness of formalities) play significant role in export transaction as it reduces delays and costs associated with trade.. Integrating border regions through better-quality infrastructure and connectivity engenders competitiveness and greater international trade (Cali, et al., 2014; Ramli & Imail, 2014). Good trade and transport infrastructure, play significant role in trade and economic integration. Time delays, including high trade transaction costs, apart from reducing the volume of regional trade also obstruct economic cooperation (see Asia Development Bank, 2009). Buttressing this position also, the World Bank (2015a) submits that improved logistics lower trade costs have the capacity to stimulate regional efficiency, technological absorption and positive spillovers that encourage trade and economic integration. Simplified trade processes that reduce export processing time have the capacity to lessen international trade costs, enhance international competition, foreign direct investment, economies of scale and scope in distribution as well as production activities (see Lakshmanan et al., 2001; Behars, et al 2011).

The benefits of export on time (export timeliness) are multifaceted, with positive and dynamic spill over effects. Substantiating, this, Portugal-Perez and Wilson (2009) and Hoekman and Nicita (2011) posit that export on time encourages greater efficiency in export trade, reduces transaction costs associated with exports drives the orientation of trade towards exporting sectors. Thus, improved export performance and favourable reforms in export trade policy that encourages faster export trade transaction can induce greater intra-ECOWAS exports, and by extension, fastrack regional economic cooperation and development (Ozekhome, 2020). Export-oriented trade policies have the capacity to enhance exports and international competitiveness since domestic export-producing firms/industries are stimulated to produce more exportable products. Through regional trade policy coordination and harmonization, exports procedures and processes are simpli-

fied, modernized and made more transparent and amenable for faster transactions. This has the effect of reducing delays and considerable costs associated with transaction, thus promoting regional efficiency in export dealings, greater exportation, economic growth and employment.

Through reforms and regional policy synchronization, international and regional export competitiveness can be attained, with significant reduction in export transaction costs. This implies greater market prospects in the case of prevailing products, as well as up-to-date products and export diversification supply. The outcome is enhanced when result-oriented export facilitation strategies brought about by regional cooperation are implemented. In addition, better trade and transport infrastructure tend to reduce delays and costs associated with export processing and transactions. Export growth (expansion), particularly, intra-regional exports is encouraged by means of procedural reforms through a mutually beneficial (win-win) cooperation centred on the simplification, coordination as well as harmonization of process of trade, and in this context, export intensification (Amoako-Tuffor, et al. 2016; Ozekhome & Oaikhenan, 2020).

3.2. Empirical Literature

There is dearth of empirical literature on the export time- export performance nexus in the ECOWAS. As observed by the few existing empirical works, time to export, particularly time delays has a negative impact on export performance (Clark et al., 2004; Hildegunn, 2006; Norda et al., 2006). Clark et al (2004) assess the link between trade facilitation, proxied by time delays and transaction cost of trade and bilateral trade, utilizing a sample of Asia and Pacific countries. The results, based on panel data, show that delays is negatively related to trade. Hildegunn (2006) finds time delays, as well as disruptions in essential transactions and interactions due to poor trade and transport infrastructure reduce market integration, regional trade and competitiveness. Empirical evidence has found time an important determinant of trade pattern and volume in studies as Hummels (2001), Evans and Harrigan (2005), Hausman et al. (2005), Portugal-Perez and Wilson (2009), Freund and Rocha (2010) and Djankov et al (2010).

Djankov, Freud and Pham (2006) assess the impact of trade on time on the performance of trade based on a sample of countries in Asia and Europe. They decomposed time to trade into time to export and import, alongside a battery of control variables to include exchange rate and infrastructure. The empirical results, utilizing static panel data show a negative but weak impact of time to trade on exports and imports. In view of the findings, they suggest trade reform measures to reduce delays associated with trade. Persson (2007) investigate effects of time delays and cost to export on the flow of exports based on a group of countries from African, Caribbean and Pacific regions that are involved in deliberations on trade and economic cooperation with the European Union (EU). The findings reveal that time delays and large export costs hurt international trade and cooperation.

The connection between trade costs- measured as total costs of exports and imports and trade capacity in West and Central Africa is investigated by Haring, Palso and Raballand (2007) Utilizing the Generalized Method of Moments (GMM, they found that good trade infrastructure reduces delays and in turn enhances trade. Using evidence from a sample of 45 countries from developed and developing countries to evaluate the impact of trade costs on international exchanges, Keane and Feinberg (2007) disaggregated costs into cost to export and import, as well as time to trade. The findings show that lower cost to trade triggers trade increase. Portugal-Perez and Wilson (2009) conducted empirical research examining the nexus between

transport infrastructure and boarder related costs that reduce time delays. They utilised evidence from 25 African countries with respect to obstacles as well as the inherent trade reform opportunities. They find that increased trade costs (in terms of resources and time to trade) lower trade volume, while lower cost of trade intensifies trade. In a related dimension, the impact of export facilitation- measured by hard and soft infrastructure on export performance, in terms of the implications aimed at trade and economic integration in Asia is investigated by Portugal-Perez and Wilson (2008). Utilizing an approach based on decomposition, the results show that infrastructure significantly drives export performance. Njinkeu, et al, (2008), find similar results for a sample of African countries.

A World Bank (2008) study finds that poor infrastructure (railways, minor roads, principal roads), high costs of electricity, financial intermediation, and poor coordination gaps, result to considerable delays in trade process, and consequently poor trade. The constraints, according to the study are regionally-based. The study by Mbeakani (2010) find positive and significant relationship between infrastructure, trade expansion and regional integration in Africa. Djankov et al (2010) submit that trade on time is a determinant of trade patterns and trade volume among countries. The probable benefits associated with trade reforms as well as shipments timeliness in arriving at expected terminus based on planned delivery time of exports is evaluated by Albert et al (2011), Behar et al. (2011) and Kessides (2012). The various findings show positive effect of trade reforms and infrastructure on exports.

Portugal-Perez and Wilson (2012) assess the hard and soft infrastructure impact on the export performance of 101 countries over the period 2004-2007. They used different estimation approaches that include Two-step Heckman and the Maximum Pseudo Likelihood of the Fish Law (PPML). They find that physical infrastructure impact is positive and significant on export performance. Specifically, a 1% increase in the level of transport infrastructure leads to an 18.8% increase in exports. Other related studies (see Ramli & Ismail; 2014; Balistreri et al., 2014; Cali, et al., 2014) find positive and significant impact of export costs, openness and exchange rate on export performance. Bani (2017) investigates the effect of timeliness in accessing the intermediate inputs on the trade pattern. Specifically, he sought to examined the timeliness of the trade pattern between primary and processed goods based on the notion that any country that has a higher ability to transport goods on time has a comparative advantage in industries that place a higher value on timely delivery of their inputs. To do this, a measure of how intensively any industry demands for the timely delivery of its intermediate inputs is constructed combining Hummels and Schaur (2013)'s calculation of the sensitivity of products with the input-output tables approach. The findings show that stronger comparative advantages exist for processed goods than for primary goods.

The study by Hayakawa, Laksanapanyakul and Yoshimi (2019), using detailed customs data for Thailand find that longer import processing times reduce total exports due to decreasing export frequency. Santhi and Setyari (2019) find similar evidence for improved port efficiency including trade facilitation on the performance of exports for six ASEAN countries over the period 2005-2016. Ozekhome (2020) evaluates the trade flows impact of international trade costs in the countries of the West African Monetary Zone (WAMZ). The empirical results from using panel data and fully modified ordinary least squares (FMOLS) for the period 2006 -2018 demonstrates a statistically negative trade costs impact on the sub-region's trade flows. Based on

the empirical findings, he suggests the reduction of international trade costs to intensify trade via the simplification and harmonization of trade processes. In a similar investigation,

Ozekhome and Oaikhenan (2020), in a somewhat related study evaluate the impact of export transaction costs on ECOWAS' export. The empirical findings from using several panel data method of estimation over the period 2006-2018 demonstrate a destabilizing effect of high export costs on exports on the region's trade. Real output is positively and significantly related to exports, while foreign direct investment has a weak impact. In view of the findings, the authors suggest policies to enhance exports through export cost reduction strategies and greater productivity. Takpara (2021) examines the impact of indicators of trade facilitation measures on export size (intensity) in the West Africa. A gravity model based on a sample of 31 countries that include 15 from West Africa, in addition to 16 partner countries, for the period 2006-2015 was utilized. The empirical findings demonstrate that indicators of trade facilitation (e.g roads and port efficiency) positively and significantly influence export performance. Similar findings exist in the case of the soft infrastructure such as border efficiency, while customs environment negatively influences exports in the region. Accordingly, the author suggested measures such as the simplification and harmonization of border procedures, in addition to regional infrastructure development to enhance exports.

Noureen and Mahmood (2022) examine the effects of trade costs components and uncertainty of time delay on bilateral export growth in a group of Asian countries and finds that high trade costs and time delay uncertainty negatively impact exports. Export timeliness considerably reduces prohibitive export transaction costs, creates higher regional efficiency and integration, as well as greater export productivity via economies of scale and positive diffusion effects. It also encourages competitiveness of products, entry into new markets, as well as the promotion of the exportation of up-to-date and cutting-edge products, eventually encouraging the diversification of exports (Ozekhome, 2023).

Established on the extensive and robust empirical review, it is clear that no ECOWAS- based regional study has specifically investigated the effect of export on time (or conversely time delays) on export performance, thus, making the current study a source of knowledge extension. Furthermore, in spite of the increasing importance of timely trade transaction process in international production and exchange networks in the world economy, there is noticeable scarcity of empirical evidence on the factors that explain the differential trade patterns among countries, for which time processing is one of. Since timeliness in the processing of relevant export documents implies greater exporting frequency or capacity, an empirical investigation of the extent to which it affects regional exports is critical. This is envisioned in the quest to boost ECOWAS regional exports adumbrated in the on-going trade reforms, strategies, initiatives, negotiations and policy coordination and harmonization aimed at enhancing trade, in the ECOWAS. The current study is thus, of immense value addition to literature and policy, bringing scientific value-addition, particularly, as it addresses a fascinating issue that is extremely important to the ECOWAS Monetary and Economic Integration Programme.

4. Methodology

4.1. Model Specification

Based on the reviewed literature, the time to export and export performance nexus is empirically captured in the following model of the form:

$$EXPG_{it} = f(TTE_{it}, X_{it}) \quad (1)$$

where EXPG represents the dependent variable, here, exports growth rate- a measure of export performance; TTE denotes time to export (export time), i is country subscript (i.e. 15 ECOWAS countries); t is time subscript, and X represents a vector of other regressors, based on the extant literature that influence exports capacity (see for instance, Ozekhome & Oaikhenan, 2020).. They include:

CTE- Cost to export

OPEN = Trade openness

TINFR= Transport infrastructure

GCFC = Gross fixed capital formation

TCR = Trade credit

EXR= Exchange rate

Following model (1), the specification of the empirical model to be estimated is:

$$EXPG_{it} = \alpha_0 + EXPG_{t-1} + \alpha_2 TTE_{it} + \alpha_3 CTE_{it} + \alpha_4 OPEN_{it} + \alpha_5 TINFR_{it} + \alpha_6 GCFC_{it} + \alpha_7 TCR_{it} + \alpha_8 EXR_{it} + \varepsilon_{it} \quad (2)$$

$\alpha_1 - \alpha_8$ are parameters of the model to be estimated and ε represents error term.

The apriori expectations are $\alpha_1, \alpha_3, \alpha_4, \alpha_5, \alpha_6, \alpha_7 > 0$, $\alpha_2 < 0$, $\alpha_8 < 0$.

4.2. Justification for the Variables Included in the Model

Export performance is influenced by several variables, in line with literature on export facilitation. Time to export and export costs are two major export facilitation variables, as greater time to export, reflected in time delays and a high export transaction costs reduce export growth, while the reverse holds for a faster time to export and lower export transaction cost (see Nordas, et al., 2006; Djankov, et al; 2010; Ozekhome & Oaikhenan, 2020). Trade openness is an important variable that influences export volume, in line with the literature, as a more open economy in the absence of export distortions like export quotas and other restrictions tend to cause greater exports than in the presence of distortions. It also engenders greater competitiveness, product expansion, and thus, greater exports. Its inclusion thus, supports theory and evidence (see Parteka & Tamberi, 2011; Ha, et al., 2016). Capital accumulation drives exports, given that more capital stock encourages the production and productivity levels of exportable commodities and thus, exports growth.

Efficient trade and transport infrastructure are important to export capacity since they foster international and regional trade, through increased competitiveness as essential trade transactions and relationships are enabled and facilitated on time without delays, particularly with respect to timeliness of consignments (deliveries) in getting to desired destinations within the scheduled or expected delivery time. Besides, efficient infrastructure is a critical variable in the integration of local producers into international technological and communication network and value chain, and in attracting greater trade dealings (see Hildegunn, 2006; Portugal-Perez & Wilson, 2012; Ramli & Ismail, 2014; Cali, et al., 2014). Trade credit is an important determinant of export growth, by means of the fact that improved credit and financial resources allocation to the economy's exporting sectors will allow greater productivity in the tradable export sectors. In addition, greater export financing,

e.g. international shipment of goods and services encourage export growth (see Manova, 2008a, b; Ozekhome & Oaikhenan, 2020). The addition of financial intermediation is therefore supported by theory and evidence. Finally, exchange rate is important to trade as the devaluation/depreciation of the domestic currency vis-a-vis those of the trading partners leads export expansion and import contraction, in line with international trade theory, assuming a favourable export demand elastic products.

4.3. Variables Definition, Measurement and Data Sources

The variables definition, unit of measurement and the sources of data are provided in Table 2

Variable	Description/Measurement	Source
Export performance	Growth rate of total exports, as a measure of export performance	World Bank Development Indicators
Cost to export	Total incidental costs to export (other than marginal cost of producing goods) up to the delivery of goods and services to the final consumer.	World Bank World Development Indicators (World Bank).
Time to export	Country's ability to export on time. It is the number of days required to get an export document processed or a consignment cleared at the border for export, including shipments to anticipated destination at arranged/ predictable time of delivery (i.e. difference between the dates on which export shipments arrived the expected destination (ports) and when they were exported originally (i.e. from the container yard).	World Bank World Development Indicators (World Bank).
Trade openness	Sum of exports and imports to GDP percent.	World Bank World Development Indicators (World Bank).
Trade and transport infrastructure	Quality of trade and transport-related infrastructure (e.g., ports, railroads, roads, pallets, air corridors, IC), measured using an overall global performance score (scale) of 1-5, in line with the World Bank Logistics Performance Index Database, where 5 represents best performance (i.e. more efficient trade and transport infrastructure) that promotes trade.	World Bank World Development Indicators (World Bank).
Gross fixed Capital formation	Domestic investment to GDP (i.e. capital stock used in production of exportable commodities.	World Bank World Development Indicators (World Bank).
Trade credit	Private sector credit to GDP percent	World Development Indicators (World Bank).
Exchange rate	Units of domestic currency required to purchase a US dollar as a common denominator. It is an indicator of a country's international competitiveness in relation to the foreign exchange market	World Development Indicators (World Bank).

Source: Author's compilation.

4.4. Estimation Technique

The estimation is carried out utilizing static panel data estimation approaches. Although, the static model with fixed estimator is a consistent estimator, and assumes heterogeneity across country units, as well as accounting for time-specific and time invariant effects. It does not however address issues of endogeneity and simultaneity. Given such endogeneity, achieving consistent estimates of parameters can be challenging due to limited variation in the data. This could result to substantial bias and misleading inferences. As studies (see for instance, Ozekhome & Oaikhenan, 2019) show that using static panel data with these features are likely to generate some econometric challenges, given that trade flows across countries and time necessitates a model that adequately accounts for specific country-effects (peculiarities), that may be indiscernible or inconceivable. As such, the more plausible system GMM, which serves as an appropriate and econometrically a more powerful estimation technique, is adopted for the empirical and policy inferences as well as for robustness checks. The dynamic GMM relies on instrumental variables for parameter identification, and thus possesses sample size advantage. The technique corrects for heteroscedasticity, endogeneity of regressors including reverse causality, thus remedying the shortcoming of the static panel data to produce asymptotically efficient and consistent estimates of parameters (Blundell and Bond (1998)).

4.5. Data

Panel data (i.e. annual-cross-sectional) for all fifteen ECOWAS countries are utilized for the period 2006-2022 based on data availability. The World Bank's World Development Indicators (WDI) is the source for the data.

5. Empirical Results and Discussion

5.1. Descriptive Analysis

The variables used for the analysis are examined for summary statistics as reported in Table 2. The mean export performance (growth rate of total exports) is 7.26 percent, with maximum and minimum values that are respectively 10.2 percent and -9.25, respectively, suggesting a decline in exports and that the region is a net importer. The standard deviation of 12.26 indicates considerable variability in regional exports in the period examined. The average time to export is 28 days, suggesting a relatively lengthy time for export transaction in terms of the processes and procedures involved. The average cost to export is US\$1,350, an indication of a high and exorbitant export cost regime; a factor that has largely contributed to the poor export performance in the region. The corresponding average values for openness to trade, transport infrastructure, gross fixed capital formation, trade credit and exchange rate are 60.3 percent, 2.52, 18.2 percent, 12.9 percent, and 105.3, respectively.

Table 3: Descriptive Statistics

	<i>Mean</i>	<i>Median</i>	<i>Max.</i>	<i>Min.</i>	<i>Std. Dev.</i>
EXPG	7.26	6.80	10.20	-9.25	12.26
TTE	28.2	26.3	57.2	13	5.82
CTE	1350.2	1292	2,743	748	32.65
OPEN	60.30	59.75	72.20	44.42	7.05
TINFR	2.52	2.48	3.40	1.52	2.77
GFCF	18.24	17.25	28.15	4.64	8.20
TCR	12.92	11.96	28.42	2.88	6.40
EXR	105.27	98.28	407.23	15.06	46.22

5.2. Correlation Analysis

Table 4 shows the matrix of correlation coefficients, measuring the association among the variables. From the correlation matrix, a positive correlation is observed between exports (export growth) and the individual regressors, except time to export (the explanatory variable of prime focus) and cost to export. The correlation coefficients are typically low, an indication that multi-collinearity is non-existent.

Table 4: Correlation Matrix

	EXPG	TTE	CTE	OPEN	TINFR	GFCF	TCR	EXR
EXPG	-							
TTE	-0.15	-						
CTE	-0.17	0.07	-					
OPEN	0.38	0.20	0.25	-				
TINFR	0.20	0.05	0.26	0.33	-			
GFCF	0.08	0.24	0.13	0.27	0.22			
TCR	0.16	0.28	0.27	0.35	0.34	0.05	-	
EXR	0.06	0.19	0.18	-0.08	0.11	0.30	0.16	

Source: computation by author

5.3. Main Results

For the main empirical analysis, the random and fixed effects are compared on the basis of the Hausman test. The test result clearly show that the fixed effect strategy is the most appropriate as that of the random effect is likely to produce, biased and inconsistent estimates. Based on important determining diagnostics, the result of the fixed effect is once more chosen over that of the OLS since the individualities of the countries in terms of their heterogeneities are subsumed in the error-term when the OLS is used, thus making the parameter estimates of the pooled OLS unreliable and inconsistent. While the fixed effect is given modes interpretation, emphasis is given to the dynamic system GMM, which is used for policy inferences. The F-statistic of 44.2 is significant at the 1% level; validating the model's explanatory capacity and reliability, as well as that of a plausible nexus between export performance and the regressors. Without doubt, the regressors jointly and significantly explain ECOWAS' export growth during the reference period. With a D-W statistic that is 1.85 for the estimates provided by the panel fixed, the problem associated with autocorrelation is avoided.

Table 5: Results of Time to Export (TTE) and Export Performance in the ECOWAS
Dependent Variable: Export Growth

Variables	Pooled OLS	Panel (Fixed Effect)	Two-Step GMM	System
C	1.230 (0.77)	0.017 (1.243)	-	
EXPG (-1)			-0.03 1.78*	
TTE	-0.164 (-2.06)	-0.213* (-2.15)	-0.235** (-2.27)	
CTE	-0.832* (-1.83)	-0.874 (-2.20)**	-1.013** (-2.41)	
OPEN	0.773** (2.60)	1.069** (3.15)	0.762*** (3.26)	
TINFR	0.320 (1.06)	0.316 (1.42)	0.490* (1.82)	
GFCF	0.141 (1.87)*	0.103 (1.88)*	0.240** (2.10)	
TCR	0.173 (1.20)	0.181 (1.81)*	0.201* (1.90)	
EXR	0.045 (0.85)	0.051 (0.920)	0.054 (1.15)	
Hausman Test		22.24 (0.00)***		
R ²	0.20	0.921		
F-statistic	2.24*	44.20***		
Durbin-Watson	1.22	1.85		
Post-Diagnostics				
Mean VIF		1.87		
Breusch-Godfrey Serial Correlation LM Test		2.88 (0.68)		
p-value of Sargan test			0.668	
Hansen-J			2.58 (0.64)	
AR (1)			-3.02 (0.03)**	
AR(2)			-0.78(0.65)	

Note: ****, ** & * indicate 1%, 5% & 10% significance levels, respectively, and t-ratios in parenthesis.

Source: computation by author

The system GMM results indicate a significant positive relationship at the 10 per cent level between the lagged exports and current exports performance. This suggests that past trade realisation has a moderate impact on current and future exports justifying the dynamic nature of the model. A 1 per cent increase in past trade generates a 0.7 per cent rise in subsequent exports in the region

Time to export exhibits a negative and significant impact. Thus, delays in export processing time and export transaction e.g. slow tracking and tracing of consignments and clearance of goods, interruptions in shipments getting to anticipated destinations at the planned or intended time and thus, diminish export performance. Invariably, longer export processing time reduces exports as a result of decreasing export frequency. Time delays and disruption, as well as sluggishness in the export transaction process considerably lowers export capacity. The result is consistent with the findings of Norda et al (2006), Hildegunn (2006), Djankov et al (2006, 2010) and Ozekhome and Oaikhehenan (2020). A 1 percent rise in export time that results to delays in the export transaction process leads to a decline in export performance by 0.24 percent.

Cost to export has a negative sign, in line with theory and evidence, reaching statistical significance at the 5 per cent level. Thus, without doubt, high export processing costs, signifying exorbitant export transaction cost regime tends to cause significant decline in export capacity. Invariably, by making the export trading process unaffordable and difficult, high cost of export transactions lead to a deterioration in export performance through the export disincentives they engenders. The finding corroborates the findings Hoekman and Nicita (2011) and Portugal-Perez and Wilson (2008b; 2012). A 1 percent increase in cost to export the cost of export transactions diminishes export performance in the ECOWAS by 1.01 percent.

Openness to trade is appropriately positively related with export growth, aligning with international theory and evidence and significant in both estimations at the 1 percent level. Invariably, amplified openness to trade, encompassing the removal of barriers to export trade and other distortions leads to greater export growth. As it encourages domestic industries to go into the production of exportable commodities. This is because greater degree of trade openness ensures efficient and optimal allocation of resources to the exporting sectors, as well as enhancing a competitive international environment, in addition to greater transaction of goods and services, thereby facilitating greater export and its diversification. The finding validates the results obtained by Hammouda and Jallab (2005), as well as Cho and Diaz (2011), Parteka and Tamberi (2011 and Ha et al (2016). A 1 percent increase in openness to trade is associated with a 0.76 percent rise in exports.

Transport infrastructure (i.e. trade and transport-related infrastructure) variable has a coefficient that is positively related with exports but achieves statistical significance merely at the level of 10 percent, suggesting the weak level of infrastructure in the region. Apparently, good infrastructure stimulates export capacity. Efficient trade and transport infrastructure stimulates exports, as it leads to a reduction in cost of export transactions, engendering increased international competitiveness, in addition to facilitating export transactions and relationships without delays in terms of timely arrangement of competitively priced shipments and delivery of consignments to destinations within the scheduled or expected delivery time. Good infrastructure also facilitates greater regional trade and integration through better technology network, and in attracting horizontal and vertical spillovers. This finding is in accord with Portugal-Perez and Wilson (2012) and Ramli and Ismail (2014), Cali et al (2014) and Takpara (2021). A 1 percent increase in transport infrastructure developments stimulates ECOWAS exports by 0.49 percent.

The analysis reveals a significant positive association, reaching statistical significance at the 5 per cent level between gross fixed capital formation (a measure of capital accumulation) is positively signed and

exports that aligns with apriori expectation. Thus, increased capital accumulation engender greater exports, as a greater level of stock of capital enables intensified level of domestic production of commodities for exports in the tradable sectors. The finding supports the results of Iwamoto & Nabeshima (2012), including that of Ozekhome and Oaikhenan (2020). A 1 percent rise in the stock of capital is associated with an export growth of 0.24 percent in the ECOWAS.

Trade credits is positively connected with export growth but achieves statistical significance at a merely 10 percent level. Thus, increased trade credit, particularly export credit and financing tend to encourage greater export but the impact is mild, given the relative concentration of financial institutions to extend credit and finance to few highly rewarding sectors like oil and gas, mining, quarrying, to the detriment other tradable sectors. Even when such financial institutions decide to grant credit, the huge collateral demand, credit rationing and other inefficiencies in the financial intermediation process tend to weaken the impact. The result support the findings of Manova (2008a, b), and in contrast to Ozekhome and Oaikhenan (2020). A 1 percent rise in export credit and finance generates regional export growth by 0.21 percent.

Finally, although the exchange rate variable exhibits positive direction with export growth, aligning with international trade theory, it fails the significance test. Since the t-ratio is greater than 1, it may be inferred that currency depreciation/devaluation promotes greater export for exportable commodities that are demand elastic but the effect is weak since ECOWAS countries produce and export mainly primary products that are undiversified, in contrast to manufactured goods, with high added-value and value chain. Also, the weak impact could be explained by the fact that depreciation increase production costs, given excessive reliance on the importation of intermediate products for production of exportable products. The outcome buttresses the UNCTAD (2019) evidence A 1 percent depreciation/devaluation of the currency stimulates exports to the tune of 0.05 percent.

The evidence provided by the post-estimation results with respect to some post-diagnostic checks indicate the validity, robustness and consistency of the estimation as the Sargan and Hansen over-identifying restrictions tests authenticate the instruments used in the estimation, affirming the appropriateness, validity, and consistency of the system GMM estimator. This assures the fulfilment of the exogeneity criteria for both levels and differenced instruments. The post-estimation evidence also leads to the non-rejection of the null hypothesis of no serial correlation at order 2 {i.e. $AR(2) = -0.78 (0.65)$ }. The model is accordingly fit, credible, and robust for structural and policy purposes.

5.4. Policy Implications of Findings

Some salient implications for policy purposes emanate from the empirical findings, which are briefly discussed. First, time delays in export deliveries and transactions result to considerable reduction in export transaction process, and thus, export. By slowing down essential processes and procedures, including transactions and relationships, export capacity diminishes. For instance, the customs clearance and other border control agencies efficiency clearance process (i.e. promptness, ease and expectedness of procedures) as well as timeliness of deliveries in reaching the destination within the scheduled or expected delivery time are important to export growth. Therefore, policies and strategies particularly, export facilitation to simplify and harmonize the procedures and processes involved in export such as post-surveillance of borders, in addition to duplication of inspection at the regional level are important to facilitating greater export capacity in the ECOWAS.

Second, increased cost to export leads to substantial decline in export performance as product competitiveness is reduced. Prohibitive costs to export tend to constrict market prospects in the case of prevailing products, as well as up-to-date products and export diversification supply. In addition, it reduces economies of scale, creates inefficiency and diminishes the extent of integration into regional and international value chains. By implication, trade facilitation engenders cost reduction and improves the accessibility to imported inputs and capital machineries required for production, thus creating and stimulating competitiveness in the production of up-to-date and cutting-edge products as well as new markets, and eventually encouraging the diversification of export products. Invariably, improved and result-oriented export facilitation strategies and policies hinged on the simplification and harmonization of export trade procedures and trade reforms have the capacity to reduce cost of export transactions, and accordingly, encourage regional exports in the ECOWAS.

Third, opening of the domestic regional economies to trade, encapsulated in the removal of export barriers and restrictions is important to engendering export performance in the region. Elimination of export obstructions will engender greater international and intra-regional competitiveness and create efficient and optimal allocation of resources toward the exporting sectors (i.e. export-orientation). Through positive spill-over effects as well as the introduction of new goods, embracing and utilization of innovative production techniques, organization of fresh industries, expansion in the size of intermediate goods, in addition to the discovery and conquest of new markets (i.e. break into previously untapped markets), export expansion is enabled. Besides, by means of quicker adaptation to new technologies and greater flexibility to responding to international developments, increased scale economies, greater productivity growth, in addition to the competitive interaction with foreign firms in both home and international markets, greater export growth is realized (Ozekhome, 2023).

Fourth, improved transport infrastructure is important to exports, as it facilitates quicker export transactions by simplifying export processes and procedures. Good infrastructure also permits greater international and regional integration through efficient and inter-connecting technology network, in addition to engendering economies of scale. Besides, good infrastructure increases export frequency and enables the production of time-sensitive export goods, thereby engendering greater comparative advantage and export competitiveness in the region. It is therefore important that ECOWAS countries develop capacities for strong infrastructure (hard and soft infrastructure), particularly regional infrastructure that facilitates trade.

Fifth, increased capital accumulation triggers export growth as it permits greater productivity and output for export. The resulting increase in export triggers greater regional growth and employment. Policy efforts and strategies geared toward increased capital stock through improved physical and human capital accumulation are important to stimulate the production of exportable goods in the ECOWAS. Sixth, increased trade finance and credits to tradeable sectors of the economy tend to generate greater export capacity. In particular, export credit, financing and insurance helps to mitigate the financial constraints and risks associated with export trade. By implication, sectoral-driven monetary policies aimed at providing greater finance and credit, including export insurance is necessary to encouraging exports in ECOWAS. Finally, a competitively exchange rate remains important to the promotion of regional exports in the ECOWAS. Accordingly, robust and stable exchange rate management policies that can promote the region's competitiveness in international market are important.

6. Conclusion

The study investigated the effect of time to export (i.e. export time) (in addition to a vector of factors) on ECOWAS export performance using data for the period 2006-2022. Employing static panel data and the system-GMM techniques, with the later also used for robustness check and policy inferences; the findings show that delays in export transaction due to considerable time to export has a diminishing impact on the region's export performance. Cost to export (export transaction costs) is also negatively and significantly related to export performance, an indication that exorbitant export costs have detrimental effect on export growth. Openness to trade, transport infrastructure (hard and soft), capital accumulation, and trade credit are positively and significantly related to exports. Further evidence show a positive connection between exchange rate, and export performance, given that a depreciation of the currency engenders export competitiveness and export performance. This is however, not significant for the ECOWAS region on account of the region's reliance on the production and export of few primary products that are undiversified, with low value-added.

In view of the foregoing empirical findings, it is suggested that policy measures and strategies, aimed at simplifying and harmonizing the processes and procedures associated with export transaction be implemented in the region. In particular, regional coordination trade reforms, as well as measures and initiatives that will reduce unnecessary delays connected with export time through efficient and result-oriented export facilitation are imperative. In general, the findings highlight the importance of investing in infrastructure (hard and soft), as well as fostering trade facilitation to boot regional production networks for exports. Improved trade credits and finance (i.e. increased financial intermediation), as well as efficient export risk diversification are also important to stimulating exports in the ECOWAS, in a bid to promoting regional and economic integration.

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