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Trade Fundamentals: A Systematic Review

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Abstract - *This paper analyzed literatures on trade in a systematic way. A general study of trade was conducted, the review covered several theoretical, empirical and methodological literatures built as an attempt to overcome the concept-related measurement issues. Some of the models are largely theoretically based and well-motivated, the most desirable status credibility test may be detail evaluation of the appropriateness of some of the theoretically defined fundamentals. It looked at gravity model, HO model, computable general equilibrium, simple model of partial equilibrium, multidimensional concept of trade openness, preferential trade agreement and Heckman's two stage selection method, which all have relationship with trade and are used in trade theories. It further discussed how household consumption variety is limited by distance from markets and trade restrictions; why visa restrictions could have an effect (barrier) on international trade in goods; elaborated the hypothesis that countries specialization is the endogenous firm's outcome creative response caught out-of-equilibrium through changing conditions of product and factor market; assessed trade policy uncertainty – faced by Chinese exporters to the U.S; among other reviews. The paper leads researchers to further understand the nature and structure of trade, helping to build a consistent and reliable theory framework that is applicable to academics and practitioners.*

Keywords –*Trade, Review, Systematic, Fundamentals*

I. INTRODUCTION

This literature review centered on trade; the significance is being underscored by the relevance of the reference subject. Trade is simply defined as the total of import and export which are measured as a share of the gross domestic product [1; 2].The increase of trade openness has important impact on the economic growth [3].Looking at the trend of globalization, many developing countries have open economic policies with developed countries in order for them to have a rapid economic growth and development. Trade has been treated as one of the important determinants of countries development.

This paper contributes to literature by providing some arguments on existing literatures. The remaining part of this study consist of first, theoretical literature and various terminologies mostly used in relation to trade are explored. Second, definitions of trade at various levels are presented along with the empirical literature. Third, the articles included methods and the measure of trade which is presented in the methodological literature. Finally, in the conclusion, some concluding highlights are presented.

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II. THE THEORETICAL LITERATURE

Theories on trade are considered as old as in Adam Smith's Wealth of Nations in 1776. [4]examined using standard systems so as to explain the benefits of variety to foreign trade in order to comprehend increase variety in the consumption that is nearer to central market of towns in our environment. The fundamental principle of following empirical investigation is from the theoretical standard framework which is the *theory of economies of scale*[5; 6; 7; 8].Assuming every trader specialized on goods variety, then goods variety available in every village could be adversely affected by cost of trading in fixed cost presence per fixed costs or per variety for traders that are dealing with limited products set. Ethiopian traders must get license to convey different types of product, of which in effect put it on carriage of fixed price per class of item. Certain fixed costs by location are also likely to occur, including charges levied on vendors using village land by local village councils and costs of search for goods sourcing in towns. Therefore, it is reasonable to conclude that the consumer in their consumption basket derive benefits from increased variety. This added variety, for instance concerns processed types of food like flour and oil in this rather poor context; materials of education like pencils and books; basic goods of household like clothing, shoes and plastic bucket.

According to [9] to there are several theoretical models of international trade, including the Melitz-Chaney model, have been shown to yield gravity equations. In addition, the question of how to estimate gravity equations correctly is at the center of the very large and growing research body. [10] was the first to demonstrate that a gravity equation could be derive from a theoretical model (The pure expenditure system model, the trade-share-expenditure model and the constant elasticity of substitution). As followed by other theoretical models, particularly [11]that used the Ricardian trade model and [12] model, it became apparent that gravity equation could be derived from a large class of models (The pure expenditure system model, the trade-share-expenditure model, the constant elasticity of substitution, Ricardian trade model and [12] model).

In contrast, most models of heterogeneous companies also yield gravity [13; 14]. This theoretical foundation of gravity equation had major implications in estimating the equations of gravity. It became obvious that the terms of multilateral resistance (We define a theoretically appropriate average barrier and call it multilateral resistance) had to be taken into account as stated in [12] and that many of the previous gravity equation estimates were therefore biased or technically contradictory [15]. Multilateral terms of resistance capture a variety of trading partners' observable and non-observable characteristics. [16] highlight an additional problem in most gravity equation estimates. The bias these two papers refer to in samples containing a large number of zeros is of particular importance.

Furthermore, [17]discussed that after [18] seminal work, many researches attempting to indirectly infer trade costs have focused primarily on estimating different versions of the gravity method to infer the bilateral cost of trade. Following the works by [18] and [10], traditional gravity equation to infer non-observable trade costs specified bilateral exports with the economic size of countries and sets of observables to which bilateral trade frictions/ barriers are linked in-between a country with own trading partner and the other part of the globe on the bilateral trade cost. Motivated to find a solution to the extremely over-reported national border on the bilateral trade founded [19], [12] showed that "normal" gravity model did not take into account the multilateral trade resistance

(that is, trade resistance average).With all their trading partners, resistance of multilateral trade captures average barriers of bilateral trade to foreign trade. [12] are inspired to contribute a theoretical elaboration of traditional gravity model (hereafter "theory-based" gravity model) to add trade resistance multilateral variables. The different articles using the gravity model of "theory-based" (the improved model of conditional general equilibrium) had calculated indifferent forms of gravity equation. Both "theory-based" and "traditional" gravity equations have continued to achieve empirical success in explaining bilateral flows, and this explains why the trade gravity model is known as the work horse in explaining bilateral trade flows.

In addition, Studies estimating the gravity equation of traditional type had tried to estimate the national border costs impact [19], the currency barriers cost [20; 21; 22; 23] and the effect of information restrictions on bilateral trade flows [24; 25; 26]. [11], and [12] have estimated the "theory-based" gravity equation versions in different ways to measure the cost of trade barriers. In regarding logistics, physical infrastructure and broadly trade facilitation. [27], [28], [29], [30], [31], [32] and [33] measured different types of gravity equation of “theory based” in other to get empirical reasons that improving basic amenities, facilitating logistic and trade significantly minimizes cost of trade, particularly in the countries that are developing. The critiques challenging the validity, empirically of using the gravity equation to calculate costs of trading refer to omission of non-tradable sector in cost of trading function, assumption of symmetrical, assumption of multilateral resistance of inward and outward, time-invariant proxies inclusion and major trading frictions omission in function of trading cost.

Attempt to correct the criticisms had resulted in a new branch of positive literature on trade costs. Improving on [12] theoretical gravity equation together with cost of trading, [34] adopting [35] allowed cost of trading to be derived from simply observed data of time-varying without enforcing cost of trading function (with "questionable" assumptions). The encouragement of [34] method was to address the setbacks linked with the Model of [12], particularly with respect to variables of multilateral trade resistance and the formulation of bilateral cost of trade. [36] developed a solution of analytical explicit for variables of resistance of multilateral trade, thus addressing the cost role of trade. Likewise, [37]in order to identify further directions for study, they showed a study of econometric modeling in the gravity models recent developments and their applicability to analysis of flow of bilateral trade. The traditional gravity model, the study states that the trade of countries is directly proportional to their respective GDPs and geographical proximity. The overwhelming success of the model and its ability to explain the flows of bilateral trade contributed to its theoretical base search. Several researchers had contributed to supplying the gravity model with a theoretical basis [38; 39]. The theoretical gravity model, however, did not give detailed guidelines for the empirical modelling so as to analyze patterns of bilateral trade as gravity model could be derived by a variety of theories of trade.In addition, [40] investigated new evidence from simultaneous equation system of gravity models”. According to them, with a sample consisting of all intra-regional flows, the Porter hypothesis applied to trade competitiveness is proven more precisely.[41]elaborated that international trade model of Heckscher-Ohlin (HO) isa cornerstone of international economics standard. The shortcomings were implemented and discussed through some contributions that included the impact of trade on markets of internal factor, the study of production factors flexibility, the diversity of preferences and trade across the countries. Basic assumptions shortcomings on trading countries determinants of specialization have not yet been discussed. The HO model is

based on the assumption that trade countries are granted specialization and are exogenous. The HO model simple version cannot clarify some stylized facts that had influenced the international trade evolution in the last decades.

In addition, and most critically, the HO model assumes the exogenous existence of technological change. The hypothesis that new technologies are being adopted as a result of foreign trade evolution. The new competitors' entrance and consequent changes both in factor and product market are not taken into consideration in same way as the hypothesis backed by a great deal of evidence empirically, that specialization of countries and even their relative cost could be endogenously calculated. Analysis of factor and product market globalization that took place long ago at the end of 20th century, provided evidences substantially of technological change of crucial role of technical knowledge accumulation law that allow it to be included into HO model basic framework[42; 43]. The incorporation of the[44]creative response notion and technical congruence [45] helps us to fully address these restrictions and appreciate the trading partners specialization; at every time, as a result of the technological change endogenous process to challenges being faced by integration by new trading partners integration into the international markets and the technological knowledge generation as an input of endogenous were stimulated. Through integrating the legacy of Schumpeterian into HO model, a framework of Schumpeter-Heckscher-Ohlin (SHO) could be formulated that can accommodate the knowledge accumulation analysis dynamics. The approach of Schumpeterian creative on the economics of international trade allows a framework to be articulated that demonstrates how the conditions of changing for both the factor and product markets have twin effects of stirring technological change rates and biasing their direction: Changes that are neither factor or product market in technology are rare [46; 47; 48].

In a different study, [49], analyzed China's impact of the reduction in trade policy uncertainty. They used product specific NTR (Normal-trade-relations) gap measure that was developed by [50], and [51]. Another different study by [52] followed structural gravity equation as in [53], where they discuss international trade flows, from the country *j* to country *i* in the apparel sector, with the supplier term and the demand term.

According to [54] they investigated as shown in [55], Free Trade Agreements (FTAs) can have very different effects across industries, and these differences at the industry level in turn have significant consequences for quantifying the impact of FTAs on welfare. It would be a natural extension of our methods to adapt two stage estimation procedures (for studying and quantifying in FTA effect) to a related industry-level perspective. Including trade in agricultural products and services will result in similar progress, especially trade in services, as services are both an increasingly important element of world trade and the goals of new trade agreements.

According to [1] who adopted the multidimensional concept of trade openness established by [56].The justification for using the composite trade shares developed by [56] is that it serves as a better measure of trade openness as it accounts for internal (domestic) and external (international) dimensions of trade openness.

In conclusion, this section focused on the theoretical literature of different studies by looking at each of the study individually according to the researcher(s). Furthermore, this section looked at gravity model, HO model, computable general equilibrium, simple model of partial equilibrium, multidimensional concept of trade openness, preferential trade agreement and Heckman's two stage selection method, which all have relationship with trade and are all used in the theory of trade.

III. THE EMPIRICAL LITERATURE

This section discusses the various empirical literatures of different studies. [4], focused on side of demand by examining how the access of market affects variety of household consumption, where access of market is calculated through travel cost to central market, captured by travel time (in hours). The informal traders' crackdown on this restricts access to local product variety. They found that variety reduces with more travel time and distance to central market in manufactured goods for household consumption. They also find that household consumption variety is limited by distance from markets and trade restrictions.

The study by [9] investigated two main reasons why visa restrictions could have an effect (barrier) on international trade in goods. First, there is importance of face-to-face communication in international trade in recent empirical evidence [57; 58]. Therefore, visas can minimize international trade by impeding or hindering the firms export whose owners or managers are unable to travel for business. Secondly, by putting additional firm's costs, in terms of money and time, visas may make it to be less competitive than firms of countries whose citizens are not in need of visas for market entrance. Visa application is time consuming, delays in time can hinder deals for business and lead to additional costs on buyer with regards to the ability of the seller to meet up with the contract terms. However, numerous studies show time as a trade barrier [59; 60].

In addition, in fact, the costs could be even higher for businesses that are not based in the city's capital where the embassies or consulate are normally found usually. Many deals for business require greater than one business trip for it to be competitive. In a nutshell, visa may be a major burden of trade. Little attention has been paid to the effect of visas on trade. [61] and [62] only are the two articles that address this issue to the best of their knowledge. Nevertheless, the two articles cannot be concluded as capturing the causal visa effect. They provide evidence of the heterogeneous effect of visa restrictions on various product categories. They showed that visa is having a more impact than expected on homogeneous product on differentiated goods. They also provide recommended evidence that numbers of new product exported to a particular market is limited by visas. Such findings indicate that visas may affect exports from developing countries diversification and sophistication. They found that visas are most likely to be the most asymmetric trade obstacle. They concluded that visas, are highly asymmetric and more common for nationals of developed countries. Visa had a significant negative impact on the bilateral trade flows. With differentiated goods, the negative impact of the visa is greater than for the homogeneous product. Visas removal will increase the welfare of some of the SSA (Sub- Saharan Africa) countries by about 5 percent. Removal of visas will increase welfare for developing countries by 1.1 percent on average.

The study by [41] examined that countries specialization is exogenous and static. He elaborated the hypothesis, that countries specialization is the endogenous firm's outcome creative response caught out-of-equilibrium through changing conditions of product and factor market. Countries seek to respond by applying the technological changes to increase their levels of productivity and contrast the wage-reducing impact of the cost equalization factor. The study showed how i) countries could respond with the selective introduction of new technology localized by the pervasive learning role in their specialized sector of operation and, ii) describe technological knowledge as the more abundant and idiosyncratic input locally in order to guide the introduction of intensive technological change in knowledge.

According to [49], the 2001 accession of China to the World Trade Organization (WTO) is one of the new century's major economic changes. They assess trade policy uncertainty – faced by Chinese exporters to the U.S. – using product-specific normal-trade-relations (NTR) measure of gap developed by: [50] and [51].This calculation was built up by measuring the difference between the tariffs imposed by the U.S. to WTO members by the Most Favorite Nation (MFN) and the risk tariffs that would have been applied if the U.S. did not renew MFN status to China. [50] build and calibrate a dynamic general equilibrium model in which policy uncertainty has a major impact on incentives to take a costly decision on export investment. The *hukou* system - which is the Chinese household registration system, places significant restrictions on internal migration. *Hukou* is a Chinese government-issued permit that specifies the place of the registration (permanent residence) and the work of each person living in China.

In a different study, [54] investigated a new two-stage technique by design and there are two-stage methods that are well adapted to developing and validating a framework for making ex ante predictions. These also add to a long-standing literature that has analyzed the effects of individual agreements as these enable FTA effects to vary by agreement. This literature starts with [18] seminal work, which finds only small effects for the preferential arrangements of the Benelux and British Commonwealth, as well as another important study by [63], which allow for discrepancies across several major modern national trading blocs.

The study by [17] investigated that the Economic Community of West African States (ECOWAS) experimental implementation shows interesting results in line with the findings of other related research. The calculated bilateral relative cost of trade measure for ECOWAS directly shows that on average, countries of ECOWAS traded at a cost lower than the bilateral trading partners from other Sub-Saharan Africa RECs, possibly due to positive effect of the regional trade effort of integration and the promotion of the intra-ECOWAS trade, particularly with regards to manufacturing exports. It provides an overview of the impact of trade of Regional Trade Agreement (RTAs) within the Sub-Saharan African, and supports the results of other related research on the potential of RTAs on SSA flows of bilateral trade. The findings also reveal a need for policymakers within the ECOWAS sub-region to identify and decrease barriers of trade within the sub-region of ECOWAS, particularly as members trade with the other French and British colonies within the sub-region at relatively lower costs. This process will possibly be supported by the ECOWAS commission. However, the current results indicate that obtaining currency that is common might be beneficial to the trade of the region. Of course, currency's efficiency in facilitating trade within ECOWAS would rely crucially on synchronizing monetary and fiscal policies in the sub-region.

In a different study, [1] demonstrate trade openness measured by trade shares, when accounted for from 1985 to 2014, appears to have a positive relationship with inflation. The observed pattern appears to contradict the Romer hypothesis and thus supported the traditional theory of inflation which assumed that inflation was imported by trading activities, by raising the import price of goods imported by the nations. Based on a total of forty-two selected developing countries using five-year averages from 1985 to 2014, the study found positive and significant relationships between the trade openness and inflation.

The study by [37] examined the gravity model that has emerged as a widely used approach for analyzing and predicting economic variables, especially bilateral trade flows, according to them, the bilateral export from the

origins to the destinations are described by the economic masses, based on the trader's income and the geographical distances, as stated by the early versions of the model. Despite the initial criticism that it is theoretical, in recent decades the gravity model has gained widespread use due to its robust theoretical foundation and its empirical success in forecasting bilateral trade flows of various products under different situations[64]. The application of gravity equation becomes extra ordinary popular; [65], stated that it dominated the literature of international trade as the major economic approach. Trade in-between couple of countries are modeled in the basic gravity equation as a decreasing function of distance and an increasing function, of their sizes. The gravity model's early experimental use was being criticized for lack of basis theoretically. Although, with the seminal contribution of [10], it became acknowledged widely that the gravity model prediction could be derived from Ricardian method, NTT (new trade theory) and HOS (Heckscher-Ohlin-Samuelson) model based on – increasing return to scale (IRS) (for instance [11; 66; 68]).

In a different study by [40], they, investigated a panel of 14 home countries (with 2 RTAs)[2] and 39 host countries (with 6 RTAs)[3] using the static (fixed effect: FE, random effect: RE, and Hausman-Taylor: HT regression) and the dynamic estimators (diff- and sys-GMM), they suggest a novel approach to address this issue empirically. They also analyze the relationship between trade and FDI at some stage using the simultaneous-equation method of gravity models estimated by the use of GMM-estimator. They were inspired by the fact that there are no studies that investigated the two-way trade-FDI linkages using two structural gravity equations that allow one to simultaneously examine, the impact of (i) the FDI, CO2 emissions and other explanatory variables on the international trade; and (ii) the international trade, CO2 emissions and other explanatory variables on FDI. The major findings for the 1990–2011 period indicate that the effect of trade on environmental degradation is negative and significant for the static estimations but insignificant for the dynamic estimations. The positive effect of environmental degradation on trade leads to increased trade between partner countries due to environmental degradation. It also indicates that developed or consolidated parallel regional groups in the 1990s stimulate trade flows among partners, indicating an open regionalism.

However, for both static and dynamic estimates, the effect of environmental degradation on FDI is negative and insignificant. The findings also show the existence of a causal unidirectional relationship between trade and FDI. Trade liberalization policies must therefore encourage the sectors that will cause FDI for the rapid expansion of exports. More specifically, the sectors that are capable of exploiting local suppliers' export capabilities. This approach must take into account the way to break poor ties among MNCs and local company; as past study reveals that technology transfers remain poor in the host country.

In conclusion, this section focused on the empirical literature of different studies by looking at each of the study individually according to the researcher(s). This section discussed how household consumption variety is limited by distance from markets and trade restrictions; why visa restrictions could have an effect (barrier) on international trade in goods; it also elaborated the hypothesis that countries specialization is the endogenous firm's outcome creative response caught out-of-equilibrium through changing conditions of product and factor market. This section also assessed trade policy uncertainty – faced by Chinese exporters to the U.S. In addition, this section also provides the first empirical proof of the effects on local economies in South Africa of a quasi-exogenous

reduction in import tariffs. Likewise; it discussed the developed new two-stage technique by design and there are two-stage methods that are well adapted to developing and validating a framework for making ex ante predictions. Furthermore, this section discussed that the calculated bilateral relative cost of trade measure for ECOWAS directly shows that on average, countries of ECOWAS traded at a cost lower than the bilateral trading partners from other Sub-Saharan Africa RECs, possibly due to positive effect of the regional trade effort of integration and the promotion of the intra-ECOWAS trade, particularly, with regards to manufacturing exports. It elaborates lesser trade costs due to migration impact export sales to a country by boosting existing exporting firms' sales and influencing the number of firms that find it profitable to export, these effects will be referred to as the trade-creation effects of migration. This section further explore and subsequently promote the use of Melitz model in comprehensive analysis of CGE, so that consideration can be given to both the intensive and extensive trade and productivity effects. It also demonstrated trade openness measured by trade shares, when accounted for from 1985 to 2014, appears to have a positive relationship with inflation. Lastly, this section discussed the positive effect of environmental degradation on trade leads to increased trade between partner countries due to environmental degradation.

IV. THE METHODOLOGICAL LITERATURE

This section discusses the various methodologies used by different studies. [4] examined using the specification of difference-in-difference, they specified consumption variety (measured by the numbers of purchased items) with interest coefficients and observations in years, sub-subkebele, and the same set of their control variables.

In a different study, [9]used the PPML (Poisson Pseudo Maximum Likelihood) estimator to determine trade with GDP, population, distance and visa, instead of permitting to put zero trade flows, estimations employing PPML are robust to numerous common heteroscedasticity pattern arising from log linearization of equation of gravity [69].

The study by [41]used equation system based on hypothesis that the innovation is the product of endogenous of firms creative response caught in conditions of out-of-equilibrium as far as there are significant pecuniary externalities of knowledge in the process. In another different study, [49] by constructing a local treatment measure the Chinses prefecture level by following [70] which allow them to estimate difference-in-difference approach base on the variation across the Chinese prefectures after and before 2001.

In a different study [52]used a difference-in-difference approach and compared the imports of countries from Bangladesh, based on whether they are the country of origin of brands directly linked to the collapse of Rana Plaza. To proxy an importing country's exposure to the event, they exploit together with the headquarters of countries the list of firms found to be sourcing from the Rana Plaza tower, to the extent that there are also negative repercussions on other markets, this would run contrary by significant results. They also believe that their estimates of the scandal's import-reducing impact are a lower bound. They estimate a structural gravity equation with a triple difference approach in order to examine world import flows of clothing.

These authors ([54])developed a novel two-stage approach that enables them to study the empirical determinants of the ex post effects of past free trade agreements (FTAs) and to obtain ex ante estimates for the effects of future FTAs.[17]used two methodologies, in the first section, the study calculated an equation of trade cost to get the tariff equivalent cost of trade measure for countries of ECOWAS, which shows the parameters of cost of trade as a function of measurable data of trade. In the second part, ECOWAS estimates a trade cost feature to assess

if the trade cost measure obtained in the first part is sensibly related to the gravity literature's common trade cost proxies.

The study by [1] employed the two commonly used GMM estimations, namely system GMM and difference GMM estimations to examine the validity of Romer hypothesis that concerns the negative relationships between the trade openness and inflation. Following the methodology econometrically, their preferred estimation was system GMM over the difference GMM which suffers the problem of losing the observations that are valuable that leads to poor performance since the results becomes no longer precise and bias according to [71].

In a different study by [40], they investigated byutilizing static estimates (fixed effect (FE), random effect (RE), and Hausman-Taylor (HT) regressions) and dynamic estimates (diff- and sys-GMM). Using the simultaneous equation method of gravity models, they investigated the two-way link between FDI and trade. They used data for 39 host countries for six RTAs (EU(15), NAFTA, ASEAN, Mercosur, AMU and EUROMED) for 14 countries of origin.

In conclusion, this section focused on the methodological literature of different studies by looking at each of the study individually according to the researcher(s).Extensive study has been done on the methodological literature, it can be detected that few of the methodology were used to investigates elected group of countries and majority of the methodology were used to concentrate on the individual specific country. Additionally, few were used at regional level. This section showed us different methodological literatures that could be used for trade studies, which could assist in terms of viewing several trade methodological literatures in studies.

V. CONCLUSION

There are rich literatures on trade in developed and developing countries. In this study, we reviewed over 60 studies before arriving at this conclusion stage on trade fundamentals. This paper systematizes research in the field of trade in which research goals are suggested and addressed. It discusses the theoretical, empirical and methodological literatures review of trade by different author(s).It looked at gravity model, HO model, computable general equilibrium, simple model of partial equilibrium, multidimensional concept of trade openness, preferential trade agreement and Heckman's two stage selection method, which all have relationship with trade and are all used in the theory of trade.

It further discussed household consumption variety is limited by distance from markets and trade restrictions; visa restrictions could have an effect (barrier) on international trade in goods; it also elaborated the hypothesis that countries specialization is the endogenous firm's outcome creative response caught out-of-equilibrium through changing conditions of product and factor market. It also assessed trade policy uncertainty – faced by Chinese exporters to the U.S. In addition, it elaborates the first empirical proof of the effects on local economies in South Africa of a quasi-exogenous reduction in import tariffs. Also; it discussed the developed new two-stage technique by design and there are two-stage methods that are well adapted to developing and validating a framework for making ex ante predictions.

Additionally, this paper discussed that the calculated bilateral relative cost of trade measure for ECOWAS directly shows that on average, countries of ECOWAS traded at a cost lower than the bilateral trading partners from other Sub-Saharan Africa RECs, possibly due to positive effect of the regional trade effort of integration and the

promotion of the intra-ECOWAS trade, particularly with regards to manufacturing exports. It elaborates lesser trade costs due to migration impact export sales to a country by boosting existing exporting firms' sales and influencing the number of firms that find it profitable to export, these effects will be referred to as the trade-creation effects of migration.

Furthermore, this study discussed the specification of difference-in-difference; the specified consumption variety (measured by the numbers of purchased items); the PPML estimator to determine trade with GDP, population, distance and visa. It also discussed the equation system and the built up SHO; difference-in-difference approach and compared the imports of countries from Bangladesh. In addition, this paper discussed the built variable that captures exposures to cuts of tariff at the local economy level; the developed novel two-stage approach that enables to study the empirical determinants of the ex post effects of past FTAs and to obtain ex ante estimates for the effects of future FTAs.

Lastly, this review enlightened the calculated equation of trade cost to get the tariff equivalent cost of trade measure for countries of ECOWAS, which shows the parameters of cost of trade as a function of measurable data of trade. It further discussed the developed multi-country model of general equilibrium that enables interaction between firm production and export decisions and the individual migration decisions. In addition, this review enlightened with an emphasis on numerical stability, which created an extension of Melitz for a modular CGE; also, it discussed the developed simple model where correlations could be generated by the presence of immigrants and trade. Furthermore, this review deliberated on the calculated inflation as the dependent variable while the independent study variables represent trade openness, income per capital, money supply, and government expenditure; this review looked at the approach that consider firms self-selection as importers or exporters into foreign markets. Finally, it discussed using the simultaneous equation method of gravity models.

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