

International Trade and Its Impact on Economic Growth of Nepal

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Abstract:- For any country, international trade is a significant source of economic growth. The association among economic growth and import and export is examined in this study. Studying the development pattern of international commerce and examining the connection between exports, imports, and expansion of Nepal's economy. The relation between Nepal's international trade and economic growth has been studied using the ARDL and ERM model. This paper is supported by data spanning the years 1974/1975 through 2021/22 from Ministry of Finance. The empirical data shows a stable long-term relationship between economic growth and international commerce. Therefore, it is recommended to adopt a strategy of enough investment in export-oriented sectors that exhibit the proper mix of export promotion and import substitutes.

Keyword:- International Trade, Export, Import, Economic Growth.

I. INTRODUCTION

International trade is the transnational exchange of goods and services. It is the most common sort of global commerce activity, has had a substantial impact on world history, and was the first kind of international commercial activity that most businesses worldwide engaged in. Development economists were attracted in the role that international trade played in the procedure of development. Thanks to international commerce, manufacturers and merchants may hunt for goods, infrastructure, and components created abroad. A country can rely on both domestically produced goods and those that are imported (Okyerere & Jilu, 2020).

Exports are the products and services that people or countries sell, whereas imports are the commodities and services that are bought. Export, according to Grafers and Schlich (2006) is the industrial cross-border delivery of goods, services, and intellectual property rights like utility models, patents, designs, copyrights, and trademarks, to foreign clients.

Nepal is a landlocked nation that borders Tibet to the north and India on three sides. The majority of foreign trade was place with these nations before the 1950s. 90% of Nepal's trade up to the 1950s was with its sizable neighbor, India. However, Nepal's trade connections with many other countries across the world—including Malaysia, Japan, the United States, Singapore, Kuwait, Thailand, Germany, France, Bangladesh, and Spain—started to improve after 1951 AD. International trade in Nepal is growing swiftly, but while it does so, the trade deficit also increases (Kafle, 2017).

A lot of businesses in Nepal export food to its neighbors as well as other goods. In addition to tangible items like clothing, oil, and automobiles, export and import also comprise services offered by foreign airlines, cruise lines, travel agencies, and hotels. Since ancient times, trade and commerce have been essential to Nepal's economy. Steel was the first item Nepal purchased from China. Following changes to trade policy, including tax, deregulation, and privatization measures, Nepal's foreign commerce has improved. Agriculture, engineering and textile goods, precious stones, jewelry, petroleum products, sugar, steel, chemicals, and leather products make up the bulk of Nepal's economy (Taneja, Shrivani, & Pallavi, 2013).

Countries are considering limiting imports through programs like the import substitution plan in order to encourage locally produced goods. One of the less developed countries to choose for this import substitution strategy is Nepal, but regrettably, it has not been as successful for them as they had planned. In order to industrialize and replace imports with domestic production, Nepal implemented policies that created balance of payments problems (Bastola & Sapkota, 2015).

The Breton Woods institutions have encouraged commercial liberalization in Nepal. These institutions defend the reforms by claiming that domestic policy faults, which need to be reviewed and corrected, are mostly to blame for Nepal's poor economic performance (Khadka, 2019).

According to Mwega (1993) claims that in order to achieve economic recovery, the policy agenda has stressed growing market dependency and liberalizing both internal and foreign trade. These policies were primarily developed to increase productivity and exports in the manufacturing and agricultural sectors while also reestablishing equilibrium, notably in the balance of payments.

However, in terms of the amounts of export revenues and the lack of export diversifications, exports haven't responded effectively to the incentive structure incorporated into the trade liberalization program. The information that is now available does unmistakably show how poorly the Nepalese economy has done. The Nepalese economy's current account balance was negative relative to GDP (Khadka, 2019).

II. PROBLEM STATEMENT

An evaluation of the empirical literature on the relationship among international Trade and economic development revealed that there is surprisingly little information available on Nepal. According to Chanthunya

(2017) found that exports and GDP had a significant yet advantageous relationship. The research's inconsistent findings show that little is known about the association among exports and imports in global trade and economic growth in Nepal.

In an effort to fill the empirical information vacuum, this study investigates the effects of exports and imports on the economic growth of Nepal. This article investigates the association among import and export activities and economic growth.

III. PURPOSE OF THE STUDY

The main Purpose of the conduct this research paper is to investigate the impact of import and export on economic growth of Nepal.

- To examine the impact of import and export on economic growth of Nepal.

IV. RESEARCH QUESTION

This research question is developed on the basis of research purpose. This study seeks to analysis the impact of exports and imports, on Nepal's economic growth. There is the following research question as following.

- What is the impact of import on economic growth of Nepal?
- What is the impact of export on economic growth of Nepal?

V. RESEARCH HYPOTHESIS

These research hypotheses are based on the above research objective. This study investigate the finding to analysis the impact of exports, imports on Nepal's economic growth there are following hypothesis are developed.

H₁: There is significance impact of import on economic growth of Nepal.

H₂: There is significance impact of export on economic growth of Nepal.

VI. CONCEPTUAL FRAMEWORK

This research study looks at how exports and imports effect economic growth. The dependent and independent variables in this research report are GDP and export and import. The major purpose of this research is to identify existing knowledge gaps in the literature about the impacts of import and export on national gross output.

The most significant factor in economic development, in accordance with traditional economic theory, is population, or human capital. Although a nation's GDP increases as its population increases, this school of thought maintains that population expansion has a negative impact on GDP growth, hence reducing GDP (Sulaiman, Baharin, & Al-Hadi, 2019).

According to Awokuse(2007) says that he looks into the association between trade, as well as export and import, inflation, and economic growth. Statistics from the International Monetary Fund (IMF) database for the years

1993–2002 (for the Czech Republic), 1994–2004 (for Bulgaria), and 1995–2004 (for Poland) were derived using a correlation matrix. They find that export and import have a optimistic correlation with the GDP of all three countries.

VII. LITERATURE REVIEW

The analysis and evaluation of export and import statistics in relation to Nepal's GDP reveals that the data have substantial functional and practical ramifications. The association between export, import and GDP growth has been extensively studied in the literature.

Dawson and Hubbard (2004) feel that the link among export and economic success in 14 nations in Central and Eastern Europe during the transition is straight forward, based on panel data collected over a 6-year period (1994-1999). Lastly, they argue that export has a high and optimistic link with economic development.

International trade is inherently riskier than local trading. There are fewer common rules that can support a transaction in international trade than there are in domestic trade. In certain cases, established commerce and practice, as well as traditions, are employed to settle disagreements (Cheru & Obi, 2010). The key to effective commercial operations is hence awareness of these established practices. As a result, it is critical for a seller and buyer to understand all of these practices before entering into deals. The International Chamber of Commerce (ICC) publications are the primary sources for international commercial practice (Huang, Wilkes, Sun, & Terheggen, 2013).

The connection between GDP and capital stock, labor force, exports, imports. All independent factors are absolutely correlated with economic development, and the correlation is statistically significant, according to their analysis of panel data from 31 Chinese municipalities, provinces, and autonomous regions from 1997 to 2008 (Chen & Dong, 2012).

However, the influence of imports on economic development remains a topic of interest in economic research (Fosu, 1990). Others, like as Schneider, argued that imports are completely related to GDP and that the link between GDP and imports is considerable.

Schneider (2005) investigates the influence of high-technology trade in influencing a country's economic development rate over a 21-year period utilizing a exclusive panel data set of 47 industrialized and developing nations (1970 to 1990). The influence of foreign technology on GDP is greater. This suggests that foreign technology imports can fuel economic growth. According to Shitundu and Luvanda (2000) inflation growth has a detrimental influence on economic growth.

According to Dunning and Lundan (2008) the trade balance is a common feature of worldwide economies and is seen as an important economic indicator. Successful economies have quickly rising GDPs and usually have more exports than imports.

VIII. METHOD OF ANALYSIS

This analysis is based on the variables of Nepal's GDP, imports and exports. The primary goal of this research project is to explore the impact of import and export on Nepal's economic growth.

The use of inferential statistics and a quantitative research strategy is heavily stressed in this research report in order to produce an effective study. To assess the effect of export and import on GDP using a quantitative method, secondary data is acquired. In order to examine the impact of import and export on Nepal's GDP, secondary data from the Ministry of Finance is changed in this study.

A. Sampling and Data Collection

Secondary data gathered from a legitimate source is more viable for developing our study in an efficient method. The data used for this study was obtained from the Ministry of Finance (MoF). The data is drawn from Nepal's import and export statistics from 1974/75 through 2021/22. Aside from it, information has been obtained from a variety of publications, journals, periodicals, newspapers, and the internet, among other sources. The study combines a descriptive and analytical research design.

B. Model Specification

This study will observe the link among imports, exports and GDP growth in the country. To assess the impact, it is required to follow the correct path, which is demonstrated in this methodology. The relationship researcher creates a model for analysis.

$$(Y = \alpha + \beta_1 + \beta_2 + e) \dots\dots\dots (i)$$

The variables in our study may be found using the aforementioned equation:

- Y= Real Gross Domestic Product, (GDP) (Dependent variable)
- β_1 = Imports, (IM) (Independent variable)
- β_2 = Exports, (EX) (Independent variable)
- α = Constant
- e= Probability of error.

In the above equation gross domestic product (GDP) as a dependent variable and, import, export, as an independent variable.

IX. ANALYSIS OF DATA

In this research paper, ARDL and ERM, model used to analysis of variables import, export and GDP the year 1974/75 to 2021/22 data.

A. Trend Analysis

Prior to 1951 AD, Nepal's trading relations were limited to India and Tibet. The fall of the Rana regime in 1951AD was a watershed moment in Nepalese international trade. Following this, Nepal's international commerce has been conducted in a methodical manner with many nations across the world, and the amount of trade has expanded (NPC Report, 2021). The following graph depicts the rise and trajectory of international commerce.

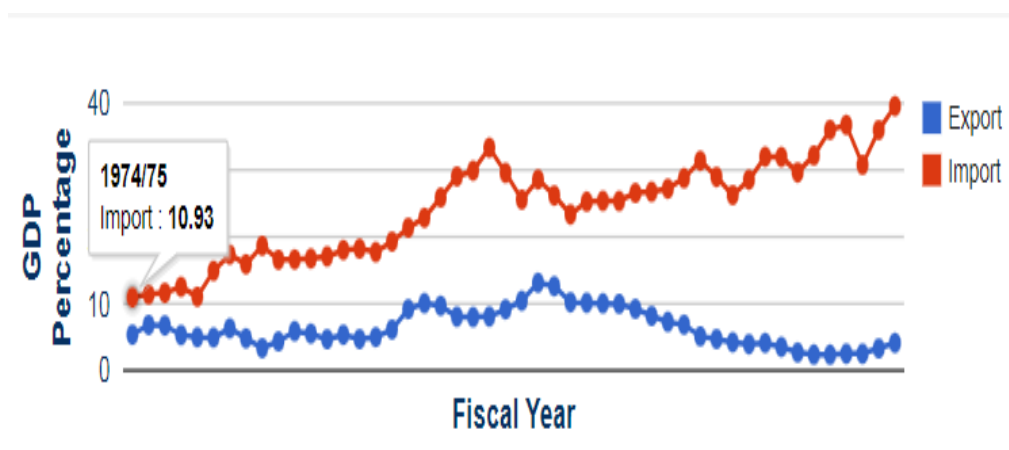


Fig. 1: Trend Analysis of Export, Import and GDP from 1974/75-2021/22

Source: Ministry of Finance

Figure 1 illustrates that Nepal's exports, imports, trade volume, and trade imbalance are all fast expanding. However, the pace of rise in imports exceeds the rate of increase in exports. As a result, Nepal's trade imbalance is quite large and growing quickly.

B. Descriptive Statistic Result

The Ministry of Finance has provided yearly data on Nepal's actual GDP, total value of exports, and imports for the years 1974/75–2021/22 in order to statistically assess the causal linkages among economic growth, exports, and

imports in Nepal. The variables in Table 1 have mean, medium, and standard deviation that are normally distributed. Nepal generally has a substantial trade imbalance in terms of net value of products and services. More significantly, throughout time, particularly in the last ten years, the difference between export and import growth has expanded. As this growth difference widens further, Nepal is increasingly struggling with a trade imbalance. Such a trade deficit will constantly reduce the nation's foreign reserve, endangering macroeconomic stability.

Table 1: Descriptive Statistic Result

	GDP	IMP	EXP
Mean	73057.73	30513.33	4149.264
Median	37397.00	9127.770	3159.490
Maximum	252032.2	192044.8	20003.10
Minimum	13106.18	181.4600	88.96000
Std. Dev	77354.05	47100.26	4234.989
Skewness	1.218318	1.859198	1332190
Kurtosis	2.801834	5.562684	5.471706
Probability	0.002538	0.000000	0.000002

Note: According to the author's own calculations using Eviews-12

C. Unit Root Test

According to the findings of the Unit Root test utilizing the ADF test, the dependent and independent variables used in the study exhibit contradictory outcomes, which permits the use of the ARDL model (Parajuli, 2021).

D. ARDL Estimation Model

The ARDL is used to estimate the value of growth of GDP determined by import and export. The model is well fitted because the p-value of F statistic is 0.0000, below 5%. There is also the absence of autocorrelation because the value of the DW test is 2.005970, near 2. By using VAR Lag Order Selection Criteria, the ARDL model (1, 0, 1, 0) has been chosen based on Akaike Information Criterion. Model summary is presented below.

Table 2: Selected Model: ARDL (1, 0, 1, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.689797	0.084629	8.150860	0.0000
IMP	0.454868	0.154407	2.945899	0.0052
EXP	0.269298	1.091737	0.246669	0.8063
C	4632.069	3287.192	1.409126	0.1660
R-squared	0.971461	Adjusted R-Squared	0.969469	
F-statistics	487.8952	S.E. of Regression	12843.04	
Prob (F-statistic)	0.000000	Durbin-Watson stat	2.005970	

Note: According to the author's own Calculation by using eview-12

X. SHORT RUN AND LONG RUN EFFECT ANALYSIS

A. Long Run Coefficient Using ARDL Approach (Dependent variable is LNGDP)

Table 3 displays the model specification's long-term estimate. According to the findings, LNEXP is significant at the 1% level. This indicates that export volume is a critical factor in determining the country's long-term economic prosperity

Table 3: Unrestricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNIMP	1.466358	0.288999	5.073913	0.0000
LNEXP	0.269298	1.091737	0.246669	0.8063

$$EC = GDP - (1.4664 * IMP + 0.8681 * EXP)$$

Note: According to the Author's own Calculation by using eview-12

B. ARDL Bound Test

Table 4 calculated F- statistics are 5.919014. At the 5% significance level, this number exceeds the upper bound critical value of 5.15. This implies that GDP, exports, and

imports are co-integrated. It indicates that present is a long run relationship between the dependent and independent variables taken under the study

Table 4: ARDL Bound Test

No. of Regression	Value of statistic
Computed F-Statistics	5.919014
5% Critical Value	
Lower Bound Value	3.17
Upper Bound Value	5.15

C. Error Correction Model (ECM)

The value of cointEq (-1) is 0.31020 and the p-value is 0.0001, which is less than 5% and significant for the short run effect study using ECM regression. The time series regression model known as the error correction model

(ECM) is founded on the behavioral concept that there exists an balance relationship among two or more time series that regulates both short- and long-term behavior. The ECM findings are shown in table 5 below.

Table 5: Error Correction Model (ECM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM	-0.31020	0.071960	-4.310795	0.0001

XI. DISCUSSION AND CONCLUSION

This research paper tries to see the impact of Import, Export and on economic growth of Nepal by taking 48 years (1974/75-2021/22) data from Ministry of Finance (MoF). To study the short run and long-term association, ERM and ARDL method was used. The empirical data shows a stable long-term association among economic growth and export and import. The findings indicated that exports had a positive impact on economic growth, demonstrating that the more commodities a nation can create and export on the global market, the greater its economic growth will be. A diagnostic test was also carried out on the ARDL model to determine goodness of fit in order to obtain a trustworthy and genuine result. This diagnostic test looked at the normalcy.

It is recommended that the government and policymakers implement policies that would increase domestic production and exports, as research demonstrates that international trade contributes to economic growth.

The association between export, import and gross domestic product from period 1981 to 2012 to Bangladesh Economy, the researcher discovers that there is a trade imbalance in every sample year where export is smaller than import. And the investigation by the researcher reveals that import is inversely associated to the expansion of Bangladesh's GDP. Additionally, it is discovered that the link is not important. The similar conclusion is reached by (Taneja, Shravani, & Pallavi, 2013). As import and export are negatively correlated and import is greater than export, Bangladesh's policymakers must be extra cautious when making decisions concerning international commerce while it comes to GDP growth. On the other side, the policymaker may push entrepreneurs to launch new businesses and create locally produced goods.

XII. LIMITATION

The growth of several economic sectors is significantly influenced by foreign commerce. The study offers a trade-related suggestion. The study supports decision-making about trade growth by researchers, planners, and others. The study's primary objective is to evaluate Nepal's trade performance. The study does, however, have several drawbacks, which are as follows: A research paper use only two independent variables are present in the investigation. The study makes use of secondary data. Therefore, it makes no attempt to conduct a field survey. And the study takes into account actual GDP.

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E-Views Output

	GDP	IMPORT	EXPORT
Mean	73057.73	30513.33	4149.264
Median	37397.00	9127.770	3159.490
Maximum	252032.2	192044.8	20003.10
Minimum	13106.18	181.4600	88.96000
Std. Dev.	77354.05	47100.26	4234.989
Skewness	1.218318	1.859198	1.332190
Kurtosis	2.801834	5.562684	5.471706
Jarque-Bera Probability	11.95293 0.002538	40.78763 0.000000	26.41650 0.000002
Sum	3506771.	1464640.	199164.7
Sum Sq. Dev.	2.81E+11	1.04E+11	8.43E+08
Observations	48	48	48

Dependent Variable: GDP
 Method: ARDL
 Date: 05/21/23 Time: 23:31
 Sample (adjusted): 2 48
 Included observations: 47 after adjustments
 Maximum dependent lags: 1 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (0 lag, automatic): IMPORT EXPORT
 Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.689797	0.084629	8.150860	0.0000
IMPORT	0.454868	0.154407	2.945899	0.0052
EXPORT	0.269298	1.091737	0.246669	0.8063
C	4632.069	3287.192	1.409126	0.1660

R-squared	0.971461	Mean dependent var	69249.76
Adjusted R-squared	0.969469	S.D. dependent var	73502.16
S.E. of regression	12843.04	Akaike info criterion	21.84026
Sum squared resid	7.09E+09	Schwarz criterion	21.99772
Log likelihood	-509.2460	Hannan-Quinn criter.	21.89951
F-statistic	487.8952	Durbin-Watson stat	2.005970
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.

Levels Equation				
Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
IMPORT	1.466358	0.288999	5.073913	0.0000
EXPORT	0.868136	3.449024	0.251705	0.8025
EC = GDP - (1.4664*IMPORT + 0.8681*EXPORT)				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	5.919014 2	10%	3.17	4.14
		5%	3.79	4.85
		2.5%	4.41	5.52
		1%	5.15	6.36

ARDL Error Correction Regression
 Dependent Variable: D(GDP)
 Selected Model: ARDL(1, 0, 0)
 Case 3: Unrestricted Constant and No Trend
 Date: 05/21/23 Time: 23:43
 Sample: 1 48
 Included observations: 47

ECM Regression				
Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4632.069	2903.964	1.595085	0.1180
CointEq(-1)*	-0.310203	0.071960	-4.310795	0.0001
R-squared	0.292263	Mean dependent var		-5083.532
Adjusted R-squared	0.276536	S.D. dependent var		14760.02
S.E. of regression	12554.39	Akaike info criterion		21.75515
Sum squared resid	7.09E+09	Schwarz criterion		21.83388
Log likelihood	-509.2460	Hannan-Quinn criter.		21.78478
F-statistic	18.58295	Durbin-Watson stat		2.005970
Prob(F-statistic)	0.000088			

* p-value incompatible with t-Bounds distribution.