

DETERMINANTS OF EXPORT PERFORMANCE IN TANZANIA

By

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DECLARATION

AND

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ABBREVIATIONS

ADF	Augumented Dickey Fuller (test)
AIC	Akaike Information Criteria
AGOA	African Growth and Opportunity act
ADF	Augmented Dickey – Fuller
EAC	East African Community
ELG	Export Led Growth
EPA	Economic Partnership Agreements
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
H.O.S	Heckscher – Ohlin- Samuelson model
IIT	Intra – Industry Trade
NTE	Non –Traditional Exports
OLS	Ordinary Least Square
PCT	Product Cycle Theory
R & D	Research and Development
RER	Read Exchange Rate
SADC	Southern African Development Community
SITC	Standard International Trade Classification
SSA	Sub-Sahara Africa
TOT	Terms of Trade
UCTA	United Nations conference of Trade and Development
USD	United States Dollar
URT	United Republic of Tanzania
U.S	United States
WAMZ	West African Monetary Zone

ABSTRACT

Tanzanian economy is characterized by a large traditional rural sector and a small modern urban sector. Agriculture, accounts for about half of GDP, it contributes about 85% of exports, and employs 80% of the work force. However in the recent years tourism and mining have become the largest foreign exchange earners. Statistics show that the value of traditional exports remained minimal compared to nontraditional exports, whereby the value of non-traditional exports were US\$ 2,270.6 million and US\$ 1,704.5 million in 2008 and 2007 respectively, representing to an increase of 28.8 percent (Economic Survey, 2008). On the other hand the value of traditional exports were USD 319.7 million and USD 418.4 million in 2008 and 2007 respectively (URT, 2008). This study examined factors affecting export performance in Tanzania using a time series data for the period between 1990 and 2009. Specifically, the study analyzed the influence of macroeconomic factors such as Foreign Direct Investment, Gross Domestic Product, inflation rate, real exchange rate and terms of trade. The main proposition of the study was that macroeconomic factors significantly influence export performance.

In testing this proposition, three regression models were estimated for total export, traditional exports and non-traditional exports. Empirical results and analysis indicated that real exchange rate and foreign direct investment were significant to export performance in all sectors that is total export, traditional and nontraditional exports. Gross Domestic Product was also found significant in all sectors except traditional sector. However, Inflation Rate and Terms of Trade were found significant determinants to total export and traditional exports. The same variables were found insignificant to nontraditional exports. The study concludes with a recommendation to improve export performances for both traditional and nontraditional exports, as well as to diversify export base of the country by formulating good trade policy, attract more Foreign Direct Investment, improve infrastructure and create good business environment.

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.0 Introduction

Like most Sub-Sahara African (SSA) economies, the Tanzanian economy is characterized by a large traditional rural sector and a small modern urban sector. Agriculture, accounts for about half of GDP, it contributes about 85% of exports, and employs 80% of the work force. Exports of traditional sector rely on a few cash crops, notably coffee, cotton and cashew nuts. However in the recent years tourism and mining have become the largest foreign exchange earners. Manufacturing sector is still small, contributing less than 10 percent of GDP (Kweka, Morrissey and Blake (2003).

In its efforts to increase export supply capacity, Tanzania adopted liberalization policies in the early 1990s. The country implemented a number of reforms in order to reorient country's economic policies towards an export-oriented growth strategy. These included establishments of the Export Processing Zones, joining Multilateral and Regional Trading blocs including the Southern African Development Community (SADC), the East African Community (EAC), the African Growth and Opportunity Act (AGOA), the World Trade Organization (WTO) and the Economic Partnership Agreements (EPA). This was just to increase access to external market and promote export with the anticipation that investors in Tanzania will enjoy expanded market as well as preferential treatment for their products (Nicolaus, 2008).

The role of economic reforms and policies adopted in promoting Tanzania's exports can be confirmed by the fact that total exports of goods and services in Tanzania have been increasing. This is as per Appendix II which shows the trend of Tanzanian total export 1980-2010. However it has been observed that in 1980s export performance was poor compared to the year 1990s where total export kept on increasing. (WTO Statistical data sets, April 2012)

Tanzania exports performance has exhibited a dramatic change of exports pattern from agricultural traditional products to non-traditional products with the emergence of minerals specifically gold, gemstone and Tanzanite. Statistics show that the value of traditional exports remained minimal compared to nontraditional exports, whereby the value of non-traditional exports was US\$ 2,270.6 million and US\$ 1,704.5 million in 2008 and 2007 respectively, representing to an increase of 28.8 percent (Economic Survey, 2008). However the value of traditional exports was USD 319.7 million and USD 418.4 million in 2008 and 2007 respectively (URT, 2008).

The mineral exports account for more than 40 percent of Tanzania total exports. It is the fastest growing sector. Mining sector accounted for 3.2 percent of GDP in 2005. Tanzania Development Vision 2025 projects the sector to contribute more than 10% of GDP . However, the statistics show that although Tanzania economy has improved, over the years the country still remains poor (URT, 2005).

The role of exports in economic development has been widely acknowledged by (Basu, (2000); Fosu, (1990); Fand Giles and Williams, 2000). It has been argued that export growth improve production and demand linkages, enhance economies of scale, increase efficiency, and efficacy through adoption of superior technologies. That is to say, learning effects and improvement of human resources, increase productivity through specialization and creation of employment. This provides practical evidence support of Export Led Growth (ELG). It has been noted that, rapid export growth has been an important feature for East Asia's remarkable record of high and sustained growth.

Experiences from these countries have provided impetus to the neoclassical economists' view that ELG strategy can lead to growth. The supportive evidence in favour of ELG and global trend towards trade liberalization appears to have influenced the government of Tanzania to implement substantial policy changes since 1980s.

Export performance cannot be the only good fortune for simply producing the goods which are highly demanded in international markets; rather it is likely to be the outcome of the combination of various factors integrating the supply capacity and or access to international market. It is important to identify such elements and their degree of importance in determining the export performance. In this work, factors that influence trends in Tanzania's exports are examined. However, in consideration of the diversity of Tanzania's export sector, an attempt is made to disaggregate the export sector for precise and comprehensive analysis. Different sub-sectors are likely to respond differently to macroeconomic policies and price incentives. This is unlikely to be captured using the highly aggregated export data only. Tanzania's export depends on both primary agricultural products whose price movements and production factors differ from manufactured exports. Consequently, as a starting point, this study decomposes exports into two major categories: traditional agricultural exports which consist of coffee, cotton, tobacco, sisal, cashew nuts and tea and non-traditional exports which consist of minerals, manufactured goods and other exports.

1.1 Statement of the Problem

Improving export performance is one of the macroeconomic objectives of many countries, both developed and developing. This is because export plays a vital role in economic growth and the means for improving the current account balance. Export is one of the components in the aggregate demand and, thus, low export implies low level of income in terms of GDP. Tanzania's foreign trade is characterized by persistent trade deficit, domination of primary goods in the export basket and domination of industrial goods in the import basket (Sayuni, 2006).

To improve this situation, Tanzania implemented a number of trade and fiscal policy reforms since the mid-1980s as a way to promote export by providing a number of incentives. Some of these incentives include abolishing export taxes licenses as well as

subscribing to a number of preferential trade arrangements and treaties that provide a fair access to foreign market opportunities (Milanzi, 2012). However, export performance has not been satisfactory. This is from the fact that Tanzania has never experienced trade surplus since 1970s (Sayuni, 2006). Understanding why this is the case requires empirical research efforts to determine the root cause of poor export performance. Various research efforts have been done to understand this phenomenon. For example Musinguzi and Obwana (2000), found that export growth rate is significantly affected by terms of trade. Similarly Ngeno (1996) found that output and real exchange rate significantly affect export growth. Amelia and Santos (2000) observed that Foreign Direct Investment (FDI) significantly affects export volumes. Moreover, Nimrod (2006) found that Foreign Direct investment, Gross Domestic Product and Real exchange rate do not explain export growth rate.

Earlier studies have provided a number of insights regarding the determinants of export performance. However these studies have not been conclusive in a number of ways. Firstly, there has not been consistence as regard to the significant factors of export performance. Secondly some of the previous studies applied cross country analysis whose results lack generality to the specific country context. Other studies used country specific data whose conclusion cannot go beyond the sampled countries. Furthermore previous studies examined the overall export performance ignoring the fact that disaggregating the sector would have different response on export performance. For example traditional and nontraditional sectors demonstrate different export performance in Tanzania (Lipumba and Ndulu, 1990). Therefore this study attempts to address the above issues in examining export performance in Tanzania.

1.2 General Objectives of the Study

The main objective of the study is to determine the macroeconomic factors influencing export performance in Tanzania.

1.2.1 Specific Objectives of the Study

- i) To examine the relationship between GDP and export performance in Tanzania
- ii) To examine the influence of Terms of Trade to export performance in Tanzania
- iii) To determine the extent to which exchange and inflation rate influence export performance in Tanzania.
- iv) To determine the influence of Foreign Direct Investment on export performance in Tanzania

1.3 Significance of the Study

Export instability affects the general performance of the general economy. Identifying the determinants of export growth rate will help provide information to policymakers to enable them come up with the appropriate policy regarding the growth of the sector and the economy as a whole. This study is expected to add new knowledge to the existing literature, as it comes from Tanzania. Therefore, apart from getting current research findings, the study also provides the room for comparison with the previous research findings for further studies.

1.4 The Scope/Limitation of the Study

The study covered a period of twenty years (1990-2009) with eighty observations after the annual data have been split into four quarters and only the following variables will be examined Real Exchange Rate, Terms of Trade, Gross Domestic Product, Inflation, and Foreign Direct Investment (FDI). This study is limited to external trade as it affects the growth and development of the Tanzanian economy.

1.5 Organisation of the Thesis

As it has been said before the aim of this thesis is to develop an econometric model to examine the major determinants of export performance in Tanzania. The model incorporates the influence of selected exogenous variables on both endogenous

variables, that is, traditional and non-traditional exports. It is based on quarterly data which simultaneously explore the importance of time lags of key macro economic variables. The paper is organized as follows. After the introduction Chapter two presents Literature review. Chapter three presents research methodology. Chapter four presents analysis of the results and discussion of the findings and Chapter five presents conclusion, recommendations and policy implication.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents the review of theoretical framework on export performance and its measurements. The framework is developed by examining the existing literature through reviewing the past and current empirical studies on the determinants of export performance. Over the past decades, considerable attention has been paid to the determinants of export performance for both micro and macro levels. Micro level research revolves their attention to specific firm level variables since firm attributes lead to performance differences and have significant influences on firms export performance. Some factors identified include managerial perceptions towards exporting, firms' resources, and firms' capabilities. At the macro-level, several researchers have examined variables including exchange rate fluctuations, comparative advantage, government policies, and domestic market characteristics.

2.1 Theoretical Framework

The principal objective of any theory of international trade is to explain the cause and pattern of trade. Two other objectives of a theory of international trade are to explain the composition and volume of external trade. A theory, which explains these three issues: cause, composition (structure) and volume of trade is conventionally said to be a "complete" theory of international trade (Appleyard, Field and Cobb, 2010). Two theories dominate international trade analysis namely the Classical and Neo-classical theory.

2.1.1 The Classical Theory of International Trade

David Ricardo, the 18th century British economist, was the author of the classical theory of international trade and the doctrine of comparative advantage. Ricardo was the first to demonstrate that external trade arises not from difference in absolute advantage but from difference in comparative advantage. By “comparative advantage” is meant by “greater advantage” Thus, in the context of two countries and two commodities, trade would still take place even if one country was more efficient in the production of both commodities (provided the degree of its superiority over the other country was not identical for both commodities).

The theory assumed the existence of two countries, two commodities and one factor of production, labor. Labor was fully employed and internationally immobile and that the product and factor prices were perfectly competitive. There are no transport costs or any other impediments to trade. According to Ricardo, differences in climate and environment tend to result in differences in comparative advantage; differences in comparative advantage lead to trade. In the context of a model of two countries, two commodities and one factor of production, Ricardo obtained the result that a country will tend to export the commodity in which it has a comparative advantage and to import the commodity in which it has a comparative disadvantage. Since comparative costs are the other side of comparative advantage, the classical theory is easily couched in terms of comparative costs. Specifically, the theory now states that a country will tend to export the commodity whose comparative cost is lower in autarky and import the product whose comparative cost is higher in pre-trade isolation.

2.1.2 Neo-Classical Theory of International Trade

The Neo-classical theory of trade evolved in an attempt to modify some assumption of the classical theory. The, Neo-classical theory, also called the modern theory, advanced a more satisfactory explanation for the existence of comparative cost differences

between countries. The theory introduced capital as a second factor of production; and allowed for international differences in the pattern of demand. The Neo-classical theory is therefore a 2*2*2 model, that is, it assumes the existence of two countries, two commodities, and two factors of production. The introduction of a second factor of production turns out to be important as it explains the relationship between factor allocation, income distribution and international trade. For example, the basic insight of the Heckscher-Ohlin-Samuelson H.O.S Model is that traded commodities are really bundles of factors (land, labor, capital). The exchange of commodities internationally is therefore indirect factor arbitrage, transferring the services of otherwise immobile factors of production from the locations where these factors are abundant to a location where they are scarce. Under some circumstances, this indirect arbitrage can completely eliminate factor price differences. The most important implication of the H.O.S Model is that option to sell factor services externally (through the exchange of commodities) transforms a local market for factor services into a global market. As a result derived demand for inputs becomes much more elastic and also more similar across countries Appleyard, Field and Cobb. (2010).

The framework of trade proposed by Heckscher (1919) and Ohlin (1924) departs from the Ricardian model in that it emphasizes the roles of land, labor and capital in both agricultural and industrial production and attempts to explain how variations in the availability of these factors of production determine a country's nature of specialization and patterns of trade. Paul Samuelson added elegance to this framework by developing a two-factor, two-sector and two country version of the Heckscher-Ohlin model that became the cornerstone of modern theory of international trade. According to the Heckscher-Ohlin-Samuelson theory of trade, a country should specialize in and export a product that uses more intensively the factor of production with which the country is well endowed. Therefore, a capital-rich country like the United States should export the

capital-intensive products while a labor-rich country like Bangladesh should export various labor-intensive products. While this theory offers a more logical way to think about trade among nations than the Ricardian approach, it also exclusively focuses on the supply side of the economy and suggests that differences in factor endowments can explain specialization patterns and the volume of trade between countries. The demand side is muted through the assumptions of *and homothetic preferences* of consumers and that countries trade in *homogeneous products*. The refinement of the H-O-S trade model continues along with the development of empirical implications of the factor content of net trade flow. (Helpman 1999)

Therefore based on this theory, it is expected that since Tanzania has plenty land and a big portion of her people are employed in agriculture sector in order to expand its trade it should produce and export labor intensive commodities. In turn it should import capital intensive commodities including machines to be used in construction of processing industries which will add value agriculture commodities to be exported. This will further increase GDP and excess of it to be exported.

2.1.3 Post – Heckscher-Ohlin Theories of Trade

The imitation Lag hypothesis in international trade theory was formally introduced in 1961 by Posner. The theory relaxes the assumption of the Hackscher-Ohlin theory about identical technology. It assumes that the same technology is not always available in all countries and that there is a delay in the transmission or diffusion of technology from one country to another. Consider countries I and II. Suppose that a new product appears in country I due to the successful efforts of research and development teams. According to the imitation lag theory, this new product will not be produced immediately by firms in country II. Incorporating a time dimension, the imitation lag is defined as the length of time (For instance, 15 months) that elapses between the product's introduction in

country I and the appearance of the version produced by firms in country II. The imitation lag includes a learning period during which the firms in country II must acquire technology and know-how in order to produce the same products. In addition, it takes time to purchase inputs, install equipment, process the inputs, and introduce the finished products to market, and so on Appleyard, Field and Cobb. (2010).

In this approach, a second adjustment lag is the demand lag, which is the length of time between the product's appearance in country I and its acceptance by consumers in country II as a good substitute for the products they are currently consuming. This lag may arise from loyalty to the existing consumption bundle, inertia, and delays in information flows. This demand lag also can be expressed in a number of mouths, say, four months.

A key feature in the Posner theory is the length of the imitation lag with the length of the demand lag. For example, if the imitation lag is 15 mouths, the net lag is 11 months that is, 15 months less 4 months (demand this 11 –months) period. Country I will export the product to Country II. Before this period, country II had no real demand for the product; after this period, firms in country II are also producing and supplying the product so the demand for country I's product diminishes. Thus, the central point of importance in the imitation lag hypothesis is that trade focuses on new manufactured products. How can a country become a continually successful exporter? By continually innovating! This theory has considerable relevance for present-day concerns about the global competitiveness of U.S. firms. Further, it seems to be capable of handling “dynamic” comparative advantage than are the Heckscher-Ohlin and Ricardo models Appleyard, Field and Cobb (2010).

2.1.4 The Product Cycle Theory

Vernon (1966) developed the Product Cycle Theory (PCT) of trade which builds on the imitation lag hypothesis in its treatment of delay in the diffusion of technology. The PCT relaxes several other assumptions of traditional trade theory and is more complete in its treatment of trade patterns. The PCT is concerned with the life cycle of a typical “new product” and its impact on international trade. Vernon emphasizes that manufactured goods and the theory begins with the development of a new product in the United State. The new product will have two principal characteristics: (i) it will cater for high-income demands because the United State is a high-income country; and (ii) it promises, in its production process, to be labor-saving and capital-using in nature (It is also possible that the product itself e.g. a consumer durable such as a micro ware oven-will be labor saving or the consumer). The reason for including the potential labor-saving nature of the production process is that the United States of America is widely regarded as a labor-scarce country. Thus, technological change will emphasize production process with the potential to conserve this scarce factor of production Appleyard, Field and Cobb. (2010).

The second stage of the life cycle is called the maturing-product stage. In this stage, some general standard for the product and its characteristics begin to emerge, and mass production techniques start to be adopted. With more standardization in the production process, economies of scale start to be realized. This feature contrasts with Heckscher-Ohlin and Ricardo, whose theories assumed constant returns to scale. In addition, foreign demand for the product grows, but it is associated particularly with other developed countries, because the product is catering to high-income demands. This rise in foreign demand (assisted by economies of scale) leads to a trade pattern whereby the United States of America exports the product to other high-income countries.

Other developments also occur in the maturing-product stage. Once U.S. firms are selling to other high-income countries, they may begin to assess the possibilities of producing abroad in addition to producing in the United States of America. If the cost picture is favorable (meaning that production abroad costs less than production at plus transportation costs). Then U.S. firms tend to invest in production facilities in the other developed countries. If this is done, export displacement of U.S.-produced output occurs.

The final stage is the standardized-product stage. By this time in the product life cycle, the characteristics of the product itself and of the production process are well known; the product itself and the production process to producer. Vernon (1996) hypothesized that production may shift to the developing countries. Labor costs again play an important role, and the developed countries are busy introducing other products. Thus, the trade pattern is that the United States of America and other developed countries may import the product from the developing countries Appleyard, Field and Cobb. (2010)

In summary, the PCT postulates a dynamic comparative advantage because the country source of exports shifts throughout the life cycle of the product. At the early stages, the innovating country exports the goods but then it is displaced by other developed countries-which are ultimately displaced by developing countries. A casual glance at product history yields this kind of pattern in a general way. For example, electronic products such as television receivers were for many years a prominent export of the United States of America. But Europe and especially Japan emerged as competitors, causing the U.S. share of the market to diminish dramatically. More recently, Japan has been threatened by South Korea and other Asian producers. The textile and apparel industry is another example where developing countries (especially China, Taiwan, Malaysia, and Singapore) have become major suppliers on the world market, displacing in particular the United States of America and Japan. Automobile production and

location also relatively from the United States of America and Europe to Japan and later still to countries such factor mobility and economies of scale, make the product cycle theory an appealing alternative to the Heckscher-Ohlin model (Appleyard, Field and Cobb. (2010).

2.2 Concluding Comments on Post-Heckscher-Ohlin Theories

From the preceding discussion, it is clear that trade theory is moving the directions previously neglected by traditional trade theory. The newer approaches enhance our understanding of the causes and consequences of trade beyond the insights provided early in by the Heckscher-Ohlin model. We have looked principally at theories that allow for lags in diffusion of technology, demand considerations, supply chains, economies of scale, international capital mobility, dynamic comparative advantage, and imperfect competition. There is considerable theoretical analysis in this area, for example, there is a growing literature on government policy and trade between countries. Further, yet another approach Krugman (1998) explores the role of location of production in the determination of comparative advantage and consequent trade patterns.

What are the implications of the newer theory for the developing countries exports? The imitation lag hypothesis and the product cycle theory do not lead to particularly optimistic conclusions about the future export performance of developing countries because they suggest that developing countries may be confined to exporting older products rather than new high-technology goods. On the other hand, these theories suggest that a potential exists for moving away from exporting principally primary products toward exporting more manufactured goods, as Taiwan and South Korea and other developing countries have now done. However, theories such as those of (Linder and Krugman, 1998) imply that trade may increasingly take place between countries of similar income levels. This forecast may not bode so well for developing countries who wish to break into developed-country markets, although the analyses suggest that they

may beneficially trade more among themselves in the future. Finally, economies-of-scale models indicate the difficulty of predicting future trade pattern but suggest potentially large gains from trade.

2.3 Intra – Industry Trade

Countries that export and import items in the same product classification are engaging in intra industry trade (IIT)

A characteristic of a country's trade that has appeared in many new theories and is increasingly recognized as important in the real world is intra-industry trade (IIT). IIT occurs when a country is both exporting and importing items in the same product classification category. This trade differs from inter-industry trade, where the country's exports and imports are in different product classification categories. Traditional trade theory dealt only with inter-industry trade, but intra-industry trade clearly constitutes an important segment of international trade. Intra Industry Trade is more important in manufactured goods than in non manufactured goods. It can also be noted that IIT is typically the highest for more sophisticated manufactured goods such as chemicals, machinery, transport equipment, and electronics, where scale economies and product differentiation can be important Appleyard, Field and Cobb (2010)

2.4 Reasons for intra-Industry Trade in Product Category

Unfortunately, comparative advantage based on factor endowments is of little or no help in predicting intra-industry trade, in fact, intra-industry trade will be relatively greater (compared with inter-industry trade) the more similar are the capital and labor endowments of the countries being examined. In view of this deficiency of the Heckscher-Ohlin model, we now look at several possible explanations for the occurrence of intra-industry trade.

2.4.1 Product Differentiation

This explanation for IIT was outlined earlier. Briefly, many varieties of a product exist because producers attempt to distinguish their products in the minds of consumers to achieve brand loyalty or because consumers themselves want a broad range of characteristics in a product from which to choose. Thus, U.S. firms many produce large automobiles and non- U.S producers may produce smaller automobiles. The consequence is that some foreign buyers preferring a large car may buy a U.S product while some U.S consumers may purchase a smaller, imported car. Because consumer tastes differ in innumerable ways, more so than the varieties of products manufactured by any given country, some intra-industry trade emerges because of product differentiation.

2.4.2 Transport Costs

In a physically large country such as the United States of America, transport costs for a product may play a role in causing intra-industry trade, especially if the product has large bulk relative to its value. Thus, if a given product is manufactured both in the eastern part of Canada and in California, a buyer in Maine may buy Canadian products rather than the California products because the transport costs are lower. At the same time, a buyer in Mexico may purchase the California product. The United States of America is both exporting and importing the goods.

2.4.3 Dynamic Economies of Scale

This reason is related to the product differentiation reason. If IIT has been established in two versions of a product, each producing firm (one in the home country, one in the foreign country) may experience “learning by doing” or what has been called dynamic economies of scale. This means that per-unit cost reductions occur because of experience in producing a particular good. Due to these cost reductions, sales of each version of the product may increase over time. Because one version was an export and

the other an import for each country, intra-industry trade is enhanced over time because of this production experience.

2.4.4 Degree of Product Aggregation

This explanation rests on the observation that IIT can result merely because of the way trade data are recorded and analyzed. If the category is broad (such as beverages and tobacco), there will be greater intra-industry trade than would be the case if a narrower category is examined (such as beverages alone or, even more narrowly, wine or fresh grapes). Suppose a country is exporting beverages and importing tobacco. The broad category of “beverages and tobacco” [a category in the widely used Standard International Trade Classification (SITC) system of the United Nations] would show IIT, but the narrower categories of “beverages” and “tobacco” would not. Some economists think that finding IIT in the real world may be mainly a statistical artifact because of the degree of aggregation used, even though actual calculations use less broad categories than “beverages” and “tobacco” Nevertheless, most trade analysts judge that IIT exists as an economic characteristic of trade and not primarily as a result of using aggregative classification categories.

2.4.5 Differing Income Distributions in Countries

Even if two countries have similar per capital incomes, differing distributions of total income in the two countries can lead to intra- industry trade. For instance, consider the hypothetical income distributions of two countries. Country 1 has a heavy concentration of households with lower incomes, while country II has a more “normal” or less skewed distribution. Producers in country I will be concerned primarily with satisfying the bulk of country I’s population, so they will produce a variety of the product that caters to consumers with incomes, for their level, producers in country II will cater to the bulk of country II’s households, Therefore, country II’s firms produce a variety of the good with characteristics that satisfy that group. What about a household in country I with a high

income? What about a household in country II with a low income? These consumers will purchase the good from the producers in the other country because their own home firms are not producing a variety of the good that satisfies these consumers. Hence, both countries have intra-industry trade in the product. This explanation can be applied in the context of the Linder model to help in predicting the pattern of intra-industry trade Grubel (1975).

2.4.6 Differing Factor Endowments and Product Variety

In a work that attempts to marry intra-industry trade with the Heckscher-Ohlin approach, Falvey (1981), Falvey and Kierzkowski (1987) developed a model in which different varieties of a good are exported by countries with different relative factor endowments. Assuming that the higher-quality varieties of a good require more capital-intensive techniques, the model produces the result that higher-quality varieties are exported by capital abundant countries and lower-quality varieties are exported by labor-abundant countries. In a related work, and building on the assumption that the higher-quality varieties require greater capital intensity in production, Jones, Beladi, and Marjit (1999) hypothesized that a labor abundant country such as India) may export capital –intensive varieties of a good to high-income countries (such as the united Kingdom or the United State) and keep the lower-quality, labor-intensive varieties for the home market.

2.5 Theoretical framework Linking FDI and Export Performance

Theory classifies FDI into two categories of market oriented and export oriented FDI. In terms of market oriented FDI, the most important factor to attract FDI is the size, growth and regional integration of the host country. The export oriented FDI mainly looks for cost competitiveness, in terms of availability of low wage but skilled labour, supply of key raw materials, reliable infrastructures (physical, financial and technological) and proximity to markets. It is argued that the main reason for China's unstoppable surge in international competitiveness, particularly in trade and investments, is due to its

possession of the above two characteristics. As for Tanzania, FDI seems to have been attracted by various factors including the availability of natural resources, export potentials and the existing sector specific and institutional frameworks Appleyard, Field and Cobb (2010).

Micro-theories and eclectic theory can be used to explain links between FDI and export activity. Micro-theories include rate of return-; portfolio-; and product life cycle-theories. The rate of return theory postulates that FDI is a function of international differences in rates of return on capital investment. That is, capital flows from low to high return countries. Studies in support of this were done by Reuber (1973) and Blais (1975). It follows logically that exporters will also tend to relocate their production facilities basing on rates of return on their investments. Therefore, the cost of inputs in the production process (materials, labour, etc) determines the profitability and hence the location of would-be-exporters. This explains the rush of many European and American multinationals relocating to Asia and Africa for mineral and oil resources as well as markets. In this regard, the key destinations have included China, India, Sudan, Angola and Tanzania.

The main hypothesis under portfolio theory is that in addition to maximizing profits, investors try to reduce total risk by distributing their direct investments among various countries. It is possible that corporations with a wider international dispersion of their productive activities have smaller fluctuations in their global profits (Cohen, 1975; and Rugman, 1979). This is the case for Tanzania whereby apart from being stationed in the country, foreign companies also run operations in other parts of the world. Examples include the large mining companies and mobile telecommunication firms. Presence in many countries also enables multinational firms to establish production activities in highly protected territories and export from there to semi protected or open markets. According to the product life cycle theory, FDI is closely associated with the life-cycle

of products (Hirsch, 1976). It states that the maturity of a product in terms of standardization of its quality and production techniques forces firms to produce near their final markets rather than exporting from home so as to successfully tackle competition in host countries. By investigating German and British FDI, Juhl (1979) and Parry (1975) have found some evidence for this theory at empirical level. However, the theory's ability to explain FDI is limited to highly innovative industries and as product cycles get shorter the theory has increasingly been losing importance on FDI flows. Micro-theories show that firms may have different goals when investing abroad. Despite its long term importance, profit maximisation may be over-ruled in the short run by other objectives like risk diversification and market access. Generalisation is not possible in this regard basing on micro-theories of FDI. A more modern theory, *eclectic* theory, seeks to give a general answer to locational questions related to FDI

The eclectic theory of FDI has picked ideas from various fields and combined them into a broader theory of FDI. It postulates three necessary and sufficient conditions for the FDI to be undertaken by a firm: firm specific advantages, internalisation incentives, internalisation incentives and locational advantages. Regarding firm-specific advantages, foreign investors must possess some competitive advantages over firms in host countries such as patented or unpatented proprietary technology, trademarks, managerial or marketing know-how, and control of market entry. These advantages should be able to compensate the foreign investor for disadvantages and costs arising from operating from abroad in a foreign environment where domestic operators may have cheaper labour, capital markets and necessary information. Therefore, in order to be effective producers and hence exporters, foreign investors should possess key advantages above domestic competitors in host countries *Solomon, (1978)*,

The internalisation hypothesis postulates that costs of exploitation of the intangible assets through FDI by the foreign investor should be less than those of any other means

such as licensing or outright sale of a patent or even export of the final product. It draws from market failure and information asymmetry hypothesis Williamson (1975), and states that external markets for the transfer of intangible assets from sellers to buyers are inefficient especially in terms of their transaction costs. Therefore, owners of these assets prefer to transfer them internationally only to their affiliates. Market failure and inefficiency arise from the nature of intangible goods. They are usually embodied in the skills of personnel which the owning firm is not willing to part with. In case of unpatented process technology, the owner is not willing to disclose all the details to an interested third party. The internalisation hypothesis has been tested empirically Casson, (1987) and Kumar, (1987); and found to be particularly relevant for the horizontal type of FDI in industries characterised by high R&D intensity, advertising and product differentiation.

Concerning locational advantages, the host country must possess at least one locational advantage over the home country of the investor, in order to motivate the foreigner to directly invest abroad instead of using any other means like producing and exporting directly from home. Locational advantages can emanate from the host country's cheap but skilled labour, low cost energy and raw materials, investment incentives, membership to preferential trade areas, tariff and non-tariff protection, creation of free trade zones, to mention but few. Also included in this category of locational advantages are other means used by countries to compete in attracting FDI for productive and trade-related investments. It should be noted that the eclectic theory is the most comprehensive explanation of FDI despite the difficulty to mathematically formulate and empirically test it in a single model. This is because it offers plausible explanations why and to where FDI is most likely to flow (Saunders, 1982; Lall, Mohammad, 1983).

2.6 Host-Country Determinants of Foreign Direct Investment Inflows

The United Nations conference of Trade and Development (UNCTAD), in its World Investment Report (1998), categorized types of FDI and their general characteristics of host countries that are considered by investors when deciding whether to undertake a project in any given country. These factors have also been elaborated in the context of developing countries in an article Finance and Development by Mallampally and Sauvart, (1999).

The particular economic dominants of FDI, according to the UNCTAD staff, depend on whether the FDI project falls into one of three categories: (i) market-seeking FDI, that is, firms that are attempting to locate facilities near large markets for their goods and services; (ii) resource seeking and asset-seeking FDI, that is, firms that are in search of particular natural resource (For instance, copper in Chile) or particular human skills (For instance, computer literacy and skills in Bangalore, and (iii) efficiency-seeking FDI, that is, firms that can sell their products worldwide and are in search of the location where production costs are the lowest.

Beyond economic factors, foreign firms considering investment in any given country will also be influenced by various policies and attitudes of the host country's government. Of course, the weights to be applied to each factor will differ from one potential host country to another and different weights will also be applied by different foreign firms (UNCTAD) in its World Investment Report (1998).

2.7 Empirical Research

The performance of a country's exports is highly dependent on its exchange rate regime and more specifically the real exchange rate. Various studies have shown that the demand for a country's exports increases when its export prices fall in relation to the world prices. The depreciation of its currency compared to other currencies particularly the dollar, makes its exports cheaper on the international market. For example, Sharma

(2001) discovered that the demand for Indian exports increased when its export prices fell. The study also shows that the application of the Indian rupee at one time adversely affected Indian Exports. In Uganda, Kasekende and Atingi - Ego (1999) found no significant relationship between real exchange rate and export volumes. In Tanzania, Ndulu and Lipumba (1990) conducted a time series study on Non Traditional Exports (NTE) whereby they found a positive significant relationship between real exchange rate devaluation and export growth on NTEs.

In a related study, Jorgen and Michael (2008), Trade policies and Export growth, employment and poverty impact in Tanzania using gravity model found that changes in the real exchange rate did not have a significant impact on Export. Moreover Sarun (2006) Determinants of Trade Balance in Tanzania 1970 to 2002) adopted Brada et al (1997) model found out that real exchange rate had a negative impact on trade balance, meaning that currency devaluation is not the solution for export promotion.

A study done on analyzing the impacts of trade liberalization on Sub-Saharan African (SSA) export performance Babatunde (2009) used panel data set from 1980 – 2005. Babatunde(2009) summarized the results as follows “The panel evidence supports the view that the real effective exchange rate is an important factor affecting export performance in SSA. Trade liberalization can be said to affect export performance indirectly through the increased access to imported raw materials.”

A more comprehensive study on African countries, Mold & Prizzon (2008) used a dynamic panel data set for forty eight African countries over the period 1987 –2006 to identify the key determinants of export performance. The results from the pooled regression revealed that unit price of exports, real effective exchange rate, taxes on trade and diversification index to affect export volumes negatively and significantly while income per capita, and share of manufacturing in GDP and FDI inflows as a percentage

of GDP to affect export volumes positively and insignificantly during the period 1987 – 2006.

Previous studies on the determinants of export performance in developing countries show that Foreign Direct Investment has a significant positive impact on export structure. Van Dijk (2002) conducted a similar study in Indonesia and found out that Foreign Director Investment was very significant in explaining its export performance. Analogously, Amelia and Santos (2000) while studying effect of trade liberalization in selected 48 developing countries found that foreign direct investment significantly impacts on export volumes. Studies on export performance in developing countries show that FDI has a significant positive impact on export structure; Amelia and Santos 2000) Amelia and Santos (2000) in Agasha (2007) revealed that Foreign Direct Investment sometimes chooses sectors in the economy where a country may not have relatively specialized and that this also affects export performance. Also, the study suggested that imports of intermediate inputs and machinery are important determinants of changes in the export structure.

Sarbapriya (2012), Impact of Foreign Direct Investment on Economic Growth in India. On his paper attempted to analyze the causal relationship between Foreign Direct Investment (FDI) and economic growth in India and tries to analyze and empirically estimate the effect of FDI on economic growth in India, using the co integration approach for the period, 1990-91 to 2010-11. The empirical analysis on basis of ordinary Least Square Method suggests that there is positive relationship between foreign direct investment(FDI) investment and GDP and vice versa.

Gross Domestic Product (GDP) is postulated to have a positive impact on exports. Kumar (1998) conducted a study on the determinants of export growth in developing countries and confirmed that GDP has a significant positive impact on volume of exports. The study shows that the higher level of production is the main cause of export

expansion since surplus output can be exhausted in the international markets. Ngeno (1996) carried out a study on determinants of exports and one of his findings was that export growth is positively related to output level since higher production leads to increased export volumes.

Gylfason (1997) investigated the main determinants of export and economic growth in cross sectional data from the World Bank covering 160 countries in the period 1985-1994. The result indicated that high inflation and heavy emphasis on the exploitation of natural resources have tended to be associated with low export and slow growth. This could be quiet similar with Tanzania's export structure.

Terms of Trade are also one of the determinants of export performance in both developed and developing countries. Favorable terms of trade are associated with increased export growth rates and unfavorable terms with low export growth rates. Svedberg (1990) argued that in the 1990s, Sub Saharan Africa had unfavorable terms of trade which negatively impacted on export. The Ministry of Finance Planning and Economic Development in Uganda reported in 1995 that exports in Uganda increased from period 1991 - 1994 due to dramatic improvement in terms of trade for coffee due to tripled coffee prices following the frost that hit the Brazilian coffee crop. Musinguzi and Obwona (2000) regressed export growth on real exchange rate , Terms of Trade and lagged export growth. They found out that Terms to trade had a marginal but statistically significant impact on export growth. Jayant Primal (2006) also associated deteriorating terms of trade with contraction of export earnings. He cited an example of Burundi which is dependent on coffee and tea to an extent of 87%. When its coffee and tea prices fell by 37% and 20% respectively, its annual exports fell from \$ 154million to \$ 90 million.

Agasha (2006) used VEC model to analyze the determinants of export growth rate in Uganda. The researcher used quarterly data from 1987 – 2006. The researcher estimated

export growth rate as a function of Gross Domestic Product, Terms of Trade, Real Exchange Rate, Foreign Price level & Foreign Direct Investment. The results from the long run co-integrating regression show Gross Domestic Product, Real Exchange Rate & Terms of Trade to affect export growth rate positively & significantly while Foreign Price level were found to affect export growth rate negatively & significantly. FDI was found to be insignificant

On the other hand Menji (2010) analyses Export performance and determinants in Ethiopia (1981 to 2004) using co- intergration analyses found out that, terms of trade, real effective exchange rate and foreign direct investment FDI were statistically insignificant to export performance.

2.8 Summary of the Literature Review under Empirical Studies

It had been observed that some of the reviewed empirical studies, despite of using different approaches the results converge while some of them contradict each other. For instance most of the findings support the nortion that FDI has a positive influence on export performance. However Menji (2010) and Agasha (2006) found no support for this contention.

Similarly, Sharma (2001), Lipumba and Ndulu (1990) found a positive significant relationship between real exchange rate and export performance. On the other hand Kasekende and Atingi - Ego (1999), Jorgen and Michael (2008) and Sarun (2006) their studies had found a negative relationship between real exchange rate and export performance. Hence the findings are inconsistence.

So far all reviewed empirical studies agree that Terms of trade and GDP were both found to have a positive influence to export performance whereas inflation rate had a negative impact to export performance.

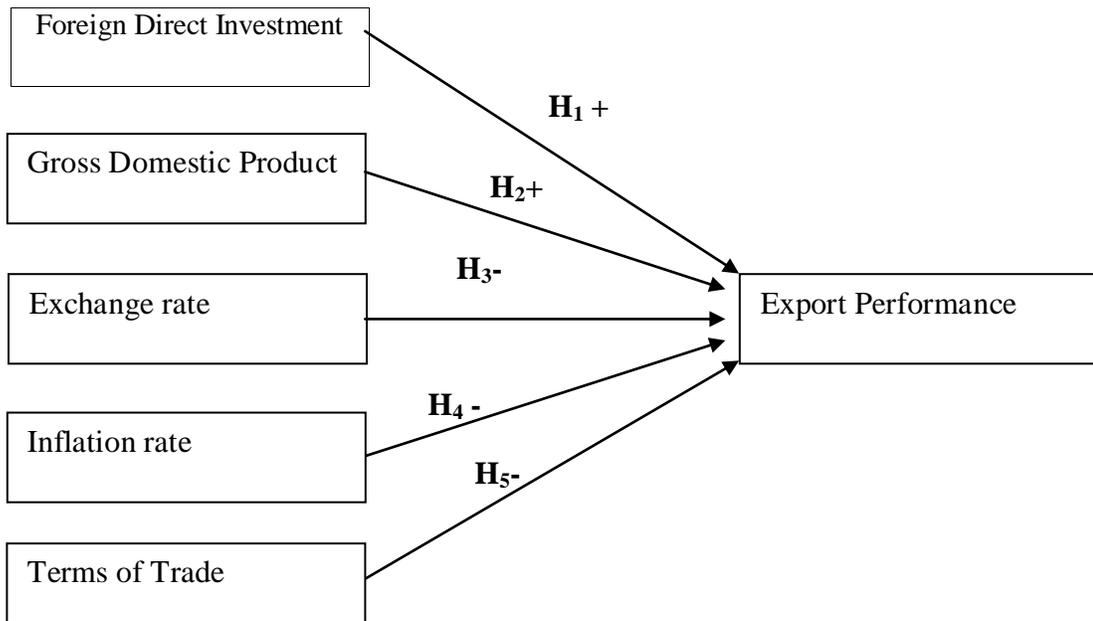
As it has been noted earlier some of these findings seems to be similar although each of them used its own statistical research methodology. Some previous studies e.g (Amelia and Santos (2000); Kumar (1998) and Gylfason (1997) applied cross country regression analysis methodology. However, cross country studies have heterogeneous results which lack generality. They fail to explain the reasons for a number of exceptional cases such as the relationship between exogenous and endogenous variables to that particular country. These can be well explained using country specific studies because in this case features of each specific country can be correlated to the results of analysis. This study intends to close methodological gap evident in previous studies.

However the previous studies investigated the determinants of export performance in general and have not particularly investigated the same on the sector. This study uses a different approach by disaggregating the sector into traditional and nontraditional.

2.9 Hypothesis Development and Conceptual Framework

Export performance is linked with several variables as the reviewed literature proposes. But for the purpose of this study the following variables were investigated Real Exchange Rate, Terms of Trade, Gross Domestic Product, Inflation, and Foreign Direct Investment (FDI). Data availability was the basis for choosing these variables.

Figure 2.0: Conceptual Framework for Determinants of Export Performance



2.9.1 Inflation and Export Performance

Inflation is a condition, when cost of goods and services rise. High inflation results into economic instability as it erodes the purchasing power of households.

High inflation tended to be associated with low exports because it makes domestic goods more expensive to foreigners. Thorvaldur (1998) identified four linkages between inflation and exports.

- (i) inflation induce overvaluation of national currencies in real terms;
- (ii) inflation-induced production distortions driving a wedge between the returns to real and financial capital,
- (iii) the potentially deleterious effects of inflation on saving and investment, and

(iv) economic mismanagement and structural weaknesses, of which inflation is Symptomatic

Based on the foregoing discussion it is reasonable to expect that high inflation would reduce export performance. This leads to the formulation of the following hypothesis.

Hypothesis 1: *There is a negative relationship between the rate of Inflation and export performance in Tanzania.*

2.9.2 Real Exchange Rate and Export performance

Exchange rate is the price of one country's currency expressed in another country's currency. In other words, the rate at which one currency can be exchanged for another. Maintaining a stable real exchange rate is necessary condition for sustained growth and that countries that avoided overvaluation sustained economic growth and recorded substantial export diversification (Elbadawi and Helleiner, 2004). Moreover, not only avoiding overvaluation is necessary for growth but a mild undervaluation may be good for growth (Aguirre and Calderón, 2005). Calamitsis (1999) point out the dual role of RER depreciation. A depreciation of the RER has a positive effect on growth by increasing capacity utilization and raising the profitability of traded goods sectors which in turn promotes private investment. Moreover, a depreciated currency provides an economy-wide incentive to new potential exportable products that might face high entry barriers under an excessively strong currency. Further, RER depreciation avoids the necessity of selecting beneficiaries for export subsidies as it promotes all exporting industries. On the other side, RER depreciation raises the cost of imported goods.

Since a large component of investment goods in developing economies is imported, such depreciation can dampen investment and lower growth. Hence exchange rate fluctuation may be good or bad for export performance.

Therefore based on the above argument it is reasonable to expect that exchange rate fluctuations may have a positive or negative influence to export performance. This leads to the formulation of the following hypothesis.

***Hypothesis 2:** There is a negative relationship between real exchange rate and export performance in Tanzania*

2.9.3 Foreign Direct Investment and Export Performance.

Foreign Direct Investment (FDI) refers to international investment in which the investor obtains a lasting interest in an enterprise in another country. Most concretely, it may take the form of buying or constructing a factory in a foreign country or adding improvements to such a facility, in the form of property, plants, or equipment.

FDI is calculated to include all kinds of capital contributions, such as the purchases of stocks, as well as the reinvestment of earnings by a wholly owned company incorporated abroad (subsidiary), and the lending of funds to a foreign subsidiary or branch. The reinvestment of earnings and transfer of assets between a parent company and its subsidiary often constitutes a significant part of FDI calculations.

In most economies, however, domestic private investment has been insufficient to boost the economy because of the mismatch between capital requirements and saving capacity. Foreign private investment, thus, augments domestic resources to enable the country carry out effectively her development programmes and raise the standard of living of her people.

FDI brings advanced technological and managerial practices to the host country and thereby brings greater positive externalities. In addition, available data suggest that FDI flows tend to be more stable compared to Foreign Portfolio Investment (Lipsey, 1999). This is because of the liquidity of Foreign Portfolio Investment and the short time

horizon associated with such investments. Also, FDI inflows can be less affected by change in national exchange rates as compared to Foreign Portfolio Investment. However, a balanced combination of the two, taking into consideration the unique characteristics of the recipient economy will bring about the required effects on the economy.

The benefits of Foreign Private investment include transfer of technology, higher productivity, higher incomes, more revenue for government through taxes, enhancement of balance of payments ability, employment generation, diversification of the industrial base and expansion, modernization and development of related industries. According to Feldstein (2000), first, international flows of capital reduce the risk faced by owners of capital by allowing them to diversify their lending and investment. Second, the global integration of capital markets can contribute to the spread of best practices in corporate governance, accounting rules, and legal traditions. Third, the global mobility of capital limits the ability of governments to pursue bad policies. Four, Foreign investment through FDI allows for the transfer of technology - particularly in the form of new varieties of capital inputs - that cannot be achieved through financial investments or trade in goods and services. Foreign investment through FDI can also promote competition in the domestic input market. Five, recipients of FDI often gain employee training in the course of operating the new businesses, which contributes to human development in the host country. Lastly, profits generated by Foreign Investments contribute to corporate tax revenues in the host country.

The experience from a number of countries suggests that FDI strongly contributes to the transformation of the composition of exports, thus affect export performance positively (UNCTAD, 2004). For instance, it has been well documented that FDI inflows into Singapore or, more recently China, helped to increase significantly the technological content of exports by supporting strongly the development of export supply capacity,

including knowledge-based industries (Tordaro,2009) Based on the foregoing discussion, the following hypothesis is advanced.

Hypotheses 3: There is a positive relationship between Foreign Direct Investment and export performance in Tanzania.

2.9.4 Terms of Trade and Export Performance

Terms of Trade are also one of the determinants of export performance in both developed and developing countries. Favorable terms of trade are associated with increased export growth rates and unfavorable terms with low export growth rate. Therefore when the value of a country's exports relative to that of its imports decreases, it means more money is used to buy imports than incoming one. In other word there is an unfavorable term of trade, and when the situation is opposite there is favor arable terms of trade. In this case terms of trade is expected to have a great influence on export performance.

Hypothesis 4: There is a negative relationship between terms of trade and export performance in Tanzania

2.9.5 Gross Domestic Product (GDP) and Export Performance.

Gross Domestic Product (GDP) is assumed to have a positive impact on exports. Kumar (1998) conducted a study on the determinants of export growth in developing countries and confirmed that GDP has a significant positive impact on volume of exports. He further said that higher level production is the main cause of export expansion since surplus output can be exhausted in the international markets. Ngeno (1996) carried out a study on determinants of exports and one of his findings was that export growth is positively related to output level since higher production leads to increased export volumes.

Hypothesis 5: Gross Domestic Product to have a positive impact to export performance in Tanzania.

Table 2.1; Summary of Hypothesis

Hypothesis	Dependent Variable	Independent Variable	Sign
H ₁	Export Performance	Inflation rate	-ve
H ₂	Export Performance	Real Exchange rate	-ve
H ₃	Export Performance	Foreign Direct Investment	+ve
H ₄	Export Performance	Terms of Trade	-ve
H ₅	Export Performance	Growth Domestic Product	+ve

Source: Author's construction

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The method used in this study is largely deductive and is based on secondary data collected from various published data sources, national and international institutions including Bank of Tanzania, National Bureau of Statistics (NBS), Tanzania Economic Survey, IMF, and World Bank. The chapter is divided into three sections namely Research design and sources of data, Variables and their measurement Econometrics Model and estimation techniques

3.1 Research Design and Sources of Data

The study adopted a statistical research design. This study employs secondary data collected from various sources as articulated above. Therefore, this study design has found to be suitable for this exercise as it was less costly in-terms of time and fund during data collection. Data was collected from the published national and international institutions including Bank of Tanzania Economic bulletin for the quarter ended 30th June, 1995 and 31st December, 2000, Tanzania Economic Survey (2008) ,National Bureau of Statistics (NBS), IMF and World Bank websites. Data collected cover the period of twenty years (1990-2009) for the variation of exogenous and endogenous variables. In order to get a good result from the regressed time series econometric model the number of observations matters a lot. The higher the number of observation the better the result obtained. In view of this and from the fact that sources of data in Tanzania still a challenge, this study adopted Lisman and Sandee formula to expand the number of observation by splitting the annual data into quarters. Therefore since the data collected ranges from the year 1990 to 2009 eighty observations were obtained from eighty quarters.

3.2 Variables and Measurement

Export performance as a dependent variable was measured in terms of value. This type of measurement had been chosen because Country's total export consists of basket of goods and services therefore it was easily measured in terms of value rather than other measurements.

Foreign direct investment is expected to affect exports positively through various ways such as increased access to foreign capital, technological transfer, better marketing knowledge & others. It was measured in terms of its accumulated capital stock. This type of measurement was preferred due to the fact that it takes into account the value of previous and current FDI and it was mostly used by previous researchers.

Export supply is affected by the producer's production capacity. Therefore Gross Domestic Product is expected to affect export performance from the fact that increase in domestic supply holding other factors constant creates surplus for export. This was also measured in terms of value as it was found simple to convert all domestic produced goods and services in value.

Relative price, depicted by real effective exchange rate, is also important determinant for export performance. This is because increase in relative export prices decrease demand for Tanzania's export while decrease results in the reverse result.

Terms of trade was included to check whether Tanzania exports more to reap the benefits of improved terms of trade for its products or export less when terms of trade increase just to achieve the target revenue.

Inflation and economic growth are like two parallel lines which can never meet. Inflation reduces the value of money and makes it difficult for the common person as a result less is being produced and exported.

3.3 Econometric Model and Estimation Technique

The present study used a multiple regression model. The general model is expressed as;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_n X_n + \mu \quad (1)$$

The underlying objective is to determine whether or not Foreign Direct Investment, Exchange rate, Gross Domestic Product, Inflation rate and Terms of Trade are significant determinant of the country's export performance. Therefore export is the dependent variable.

Thus Export Performance is a function of the following variables:

$$EXP = f(GDP, FDI, EXR, INF, TOT) \quad \dots\dots\dots 2$$

3.4 Estimation Model

To test the above relationship, the following estimation model was used.

$$EXP = \beta_0 + \beta_1 GDP + \beta_2 FDI + \beta_3 EXR + \beta_4 INF + \beta_5 TOT + \mu \quad \dots\dots\dots 3$$

Where,

EXP = Annual Export value from Tanzania to the rest of the world in US Dollars.
(Traditional & Nontraditional Exports)

GDP = Annual Gross Domestic Product in US Dollars

FDI = Measures the annual inflows of foreign direct investment to Tanzania in US Dollars

EXR = Represent macro-economic environment measured by the annual average of Real Exchange for the period of analysis

INF= indicates annual average of Inflation rate over the period of analysis

TOT= Annual average Terms of Trade over the period of study

μ represents an error term

The variables were transformed into natural logarithms to minimize the chance of committing specification errors. Hence the transformed can be expressed as

$$\ln EXP = \beta_0 + \beta_1 \ln GDP + \beta_2 \ln FDI + \beta_3 \ln EXR + \beta_4 \ln INF + \beta_5 \ln TOT + \mu \dots \dots \dots 4$$

3.5 Estimation Techniques

The estimation technique used was the Ordinary Least Square (OLS). This technique was chosen because of the nature of the dependent variable. Since this study is a time series in nature it also examined the time series characteristics of the variables to be modeled, testing for stationary and co-integration of the variables.

3.5.1 Unit Root Test

It is important to test the order of integration of each variable in a model, to establish whether it is non-stationary and how many times the variable needs to be differenced to derive stationary series. There are several ways of testing for a unit root. In this study, we applied the Augmented Dickey-Fuller (ADF). Philip and Perron (1988), propose a non-parametric method of controlling for higher order serial correlation in a series. Unlike ADF, Philip-Perron test makes a correction to the t-statistic of the dependent variables in the autoregressive process to account for the serial correlation in random term.

There was a need to know the underlying process that generates our time series variables: that is whether the variables are stationary or non-stationary. Non-stationary variables might lead to spurious regressions. In this case the results may suggest statistically significant relationships between the variables in the model, when in fact this is just evidence of contemporaneous correlation. The ADF test assumes that the data generating

process is autoregressive to the first order. This is done so that the autocorrelation in the error term does not bias the test. The ADF includes first-difference lags in such a way that the error term is distributed as a white noise.

Table 3.0 Results for Augmented Dickey –Fuller Test

Test Root at their neutrality					
	Lag	t-adf	t-prob	AIC	F-prob
Foreign Direct Investment	1	-2.476*	0.00	4.262	0.0000
Inflation	1	-2.144*	0.00	-2.401	-0.0000
Gross Domestic Product	0	9.505	0.00	-5.625	0.0000
Exchange rate	0	6.422	0.00	3.069	0.000
Exports	0	-0.1205	0.00	7.009	0.0000
Terms of trade	0	0.7375	0.00	-0.2753	0.000
Traditional exports	0	0.05487	0.0405	2.928	0.000
Nontraditional export	2	4.976	0.0021	2.726	0.0041
Test Root at their natural logarithms					
lnForeign Direct Investment	0	-2.441	0.001	-2.933	0
lnInflation	0	-1.147	0.020	-4.543	0
lnGross Domestic Product	0	1.140	0.000	-7.298	0
lnExchange rate	0	-6.461**	0.002	-7.600	0
lnTerms of trade	1	-3.974**		-7.494	0
lnExports	1	-3.125*		-4.813	0
lnTraditional exports	0	-0.6767	0.0405	--4.750	0
lnNonTraditional exports	0	-0.2242		-5.012	0
Test Root at first Difference					
dForeign Direct Investment	1	-13.73**		3.869	0.0044
dInflation	1	-8.836**	0.00	-3.308	0.0005
dGross Domestic Product	1	-4.776**	0.00	-6.934	0.0069
dExchange rate	1	-7.925**	0.00	1.259	0.0000
dTerms of trade	1	-9.995**	0.00	-2.231	0.0010
dExports	1	-7.994**	0.00	-4.354	0.0003
dTraditional exports	1	-4.018**	0.00	1.239	0.0000
dNonTraditional exports	1	-13.58**	0.00	2.855	0.0006

Note: * significant at 1 %, ** significant at 5%, *** significant at 10%

Source: Author's own computation from collected data

Table 3.0 shows the results of unit root test. The result shows that exchange rate, foreign direct investment, inflation and nontraditional exports became stationary at zero lag, first lag and second lag respectively. In-terms of Akaike information Criteria AIC these variables were not at their lowest levels. On the other hand gross domestic product, terms of trade, total exports, traditional exports and nontraditional exports were not stationary. This is normally done to provide a general picture, on how the data behaves before being transformed into natural logarithms.

At their natural logarithms exchange rate, terms of trade and total exports were significant and became stationary at zero and first lag respectively. All other variables were not stationary and their AIC were not at their lowest levels.

However the same data were tested at their first difference and the result indicated that all variables obtained a lower AIC at first lag and were also significant. From the above observation the best result has been obtained after the data have been tested at their first difference. The reason behind is, this result shows a consistency among all the variables by becoming stationary at their first lag and all being significant. Therefore, for the purpose avoiding spurious regression, the best results obtained from the ADF test were used to run the regression.

3.5.2 Co-integration analysis

In a regression involving non-stationary variables, spuriousness can only be avoided if a Stationary co-integrating relationship is established between the variables. Therefore, if two or more variables can be linked together to form an equilibrium relationship spanning the long run, then even though the variables themselves may contain stochastic trends, they will nevertheless move closer over time and the difference between them will be stable. Therefore a test for co-integration, need to be run and the ADF unit roots test to be used to test for the stationarity of the residuals. If the residuals are stationary, then there is a proof for the presence of co-integration in the series used in the model (Adam,

1993; Perman, 1989). The co-integration test results in Table 3.1 indicate the presence of long run equilibrium among the time series data. The implications of these results are that, even if individual variables are non-stationary, their linear combination may be stationary. The results obtained reject the null hypothesis of no co-integration among the variables at 1 percent level of significance. This implies that log of Total Exports, log Foreign Direct Investment, Log of Exchange Rate, log of Inflation Rate, Log of GDP, log of Terms of Trade log of Traditional Export and log of Non Traditional Export are co-integrated.

Table 3.1 Co-integration Test Results

	Lag	t-adf	t-prob	AIC	F-prob
Residual for Total Export	1	-5.164**	0.0000	-5.269	0.0000
Residual for Traditional Export	1	-5.547**	0.0000	-4.593	0.0011
Residual for Nontraditional Export	1	-6.727**	0.0000	-5.892	0.0000

Source: Author's own computation from collected data

3.5.3 Error Correction Model

According to Johansen (2010) since there is co-integration among dependent variables and its fundamentals, an error correction model has to be estimated by incorporating the lagged error correction term in the set of regressors. The error correction term is the residual from the static long run regression and it joins the set of differenced non-stationary variables to be estimated to capture both short run and long run dynamics.

Following the Engel and Granger theorem, the original model is transformed into an error correction model. An error correction term (ECT_1) is introduced in the model and hence the final model ready for regression analysis becomes;

$$dlogEXP = \beta_0 + \beta_1 dlogGDP + \beta_2 dlogFDI + \beta_3 dlogEXR + \beta_4 dlogINF + \beta_5 dlogTOT + \beta_6 ECM_1 + \mu \dots \dots \dots 5$$

This model is estimated using Ordinary Least Square (OLS) for time series data covering years from 1990 – 2009. Thus, an error correction term lagged once (ECT_1), which is the residual from the long run equation of non stationary variables, is included as one of the explanatory variables in the general transformed equation for error correction model of determinants of export performance. This term captures the long run relationship by attempt to correct deviations from the long run equilibrium path. Its coefficient can be interpreted as the speed of adjustment from short run behavior to long run equilibrium. The empirical results of the preferred model including the lagged once error term (ECMt-1), are presented in Table 4.1, Table 4.2 and Table 4.3.

CHAPTER FOUR

ANALYSIS OF RESULTS AND DISCUSSION OF THE FINDINGS

4.0 Introduction

This Chapter presents a discussion in reference with the results obtained in previous Chapter. For further clarification additional tables are also presented to show other information not displayed before such as coefficients, T-statistics and P-value of the variables. The chapter is divided into three sections. The first, second and third sections presents and discusses the findings with regard to the regressed three equations on the determinants for export performance as a whole, traditional and nontraditional exports performance.

4.1 Determinants of Total /overall Export Performance

Table 4.1 shows that approximately 98% of the variation in the export performance is explained by the following variables foreign direct investment, inflation rate, gross domestic product, real exchange rate and terms of trade. The probability of F statistic is significant which implies that the model is well specified. There is no indication of serious autocorrelation problem basing on the information given by the Durbin- Watson (D-W) statistic of 1.78 which is close to conventional mark of 1.5 to 2.5. Furthermore the results show that Tanzania export performance was found to be positively and significantly influenced by foreign direct investment, inflation rate, terms of trade and real exchange while gross domestic product was found to be insignificant. This also implies that a unit change increase in FDI for the current quarter result into an increase of 0.7units of total exports for the current quarter. Foreign Direct Investment for 2nd and 3rd had no significant impact to the export performance of the current quarter. Exchange rate of the previous quarter has a positive and significant impact to the total export performance of the current quarter. As indicated in table number 4.1 exchange rates for

the 1st, 2nd and 3rd lags were all found statistically significant to total export performance. Also it has been found that total export decreases by 3.89 as a result of a unit change decrease in terms of trade TOT. The results for some of these variables were contrary to our expectation. For example, inflation rate having a positive coefficient sign that is having a positive relationship with export performance. Gross Domestic Product was found to be statistically significant to export performance in Tanzania. However, this result has found to be similar with that of Ngeno from Kenya, using export growth as a function of output and real exchange rate. He found out that both output and real exchange rate are positively and significantly influence export growth rate. Also Kumar (1998) conducted a study on the determinants of export performance in developing countries and found out that GDP has positive relationship with export volumes since increased production leads to surplus output in an open economy being exhausted on international market.

The results from the model reveal that Tanzania export performance is significantly and positively affected by fluctuations in terms of trade. This implies that terms of trade was found to be statistically significant to export performance in Tanzania meaning that Tanzania exports more when there are favorable terms of trade and vice versa. This significant impact of terms of trade is quite similar to that of Agasha (2006) who found a positive impact of terms of trade on Uganda's export growth rate. Again this result is as it was anticipated from the hypothesis formulated.

Terms of Trade at each particular lag interval significantly affects the current's quarter export growth rate. This finding is consistent with that of Jayant Parimal's findings of Burundi. He discovered that deteriorating terms of trade leads to contraction of export earnings and instability. A number of other such studies suggest the same results. Musunguzi, et al. (2000), found out that Terms of trade has significant effect to export growth rate. Furthermore Kasekende and Anting-Ego while studying the impact of

trade liberalization key market of sub Sahara Africa found out that export volume are significantly correlated with terms of trade.

According to the results the effect of real exchange rate on export performance is positive and statistically significant. Again this finding has found to be consistency with other previous studies. For example, Sharma (2006) while investigating the determinants of exports in India discovered that a fall in domestic prices due to exchange rate depreciation makes exports cheaper in international markets resulting in their increase demand. Cline (2004) also conducted a similar study using pooled data of over hundred developing countries for the period of 1981-2001. He ran an Ordinary Least Square regression and his results showed that Real exchange rate has significant effect that is its depreciation increases export growth. On the other hand these findings were found to be inconsistency with that of Musinguzi, et al. (2000), who found out the real exchange, is statistically insignificant to export growth rate in Uganda.

Inflation rate has also been observed to be statistically significant to export performance. This finding has found to be consistent with that of Gylfason (1998) studying the main determinants of exports and economic growth in cross-sectional data from the World Bank covering 160 countries in the period 1985-1994. He pointed out that excessive dependence on primary exports tends to be associated with low total exports and slow growth, The most likely explanation for this link is that an abundance of natural resources leads to the Dutch disease, involving overvaluation of the national currency and wage distortions, in addition to rent seeking, that is costly from a macroeconomic point of view. He concluded that high inflation and an abundance of natural resources tended to be associated with low exports and slow growth rate.

Foreign Direct Investment was found significant to export performance. This finding is as it was anticipated and is also similar with that of Amelia and Santos (2000) studied

the effect of trade liberation on export performance in selected developing countries and discovered that FDI significantly affects export volumes. Moreover, Hoekman and Djankov (1998) analyzed the magnitude of export structure in Eastern European Countries and their result suggested that there is positive association between FDI and export structure.

Table 4.1: Regression Result of Total Exports

Variables	Coefficient	Std.Error	t-value	t-prob	Part.R ²
Dexpts_1	0.891942	0.1175	7.59	0.010	0.5455
Dexpts_2	-0.699858	0.151	-4.64	0.002	0.3092
Dexpts_3	0.370832	0.1264	2.93	0.005	0.152
Constant	1.81889	2.511	0.724	0.472	0.0108
Dfdi	0.817939	0.1095	7.47	0.00	0.5376
Dfdi_1	0.704229	0.2422	2.91	0.006	0.1497
Dfdi_2	0.315498	0.2576	1.22	0.227	0.0303
Dfdi_3	0.31256	0.1567	1.99	0.052	0.0765
Dinf	14.2489	4.288	3.32	0.002	0.187
Dinf_1	-2.28964	8.034	-0.285	0.777	0.0017
Dinf_2	-4.8985	8.148	-0.601	0.551	0.0075
Dinf_3	11.3869	4.523	2.52	0.015	0.1166
Dgdp	73.5132	37.51	1.96	0.056	0.0741
Dgdp_1	-88.1093	52.11	-1.69	0.097	0.0562
Dgdp_2	54.9109	51.49	1.07	0.292	0.0231
Dgdp_3	-1.81114	33.18	-0.0546	0.957	0.0001
Dexcrate	-2.28073	0.7409	-3.08	0.003	0.1649
Dexcrate_1	2.82716	1.043	2.71	0.009	0.1328
Dexcrate_2	-2.53163	1.009	-2.51	0.016	0.116
Dexcrate_3	1.40382	0.6136	2.29	0.027	0.0983
Dtot	2.40133	2.792	0.86	0.394	0.0152
Dtot_1	-8.4682	5.22	-1.62	0.111	0.052
Dtot_2	11.4981	5.201	2.21	0.032	0.0924
Dtot_3	-10.68	2.743	-3.89	0.0104	0.24
residttexpts	87.9448	14.2	6.19	0.01	0.4443
residttexpts_1	-93.6051	13.52	-6.93	0.003	0.4998
sigma	5.04558	RSS 1221.97769			
R ²	0.984789	F(26,48) = 119.5 [0.000]**			
log-likelihood	-211.073	DW 1.78			
no. of observations	75	no. of parameters	27		
mean(Dexpts)	2.4688	var(Dexpts)	1071.15		

Source: own computation from collected data

4.2 Determinants of Traditional Export Performance

Similar to that of total exports the residual from traditional export equation was found to be stationary at 5%. The regression result is as follows.

Table number 4.2 shows that the model's R-square is 0.96, suggesting that 96% of the variation in the export performance is explained by the model. The probability of F statistic is significant which implies that the model is well specified. There is no indication of serious autocorrelation problem basing on the information given by the Durbin- Watson (D-W) statistic of 1.81 which is close to conventional mark of 1.5 to 2.5. Tanzania's traditional export performance for the period under review were found to be positively and significantly influenced by foreign direct investment, inflation rate, and real exchange rate and terms of trade. Also it has been found that traditional exports increases by 3.25 as a result of a unit change increase in FDI. At the 3rd lag Traditional exports decreases by 2.94 as a result of a unit change increase in inflation. The first and second lags hag no significant effect to traditional exports performance. Exchange rate of the previous quarter has a positive and significant impact to the traditional export performance of the current quarter. Exchange rates for the 1st, 2nd and 3rd lags were all found statistically significant to traditional export performance. Terms of trade was also found significant at the first lag but with negative relationship to traditional export performance. On the other hand gross domestic product was found statistically insignificant to traditional export performance.

Foreign direct investment found significant at zero lag and it had a positive relationship with traditional export performance. The result for Foreign Direct Investment supports the hypothesis formulated. This result is also consistency with the first equation and some previous studies. Amelia and Santos (2000) studied the effect of trade liberation on export performance in selected developing countries and discovered that FDI significantly affects export volumes. Moreover, Hoekman and Djankov (1998) analyzed

the magnitude of export structure in Eastern European Countries and their result suggested that there is positive association between FDI and export structure

The result for inflation rate shows a positive relationship with traditional exports and found significant at the third lag. The positive sign of the coefficient was not expected. This finding is similar with the previous result on the first equation and other studies as well. Gylfason (1998), studying the main determinants of exports and economic growth in cross-sectional data from the World Bank covering 160 countries in the period 1985-1994. He concluded that high inflation and an abundance of natural resources tended to be associated with low exports and slow growth rate.

Gross Domestic Product is insignificant to traditional exports. This observation is also contrary with our expectation reflected in the hypothesis because GDP has positive relationship with export volumes since increased production leads to surplus output in an open economy being exhausted on international market. Ngeno (1996) and Kumar (1998) their studies found a positive and significant relationship with export performance.

Terms of Trade was found significant at the first lag with a negative relationship to traditional exports. This result is as it was anticipated. However favorable terms of trade are associated with increased export growth rates and unfavorable terms with low export growth rates. Svedberg (1990) argued that in the 1990s, Sub Saharan Africa had unfavorable terms of trade which negatively impacted on export.

Rear Exchange Rate was found to be positively and significantly related to traditional exports. However this results is quite similar with the result of the first equation. This finding has found to be consistency with the previous studies like that of Sharma (2006) and Cline (2004)

Table 4.2: Regression Result of Traditional Exports

Variables	Coefficient	Std.Error	t-value	t-prob	Part.R^2
Dtraexpts_1	1.24886	0.09632	13	0.0003	0.7743
Dtraexpts_2	-1.04354	0.1311	-7.96	0.005	0.5639
Dtraexpts_3	0.682936	0.08374	8.16	0.002	0.5758
Constant	0.643836	0.4814	1.34	0.187	0.0352
Dfdi	0.0760212	0.02338	3.25	0.002	0.1775
Dfdi_1	-0.0693274	0.04043	-1.71	0.093	0.0566
Dfdi_2	0.0336443	0.04015	0.838	0.406	0.0141
Dfdi_3	-0.00608116	0.02268	-0.268	0.79	0.0015
Dinf	0.603595	0.9373	0.644	0.523	0.0084
Dinf_1	1.0223	1.699	0.602	0.55	0.0073
Dinf_2	-2.28024	1.696	-1.34	0.185	0.0356
Dinf_3	2.89256	0.9843	2.94	0.005	0.1498
Dgdp	-4.6766	7.71	0.607	0.547	0.0075
Dgdp_1	-10.4353	10.3	1.01	0.316	0.0205
Dgdp_2	8.05749	10.02	0.804	0.425	0.013
Dgdp_3	1.59843	6.579	0.243	0.809	0.0012
Dexcrate	-0.49213	0.1427	-3.45	0.001	0.1953
Dexcrate_1	0.492016	0.1946	2.53	0.015	0.1154
Dexcrate_2	-0.437976	0.1853	-2.36	0.022	0.1023
Dexcrate_3	0.379799	0.1139	3.33	0.002	0.1849
Dtot	1.80763	0.6182	2.92	0.005	0.1486
Dtot_1	-2.44685	1.099	-2.23	0.031	0.0919
Dtot_2	1.84072	1.081	1.7	0.095	0.0559
Dtot_3	-0.8386	0.5575	-1.5	0.139	0.0441
residtrad	2.50859	1.372	1.83	0.073	0.0639
residtrad_1	-4.76589	1.519	-3.14	0.003	0.1674
sigma	1.00432	RSS	49.4246264		
R^2	0.963693	F(25,49)	=	52.02	[0.000]**
log-likelihood	-90.7814	DW	1.81		
no. of observations			75		
mean(Dtraexpts)	0.218933	var(Dtraexpts)	18.1506		

Source: Author's own computation from collected data

4.3 Determinants on Nontraditional Export Performance

As it was on the previous two equations the residual from nontraditional export equation was found to be stationary at 5%. The regression result is as follows:

Table 4.2 shows that, the model's R-square is 0.98, suggesting that 98% of the variation in the nontraditional export was explained by the variables included in the model. The probability of F statistic is significant which implies that the model is well specified. There is no indication of serious autocorrelation problem basing on the information given by the Durbin- Watson (D-W) statistic of 1.86 which is close to conventional mark of 1.5 to 2.5. This implies that in Tanzania nontraditional export performance is more determined by real exchange rate. Therefore nontraditional exports for first, second and third quarters decreases by 1.3, 1.16 and 0.86 as a result of a unit change increase in exchange rate for the first, second and third quarters respectively .All other variables were found insignificant to nontraditional exports.

Foreign Direct Investment was significant to nontraditional export. This was as anticipated with regard to the formulated hypothesis. This result was also similar to the previous result of total exports. Moreover, the same was similar with the previous studies. Amelia and Santos (2000) and Hoekman and Djankov (1998) their studies concluded that FDI has a positive and is significantly influences export performance. For the case of Tanzania this result of FDI being significant to nontraditional export performance is a good indicator that FDI performing well.

Inflation rate was found insignificant to nontraditional exports. This was also contrary with the hypothesis formulated, and some previous studies. Thorvaldur (1998), found a negative relationship between inflation rate and export performance.

Gross domestic product was significant to nontraditional export. However, the same was not significant at the first, second and third lag. This was as anticipated with regard to

the hypothesis formulated and some of previous studies. For instance Ngeno (1996) and Kumar (1998) their studies found a positive relationship between GDP and export performance. In Tanzania this situation could be contributed by low capacity in production which leads to low output and certainly no surplus for exportation.

Exchange rate was found statistically and significant to nontraditional exports. This is in line with the hypothesis formulated. This result is also similar with the first two equations of total and traditional exports. The stability of exchange rate has a great impact on Tanzanian nontraditional exports. However, this finding has found to be consistency with the previous studies like that of Sharma (2006) and Cline (2004)

Terms of trade were not significant to nontraditional export performance. This result was contrary with the hypothesis formulated. It was expected that favorable terms of trade are associated with increased export growth rates and unfavorable terms with low export growth rates. Therefore according to the result terms of trade in Tanzania is less important to nontraditional exports. This situation could be contributed by the fact that some of nontraditional exports are exported as raw material and therefore little is earned compared with the final products.

Table 4.3: Regression Result of Nontraditional Exports

Variables	Coefficient	Std.Error	t-value	t-prob	Part.R^2
Dnonexpts_1	0.91872	0.1592	5.77	0.0101	0.4047
Dnonexpts_2	-0.562114	0.2084	-2.7	0.001	0.1293
Dnonexpts_3	-0.0727964	0.1527	-0.477	0.636	0.0046
Constant	0.336743	1.284	0.262	0.794	0.0014
Dfdi	-0.101503	0.05707	1.78	0.082	0.0606
Dfdi_1	-0.0281787	0.09687	0.291	0.772	0.0017
Dfdi_2	0.081149	0.09753	0.832	0.409	0.0139
Dfdi_3	-0.0669299	0.05366	-1.25	0.218	0.0308
Dinf	0.0266663	2.177	0.0122	0.99	0.0307
Dinf_1	2.40584	3.805	0.632	0.53	0.0081
Dinf_2	-0.925476	3.831	-0.242	0.81	0.0012
Dinf_3	-0.256656	2.113	-0.121	0.904	0.0003
Dgdp	34.016	19.54	1.74	0.088	0.0583
Dgdp_1	-7.37655	24.28	-0.304	0.763	0.0019
Dgdp_2	4.29766	23.3	0.184	0.854	0.0007
Dgdp_3	2.0559	15.42	0.133	0.894	0.0004
Dexcrate	-0.881714	0.3512	-2.51	0.015	0.114
Dexcrate_1	-1.30661	0.4644	2.81	0.007	0.1391
Dexcrate_2	-1.15564	0.5056	2.29	0.027	0.0964
Dexcrate_3	-0.857619	0.3628	2.36	0.022	0.1024
Dtot	1.14603	1.414	0.81	0.422	0.0132
Dtot_1	-0.88856	2.439	-0.364	0.717	0.0027
Dtot_2	0.487859	2.38	0.205	0.838	0.0009
Dtot_3	0.328238	1.234	0.266	0.791	0.0014
residnontrad	38.0778	8.095	4.7	0.002	0.3111
residnontrad_1	-37.1974	8.061	-4.61	0.01	0.3029
sigma	2.3561	RSS	272.009064		
R^2	0.98037	F(25,49)	=	97.89	[0.000]**
log-likelihood	-154.733	DW	1.86		
no. of observations	75				
mean(Dnonexpts)	3.00973	var(Dnonexpts)	184.761		

Source: Own Computation from Collected Data

Table 4.4 Summary of the Result

Dependent Variables	Independent Variables					
	Total Export	Sign	Traditional Export	Sign	Non Traditional Ex[port	Sign
Foreign Direct Investment	Significant	+ve	Significant	+ve	Significant	+ve
Inflation Rate	Significant	+ve	Significant	+ve	Insignificant	+ve
Gross Domestic Product	Significant	+ve	Insignificant	+ve	Significant	--ve
Exchange Rate	Significant	+ve	Significant	+ve	Significant	+ve
Terms of Trade	Significant	+ve	Significant	-ve	Insignificant	--ve

Source: own computation from collected data

Table 4.4 indicates that Exchange rate was found significant to all sectors. That is total export, traditional and nontraditional exports. This further means that exchange rate is important determinants to export performance.

Foreign Direct Investment, Inflation Rate and Terms of Trade were found significant determinants to total export and traditional exports. The same variables were found insignificant to nontraditional exports. This implies that when considering total export these variables are found sensitive and insensitive when the sector is disaggregated as shown in Table 4.4. Furthermore these results would suggest that under the review period Tanzania total exports are more contributed by traditional goods rather than nontraditional goods. That is why Foreign Direct Investment, Inflation Rate and Terms

of Trade were found significant determinants to total export and traditional exports and not significant nontraditional exports.

The result for Gross Domestic Product was found insignificant to all sectors. This implies that Gross Domestic Product in Tanzania for the period under review is not one of the determinants for export performance. As said before the reason behind could be contributed by low capacity in production which leads to low output as a result few surplus for exportation.

CHAPTER FIVE

CONCLUSION AND POLICY IMPLICATIONS

5.0 Introduction

This Chapter presents a summary part of the entire paper and is divided into three sections namely conclusion, policy implication, limitation of the study and area for further studies.

5.1 Conclusion

This study examined factors affecting export performance in Tanzania using time series data for the period between 1990 and 2009. Specifically the study analyzed the influence of macroeconomic factors such as foreign direct investment, gross domestic product, inflation rate, real exchange rate and terms of trade. The main proposition of the study was that macroeconomic factors significantly influence export performance.

Empirical results and analysis indicated that real exchange rate and Foreign Direct Investment were significant to export performance in all sectors that is total export, traditional and nontraditional exports. Gross Domestic Product was also found significant in all sectors except traditional sector. However, Inflation Rate and Terms of Trade were found significant determinants to total export and traditional exports. The same variables were found insignificant to nontraditional exports. Some of these results found to match with the findings reported in previous studies while other results raised a contradiction. The study concludes with a recommendation to improve export performances for both traditional and nontraditional exports. This can be achieved by formulating good trade policy, attract more Foreign Direct Investment, improve infrastructure and create good business environment such maintain peace and harmony, political stability and minimize corruption , as well as to diversify export base of the country.

5.2 Policy Implication

Based on the findings of the study the following recommendations are made.

- Since traditional exports were found to be more sensitive with macro- economic variables it is important for Tanzania to concentrate on making exports more competitive in this sector by formulating good trade policies, and create good business environment for attracting more foreign direct investment. This could be done by creating more incentives in investing in agriculture sector, reduce red tape in land acquisition and minimize corruption. Nontraditional sector is also important for export diversification.
- Foreign direct investment inflow has been found to have a positive impact on export performance. Therefore, Tanzania should attract more foreign direct investment. This can be done by creating good business environment such as maintaining peace and harmony, improve infrastructure, political stability and controlling macro- economic stability.
- The trend of exports during the study period reveals that Tanzania has been mainly exporting primary products whose demand is price and income inelastic. It also depicts that traditional exports were highly volatile during the study period. Two important lessons can be learned from this. Firstly, Tanzania should increase its manufacturing exports and hence diversify its export base both to reduce export earnings volatility and also increase its export revenue. Secondly, due to its low manufacturing export base, the country is importing more manufactured products. Thus increasing manufacturing exports is important not only for the export sector but also for the domestic sector.

- Since the majority of Tanzanians are employed in Agriculture sector and still the sector has not been exhausted extra effort is still needed to attract domestic and foreign investors to invest in this sector.
- Improved infrastructure that is road network, communication, and electricity availability. Improving the overall infrastructure will lead to expansion of production which will further lead to an increase in output and ultimately increase the surplus for export.

5.3 Limitations of the study and Areas for future studies

During the research period the researcher encountered the following challenges; data availability, budget constraints and limited time. Data availability was one of the challenges as most of less developed countries Tanzania being one of them; it was difficult to get the right and reliable data. Never the less the researcher managed to accomplish this task by abiding to the available data and the use of international recognized publications such as World Bank and IMF. Budget constraint was also another challenge as the researcher did not have a sponsor. However the researcher was given a limited time framework. He was abided to the schedule though other activities would have been given an extended time period.

However in regard with the above research result it is obvious that there are other possible factors contributing to the export performance in Tanzania. Therefore, other variables to be considered for further research includes trade policy, fiscal policy, government consumption and foreign price. This study was only limited to the observation of a single direction between the dependent and independent variables. But for the case of future studies one could use Granger causality in order to oversee if there is a possibility of these variables to depend each other.

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Appendix I

Statistical data on variables ranges from 1989 to 2010

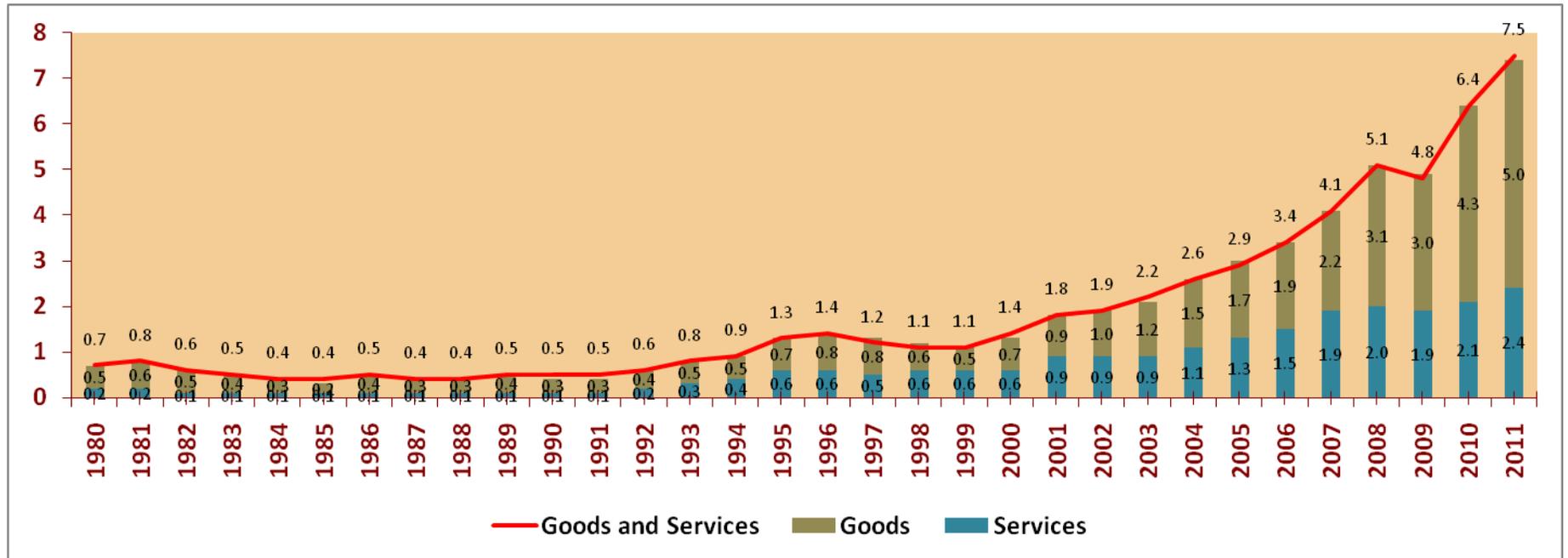
YEAR	Value of FDI in USD	Value of EXPORT In Millions TShs	Value of FDI in Million USD	Inflation Rate	GDP Current prices in Millions USD	ECXH RATE	Terms of TRADE	Value of EXPORT In Millions USD	Traditional EXPORT In Millions USD	Non Traditional EXPORT In Millions USD
1989	5,840,000	52,777.30	5.84	20.6	5.586	192.3	120	274.45	154.8	112.81
1990	6,593,000	64,570.50	6.59	22.56	4.483	196.6	107.45	328.44	177.81	150.63
1991	7,975,000	74,708.00	7.98	28.04	5.217	216	111.46	345.87	161.58	184.28
1992	12,169,640	123,966.00	12.17	21.94	4.844	297.8	98	416.27	181.71	234.56
1993	20,457,760	181,147.40	20.46	23.62	4.482	405.4	100	446.84	206.13	240.71
1994	50,000,900	265,176.80	50	37.15	4.748	509.6	107.84	520.36	277.36	243.01
1995	119,936,700	390,378.10	119.94	23.97	5.927	574.8	97.98	679.15	380.32	298.84
1996	150,066,400	455,419.30	150.07	20.5	6.803	580	95.28	785.21	446.02	339.19
1997	157,885,100	459,548.88	157.89	15.44	8.016	612.1	98.68	750.77	434.62	316.16
1998	172,306,200	391,804.62	172.31	13.16	8.805	664.7	98.4	589.45	356.56	232.89
1999	516,700,600	412,204.20	516.7	9	9.089	744.8	99.08	553.44	306.67	246.77
2000	463,400,900	527,639.81	463.4	4.59	9.55	808.4	100	652.7	257.1	395.6
2001	388,800,000	332,281.00	388.8	5.15	9.735	876.4	78.1	379.14	109.8	281.6
2002	396,244,800	411,975.30	396.24	4.56	10.13	966.6	98.64	426.21	73.1	355.6
2003	364,258,900	550,347.20	364.26	4.43	10.93	1038.6	97.78	529.89	88.7	446.3
2004	226,732,400	683,176.70	226.73	4.14	12.03	1098.6	99.3	621.86	88.7	527.9
2005	935,520,600	1,900,603.10	935.52	4.36	13.72	1122.7	99.38	1692.89	118.3	625.5
2006	403,039,000	2,186,017.50	403.04	7.25	14.33	1182.9	114.95	1848.02	127.7	689
2007	581,511,800	1,178,614.30	581.51	7.03	15.19	1277.4	114.41	922.67	142.3	782.6
2008	400,047,200	1,757,006.60	400.05	10.28	19.03	1183.8	116.04	1484.21	234.1	1,249.90
2009	414,544,600	1,602,922.40	414.54	12.14	20.96	1313.5	129.7	1220.34	236.8	977.3
2010	433,441,900	1,164,229.30	433.44	7.22	22.54	1,454.70	139.21	800.32	213.8	1,384.00

Authors Computation Based on

- Source:** 1. World Economic Outlook (IMF) website
 2. Various Economic Bulletin published by Bank of Tanzania (BOT)
 3. National Bureau of Statistics (NBS)

Appendix II

Tanzania Value of Export of Goods and Services in billions \$US 1980-2010



Source: WTO Statistical data sets, April 2012