Impact of Exports on Economic Development of Pakistan: Exports and Economic Development: A Longitudinal Survey of Pakistan Economy (1985-2015)

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Abstract:
The thesis aims to highlight the relationship between the exports and the economic development variables during 1985-2015. To obtain this purpose, the researcher has carried out a secondary research for collecting the required data. For example, only quality resources, such as World Bank, and official websites of the Pakistan government, have been accessed for collecting the required data. To evaluate the relationship between the variables, the author has used the exports (E) as an independent variable whereas Gross Domestic Product (GDP), tax revenue (TR), foreign direct investment (FDI), and unemployment (U) have been taken as dependent variables. Subsequently, the author has used E-views software for determining and assessing the relationship between the variables. More specifically, both simple linear regression and multiple linear regressions have been carried out. However, before applying and ascertaining their relationship, stationarity of all collected data has been performed. The empirical results reveal different findings relating to the variables. The result shows no strong relationship between the GDP and exports whereas tax revenue retains a weak relationship with the exports. On the other hand, FDI maintains no strong positive relationship with the exports. At the same time, unemployment retains a weak relationship. The multiple regression results show a positive relationship between the exports and all four economic variables.

Key words: Economic Development, Impact of Export

1.1 Introduction

Pakistan economy's behavior is not consistent with the tendency of various economic indicators and their individual and collective relationships. In Pakistan, economic growth is volatile (Asghar et al., 2012). Among various elements, exports remain the major economic indicator for highlighting the aggregate economic performance of economy. If the exports are increasing, then it is generally deduced that the economy is also increasing in terms of employment creation, tax revenue generation, purchasing power increase and so on (Quddus & Saeed, 2005). Similarly, higher exports also represent a consistent or similar level decrease in the rate of unemployment. However, when such economic perspectives are applied to the actual performance of Pakistan economy, the subsequent results do not represent the actual application of such relationships.

1.2 Rationale for Exports of Pakistan

Exports represent aggregate output of economy. Both developing and developed economies always attempt to increase their export-led growth as this is the most vibrant and efficient way for increasing economic output besides obtaining and ensuring economic objectives and goals. For example, before going to implement any economic policy measure, first short term and long term objectives and goals are set so as to align them with the actual results. more clearly, all economic managers always consider that the sustainable economic growth largely relies on the export-led growth as it not only provides sustainability to long term economic policy but also enables the economic managers to ensure consistency in both short-term and long-term economic policies. within this perspective, it is worth mentioning that both consistency and sustainability in the short-term and long-term economic policies can only be achieved through sustainable export-led growth. In other words, without sound exports, it is not possible to attain all short-term and long-term goals and objectives of economic policy. At the same time, among various differences between developing and developed economies, sound and stable export is the major difference between as it has been observed that the developed

economies have ensured to have sustainable exports whereas the developing economies struggle to have a durable export trend.

Exports highlight tendency and performance of economic policy. Increase or decrease in export is directly attached to the performance of economic policy as the final figure of export represents whether the economic managers have timely achieved their objectives or not. More clearly, if the export level is substantially increasing or that level is also sustainable too, this would suggest that the economic managers were largely able to put in place effective and efficient economic policy.

Keeping this view in mind, the researcher finds that the best and the effective way to understand Pakistan's economy is to evaluate and comprehend the historical performance of exports as it will enable the researcher to figure out how well Pakistan's economy has performed in the past and its potential. Additionally, the researcher has not taken individual figures, such as agriculture export, industrial export and so on instead the researcher has taken total export into account from the World Bank data where all relevant data are properly maintained.

1.2 Rationale for Economic Development Indicators

Economic development is mostly visible through four basic economic indicators: GDP, tax revenue, Foreign Direct Investment (FDI), and Unemployment rate. Theoretically speaking, economic development is a broad term and it includes a variety of economic indicators. Thereby, to reduce the scope of economic development to the most relevant and crucial indicators, four above mentioned economic indicators have been chosen for obtaining the research objectives.

1.2.1 GDP and Exports

Both GDP and exports retain a positive correlation. GDP is mostly calculated at year end as figures of all relevant economic indicators are received and they are subsequently computed so as to know net increase or decrease during the reported period of time. In other words, GDP is a dependent variable because it cannot be computed without having export figures. Thereby, it is logical to take exports as an independent variable and GDP as a dependent variable so as to ascertain their relationship.

1.2.2Tax Revenue and Exports

Tax revenue is also an important economic development indicator. Both direct and indirect taxes provide basic source of tax revenue source for the government. More specifically, higher taxes are directly associated with higher personal and corporate income. When households and firms experience growth in their incomes, this growth enables them to pay more taxes in the form of General Sales Tax (GST), and corporate income tax and income tax, and other forms of taxes. Based on this, it is logical to assume and consider that tax revenue is also a relevant economic indicator for the economic development. At the same time, it also maintains the similar relationship with exports as the one maintained by GDP with exports. Therefore, tax revenue, which is also taken totally, has been employed as a dependent variable and export has been used as an independent variable so as to determine the strength of their relationship.

1.2.3 FDI and Exports

Foreign Direct Investment (FDI) also reflects economic development. FDI enables economy to demand for more labor, equipment and capital assets for producing more goods and services. More clearly, FDI mostly brings money to the economy and this money, which is mostly in liquid form, is further used for buying equipment, capital assets, and for hiring both skilled, and semi-skilled workforce. Subsequently, this money is also used for building for producing more goods and services. All in all, FDI creates a systematic economic activity which generates not only goods and services but also salary and remuneration for the hired labor and

this enhances their standard of living. Therefore, it is logical to use FDI as the economic indicator. Additionally, FDI has been taken as a dependent variable and exports, as an independent variable, so as to determine the strength of their relationship by employing their relevant historical numerical data.

1.2.4 Unemployment Rate and Exports

The rate of unemployment also represents economic development. When more and more labor is able to find appropriate employment on time with proper fringe employment benefits and subsequently employee participation rate is increasing, this indicates that the rate of unemployment is decreasing. With this decline, standard of living will automatically be improved. For example, full employment or at least acceptable level of unemployment is a dream of every economy. This dream is only realized when both supply of and demand for labor receives equilibrium (i.e. state of balance). This can only be achieved if an appropriate economic policy is working. For example, unemployment and exports retains an inverse relationship as decrease in the rate of unemployment leads increase in the exports.

Therefore, it is logical to say that unemployment rate is also a fundamental indicator, representing economic development. Keeping this view in mind, the rate of unemployment has been considered as a dependent variable and exports have been employed as an independent variable so as to figure out their strength of relationship through simple linear regression analysis.

Graph 01: Exports Trend Analysis
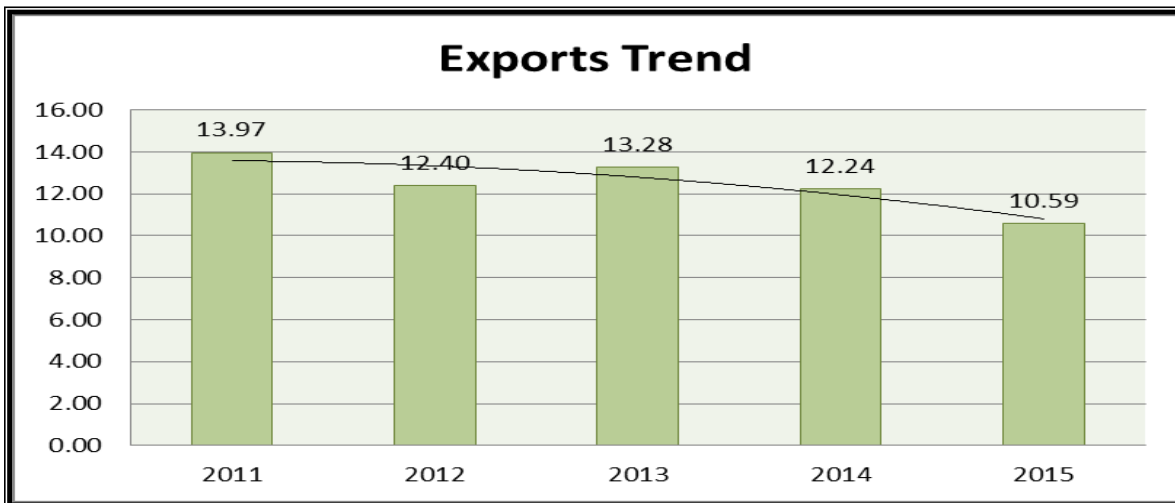
Source: (World Bank, 2017).

The graph 01 clearly demonstrates the fundamental rationale behind selecting this research topic. The exports indicators[1] From 2011 to 2015 highlight that the Pakistan economy has not been performing economically well because it is generally considered a strong barometer that stable and consistent economies are those which experience a constantly increasing or stablizing trend in exports. In this regard, it is relevant to mention that export is a strong indicator whether an economy is showing or recording a stable trend in its various economic sectors, such as industry, agricutlure and service sectors (Azam, 2011).. In this regard, it is important to highlight that it is generally considered a benchmark that the difference between the developed and under-developed economy is that the former has more exports than imports whereas the latter always suffers the

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[1] Exports Indicators have been taken as a percentage share of the Gross Domestic Product (GDP) of Pakistan economy from 2011 to 2015.

declining or struggling trend in exports alongwith rising trend in the imports. This increasing trend in imports clearly points out that the economy is not producing enough to satisfy the required demand of goods and services. Thereby, the consumers are forced to rely on the imports of such goods and services. Under this situation, it is highly essential to critically evaluate the actual performance of exports and their interaction with other fundamental economic indicators functional in the Pakistan economy.

Graph 02: Exports and GDP Comparison
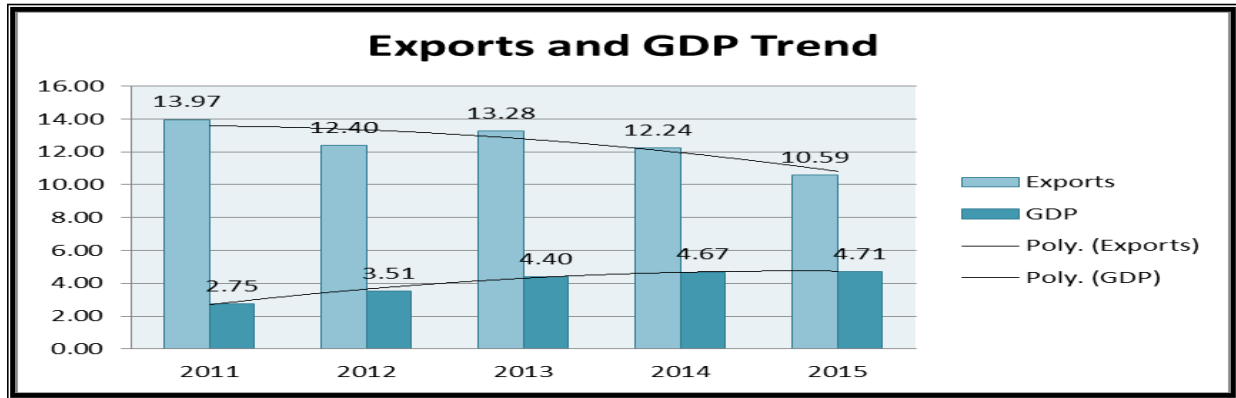
Source: (World Bank, 2017).

The graph 02 represents the main research problem which will be investigated in the main thesis paper. The graph 02 unequivocally exhibits that the exports trend is diminishing over the reported period and the contrary situation can be assigned to the adverse performance of the GDP. More specifically, in 2011, the exports were at 13.97 and touched 10.59 percent in 2015, clearly indicating that the exports have experienced a decrease of 3.38 percent in last five years. In this context, it is significant to note that the economy's exports have been constantly decreasing during this period; a clear sign that the Pakistan economy's exports have been consistent in their downward trend during this period. On the contrary, the GDP growth rate was 2.75 percent in 2011 and it reached at 4.71 percent level by the end of 2015, clearly recording an aggregate growth of 1.96 percent during the last five year period. Within this context, it is worth arguing that it has been generally observed that stable and strong economies always show a positive and strong relationship between exports and GDP growth rate because increase in exports is the ultimate objective of various economies. However, when this economic benchmark is applied to the current state of Pakistan economy, it can be easily observed that both (exports and GDP growth rate) have no similar tendency or trend in their individual economic behavior instead they show the contradictory performance during the period of last five years.

Graph 03: Exports and Tax Revenue Trend Comparison
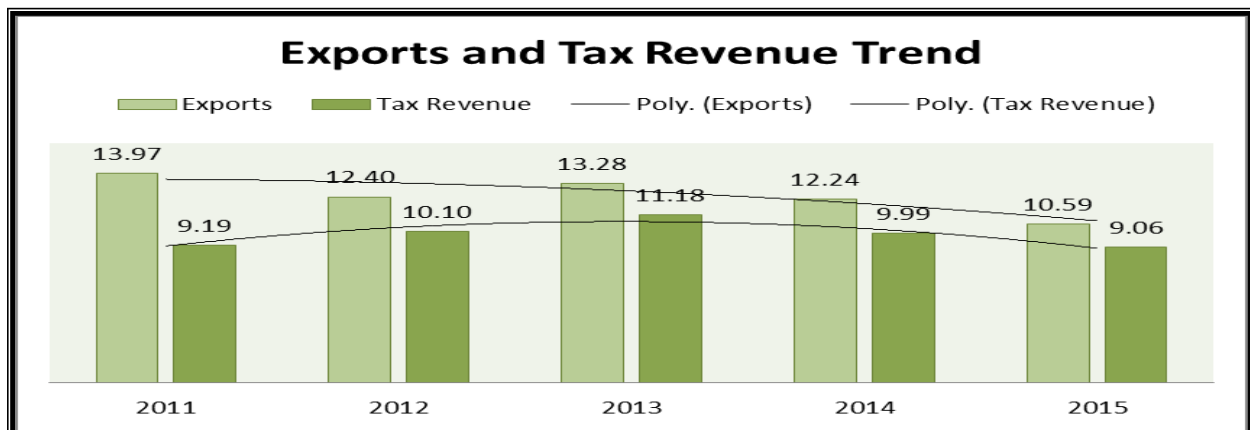
Source: (World Bank, 2017).

This graph shows declining trend in both variables for the period of last 5 years. The exports have been constantly decreasing during this period. For example, it reaches 10.59 percent in 2015 from 13.97 percent in 2011, recording an aggregate decrease of 3.38 percent over the course of last five years. In other words, each year has observed the decrease of 0.676 percent. Similarly, the tax revenue reaches 9.06 percent in 2015 from 9.19 percent in, accounting for an aggregate decline of 0.13 percent (9.19-9.96) in all five years. Annually, a decline of 0.026 has been recorded during this period. When this annual decrease of both exports and tax revenue is compared, it can be easily seen that more annual decline has been observed in exports than in the tax revenue.

Based on this, it is highly essentail to ascertain and evaluate all those factors which have been causing decline in both these factors. Fundamentally, it is generally expected that an economy should have a strong fiscal policy, obviously tax revenue is a part of that policy, so as to have maximum resources for upgrading infrastructure, social and economic development and standard of living. However, when this perspective is applied to economy of Pakistan, its major economic indicator (tax revenue) has been constantly declining over the course of last five years. This decline has serious repercussions not only in the short run but also in the long run as well.

Graph 04: Exports and FDI Trend Comparison
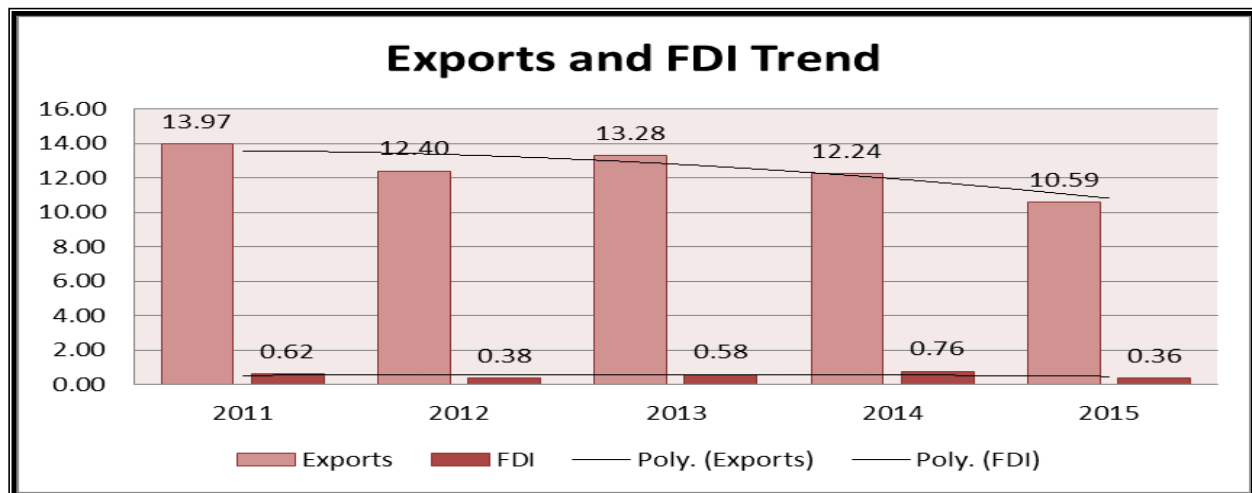
Source: (World Bank, 2017).

This graph also suggests a positive correlation between exports and FDI from 2011 to 2015. For example, in 2012, the exports decreases to 12.40 percent and the FDI touches 0.38 from 0.62, clearly indicating that both variables are highly correlated. At the same time, the similar trend is also visible in the subsequent years as both (exports and FDI) are constantly decreasing. However, this does not mean that the decrease in the exports is mainly caused by the decline in the FDI because there are various factors that influence on the exports and on the FDI as well.

Graph 05: Exports and Unemployment Rate Comparison
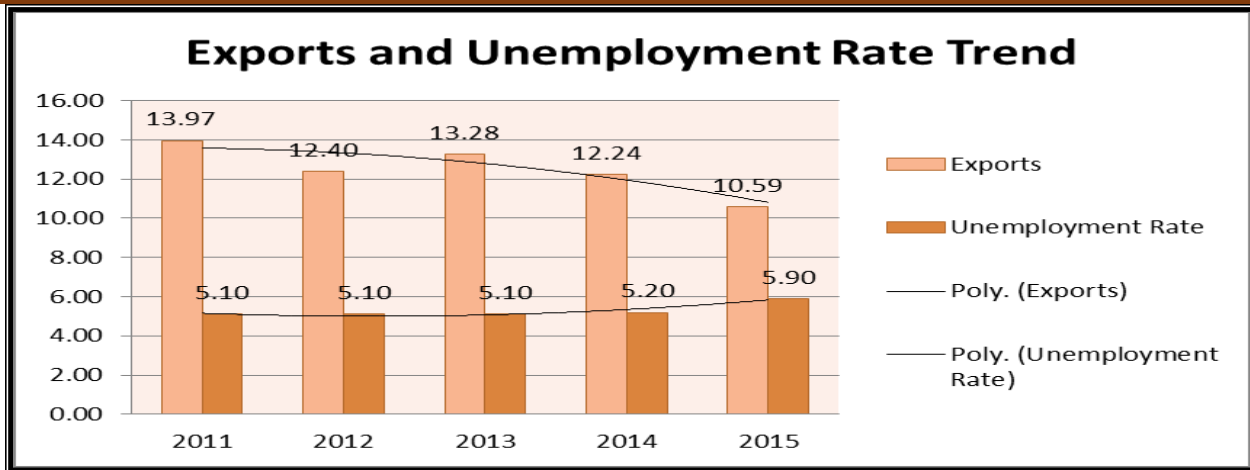
Source: (World Bank, 2017).

Unemployment rate retains an inverse relationship with the exports in the recorded period from 2011 to 2015. Exports trend is steadily decreasing whereas the unemployment rate has been constantly increasing during this period. For instance, it has generally accepted that exports retain an inverse relationship with unemployment rate because increase in exports means more production of goods and services and that production requires more labor and that labor induction creates employment opportunities along with decreasing the rate of unemployment. Thereby, that relationship shows an inverse tendency in the long run. Similarly, during the period of last five years, both indicators appropriately satisfy the relationship. However, this inverse relationship is only suggesting five year trend. Therefore, it is highly essential to ascertain whether it has existed in last thirty years. As a result, it looks more appropriate to evaluate the research problem.

The paper consists of five chapters: Introduction, Literature Review, Methodology, Findings and Discussion, and Conclusion and Recommendations. In the introduction chapter, basic rationale for export (as an independent variable) and GDP, tax revenue, FDI, and unemployment rate (as dependent variables) has been provided. Additionally, the chapter also graphically highlights five year relationship with the support of Excel.

In the literature review chapter, basic concepts relating to exports, GDP, tax revenue, FDI, and unemployment rate has been metnioned. Subsequently, each pair in which one dependent variable and one independent variable has been included so as to critically evaluate the relevant hisotrical facts and information about the variables. In this regard, it is pertinent to mention that there are four sub-segments in this chapter: GDP and exports, tax revenue and exports, FDI and exports, and unemployment rate and exports. The basic rationale behind separating each portion is that to have a clear understanding regarding the variables and the discussed material given below their heading. At the same time, it is logical to mention that the previous related studies have been critically evaluated. And, this critical evaluation has enabled the author to ascertain limitations inbuilt to the previous studies. Subsequently, the author has attempted to mitigate the impact of the limitations in the current study by avoiding or including the missing or required aspects in the previous studies.

The methodology chapter is also consisted of various parts. First, chapter introduction has been provided, highlighting the major components used in the study. Subsequently, resrach philosophy, hybrid resrach approach, data collection method, data analysis strategy, validity and reliability, research limitations and chapter summary has been included in the third chapter.

The Findings and Dicussion Chapter also consists of various parts. First, stationarity of each variable has been verified. The stationarity of GDP, tax revenue (TR), FDI, unemployment rate, and exports has been carried out. In the second part, regression results have been mentioned in which first simple linear regression of GDP and exports has been conducted. After this, simple linear regression of tax revenue and exports has been carried

out. It is followed by the regression between FDI and exports. Subsequently, simple linear regression between the rate of unemployment and exports has been performed. In the multiple regression analysis, four dependent variables (GDP, tax revenue, FDI, and unemployment rate) have been regressed with the dependent variable (exports) before the chapter summary part.

The Conclusion and Recommendations chapter entails two parts. In the first part, research objectives, and main findings along with hypothesis testing have been carried out. In the second part, recommendations have been included. for example, recommendations for each pair, such as GDP and exports, have been provided so as to have a clear comprehension and future direction for the potential resarchers.

Literature Review

Literature review retains a pivotal significance for any type of research. In this chapter, previous studies and relevant findings are collected and they, subsequently, receive a critical review from the authors. Initially, the author collects relevant studies from both international and regional aspects. In this step, both (international and regional) studies and findings are included and they are subsequently critically evaluated. In this critical evaluation, shortcomings are specifically pinpointed. After this, the author has attempted to avoid the limitations for obtaining more clear and effective results. For instance, in some studies, small sample size has been used. Consequently, this distorts the subsequent findings. Thereby, to avoid this, the author takes a bigger sample size so as to avoid the impact of small size affecting the results. Additionally, first international studies and findings have been critically reviewed and assessed and then regional studies and works have been critically evaluated. At the same time, it has also been ensured that studies from both developing and developed economies should also been included so as to attain the paper objectives properly.

In the following parts of this paper, each component has been critically evaluated and discussed. Initially, international trade theory and competitive advantage has been discussed. subsequently, exports have been discussed in which historical performance of Pakistani exports has been critically assessed. In the first segment, historical trend has been highlighted and subsequently discussed. Second, exports and GDP segment has been included in which international and regional studies have been included to discuss both components properly. Third, exports and tax revenue studies have been accounted for. In this segment, focus has been to provide both perspectives, meaning all those studies which find relationship between both components and those which fail to find have also been included. It is mostly done to ensure that all relevant literature is included in the paper. Fourth, studies and previous findings about exports and FDI have been included. In this part, both types of studies have also been included. Fifth, studies and findings about exports and unemployment rate have also been included. Here, it is worth mentioning that the author has attempted to include previous trends of unemployment rate so as to understand it properly. Finally, chapter summary, highlighting key points of the chapter, has also been included.

2.2 International Trade Theory and Competitive Advantage

International trade theory is beneficial for all trading and exporting countries. Adam Smith contended that when a country enters into a foreign trade, this trading activity would increase its revenue along with an effective resource mobilization and competitive advantage as well (Porter, 1990). Fundamentally, the prime objective of international trade was to increase the trading activity between the different economies as it was considered as the most effective way to increase one's revenue. However, with the passage of time, Ricardo also added some additional perspective to the theory by suggesting that the competitive advantage is the most powerful element for promoting or encouraging more exports to their trading counter-parts (Porter,). For example, human resource and technology are two important and powerful tools, which can easily improve one's competitive advantage in the international trade. For example, in terms of technology, the United Sates has an edge over other countries as this competitive edge has enabled the United States to reap political, economic, academic, and all other sorts of benefits from its competitive advantage position.

2.3 Exports and GDP

Previous research shows different results from authors on the relationship between exports and economic growth rate. For example, an empirical analysis in which a sample size of 70 developing countries was carried out from 1960 to 1981; and the subsequent results revealed that both exports and GDP growth rates were highly inter-related (Gonclaves & Richtering, 1986). On the contrary, some results find a relationship when economic growth rate is taken as independent variable (IV) and export has been taken as dependent variable (DV); the data from 2000 to 2012 was collected and a strong relationship was proven between economic growth and exports (Shihab & Abdul-Khaliq, 2014). In this regard, it is relevant to argue that this study has also used a very small sample size (2000 to 2012). Thereby, it is very hard to agree with the conclusion and findings for representing aggregate and actual performance of the economy.

Similarly, Khan and Saqib (1993) also found the same relationship with exports and GDP growth rate by using a simultaneous equation model. On the contrary, findings of one similar research, which was carried out in Pakistan, India, Sri Lanka and Bangladesh, rejected any relationship between exports and economic growth (Ahmed et al., 2000). However, it is still worth arguing that this work has various limitations. For example, the sample size, which only includes 10 observations, is very small and that makes the actual performance of both variables less indicative and less effective. Generally, large sample size always provides more practical results when they are compared with the results of a small sample size. Additionally, the authors have taken limited variables (GDP, exports and imports). Under this situation, it is very difficult to say that the utilized variables are sufficient enough to appropriately define the actual state and actual performance of Pakistan economy with regard to these variables. Thereby, this is a research gap and it will be addressed and taken into account in the thesis paper.

Faridi (2012) attempted to find relationship between agricultural exports and economic growth from 1972 to 2008; the subsequent findings reveal that the agricultural exports have negative relationship with GDP. In this context, it is relevant to state that although the author has used a large sample size but it has purely focused on the agricultural exports. Thereby, this research is also insufficient to provide more accurate performance of exports with other variables. This research gap will also be satisfied through the selected variables.

Gul and Naseem (2015) have evaluated the Pakistan economy. Pakistan's GDP has been constantly increasing over the mentioned period. In 2003, the GDP was around 72.31 billion dollars; subsequently, it touched the mark of 83.24 billion dollars in the subsequent year (2004). When 2004 GDP is compared with the GDP of 2003, it can be easily deduced that the net increase of 10.93 billion dollars has been reported and that is 15.11 percent increase reported in the year of 2004. This shows that the economy has a strong potential and that potential is being reflected by the net increase in real GDP of Pakistan. In 2005, the figure touches the level of 97.98 billion dollars and that is more than 14.74 billion dollars; in terms of percentage, this figure is around 17.70 percent, showing a growth of 2.59 percent when it is compared and deducted from the net growth of 2004 figure. Within this perspective, it is worth insisting that the reported period was mostly governed by a non-civilian structure and the economic policy was mostly regulated by the bureaucrates, clearly indicating that the non-civilian government was putting their best effort for improving the economic condition of the economy.

The GDP has also been increasing in 2006 as well. in that year, the GDP touches the pinnacle of 109.5 billion dollars. This figure is 11.52 billion dollars and it is 11.75 percent higher than the GDP of 2005. Furthermore, in 2007, the GPD reaches the highest mark of 137.26 billion dollars, recording an increase of 27.76 billion dollars in a matter of one economic year. And, in terms of percentage, this is around 25.35, recording the highest net real increase in the GDP. Within this perspective, it is worth indicating that the GDP's persistent and unhindered growth rate unequivocally indicates that the then government was fully committed to increase the GDP by ensuring the implementation of those economic policies and measures which were highly

essential for obtaining and retaining the short-run and long-run objectives of the economy. And this has been mostly attained by increasing trade and other commercial activities in the country.

Trade and economic growth move simultaneously. Trade refers to a process of buying and selling of goods and services between and among entities and countries as well. And, economic growth can be simply defined as a marginal growth in GDP or any other economic barometer. Based on this perspective, it has been insisted that trade has been identified as a catalyst of economic growth (Quddus & Saeed, 2005). This perspective shows that growth does not take place before increase in trade instead they contend that trade always brings about growth in various sectors of economy. A closer analysis of this perspective highlights that export is a comprehensive term in which sale of goods and services are carried out to other countries or they are sold outside the virtual and geographical boundary of a country. For example, sale of rice, cotton, wheat, sugarcane, military equipment, guns, are mostly sold outside and they generate cash. Virtually, the sale of software, virtual book-keeping services, accounting and other types of online services are mostly sold out for generating cash through selling services to outsiders. In other words, they both tangible and intangible goods and services to sold out to outsiders, they generate not only national income but also personal income as well. for example, a software developer receives salary from the business entity selling software to outsiders. And this salary is mostly produced from the cash received from the outside buyers. Within this perspective, it is relevant to mention that the sale of software not only generates sales tax, which becomes tax revenue for the government but also provides salary to the software developer who avails personal income from the drawn salary.

Internationally, various studies highlight different findings relating to the interaction between exports and economic growth. For example, Kalaitzi (2013) conducted the analysis of exports and economic growth in the United Arab Emirates for the period 1980-2010. For this purpose, they applied Johansen co-integration technique along with two-step Engle Granger co-integration test for evaluating and ascertaining a long-run relationship between the exports and the economic growth in the United Arab Emirates. The consequent findings revealed that there exists a long-run relationship between the economic growth and the exports (Kalitzi, 2013). However, it is worth arguing that the authors did not highlight which variable was taken as an independent variable or which one was considered as a dependent variable. In this regard, it is also worth arguing that there was no clarity about what included in the exports. Fundamentally, various goods and services are generally included. Some goods are primary, secondary and semi-finished products. Under this situation, it is very difficult to rely on the efficacy and authenticity of the aforementioned findings of Kalaitzi. At the same time, it is worth insisting that the author also did not highlight what is included in the term called 'economic growth'. Because of this ambiguity, it becomes highly challenging to support the findings and their usefulness for comparing with others' findings while conducting a research work.

Not all findings show similar results. The export composition does not always put same or equal effect on the economic growth (Kim & Lin, 2009). They further argue that many developing countries purely rely on some primary products, which generally face abnormal fluctuations in their prices. Within this perspective, it is worth highlighting that this point looks more practical and factual as well. for example, in case of many developing countries, including Pakistan's economy, do not have diverse production base instead they mainly and purely rely on the support and export of some main exportable goods. For example, for Pakistan, sugarcane, cotton, rice, and certain other agricultural products are primary exports. Mostly, it is not an exaggeration that the major contribution to Pakistan's export is provided by agricultural products. Under this situation, it is very difficult to say that rising exports do not ensure fair and balanced economic growth. More clearly, many developing countries have not been able to change the composition of their export instead they have been purely depending on the traditional products. For example, the United Arab Emirates has not been able to change or diversify its export based instead it has been continually relying on the support of oil export which is the major exportable good for the economy. At the same time, a small contribution of trade in which imports and exports are re-exported in other countries also provides additional support to its export base.

Various international findings reveal highly correlated relationship between exports and economic growth. Simple correlation and co-efficient technique were used for assessing the relationship between economic growth and exports; the consequent findings reveal that both (the economic growth and the exports) were highly positive and correlated as well (Balassa, 1978; Tyler, 1981; Heller & Porter, 1978; and Kormendi & Mequire, 1985). This point clearly indicates that both economic growth and exports have been identified as having a positive correlation in numerous previous studies. However, it is worth arguing that this point does not mean that it is applicable to all economies. For example, some economies mainly rely on agriculture products while others experience more export-oriented from industrial sector. Here, it is worth arguing that the developing countries normally export their agricultural products whereas the developed countries mostly export their capital goods or industrial goods to the regional and international consumers. In other words, the major difference between the developing economies and the developed economies is contributed by the type of export as the former one is more concerned with the agricultural products whereas the latter is more related the industrial exports. Additionally, rampant inflation is common in the developing countries and that is highly detrimental for stable economic growth. On the contrary, the developed economies generally experience a consistent monetary policy which signals stability in their overall price index. Based on the findings of these two points, it is worth indicating that the positive correlation between the economic growth and the exports highlighted in the previous paragraph may not be found or relevant or applicable to both developing and developed economies because there are various economic, political and geographical factors that either directly or indirectly affect the relationship between the economic growth and the exports. Furthermore, the highlighted positive correlation between the economic growth and the exports is highly sensitive to such factors. Thereby, it is difficult to apply such finding generally. Based on this, it is appropriate to mention that the exports put a different but positive effect on the national income and personal income as well. however, there are certain critics who do not agree with this perspective and they suggest that it is very challenging to ascertain the effect of trade on economic growth because there are some countries where growth takes place without accounting for a substantial rise in their exports (Rodriguez & Rodrik, 1999). This perspective shows that the economic growth does not purely rely on the support of exports instead there are other factors that also contribute to the economic growth.

2.4 Exports and Tax Revenue

Khattry and Rao, (2002) contend Tax revenue and exports retain a unique economic relationship. It has been contended that trade liberalization reduces tax revenue/GDP ratios especially in the case of developing economies (Khattry & Rao, 2002). A closer analysis of this argument highlights that the developing economies do have an optimal economic and structural strength to offset the impact of trade agreement impacts with the external economies because they do not have all economic means essential for countering the effects of free trade agreements. Within this perspective, it is vital to mention that the developing countries often experience the problem of poor infrastructure, red tape, political instability, inconsistent economic policies in the form of monetary and fiscal tools. At the same time, it is worth highlighting that the rampant corruption in the public sectors remains another major challenge that does not allow the institutions to function in the professional and required manner. for example, the role and effective functioning of public sector institutions is of central significance as they are mandated to ensure implementation of economic policy in the required manner. moreover, the developing economies do not have strong tax collection mechanism. In this regard, it is worth insisting that the developed economies have a very strong and high tax to GDP ratio.

However, contrary to the argument given by Khattry & Rao, a recent research highlights that there is a positive correlation between trade liberalization and tax revenue in Pakistan: this finding has been concluded on the empirical analysis of the numerical data taken for the period 1982-2013 (Jaffri et al., 2015). Within this perspective, it is vital to insist that the authors contend that the Pakistan's economy has a capacity to collect more taxes from the trade liberalization. However, it is worth arguing that there is no doubt that Pakistan's economy has enough rather enormous potential to collect more tax revenue from the different economic

activities of trade liberalization but there are various political, economic, and more important institutional challenges which do not allow one to avail this potential. For example, there are many politicans who are either directly or indirectly involved in commercial activities by running their own businesses. In that situation, they hamper any effort that require to impose on the taxable economic activities. Because of this, many politicans have formed cartels in various sectors, such as cement, poultry, cotton, banking, and other major industries. At the same time, shadow economy is the main hindrance for increasing tax revenue in the country. For instance, many transactions do not use any intermediary instead cash is mostly involved in the exchange of goods and services. Under this situation, the condition becomes worse when buyers do not collect bills or payment receipt from sellers, making it extremely hard for the tax collecting mechanism to collect more taxes from the buyers and the sellers as well. At additionally, the institutions, such as the State Bank of Pakistan, Federal Board of Revenue (the FBR), and other provincial similar institutions do not have sufficient skilled labor and technological support for collecting maximum taxes from the buyers and sellers. And, the worst is that they do not have proper details of tax payers. And this adds fuel to the fire of tax under collection from the eligible residents of the country.

World Bank (2017) highlighted that the Pakistan's tax to GDP ratio has been declining. Generally, it has been observed that the developed and the developing countries do not have a similar trend in the tax-to-GDP ratios because the former has more tax-to-GDP ratio whereas the latter has lower tax-to-GDP ratios. For example, in the recent years, Sweden has experienced 54% tax-to-GDP ratio whereas India finds 15% tax-to-GDP ratio (Investopedia, 2017). Based on this scenario, it can be easily highlighted that many developing countries faces various bottlenecks while attempting to increase their tax base.

Within this perspective, Pakistan's tax-to-GDP ratio has been declining in the recent years. For example, in the 1970s, it can be easily seen that the 13% maximum tax-to-GDP ratio was collected. This highlights that the economic policy was adequate and strong enough to generate more tax revenue from the taxable production and services produced during the period in the country. However, at the start of 1973, this ratio was around 10.5 percent and till the end it touched the level of 13 percent. This situation indicates that the economy only experienced a growth of 2.5 percent in the matter of 7 years as reflected by the graph 03. Similarly, in the subsequent decade, only fluctuations were recorded and no substainal tax-to-GDP ratio increase took place. In other words, the economic managers did not take sufficient efforts for improving the ratio instead they continued to remain within the provided threshold during the period, reflecting that the economy was unable to produce more sources for improving the infrastructure.

In the 1980s, the ratio almost remained the same. However, in the subsequent decade, the ratio improved when it touched the highest mark of 14 percent especially in 1996, reflecting that the economy experienced more stability and continuation of economic policy. However, after the end of the last decade of 1900, Pakistan's economy started to decrease because of political uncertainty and rise of military into power. After the event of 12th October, 1999, the tax-to-GDP ratio sharply declined from the point of 13 percent to the level of 10 percent, highlighting the impact of the political event on the economy of Pakistan. The period from 2000 onwards, the ratio continued to decline mostly and touched below 9 percent level in 2009. However, after the end of 2012, the ratio started to increase again and reached 11.2 percent in 2013, showing some sort of improvement in the ratio because of stability in the political system and in the political climate in the country as well.

Research methodology is an important chapter for any piece of thesis writing. This chapter is mainly consisted of eight main sections and their sub-sections: Research Philosophy, Hybrid Research Approach, Data Collection Method, Variables, Data Analysis Strategy, Validity and Reliability, Research Limitations, and Chapter Summary. The Research Philosophy segment puts light on the basic foundations of research philosophy: Interpretivism and Positivism. Both concepts have different view-points relating to the field of research. Similarly, Hybrid Research Approach details about the method that will be used for assessing and

evaluating the data collected for the purpose of analysis. In the subsequent part, the segment of Data Collection Methods elucidates different sources and methods relevant and applicable for collecting data from a number of methods. In the Variables section, nature and type of dependent and independent variables have been clearly and substantively discussed. In this part, rationale for selecting and using dependent and independent variables has been considerably mentioned. In the Data Analysis Strategy section, the author has attempted to highlight the strategy, which has been employed for analyzing the findings, has been detailed. In the Validity and Reliability part, the main emphasis has been to explain valid and reliable sources have been used for collecting data from a variety of sources. In the Research Limitations part, weaknesses in the research have been mentioned before the Chapter Summary part.

3.2 Research Philosophy

Research philosophy is mainly composed of Interpretivism and Positivism. Both schools of thoughts do not have similar understanding relating to comprehension of social or any type of situations instead they remain highly divided while evaluating or assessing surrounding matters and issues which are taken into account through the support of research. Research can be simply defined as a process of searching something again. The word "research" is basically composed of two words- "re" and "search". The word "re" is a prefix meaning "again" whereas the word "search" is a process of finding something. Collectively, they mean to find something again. Based on this situation, it can be easily extracted that the concept of research is not limited to one or two attempt of finding something instead many attempts are carried out at something for finding out different meanings and explanations relating to the word or phenomena. In other words, research is not something that can be termed as "perfect and final" because there are numerous perspectives, paradigms, means, methods, causes, effects, remedies, examples, and certain other factors which are directly or indirectly involved in the process of searching any phenomenon. For example, even this piece of research is mainly limited to empirical aspect of the topic, meaning the researcher is confined to take and employ the empirical data from the chosen sources and apply the relevant tests for extracting findings inbuilt to the collected empirical raw data. In other words, the researcher is limited to the empirical data and there is no way to use any primary data, which is mostly the first-hand information from respondent. Thereby, it is possible that even this piece of work is only restricted to provide the empirical findings rather than findings-based on primary data.

3.2.1 Interpretivism

Interpretivism is a comprehensive philosophy. It has been defined as "…the belief that knowledge is a matter of interpretation" (Hatch, 2011, p.132). based on this definition, it can be easily deduced the provided definition also implies that it is the will and choice of a researcher to apply one's own understanding and interpretation for the purpose of understanding or evaluating any situation or thing under investigation or under consideration. Similarly, this piece of definition also indicates that the researcher is totally authorized to use his or her own set of knowledge in order to assess the situation. This point also points out that it is not binding on the researcher to apply the external knowledge or interpretation in order to evaluate or explain the situation instead his or her own comprehension or knowledge is sufficient to elucidate the situation. In other words, it is not incorrect to say that the philosophy of Interpretivism enables or encourages the researcher to apply his or her knowledge rather than depending on the external knowledge or principles.

However, despite having ample and strong theoretical base and strength of Interpretivism, there are various inherent limitations to the concept of Interpretivism. First, it has been contended that no criteria is applied while applying the basic theoretical underpinnings of Interpretivism (Evans & Hardy, 2010). This point looks valid and real as well because many interpretivists find it reasonable to avoid any set of rules of principles while applying the theory instead they are more keen and willing to employ one's own understanding. Under this situation, the main drawback is that the truth becomes the first causality (Evans & Hardy, 2010). This perspective is not irrefutable because some researchers, in an attempt to prove and substantiate their point of

view, reject or undermine the significance of the truth and reality. By doing so, they consider that their subjective understanding is more practical and close to the reality.

3.2.2 Rationale

Considering the limitations of Interpretivism, the researcher finds it extremely difficult to fully apply the concept and theoretical underpinnings of Interpretivism. In this piece of paper, the researcher has attempted to avoid the full or total application of Interpretivism because the paper nature and the paper objectives would not be properly and appropriately considered and satisfied if the concept is applied totally. Additionally, the research objectives, such as identifying the relationship between exports and GDP and other variables, are based on some basic principles of Economics and Econometrics. Thereby, the use of subjectivity or subjective interpretation would not be of any support for satisfying the research objectives. However, it is worth mentioning that the researcher is not totally excluding the application of Interpretivism from the research instead limited or partial application of this research philosophy has been included in the paper.

3.2.3 Positivism

Positivism closely relates to natural laws. "Positivism refers to any approach that applies scientific method to human affairs, conceived as belonging to a natural order open to objective inquiry" (Davoudi & Strange, 2009, p.16). Based on this definition, it can be easily extracted that the philosophical foundations of Positivism are grounded in nature, science, and scientific methods. The nature, such as stars, the Sun, the Earth, and other celestial bodies, follow an exact and precise natural set of rules, which determine their position, composition, structure, place, and activity in the overall natural system. Similarly, science, which is defined as any process involving experiments and observations, purely relies on scientific methods, mathematical equations and other aspects of science which are purely based on natural laws and rules. Based on this extended piece of definition, it is reasonable to deduce that the concept of objectivity derives all features and rules from the natural laws and science. Similarly, this perspective also highlights that there is no scope or room for a researcher to apply one's own subjective understanding while conducting research based on the theoretical foundations of Positivism instead the researcher is bound to comply with the rules and subsequent findings provided by the application of Positivism.

Comparatively, the concept of Positivism is more strong and solid than the philosophy of Interpretivism. In the former framework, a researcher is required to read, understand and apply the relevant scientific and natural laws and rules whereas in the latter theory, the researcher is not constrained by the attached rules instead the researcher is more empowered and entrusted to apply one's own subjectivity so as to extract maximum meaning and sense from the investigated matter or research problem.

3.2.4 Rationale

The researcher refrains to fully employ the concept of Positivism totally. For example, application of Positivism does not allow suggesting any recommendations provided or generated by the subsequent findings but the findings would be limited to the generated conclusions provided by the numerical data of both dependent and independent variables. Thereby, this situation would not allow the researcher to appropriately justify the research questions and objectives as well. Keeping this view in mind, however, the researcher does not totally discard the application of this fundamental research philosophy of Positivism but it has been ensured that a limited application of Positivism has been made part of this piece of writing.

3.3 Hybrid Research Approach

Hybrid research approach has been used to satisfy the paper objectives. In the hybrid (mixed) research approach, a researcher blends both research philosophies (Interpretivism and Positivism) and applies to the relevant data. The main advantage of using the hybrid research approach is that it enables the researcher to

avoid the limitations of both research philosophies besides employing the hybrid approach for satisfying the research objectives.

3.4.1 Primary Data Collection Method

Accessing primary data is substantially challenging and difficult as well. Primary data refers to original data which is directly collected from respondents by researcher (Emmanuel, 2010). In other words, a researcher is needed to access the potential respondents for the sake of satisfying paper requirements. Within this context, it is vital to mention that many respondents do not agree to provide their feedback as they are unwilling. This reluctance is mainly caused by various factors including social, personal, economic, political, or cultural as well. More importantly, the potential respondents do not prefer even to talk with the researcher because most of the time they are totally strangers for them. and, it is not reasonable for sharing personal or economic information with them. keeping this view in mind, many respondents find that sharing personal information may create security risk as they ponder over the misuse of personal information is not a remote possibility.

At the same time, the actual primary data is rarely possible. Even a researcher is successful for convincing the potential respondents, it has been seldom seen that bias has also been removed or avoided from the shared feedback. More clearly, if a respondent has decided not to share the actual or factual information but incorrect one, under this situation, it becomes almost impossible to collect the actual information from the respondent. Subsequently, this leads to inaccurate findings and they subsequent distort the final conclusions and recommendations which have been purely based on the inaccurate collected information provided by many respondents.

Keeping this view in mind, the researcher has avoided using the primary data collection method as a way for collecting data for the paper. First, the data required is easily accessible and available through other sources. Second, the nature of research questions and objectives does not require the use of primary data collect method. Third, the nature of required data is quantitative rather than qualitative, enabling the researcher to use the other sources.

3.4.2 Secondary Data Collection Method

Secondary data collection method looks appropriate for collecting the required data. Secondary data refers to existing or available data which has been collected by others. for example, books and other available sources are considered for providing the secondary data as they contain information which has been collected by book author. In this regard, it is relevant to insist that the secondary data is easily accessible when it is compared with the primary data collection method. Books, magazines, newspapers, articles, journals or any other published online or offline material remains the most important source for secondary data.

The researcher has primarily and mainly relied on the secondary data collection method. For example, for collecting information about the previous literature, the researcher has used the related books, journal articles, magazines, newspapers and others. through accessing and collecting information from such sources, the researcher has collected both quantitative and qualitative data and information, which have not been used not only in the Literature Review but also in the Findings and Discussion chapter as well. Moreover, the secondary data collection method has enabled the researcher to know and access the data needed for completing the paper rquirements. When this point is compared with the primary data collection method, it can be easily extracted that the primary data collection method is not adequate for the paper requirements. Therefore, the researcher has employed the secondary data, which is mostly empirical in its nature.

Time saving is another important benefit of employing the secondary data collection method. Primary data collection method is time-consuming as selection of relevant respondents and access to the selected respondents and ensuring their free consent are some of those major hurdles which consumes a substantial

amount of time. Consequently, findings relying on primary data collection method take even years before they are studied for further analysis and compliation as well. In comparing to the primary data collection method, the secondary data collection method does not take much time instead it would not be incorrect to say that the secondary data collection method is a research-friendly method as it consumes a very small amount of time. Therefore, various researches including this one substantially rely on the application of the secondary data collection method.

3.5 Variables

Two types of variables have been used for satisfying the paper objectives: "Independent variable and dependent variable. An independent variable is a variable that is presumed to cause a change to occur in another variable" (Johnson & Christensen, 2010, p.40). Similarly, an independent variable also represents those factors which are not explained by a dependent variable (Ani, 2008). At the same time, it has also been insisted that independent variable is one which is not affected by other variables (Hartzenberg et al., 2005). On the contrary, dependent variable can be simply defined as the one which can be or is influenced by independent variable(s) (Johnson & Christensen, 2012). Furthermore, it has been insisted that dependent variable is not capable enough to affect other variable but is only restricted or confined to receive the impact of other variables (Bailey, 1994).

Exports (E) has been used as an independent variable whereas Gross Domestic Product (GDP), Tax Revenue (TR), and Unemployment (U) have been utilized as dependent variables. The research objectives are going to be satisfied through the regression analysis of the used both independent and dependent variables. Within this context, it is worth insisting that there is only one variable, which is Export (E), has been identified and applied as an independent variable whereas others variables have been chosen as dependent variables.

3.5.1 Rationale for Exports (E)

Various reasons demand using Exports (E) as an independent variable for satisfying the paper objectives. First, exports are an ultimate cause or barometer highlighting and representing the aggregate contribution and effects of various economic activities and factors as well. for example, before measuring Gross Domestic Product (GDP), generally all raw facts and figures, such as imports, exports, trade balance, trade deficit, and other economic variables are collected and measured as well. Based on this situation, it can be easily deduced that there is a common association between exports and GDP because any small or substantial change in exports directly affect GDP and other similar macro-economic variables. In other words, the GDP and other similar variables mainly rely on any change taking place inside the export-related variable. Second, interestingly, Pakistan's export figures are not economically healthy or stable. during the current or past one decade constant and persistent instability is visible in the export figures during that period. On the contrary, it has been observed that Pakistan's GDP growth rate has been mounting despite instability and decrease observed in the exports. This creates a different economic scenario in which two variables (exports and GDP), which generally retain direct and positive correlation, have been showing a strange economic behavior. Keeping this view in mind, the researcher finds it appropriate to use Pakistan's exports as an independent variable.

3.5.2 Rationale for Gross Domestic Product (GDP)

GDP is a comprehensive economic indicator for reflecting association with exports. It has been observed that the GDP retains a positive correlation with the exports and vice versa. In various developed and developing economies, it has been observed that the GDP and the exports move simultaneously because the latter is the former retains a causal relationship with the latter. Any increase in the exports is also reflected by increase in the GDP as well. However, there are economies where this causality is rarely seen instead a different type of economic behavior and pattern is observed by independent economists and researchers as well. And, this strange economic reality and relationship between both GDP and exports have been observed in the Pakistan

economy. Thereby, it is appropriate to apply simple regression between the GDP and the exports for the purpose of knowing the actual relationship and causality between them.

3.5.3 Rationale for Tax Revenue (TR)

Tax revenue primarily relies on exports. There are two types of taxes: income tax and corporate tax. Both are important sources of tax revenue. Income tax is one which is m

Stationarity and regression analysis of variables have been evaluated. In order to verify stationarity of variables before going to apply regression model on variables, null hypothesis and alternative hypothesis have been developed. More specifically, each variable either independent or dependent one needs to be evaluated through software. In this regard, it is pertinent to highlight that unit root test has also been evaluated for each variable so as to have stationary data which can be used further for evaluating simple linear regression and multiple linear regression between and among variables. Moreover, it is highly essential to know whether the collected data is stationary or not as this enables the researcher to apply the relevant econometric model on the collected data. Also, null hypothesis, which is only about variables, has also been included. within this perspective, it is worth mentioning that there are two types of null hypothesis which have been used in the chapter: individual variable null hypothesis and relationship-based null hypothesis. More clearly, the individual variable null hypotheses are only relevant to single variable for the purpose of ascertaining unit root test whereas the relationship-based null hypotheses have been mentioned to test relationship between independent and dependent variables.

Additionally, this chapter is primarily composed of two segments: Data stationarity evaluation part and regression results. In the data stationarity evaluation part, each variable has been individually assessed for ascertaining data stationarity through applying unit root test. In this regard, it is vital to mention that correlogram has also been applied to each variable. The main objective is to check autocorrelation and partial correlation between and among observations used in the collected data. Moreover, a general rule is to reduce autocorrelation and partial correlation and it only takes place when spikes (bars) are within the range provided by vertically dotted lines in the correlogram table. Furthermore, this rule is applicable to all of the following tables and graphs used in the chapter. Second, the relationship-based null hypotheses have been evaluated in the second part in which simple linear regression and multiple regression analysis has been applied to both the independent and dependent variables.

In the following parts of this chapter, first GDP's stationarity has been evaluated through t-Statistic, p-values and critical values. After this, graph of GDP stationarity and correlogram have also been mentioned. It is followed by tax revenue (TR), which is a dependent variable. Here, least square method has been used to ascertain data stationarity through t-statistic, critical values, and p-values. Subsequent to that, FDI stationarity and unit root test have been carried out in which table, graph and correlogram table have been included. after this stationarity and unit root test of unemployment rate has been conducted. Subsequently, export data stationarity and unit root test have been performed.

In the second part, regression results have been included. first, simple linear regression analysis of GDP (dependent variable) and exports (independent variable) has been carried out. Second, simple linear regression of tax revenue (dependent variable) and exports (independent variable) has been performed. Third, FDI, which has been used as a dependent variable, and exports, which have been employed as an independent variable, have been regressed for ascertaining their relationship by applying the simple linear regression model. Fourth, simple linear regression analysis between unemployment rate (dependent variable) and exports (independent variable) has been performed. Fifth, multiple regression analysis has been carried out in which GDP, tax revenue, FDI, and unemployment rate have been used as dependent variable and exports has been used as an independent variable have been discussed before the chapter summary part.

4.2 Uni-directional Causality Analysis

4.2.1 Gross Domestic Product

Dependent Variables: GDP is a dependent variable. In order to check the data stationarity, unit root test has been carried out. This unit root test checks whether GDP data, which is the dependent variable, has any stationarity. For this objective, null hypothesis has been developed and given below:

H_0: GDP has a unit root.

Alt. H_1: GDP data is stationarity.

In order to check the null hypothesis, certain benchmarks have been developed. First, p-values, which are represented as probability values, must be less than 5%; second, benchmark t-statistic must be higher than the critical values at 5% so as to reject the null hypothesis and accept the alternative hypothesis.

Table 01: Gross Domestic Product

Null Hypothesis: D(GDP) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.542603	0.0000
Test critical values:	1% level	-4.309824	
	5% level	-3.574244	
	10% level	-3.221728	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP,2)
Method: Least Squares
Date: 02/07/17   Time: 12:24
Sample (adjusted): 1987 2015
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-1.230565	0.188085	-6.542603	0.0000
C	-0.318186	0.811724	-0.391987	0.6983
@TREND("1985")	0.016736	0.044901	0.372736	0.7124

R-squared	0.622644	Mean dependent var	0.073387
Adjusted R-squared	0.593617	S.D. dependent var	3.156320
S.E. of regression	2.012098	Akaike info criterion	4.333930
Sum squared resid	105.2620	Schwarz criterion	4.475374
Log likelihood	-59.84199	Hannan-Quinn criter.	4.378229
F-statistic	21.45022	Durbin-Watson stat	2.086434
Prob(F-statistic)	0.000003		

Source: (Author's own work)

This table clearly highlights that alternative hypothesis should be accepted and the null hypothesis should be rejected. At 5% critical value is 3.574244 and t-Statistic is 6.542603 and p-value is 0.00%, this shows that the alternative hypothesis should be accepted. However, it is important to mention that the GDP is stationary at the first difference rather than at first level. Therefore, GDP data has no unit root and it is stationary at first difference.

Table 02: Gross Domestic Product Correlogram

			AC	PAC	Q-Stat	Prob
Date: 02/11/17 Time: 09:39						
Sample: 1985 2015						
Included observations: 30						
Autocorrelation	Partial Correlation	1	-0.223	-0.223	1.6511	0.199
		2	-0.175	-0.236	2.6975	0.260
		3	-0.160	-0.290	3.6022	0.308
		4	0.408	0.283	9.7441	0.045
		5	-0.289	-0.250	12.958	0.024
		6	-0.231	-0.327	15.094	0.020
		7	0.092	-0.004	15.446	0.031
		8	0.166	-0.177	16.645	0.034
		9	-0.085	-0.028	16.979	0.049
		10	-0.048	0.064	17.089	0.072
		11	0.107	-0.112	17.669	0.090
		12	-0.002	-0.087	17.669	0.126
		13	0.027	0.121	17.712	0.169
		14	-0.090	-0.124	18.198	0.198
		15	0.124	0.138	19.189	0.205
		16	-0.156	-0.089	20.849	0.184

Source: (Author's own work)

Autocorrelation must be avoided so as to obtain stationary data. Autocorrelation refers to a situation in which the existence of serial correlation between and among observations or series data has been found (Machiwal & Jha,). Therefore, autocorrelation between observations makes it hard for the explanatory variable to highlight the pattern in such type of data in dependent variables (Schwager,). Subsequently, it is highly necessary to detect and reduce the impact of autocorrelation from data. for this objective, correlogram has been used to identify autocorrelation and stationarity from the gathered data. in the correlogram table, spikes, known as dark bars highlighted in the graph 02 must be within vertically dotted lines in the graph. For this objective, it has been mentioned that if spikes are within the dotted lines, it would indicate that there is no correlation between observations besides data is stationary.

The graph 02 highlights no autocorrelation between different observations of GDP data. in this graph, it can be easily seen that majority of spikes are within the range of vertically dotted lines. At the same time, it is worth mentioning that only 16 lags have been included for highlighting autocorrelation. Subsequently, partial correlation is also indicating the similar trend within the available lags. Based on this, it can be easily deduced that the GDP data has no auto-correlation. And the decreasing trend in spikes also indicates the presence of stationarity in the collected data.

4.2.2 Tax Revenue

Table 03: Tax Revenue (TR)

		t-Statistic	Prob.*
Null Hypothesis: D(TAX_REVENUE) has a unit root Exogenous: Constant, Linear Trend Lag Length: 0 (Automatic - based on SIC, maxlag=7)			
Augmented Dickey-Fuller test statistic		-6.681893	0.0000
Test critical values: 1% level		-4.309824	
5% level		-3.574244	
10% level		-3.221728	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(TAX_REVENUE,2)
Method: Least Squares
Date: 02/07/17   Time: 12:59
Sample (adjusted): 1987 2015
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TAX_REVENUE(-1))	-1.244515	0.186252	-6.681893	0.0000
C	-0.118233	0.358759	-0.329562	0.7444
@TREND("1985")	-0.003349	0.019894	-0.168351	0.8676
R-squared	0.632113	Mean dependent var		-0.071348
Adjusted R-squared	0.603814	S.D. dependent var		1.422301
S.E. of regression	0.895243	Akaike info criterion		2.714255
Sum squared resid	20.83797	Schwarz criterion		2.855699
Log likelihood	-36.35669	Hannan-Quinn criter.		2.758553
F-statistic	22.33697	Durbin-Watson stat		2.099695
Prob(F-statistic)	0.000002			

Source: (Author's own work)

H_0: Tax Revenue (TR) has a unit root.

Alt. H_1: Tax Revenue (TR) data is stationarity.

At 5% critical values, TR data is stationary along with 0.00% p-values and 3.574244 is t-statistic. Under this situation, null hypothesis is that data has a unit root when critical values at 5% are greater than t-statistic values and p-values as well. however, after the application of Augmented Dickey-Fuller (ADF) test, it can be easily seen that the table 03 portrays that TR data has become stationary when critical values at 5% are less than the t-statistic and p-values are also less than 5 percent significance level (i.e. 0.00%). Thereby, the null hypothesis has been rejected and alternative hypothesis has been accepted.

Table 04: Tax Revenue Correlogram

Date: 02/11/17   Time: 09:40
Sample: 1985 2015
Included observations: 30

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	-0.237	-0.237	1.8659	0.172
		2	-0.160	-0.230	2.7488	0.253
		3	0.127	0.029	3.3212	0.345
		4	0.006	0.015	3.3224	0.505
		5	-0.240	-0.226	5.5389	0.354
		6	-0.065	-0.226	5.7099	0.456
		7	0.313	0.187	9.8120	0.199
		8	-0.237	-0.137	12.253	0.140
		9	0.138	0.162	13.123	0.157
		10	0.082	0.011	13.444	0.200
		11	-0.038	0.015	13.516	0.261
		12	-0.193	-0.151	15.501	0.215
		13	-0.171	-0.349	17.145	0.193
		14	0.136	-0.107	18.254	0.195
		15	-0.019	0.088	18.277	0.248
		16	-0.010	-0.073	18.283	0.308

Source: (Author's own work)

The graph 04 also authenticates that TR values are stationary. Autocorrelation values as indicated by AC do not portray any kind of trend in the values. For example, first lag, which is 0.237 is less than the value of lag 5 (i.e. 0.240). similarly, the partial autocorrelation has also demonstrated the similar unclear pattern in the values. At the same time, spikes are also within the range of vertically dotted lines, clearly indicating that all 16 lags have no visible trend or autocorrelation. Therefore, they collectively indicate that TR values are stationary.

4.2.3. Foreign Direct Investment

H_0: FDI has a unit root.

Alt. H_1: FDI data is stationarity.

Table 05: Foreign Direct Investment (FDI)

Null Hypothesis: FDI has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 6 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.817366	0.0040
Test critical values:	1% level	-4.394309	
	5% level	-3.612199	
	10% level	-3.243079	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI)
Method: Least Squares
Date: 02/07/17   Time: 13:08
Sample (adjusted): 1992 2015
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-2.198304	0.456329	-4.817366	0.0002
D(FDI(-1))	1.846721	0.357974	5.158808	0.0001
D(FDI(-2))	1.541215	0.383847	4.015179	0.0011
D(FDI(-3))	1.320600	0.333770	3.956615	0.0013
D(FDI(-4))	1.020174	0.307549	3.317114	0.0047
D(FDI(-5))	0.696220	0.246314	2.826556	0.0128
D(FDI(-6))	1.226623	0.283641	4.324563	0.0006
C	0.040903	0.246745	0.165769	0.8706
@TREND("1985")	0.135571	0.034275	3.955375	0.0013

R-squared	0.717484	Mean dependent var	-0.008640
Adjusted R-squared	0.566809	S.D. dependent var	0.586946
S.E. of regression	0.386312	Akaike info criterion	1.215652
Sum squared resid	2.238550	Schwarz criterion	1.657422
Log likelihood	-5.587819	Hannan-Quinn criter.	1.332853
F-statistic	4.761791	Durbin-Watson stat	1.944955
Prob(F-statistic)	0.004587		

Source: (Author's own work)

The table 05 also depicts FDI data stationarity. At 5 percent critical values are less than t-statistics and p-values, clearly highlighting that the FDI values do not have any unit root instead they reflect stationarity. Based on this, it can be easily suggested that the null hypothesis, which represents that the FDI data has a unit root, must be rejected and alternative hypothesis must be accepted.

Table 06: Foreign Direct Investment Correlogram

Date: 02/11/17 Time: 09:38						
Sample: 1985 2015						
Included observations: 31						

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.801	0.801	21.851	0.000
		2	0.483	-0.440	30.073	0.000
		3	0.163	-0.142	31.046	0.000
		4	-0.096	-0.096	31.398	0.000
		5	-0.233	0.055	33.525	0.000
		6	-0.261	-0.015	36.316	0.000
		7	-0.296	-0.293	40.056	0.000
		8	-0.205	0.391	41.933	0.000
		9	-0.078	-0.114	42.213	0.000
		10	0.031	-0.012	42.260	0.000
		11	0.110	-0.024	42.880	0.000
		12	0.109	-0.128	43.515	0.000
		13	0.019	0.017	43.535	0.000
		14	-0.037	-0.028	43.618	0.000
		15	-0.089	0.012	44.128	0.000
		16	-0.148	-0.165	45.627	0.000

Source: (Author's own work)

This table also highlights stationarity in FDI data. first, graphically, all spikes are within the boundary of the vertically dotted lines, clearly showing that the FDI data has no stationarity in all the reported 16 lags. At the same time, the partial correlation is also indicating that the majority of parameters are within the range of the vertically dotted lines. In this regard, it is worth mentioning that AC does not show a decreasing or increasing trend instead many variables show their individual pattern which does not correspond either with the previous or the following parameter, authenticating that the values do not correspond and they do not have non-stationarity rather they collectively represent stationarity in their collective outlook.

4.2.4. Unemployment Rate

H_0: Unemployment has a unit root.

Alt. H_1: Unemployment data is stationarity.

Table 7: Unemployment Rate

Null Hypothesis: D(UNEMPLOYMENT) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.529068	0.0060
Test critical values:	1% level	-4.309824	
	5% level	-3.574244	
	10% level	-3.221728	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(UNEMPLOYMENT,2)
Method: Least Squares
Date: 02/07/17   Time: 13:11
Sample (adjusted): 1987 2015
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNEMPLOYMENT(-1))	-0.891378	0.196813	-4.529068	0.0001
C	0.264327	0.318302	0.830429	0.4139
@TREND("1985")	-0.011280	0.017585	-0.641438	0.5269

R-squared	0.441097	Mean dependent var	0.036207
Adjusted R-squared	0.398104	S.D. dependent var	1.008073
S.E. of regression	0.782082	Akaike info criterion	2.443983
Sum squared resid	15.90296	Schwarz criterion	2.585428
Log likelihood	-32.43776	Hannan-Quinn criter.	2.488282
F-statistic	10.25985	Durbin-Watson stat	1.962092
Prob(F-statistic)	0.000519		

Source: (Author's own work)

This table is also highlighting that null hypothesis should not be accepted. The critical values at 5% are 3.574244 which are smaller than t-statistic (i.e. 4.529068) and probability value is 0.60 percent. Based on such findings, it can be easily reflected that the null hypothesis, which assumes that unemployment data has a unit root must be rejected and the alternative hypothesis, which assumes that unemployment data is stationary, must be accepted.

Table 08: Unemployment Rate Correlogram

Date: 02/11/17   Time: 09:41
Sample: 1985 2015
Included observations: 30

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.125	0.125	0.5185	0.471
		2	-0.067	-0.084	0.6729	0.714
		3	-0.225	-0.210	2.4732	0.480
		4	-0.131	-0.087	3.1046	0.540
		5	0.123	0.130	3.6893	0.595
		6	-0.009	-0.103	3.6927	0.718
		7	-0.047	-0.077	3.7848	0.804
		8	-0.192	-0.157	5.3946	0.715
		9	-0.085	-0.051	5.7241	0.767
		10	0.090	0.039	6.1125	0.806
		11	-0.052	-0.166	6.2487	0.856
		12	0.057	0.024	6.4213	0.893
		13	0.033	0.066	6.4821	0.927
		14	0.033	-0.012	6.5488	0.951
		15	0.044	-0.013	6.6723	0.966
		16	-0.164	-0.173	8.5240	0.932

Source: (Author's own work)

Table 08 also indicates the absence of non-stationarity in the unemployment data. the table, which as both graphical and numerical representation of the unemployment data, clearly shows that the null hypothesis, which suggests unemployment data has a unit root, must be rejected because the table 08 shows the presence of stationarity in the unemployment data. Within this perspective, it is worth indicating that the majority of the values are within the range, starting from the straight line to the end of the vertically dotted lines. As a result, this shows that the unemployment data has no non-stationarity. At the same time, the value of first lag is 0.125 and the value of third lag is 0.225, which is higher than the value of first lag. Additionally, the value of last lag is 0.164 and that is less than the third lag value. Based on this, it is reasonable to reject the null hypothesis and it is appropriate to accept the alternative hypothesis.

4.2.5. Exports

Table 09: Exports

Null Hypothesis: D(I_EXPORTS_) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.821790	0.0030
Test critical values: 1% level	-4.309824	
5% level	-3.574244	
10% level	-3.221728	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(I_EXPORTS_,2)
Method: Least Squares
Date: 02/07/17   Time: 13:18
Sample (adjusted): 1987 2015
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(I_EXPORTS_(-1))	-0.950607	0.197148	-4.821790	0.0001
C	0.693244	0.437560	1.584338	0.1252
@TREND("1985")	-0.046357	0.024376	-1.901772	0.0683

R-squared	0.472120	Mean dependent var	-0.108100
Adjusted R-squared	0.431513	S.D. dependent var	1.345895
S.E. of regression	1.014779	Akaike info criterion	2.964916
Sum squared resid	26.77419	Schwarz criterion	3.106360
Log likelihood	-39.99128	Hannan-Quinn criter.	3.009215
F-statistic	11.62679	Durbin-Watson stat	1.980106
Prob(F-statistic)	0.000247		

Source: (Author's own work)

This table also rejects the null hypothesis about exports. The exports null hypothesis assumes that the exports data has a unit root and alternative hypothesis suggests that the exports data has stationarity. After conducting the ADF test on the exports data, it can be easily seen that the critical values at 5 percent, which is 3.574244 is less that the t-statistic value (i.e. 4.821790) and the p-value is 0.30 percent, clearly indicating that the null hypothesis should not be accepted and the alternative hypothesis should be accepted

Table 10: Exports Correlogram

```
Date: 02/11/17   Time: 09:34
Sample: 1985 2015
Included observations: 30
```

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.174	0.174	1.0024	0.317
		2	-0.000	-0.031	1.0024	0.606
		3	-0.029	-0.024	1.0325	0.793
		4	0.009	0.019	1.0357	0.904
		5	-0.066	-0.074	1.2031	0.945
		6	0.042	0.069	1.2752	0.973
		7	0.162	0.147	2.3706	0.937
		8	0.176	0.125	3.7165	0.882
		9	-0.054	-0.103	3.8514	0.921
		10	-0.110	-0.089	4.4327	0.926
		11	-0.019	0.022	4.4512	0.955
		12	0.056	0.073	4.6202	0.969
		13	-0.124	-0.149	5.4900	0.963
		14	-0.108	-0.122	6.1881	0.962
		15	0.225	0.248	9.4285	0.854
		16	-0.035	-0.124	9.5106	0.891

Source: (Author's own work)

Table 10 also indicates the presence of stationarity in the exports data. vertically, all spikes are within the range not only in the autocorrelation part but also in the partial correlation aspect as well. Numerically, AC values do not have any trend instead they do not reflect any kind of trend. Based on this, it can be easily reflected that the exports data is stationary. Therefore, null hypothesis should be rejected and the alternative hypothesis, which assumes that the exports data is stationary, must be accepted.

4.3 Regression Results

4.3.1 Exports (E) and Gross Domestic Product (GDP)

$$GDP = \beta_0 + \beta_1 (E)$$

Table 11: Gross Domestic Product (GDP) and Exports (E)

```
Dependent Variable: GDP
Method: Least Squares
Date: 02/08/17   Time: 11:51
Sample: 1985 2015
Included observations: 31
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.097712	2.685382	1.898319	0.0676
EXPORTS	-0.043901	0.184799	-0.237562	0.8139

R-squared	0.001942	Mean dependent var		4.465313
Adjusted R-squared	-0.032473	S.D. dependent var		1.936143
S.E. of regression	1.967329	Akaike info criterion		4.253571
Sum squared resid	112.2411	Schwarz criterion		4.346087
Log likelihood	-63.93036	Hannan-Quinn criter.		4.283729
F-statistic	0.056436	Durbin-Watson stat		1.041088
Prob(F-statistic)	0.813891			

Source: (Author's own work)

This table shows no strong relationship between exports and GDP during the reported period of time. The exports, which has been used as an independent variable, has not reflected any correlation with the GDP during the period from 1985 to 2015. The R-squared value is 0.1942 percent and that is technically authenticating that both variables did not show any type of correlation during this period.

Various previous researches also support this finding. For example, Ahmed et al. (2000) conducted the similar study and they found no relationship between the exports and the economic growth in Pakistan, Bangladesh, India, and Sri Lanka. Within this perspective, it is worth insisting that the researcher has used comparatively appropriate and large sample size in order to detect or highlight any type of relationship between the exports and the GDP. However, even collecting and using a large sample size did not pinpoint any relationship between both variables. At the same time, it is worth mentioning that there could be a possible impact of export composition. For example, it has been mentioned export composition, a total number of different products exported to other countries, is of crucial importance as they put substantial amount of impact on economic growth (Kim & Lin, 2009). Since Pakistan is an agricultural country, it is logical to assume that the agricultural products are the main export source for the country. Thereby, this has caused no relatiosnhip between both variables. On the contrary, it is worth highlighting that some international studies have found a positive relationship between exports and GDP. For example, correlation and co-efficient technique studies have found relationhip between economic growth and exports (Balassa, 1978; Tyler, 1981; Heller & Porter, 1978; and Kormendi & Mequire, 1985). Based on this perspective, it can be easily deduced that the international economies or developed economies experience a strong and positive relationship between exports and GDP because they do not have crippling economic and structural infrastructure which is normally found in the developing countries, such as Pakistan.

Additionally, the previous literature also finds similar trends in the Pakistan economy between exports and GDP. Quddus & Saeed (2005), in the graph 04, have clearly highlighted that the inverse or no relationship between both the exports and the GDP during the period prior to 1985. For example, in the table 04, from 1970-71 to 1974-75, the cumulative export growth was 27.1 and 5.05 GDP growth rate was recorded during the same period; similarly, from 1975-76 to 1979-80, 10.6 and 5.78 export growth and GDP growth were accounted for respectively. Based on this, it is logical to suggest that there is no relationship between both variables as one is increasing and other is decreasing.

4.3.2 Hypothesis

Table 11 clearly rejects alternative hypothesis. Two hypotheses were developed prior to conducting the test between exports and GDP. H_1 assumed that the exports retains a positive and strong relationship with the GDP whereas H_0 presumed that the exports retains no positive and strong relationship with the GDP. Based on the results highlighted by the table 11, it can be easily stated that the exports retains no strong relatisonhip with the GDP. Thereby, H_0 should be accepted and H_1 should not be accepted.

4.3.3 Tax Revenue (TR) and Exports (E)

$$TR=\beta_0+ \beta_1 (E)$$

Table 12: Tax Revenue (TR) and Exports (E)

Dependent Variable: TAX_REVENUE				
Method: Least Squares				
Date: 02/08/17 Time: 11:55				
Sample: 1985 2015				
Included observations: 31				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.183142	2.122153	2.913617	0.0068
EXPORTS	0.364719	0.146039	2.497400	0.0184
R-squared	0.177002	Mean dependent var		11.43693
Adjusted R-squared	0.148622	S.D. dependent var		1.684948
S.E. of regression	1.554703	Akaike info criterion		3.782788
Sum squared resid	70.09598	Schwarz criterion		3.875303
Log likelihood	-56.63321	Hannan-Quinn criter.		3.812945
F-statistic	6.237008	Durbin-Watson stat		0.300008
Prob(F-statistic)	0.018436			

Source: (Author's own work)

This table exhibits a weak relationship between tax revenue and exports during the reported period. In this simple linear regression analysis, the exports have been used as an independent variable whereas the tax revenue has been employed as a dependent variable from 1985 to 2015. The subsequent result reveals that the R-squared is 17.7002 percent which clearly indicates a weak relationship from the employed variables. In this regard, it is relevant to mention that one percent increase in the independent variable (i.e. exports) only highlights 0.17 percent change in the dependent variable (tax revenue). Additionally, it is important to mention that any positive or negative change in the exports does not cause any positive or negative change in the tax revenue data. Thereby, it is reasonable to mention that the simple linear regression model does not indicate any type of causation but it only predicts values of tax revenue during the reported period of time.

In the previous literature, interesting findings have been mentioned. For example, Chaudhry & Munir (2010) also finds no relationship between exports and tax revenue. This shows that this finding is largely in accord with the table 12 as it also highlights a weak relationship between both variables and this also indicates the absence of any relationship between the exports and the tax revenue as well. Within this perspective, it is worth insisting that this result is not different from the previous findings of other reserachers as well.

There are various reasons behind the absence of relationship between exports and tax revenue during the observed period of time. First, in the literature review chapter, it has also been mentioned that Pakistan's tax-to-GDP ratio is substantially lower than other similar developing countries. This lower tax-to-GDP ratio is the major cause behind the weak relationship between the exports and the tax revenue. More clearly, tax revenue is the major source of fiscal policy for collecting tax receipts from tax payers. The higher the tax receipts, the more funds avaiability for Pakistan government for investing in the social and development infrastructure.

Types of taxation also affect their relationship with development indicators. In the literature review chapter, it has been mentioned that 67 percent of total tax revenue is collected from indirect taxation while the remaining is obtained from direct taxation (Ahmed et al., 2016). They contend that this ratio between direct and indirect tax collection methods puts negative effect on the economic growth; thereby, it has been suggested that 67 percent of total tax revenue should be secured from the direct tax method and 33 percent should be collected through the indirect tax collection method (Ahmed et al., 2016). When this perspective is applied to the current finding, highlighting the weak relationship between the exports and the tax revenue, it can be easily deduced

that this finding is also indicating the negative impact of indirect tax as the major source of tax revenue collection mechanism on the relationship between the exports and the tax revenue.

At the same time, the graph 05, in the literature review chapter, clearly indicates a declining trend in the tax-to-GDP ratio during the reported period of time. This declining or unstable tax-to-GDP ratio is a harbinger for economic instability in the Pakistan economy. At the same time, in the literature review chapter, it has also been mentioned that the developed countries, such as Sweden has 54 percent tax-to-GDP ratio (Investopedia, 2017). This suggests that the developed countries always retain a higher tax-to-GDP ratio so as to have optimal resources for developing and obtaining long-term economic goals and objectives, including long-run stability in the exports as well. However, when this perspective is applied to Pakistan's economic history and on the most recent time, it can be easily suggested that the tax-to-GDP ratio has been very lower when it is compared with the tax-to-GDP ratios of developed and developing countries. More importantly, worse is that India, which retains 15 percent tax-to-GDP ratio (Investopedia, 2017), has largely been able to retain an appropriate ratio during the same period of time, clearly indicating that the consistent and substainable economic policy has paid off.

On the contrary, there are findings suggesting a positive and strong relationship between exports and tax revenue. For example, Stotsky & WoldeMariam (1997) found a positive relation between exports and tax revenue by employing panel data from 30 economies. This suggests that strong and stable economies always find that their exports are mostly positively related to their tax revenue as the strong tax base always enables the economy to provide business-friendly and conducive environment to investors as they subsequent affect export performance.

4.3.3.1 Hypothesis testing

H_0 should be accepted as there is a weak relationship between exports and tax revenue during the reported period of time. Second hypothesis (H_2) assumes that tax revenue retains a positve and strong relationship with exports. However, the subsequent findings reveal no such relationship but a weak relationship between the tax revenue and the exports during the reproted period. However, it is worth highlighting that there is a positive relationship between the exports and the tax revenue (i.e. R-squared 17.7002 percent) but it is difficult to say that the relationship is strong because to say that R-squared must be more than 50 percent so as to prove the strong relationship between the independent variable (exports) and the dependent variable (tax revenue).

4.4.1 Exports (E) and Foreign Direct Investment (FDI)

$$FDI = \beta_0 + \beta_1 (E)$$

Table 13: Foreign Direct Investment (FDI) and Exports (E)

Dependent Variable: FDI
Method: Least Squares
Date: 02/08/17   Time: 11:58
Sample: 1985 2015
Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.014313	1.189361	0.852821	0.4007
EXPORTS	0.001366	0.081848	0.016693	0.9868

R-squared	0.000010	Mean dependent var	1.033994
Adjusted R-squared	-0.034473	S.D. dependent var	0.856693
S.E. of regression	0.871334	Akaike info criterion	2.624758
Sum squared resid	22.01746	Schwarz criterion	2.717273
Log likelihood	-38.68375	Hannan-Quinn criter.	2.654916
F-statistic	0.000279	Durbin-Watson stat	0.361534
Prob(F-statistic)	0.986796		

Source: (Author's own work)

The FDI retain neither positive nor strong relationship with Exports. The table 13 represents the result of simple linear regression analysis between the exports, which has been used an independent variable, and the FDI, which has been employed as a dependent variable from 1985 to 2015. The subsequent results reveals that R-squared is 0.0010 percent which means one point change in the exports only predicts 0.0010 point change in the FDI. Thereby, there is no relationship between both variables.

In the previous literature, various studies do not concord with the above finding. For example, Eryigit (2012) has found a strong and stable relationship between exports and FDI for Turkey from 2000 to 2010. This shows that stable economies do experience a positive and strong relationship between both variables. When this aspect is applied to the economy of Pakistan, it can be easily deduced that there has no such relationship between exports and FDI.

Logically speaking, exports are highly reliant on the consistency and flow of FDI for various reasons. For example, many foreign investors invest so that they earn a lucrative and sustainable profit from the investment. Mostly, this type of long-term investment is done in the large sectors, such as industry by establishing new production units developing and assembling capital goods. However, this type of investment is not common or pursued by the foreign investors. More clearly, China Pakistan Economic Corridor (CPEC) attracted $600 million from China in the form of FDI and that is alone 38.8% of total FDI received in 2015-2016 as quoted by the central bank of Pakistan (Alam, 2016). Based on this perspective, it can be easily opined that CPEC is the major source attracting FDI and there are no commendable economic units or areas attracting FDI. Within this background, it is worth insisting that even CPEC FDI will be invested in the country's infrastructure, such as long-route roads, flyovers, motorways and other similar areas. Therefore, such FDI is not purely economic since it will be directly producing capital or consumable goods which generate and activiate economic activity in the country.

In Pakistan, stock-attracted FDI is more common than asset-oriented FDI. For example, there are three major economic sectors receiving the FDI: energy sector, telecommunications and beverages (Alam, 2016). In terms of investment, the energy sector receives the highest FDI, than telecommunications and it is followed by beverages (Alam, 2016). Here, it is worth mentioning that the FDI in these sectors do not contribute much to the exports. For example, FDI in the energy sector does not produce any goods or services which are exportable because Pakistan is not self-sufficient in its energy sector instead outage is common across the country.

Therefore, it is logical to conclude that FDI in the energy sector has no substantial amount of impact on the exports. And, the same is also true about investment in the telecommunications as it does not produce goods or services instead such investment only produces services rather than products; and the services are internally consumed by the economy of Pakistan. Similarly, investment in the beverages sector does not count much as there is no substantial amount of contribution shared by the beverages in the aggregate exports of the country. Thereby, FDI in the beverages has no substantial impact on the exports of the country. Under this situation, it is logical to assume that there is no clear association between the exports and the FDI.

There are a few countries who are a major source of FDI to Pakistan. The United States of America is the largest FDI contributor, it is followed by China and United Arab Emirates (Alam, 2016). This shows that only these countries and their individual and institutional investors are willing and find attractive investment destinations in Pakistan. More importantly, FDI from these countries is largely headed towards stocks rather than assets. It has been observed that the foreign investors do not invest for establishing new factories, mills, and other similar industrial units instead they are more keen to invest in the Pakistan Stock Exchange so that they can easily withdraw their investment as soon as they find it appropriate. Thereby, such type of soft investment does not contribute much to overall real output in the country instead they are mostly done for earning short-run profits from stocks of well-established companies. And, this aspect has also been substantiated by various studies. For example, in 2015-2016, the United States withdrew $65.5 million invsestment from Pakistan; Saudi Arabia pulled out $102.2 million; Germany took away $33 million; all this divestment was recorded in the same year (Alam, 2016). This information clearly indicates that the foreign investors were mainly interested to invest through stock exchanges as withdrawal becomes very easy in case of divestment decision is carried out after investing in particular stocks.

Conclusions

The paper attempts to find the strength of relationship between GDP and exports through simple linear regression model. The first research objective was to assess the strength of relationship between GDP and exports for the period of last 31 years (1985-2015) through using the E-view software. Before attempting, it was hypothesized that GDP retains a strong positive relationship with exports (a strong positive relationship is one in which the R-squared value is more than 50 percent threshold). The subsequent results reveal that the R-squared value is 0.1942 percent, suggesting there is no relationship between GDP and exports during the recorded period of time. Based on this, the null hypothesis was accepted and alternative hypothesis was rejected.

Tax revenue and exports shows a positive weak relationship. The researcher collected data from 1985 to 2015 in which tax revenue was taken as a dependent variable whereas exports were considered as an independent variable. After applying the software on the collected data, the subsequent outcome suggested the R-squared value was 17.7002 percent. Although the value indicated a positive relationship between both variables, yet the strength of relationship was considerably lower than the threshold of 50 percent. Therefore, it was a positive weak relationship between the tax revenue and the exports. As a result, this perspective also did not enable to reject the null hypothesis but it required to accept the null hypothesis and reject the alternative hypothesis.

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