Chapter I

Introduction

1.1 Background

Globalization refers to the growing interdependence of the world's economies, cultures, the cross-border trade in goods and services, technology, and flows of investment, people, and information. After the World War II, international trade and investment flows among advance economies were uplifted. Globalization has influences sustainable development. This study is keen on economic globalization; hence globalization implies the economic globalization throughout the report. There are different kinds and dimension so globalization, but this thesis is concentrated on economic globalization.

Globalization motives are idealistic, as well as opportunistic, but the development of a global free market has benefited large corporations based in the Western world. Its impact remains mixed for workers, cultures, and small businesses around the globe, in both developed and emerging nations. Globalization is linked with the socially which leads to greater interaction among the people from the different nation and places. Culturally, globalization represents exchanges of ideas, opinion, and vales with other culture. Globalization also refers a trend of single world culture. In case of politically, globalization has shifted attention to inter-governmental organizations like the United Nations (UN) and the World Trade Organization (WTO). Term is used in reference to create the global market by free trade, free flow of capital and corporate use of foreign labor markets to maximize returns.

The last three decades have been marked by intense political activism against globalization. The opposition, however, has been driven by a narrow view that equates globalization with international trade liberalization advanced by Western countries. But globalization is about more than that. (Thomson, 2005)

Globalization has taken place from many decades. Its ongoing debate. As per the Thomas L Friedman, globalization has divided in globalization 1.0, globalization 2.0 and

globalization 3.0. On different century there was a significant economic and cultural exchange among the countries. Silk road is best example of the improved version of the globalization which connected from China up to Roman empire on 2nd century BC to 18^{th}century, on 16 century first multinational corporation was established which is known as British East India corporation on 1600 and on the 19th century establishment of GATT, NAFTA and EU are the examples of the betterment of the globalization in the world.

After the globalization, many nations were able to establish a strong economy in a nation. China is the biggest nation to export the products to the world, China total exports is 213.6 USD Billion in June2020 and 206.8 USD billion in May 2020. China is able to cope and take the benefit of the globalization. Until1991, India was largely and internationally isolated from the world markets, to protect its fledgling economy and to achieve self-reliance. Foreign trade was subject to import tariffs, export taxes and quantitative restrictions, while foreign direct investment was restricted by upper-limit equity participation, restrictions on technology transfer, export obligations and government approvals; these approvals were needed for nearly 60 percent of new FDI in the industrial sector. The restrictions ensured that FDI averaged only around $200M annually between 1985 and 1991; a large percentage of the capital flows consisted of foreign aid, commercial borrowing and deposits of non-resident Indians.

World Trade Organization deals with the rules and agreements among its member economies for trade related issues. The organization has broadly categorized the cross-border trade in three sectors Trade in Goods, Trade in Services and Trade Related Intellectual Property Rights. WTO main four functions are communication, constraints, exception and dispute settlement. (Deardorff, 1996)

General agreement on tariff and trade which was established on General Agreement on Tariffs and Trade (GATT) is a legal agreement between the countries, it's main proposed was to promote international trade reducing tariffs and quotas. International trade organization was discussed after the II world war but failed to create. On 1 January 1948, 23 nations signed and created GATT. WTO was introduced in the world through the GATT. Next component of WTO is General Agreement on Trade in Services (GATS) was

created to multilateral trading system to service sector. It is the one of the components of the WTO so all the principles also applied on GATS like GATT. Finally, component is Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement which applied for the member nations of WTO. It involves the standards level for regulations by national governments of different form of Intellectual property which is also designed for the member countries of WTO. It was introduced between the 1989 and 1990.

Under WTO principle of most favored nation (MFN) is applied so that WTO treats the member countries equally and WTO agreements made member countries to follow the rules which involve equality. WTO set a free trade agreement with some priority to the developing countries and provides some special favor for market access. In case of services, countries are allowed for positive discrimination to some extent. MFN focus on the country lower trade barriers or open up market as well as country has to treat equally to same product or services among its member countries. The commitment of national treatment (NT) binds the member countries to treat the foreign and local goods equally.

WTO covers 60 different agreements and encourages development and economic reform too. WTO Trade facilitation Agreement (TFA) has the potential to reduce trade cost and boost trade of limited liability partnerships (LLPs) through the article on freedom of transit which protected the legitimate of transit countries access to the sea. As the recent WTO TFA makes the cost of implementing trade facilitation can sometimes be significant.

Uruguay round has divided code specific to agricultural measures into 2 agreements

➢ Sanitary and phyto-sanitary measures (SPS Agreement)

➢ Non – sanitary measures (Technical Barriers to trade (TBT agreement)

1.1.1 History of the WTO

Bretton Woods Conference was held on 1944 to improve the world economy that was destroyed by the World War II. Bretton Woods Conference introduced the International

Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD, currently widely known are World Bank (WB)) and International Trade Organization (ITO). Unfortunately, the then USA government was unable to approve for ITO in senate, so rest of the member saw no significance to materialize in real world excluding USA so it was closed. In this way ITO could not take place, ITO was dead as fetus. After the massive destruction by World War II, major objective those organizations were as follows.

➢ IMF to collect funds from the world to reconstruct the destroyed countries by the World War II

➢ World Bank to develop the systematic and appropriate plan for the reconstruction

Later, it was realized that only IMF and World Bank are not sufficient to overcome the destruction and development of the world economy. It was known that international trade is important, so GATT was introduced. There are several rounds to improve the tariffs phenomena first round was held on Geneva which concessions 45000 tariff affecting $10 billion of the trade. Second Round was Annecy round which was also focused on tariffs. Third round was Torquay round which was focused on tariffs as well as reducing the tariffs levels by 25percent. Geneva round, Dillon round and Kennedy round continually focused on reducing the tariffs and Kennedy round deals with tariffs ant- dumping tariffs. Tokyo round was one of the important rounds which create non tariffs measurement framework agreement and was successful to reduce tariffs worth more than $300billion. Uruguay round was the round which come up with different concepts and rules for tariffs and non-tariffs measurement including several products. Intellectual Property and Dispute settlement was also on this round. This round is known as creation of WTO.

GATT still is the component of the WTO.WTO was established on 1st January 1995. It was signed by the 123 nations on 15 April 1994. It is the largest International Economic Organization in the world. Now 164 countries had taken the membership. WTO holds 96.4percent of the world trade.

A membership that pays off: The USA, China and Germany are the countries that benefit the most worldwide from their accession to the WTO. They achieve by far the largest

income gains, which are directly attributable to their membership in the trade organization. For the United States, income gains amount to about 87 billion US dollars (measured in gross domestic product, GDP). The Chinese generate income gains of about 86 billion US dollars and the Germans about 66 billion US dollars. The whole of the WTO membership achieved a total increase in prosperity of around 855 billion US dollars. This corresponds to about average gain of 4.51 percent of GDP per member country. But membership in the world trade club is also good business for most countries, in addition to the top winners. For example, EU members benefit together with 232 billion and OECD countries with a total of 480 billion US dollars. But the success story also has its downsides: Countries that are not members of the WTO are losing out – on average -0.96 percent per country – due to the greater economic integration of WTO members. (Bluth, 2019)

As per the global affair Canada 2019, The WTO report praises Canada's stable economic performance and highlights its trade-diversification efforts and strong growth during 2018. Since the results of the last such WTO report, in 2015, Canada has brought four free trade agreements (FTAs) into force: the Canada-European Union Comprehensive Economic and Trade Agreement, Comprehensive and Progressive Agreement for Trans-Pacific Partnership, Canada-Ukraine Free Trade Agreement and modernized Canada-Chile Free Trade agreement. A modernized Canada-Israel Free Trade Agreement is expected to enter into force this year. Canada now has 14 FTAs covering 51 countries, providing preferential access for 84.6 percent of its total trade. These are supported by the government's strategy to increase overseas exports by 50 percent by 2025 by helping Canadian businesses of all sizes to better tap into markets abroad.

Trade Policy Reviews are an exercise, mandated in the WTO agreements, in which member countries' trade and related policies are examined and evaluated at regular intervals. Turkey is an upper-middle-income country and the 17th largest economy in the world; with a GDP of US$799 billion, or US$10,390 per capita, in 2014. Since 2001, the economy grew every year except in 2009. However, since 2009, growth has fluctuated from 9.2 percent in 2010 to 2.1 percent in 2012. While real GDP growth was 4.2 percent in 2013, the economy slowed again to 2.9 percent in 2014, reflecting Turkey's vulnerability to capital inflows and contraction in agricultural output due to adverse weather conditions.

Furthermore, a high current account deficit, although declining, has left the country exposed to external shocks in an environment of increased currency and financial market volatility coupled with high inflation since mid-2013. The recent geopolitical crisis in the region and the associated influx of refugees also pose challenges to sustained economic growth. Trade is an important part of the economy: total trade in goods and services grew from the equivalent of 48 percent of GDP in 2010 to 60 percent in 2014; and, since 2010, exports increased by 38 percent to US$157.7 billion in 2014 (current prices). The majority of Turkey's exports are manufactured goods, in particular textiles and clothing (18.5 percent), automotive products (11.1 percent), chemicals (5.8 percent) and iron and steel (6.8 percent). Exports of agricultural products accounted for 11.7 percent of total exports in 2014. Turkey's merchandise imports reached US$ 242 billion in 2014; a 30 percent increase since 2010. The majority of Turkey's imports comprise raw materials and intermediate goods which feed into the production of higher value-added finished goods for export; the principal items being machinery and equipment (27 percent), mining (15 percent), chemicals (13.5 percent), and a broad range of consumer goods. Turkey continues to be a net exporter of services due to its significant surplus in travel services. (ITC, 2016)

As per the UNCTAD handbook of statistics on 2019, In case of Asia, it's 60 percent exports to trading partners on same continent and five Asian developing economics holds 15 percent of the world market (trade in services).

Trade has help to boost the developing nation economy and helps to reduce poverty and human development index too. South Asia is home to approximately 1.3 billion people, of whom 70 percent live in rural areas. Therefore, agriculture plays a crucial role in the region's economy, accounting for close to 28 percent of GDP. But poverty is one of the major issues in South Asia, with 40 percent of the world's poor (defined as those living on less than $1 a day). The further opening of international markets to agricultural exports from South Asia promises to raise the standard of living in this region. The inclusion of agriculture under the rules of the General Agreement on Tariffs and Trade (GATT)/World Trade Organization (WTO) is considered one of the main achievements of the Uruguay Round, which in 1986 established the WTO, the successor to the GATT. The Agreement on Agriculture (AoA) established a rules-based system of agricultural trade and set

guidelines to reduce protection and distortional policies in agricultural trade. However, developing countries did not gain as much as expected under the AoA, so it is imperative that they seize the opportunity to actively and effectively participate in future trade negotiations. (WB, 2003)

Agency France-Presse 2007, Vietnam's economy grew by nearly 8.5 percent in 2007, the fastest rate in 11 years, after the country joined the World Trade Organization. The gross domestic product (GDP) growth rate of 8.48 percent, compared to 8.2 percent in 2006, was one of the highest in Asia but was topped by neighboring China, said the Government Statistics Office (GSO). Industry and construction made up 42 percent of the developing country's economy, followed by the services sector with 38 percent, and agriculture, forestry and fisheries with 20 percent, said the GSO. Vietnam attracted a record $20.3 billion in investment pledges after promising to further open its doors to foreign business under WTO rules.

The People's Republic of Bangladesh is classified as a low-income country, which has experienced over 6 per cent of real GDP growth rates for the past few years. It was driven by favorable weather (necessary for agriculture) and strong export growth, especially in the garment industry where Bangladesh expanded its presence in the global market as a low-cost producer. World Economic Forum (WEF) Enabling Trade Index (2012), which measures institutions, policies and services to facilitate trade in countries, Bangladesh was ranked 109th out of 132 countries, while its neighboring countries, India, Pakistan, and Nepal were ranked respectively, 100th, 116th, and 124th. Even though Bangladesh comparably performed well in market access, it was offset by poor performance in transport and telecommunications infrastructure. The country launched a national policy called 'Vision 2021' in which it aims to become a middle-income country by 2021, raising per capita income to USD 2,000 and reducing poverty 15 percent. (ITC, 2014)

1.1.2 History of WTO and Nepal

Nepal got the membership of WTO on 23 April 2004. Nepal is the first least developed country to be the member of WTO. It is the member of two overlapping regional free trade agreements; South Asia Free Trade Area (SAFTA) and Fram1.1.2ework Agreement on the

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Nepal has bilateral trade agreement with 17 countries. The transit and trade treaty, railways services agreement and an agreement on cooperation to control unauthorized trade with India are the most consequential ones. The transit treaty with India allows Nepal to trade with other countries through Kolkata/Haldia ports and Vishakapatnam port (since 2016). Before getting membership Nepal applied to get membership under GATT and continuously Nepal had followed up and finally after 15 years Nepal got the membership of the WTO.

Nepal submitted application to get membership on 16th May 1989 under the GATT and submitted working papers, MoFTR. On 26th February 1990 Nepal submitted written request showing interest in joining WTO and on 31 January 1996 decided to continue GATT working party to accession of membership. After submitted several documents related with MoFTR, agriculture, service, sps measurement, TBT and TRIPS and so on. First round of bilateral negotiations was held on 8th -24th may 2000 with 10 WTO members. After the six round of bilateral negotiations Nepal ratified WTO treaty and agreements, finally on 23 April 2004 Nepal got the membership of WTO.

For a small donor –dependent poor country like Nepal, membership to the WTO is not a matter of choice. Nepal cannot avoid the consequences, whether good or bad, gains or losses; and has to abide by the rules sooner or later weather she is permitted WTO membership or not. (NEFAS,2001)

Nepal's economy has grown at a smaller pace than its South Asian neighbors. Nepal's gross domestic product (GDP) growth during FY2002–FY2010 averaged 3.8 percent per year and it declined slightly to 3.6 percent per year during FY2011–FY2016. Growth since the beginning of 2000s has been slower than the average growth of 4.8 percent per year recorded during FY1991–FY2000. Nepal's growth (3.8 percent) has been slower than the average growth of 6.6 percent per year seen in other South Asia Sub-Regional Economic Cooperation countries since 2002. The dip in growth during FY2011–FY2016 was largely the result of twin shocks that Nepal suffered during the calendar year 2015 with growth declining from 6.0percent in FY2014 to 3.3 percent in FY2015 and further to 0.4 percent

in FY2016. Growth also suffered on account of poor monsoon during the past two years. Services sector has come to be the mainstay of Nepalese economy. In terms of the share in output, service sector has overtaken agriculture to be the largest sector of the economy. Since 2001, services sector (with transport, storage, and communications; education; and wholesale and retail trade among the largest contributing service subsectors) accounted for 62 percent of the growth, followed by agriculture at 28 percent. Industry sector accounted for the rest (construction subsector contributed the most, and manufacturing accounted for only 1.9 percent of the growth). While exports currently do not play their envisioned role in contributing to Nepal's economic development, its potential as key driver of economic growth and inclusive development has been recognized by the country's authorities. Nepal has, over the years, taken a series of initiatives to promote exports to achieve sustainable and inclusive economic growth, poverty reduction, and improvement in the living standard of the Nepalese people. The Nepal Trade Integration Strategy (NTIS) 2016 aims at: (i) strengthening trade and export enabling environment; (ii) product development and strengthening supply capacity of priority products; (iii) strengthening institutional capacity, trade negotiation and inter-agency coordination; and (iv) building and enhancing trade-related infrastructures. The NTIS 2016 seeks to address the outstanding trade and competitiveness challenges confronted by the country's export sector. Nepalese exports are estimated to increase by 23.0 percent from improvement in trade facilitation. A modeling exercise using the "gravity model" approach was undertaken for the purposes of this assessment to quantify the impact from improvement in trade facilitation on Nepal's trade. Results from the exercise show a positive relationship between OECD's TFI (which was used as a measure of trade facilitation) and bilateral trade. To estimate potential increase in trade, different scenarios of improvement in trade facilitation are assumed. In all scenarios, because the WTO TFA is enforceable, other countries are also expected to see an improvement in their TFA compliance and thus their TFI scores are likely to increase as well. Thus, Nepal will benefit not only from an improvement in its own TFI score but also that of its trading partners. In the baseline scenario, Nepal's overall TFI score is assumed to increase to 1.3 (as targeted under CRMSAP 2017–2021). In the baseline scenario, it is assumed that high-income countries are fully TFA compliant and that they will achieve the maximum TFI score of 2.0. For all other countries (excluding Nepal),

overall TFI score is assumed to increase to the current overall TFI average of high-income countries if their current overall TFI score is below that average. In this baseline scenario, exports are assumed to increase by 23.0 percent. Imports are expected to increase by 21.6 percent. (ADB, 2019)

After introducing WTO Member, Nepal has to promise and fulfill as per the provision of WTO'S requirements. Nepal can play important role and set example among least developing country. There are two types of trade barriers in international trade. After being member country of WTO, each country has to reduce those barriers as per the provision of WTO as given the frame up to limit of trade barriers. The first Ministerial Conference held on 9-13 December 1996 has announced of comprehensive and integrated WTO plan of action for the least developing nations. Some of the promises of WTO to least developing countries

➢ Enhancing conditions for investments and providing predictable market access conditions for products

➢ Provision of duty-free access, on an autonomous basis, aimed at improving their overall capacity to respond to the opportunity has offered by the trading system.

➢ Expansion and diversification of exports to the markets

➢ Organization of meeting with UNCTAD and the ITC as soon as possible in 1997, with the participation of aid agencies, multilateral financial institutions and least developed countries to faster an integrated approach to such countries.

In context of Nepal, as per the 2020 Human Development Report presents the HDI values and ranks for 189 countries and territories recognized by the United Nations. Likewise, the report also presents the Inequality-adjusted HDI (IHDI) for 152 countries, the Gender Development Index (GDI) for 167 countries, the Gender Inequality Index (GII) for 162 countries and the Multidimensional Poverty Index (MPI) for 107 countries. Nepal's HDI value increased from 0.387 to 0.602 between 1990 and 2019. The life expectancy increased by 16.4 years, years of schooling increased by 3 years and the GNI per capital increased by 151.9 percent over the period of 30 years. However, when adjusted with the factors of

planetary pressures such as carbon emissions and material footprint, the HDI dropped to 0.595. The IHDI fell to 0.446 a 25.9 percent decrease, after being adjusted for inequity. This shows that as inequality increases, the human development decreases. The GDI, which measures gender inequality in terms of life expectancy at birth, expected years of schooling, mean years of schooling and the GNI per capita, is valued at 0.9333. Similarly, the GII, which measures the gender-based inequalities in the aspect of reproductive health, empowerment and economic activity is valued at 0.452. Finally, the MPI value is 0.148, based on the 2016 estimation which is the most recent survey data publicly available. The MPI value is based on three indications of deprivation: health, education and standard of living. In 2016, 34 percent of Nepal's population were deemed as multidimensionally poor, while a further 22.4 percent were considered vulnerable to multidimensional poverty.

However, there are significant disparities that still exist in the form of gender, social groups, and location. Although Nepal's HDI score has improved gradually since 1990, and it jumped from the low to the middle human development category in 2016, Nepal is still behind most other South Asian countries. (NBA, 2022)

1.2 Statement of problem

Does the membership of WTO have only the positive impact? What are the prospects and constraints of being the member of the WTO, for developing countries like Nepal? How it can be beneficial for the developing countries? Does developing country are focusing to make economy strong through the WTO? Is WTO change and make difference in trade? What kind of change positive or negative? Is WTO really important for all kind of economy? Does economic globalization really help all economies equally? Do a country like Nepal has to focus on its prospects or need to think and rethink about the negative consequences as well? What is the reality of being a member of WTO? What are the major strengths and opportunities for the developing countries from the WTO? What are the major threads and weakness of being the member of the WTO? What are the dark side and drawback of the WTO?

There are lots of curiosities to all, related with the WTO and its members. A small donor depended and highly import based developing country like Nepal, cross border trade is

really important. Though Nepal became a full fledge member of WTO in 2004 but yet to be discovered a lot and need to identify the lots of issues that can answer correctly the above questions or curiosities.

No doubt, WTO itself is a vague and proper research in a country like Nepal is always a matter of challenge. This research idea came out with the lots of questions, as some are mentioned above. It was always a big question about the economic scenario of the country. As Nepalese economy is not stable and strong enough for production and export. Obviously, single research won't be able to answer all the questions, but definitely it will be able to answer some. The outcome of this research will directly help for the trade related national policy issues. That will help to reform the concerned policies and finally will help to boost up the whole economy.

➢ Do developing countries are focusing to make economy strong through the WTO?
➢ Is WTO changing the scenario of the trade specially developing countries?
➢ Is developing country is able to cope with the treaty with beneficial with other nation?

1.3 Significance of the study

Nepal became 147th member of WTO in 2004. Theoretically WTO helps to promote trade and boost up economy through international trade. Several studies have been done in different countries, though some are related with Nepal as well. But not sufficient and still not clear about the impact of globalization and the membership of WTO. Almost negligible studies have been done regarding the comparative analysis regarding impact of WTO in Nepalese economy (say the comparative analysis of the economy, before and after its membership), no doubt that comparison is essential to take suitable action and to develop the favorable policy for coming days. As the membership is irreversible, and just possible to renegotiate. And even for some amendment, it needs very serious study and analysis. For the benefit of the nation, there should be some favorable commitments that really affect the nation positively. This study tries to dig deeper about the importance of WTO for a developing country like Nepal.

In case of Nepal, there is lack of resources and the data to correct analysis and only few basic studies have been regarding the globalization and its impact. Mostly international trade is analyzed along with WTO membership in Nepal. WTO facilitates to increase the production and productivity and increasing the income level of the country. Recently, WTO is active in ensuring food security in most of the countries specially in Africa. It determines the Terms of Trade, International Policies, and Rules for Global Trade. So that this study can help to know more about globalization/ WTO and its consequences to Nepal.

1.4 Objectives

Comparative analysis of WTO membership to Nepalese economy is the general objective of this study. As internationalization of economy is accepted as a basic foundation for trade gain, but is it equally applicable for all the economies including a trade deficit country like Nepal too? What happens to the economy when Nepal signed and accepted the multilateral trade agreement like WTO? According to the existing literatures, there are wider scopes and benefit of opening the border such as reduction in cost of living of general people, availability of variety and quality products, economic growth, possibility of comparative advantage of trade etc. there are also many literatures that suggests multiple drawbacks of trade liberalization. For an export constrained economy like Nepal, more dependency on export, more trade deficit due to lack of competitiveness in national and global market, rise in income inequality due to job loss by shutting down industries etc. What happens, in reality, when a land locked, export constrained, donor dependent, heavily depending on remittance and heavy trade deficit country like Nepal, become a membership of multilateral trade agreement like WTO. Including the general objective of comparative analysis before and after WTO membership to Nepalese economy, some specific objectives are as follows:

- ➢ to analyze the trend of import and export before and after the WTO membership of Nepal,

- ➢ to analyze the impact of WTO membership on import,

- ➢ to observe the impact of WTO membership on some socio-economic dimension such as Human Development Index (HDI), consumption, remittance etc.,

1.5 Methodology

This thesis is based on secondary data. Data is taken from different online portal and publications like journals and reports. Data is collected from the different source national and international organizations like Trade and Export Promotion Center (TEPC) Nepal, Federation of Nepalese Chambers of Commerce and Industries (FNCCI), World Bank (WB), World Trade Organization (WTO), United Nations (UN) etc. Collected data is analyzed using computer software such as STATA, R-studio, Excel and MS Word. The data analyzed and presented in research covers from the 1960 to 2020. Missing data of all the variables are interpolated with the help of STATA as required. Some of the data are checked to find the accuracy like World Bank data with Nepal Rastra Bank Data. As per need different national and international organizational data are taken to use to explain the matter of the studies.

1.6 Limitation of the Study

This study is limited to the general macroeconomic issues of globalization. It is more focused on comparative study of international trade along with other macroeconomic variables and the impact of WTO by comparative analysis of before-and-after the membership, especially the developing countries and centered is Nepal. Since this research is the general study and it does not cover or analyses the sector or product specifically. All data are in current US$ which are collected from World Bank.

1.7 Organization of the Study

The first chapter deals with the brief introduction of the research. This chapter explained background of the study, statement of the problem, objectives of the study, significance of the study and limitation of the study. This chapter provides all the information related with the research what is it, how research is done, what are included in the study.

The second chapter include the review of the studies done previously by individuals and organization. This chapter provides the information of previous pattern of the study and helps to find the research gap. Literature review includes theoretical and conceptual

framework of the WTO membership in Nepal. Review of the journals, studies, and other related documents both national international are included.

The third chapter incorporates methodology used for the study. It consists of research design, sources of data, analysis of the data and explains about the mathematical models. This chapter explains process, technique and tools of the study.

The fourth chapter represents the analysis and presentation of the data. It is the main part of the whole study. In this chapter all the result are presented in various ways like in figure and table. Researcher includes outcome of various statistical and econometric test with theoretical model.

Finally, fifth chapter provides suggestive framework containing summary, findings, conclusion and recommendations of the study. It summarized whole study, draw conclusions and provides recommendation for further improvement.

Chapter II

Literature Review

2.1 Global Trade

International Trade was key to rise of the global economy. A product that is sold to the global market is called export and product that is bought from global market is an import. Globalization has played a vital role to uplift the international trade. Trade is the important part to boost the economy of the nation. International trades open the floor to explore new market along with the huge competition.

As per the UNCTAD, World's largest bilateral flows of merchandise trade run between China and United States of America and between their respective neighboring economics. In 2018 goods with US$ 563 billion were imported by US from China. In case of China export and imports with Hongkong Japan, Taiwan Province of China and republic of Korea totaled US$1.2 million LDC share of global exports 0.98 percent. United states of America imported goods exceeding ½ trillion US$ from China in 2018.After a strong increase of 7.9 per cent in 2017 and 7.7 percent in 2018, slower growth of 2.7 percent is nowcast for global services trade in 2019. In 2018, global services trade was valued at US$5.8 trillion, one quarter of the value of total exports and 7 percent of world GDP. In 2019, it is nowcast to reach US$6.0 trillion.

Over the past two decades, trade in intermediate inputs has been growing steadily; accounting for 56 percent of world trade in goods and 70 percent in services, and the share varies greatly by country. The fragmentation of the production chain across borders and the increasing importance among global manufacturers of outsourcing and foreign direct investment explain the growth of intermediate trade (Xu, 2012). Both goods and services trade has been increased in these years in world so that now that all the nations have been open global market for each other with competition with local and international products.

2.2 Global trade and WTO

GATT/WTO had worked related with the tariffs measurement from the beginning which has implemented low tariffs in the member countries. Global trade had been improved more and domestic and global product has been getting better platform and market.

Lower tariffs would increase in the imports of both agricultural and industrial products. Competition from foreign imports will force Chinese producers to lower their prices and improve the quality of their products, both to the benefit of Chinese consumers. Those firms that cannot compete will have to adjust, some possibly going bankrupt. Foreign manufacturers operating in China will also provide competition. Local foreign producers have the advantages over importers by being able to use the low-cost labor in China and to save the cost of transporting the final products to China. Financial firms and telecommunication firms in China will have to upgrade their products to survive foreign competition. Consider first the effects of lower tariffs and competition by foreign firms on economic structure, including changes in the relative importance of different industrial sectors and of the state versus non-state sectors. WTO membership will hasten the relative decline of the agricultural sector and the relative rise of service sectors dealing with financial services and telecommunication. Secondly, the state sector will decline relatively to the non-state sectors and efficiency in Chinese enterprises will increase with foreign competition when tariffs are lowered and foreign firms can enter the Chinese Market. (Chow,2001)

After accession to the WTO, worldwide there are many nations which have been taking benefits of MFN National treatment, low tariffs, and so on. Member nations are able to make their trade condition stronger than before among them USA, China and Germany are the most benefits taking countries around the world.

World merchandise trade volume is forecast to grow 2.6 percent in 2019 and accompanied by GDP growth 2.6 percent. Weak import demand in Europe and Asia dampened global trade volume growth in 2018 due to the large share of these regions in world trade. The value of merchandise trade was up 10 percent to US$ 19.48 trillion in 2018, partly due to

higher energy prices. The value of commercial services trade rose 8 percent to $5.80 trillion in 2018, driven by strong import growth in Asia. (WTO, 2019)

According to the analysis, nations with strong exports and production are the main beneficiaries of membership. This is true for Germany and South Korea (around USD 31 billion in GDP growth) as industrial and innovation locations, but also for Mexico (around USD 58 billion in GDP growth) and China. (Bluth, 2019)

2.3 WTO and Developing Nations

Being the member of WTO, it creates the huge opportunities for the small economy nations. In WTO over three quarter of members are developing or least developed countries. WTO agreements contain special provision for developing nations and least developed receives special treatment.

The agreement's purpose was to boost the economic growth of developing countries. It centered on reducing subsidies for developed countries' agricultural industries. That would allow developing countries to export food, something they were already good at producing. In return, the developing countries would open up their market to services, particularly banking. That would provide new markets to the developed countries' service industries. It would also modernize these markets for developing countries. (Kimberly, 2019).

Developing countries can benefit from the changes, but only if their economies are able to respond. This depends on a combination of actions: from improving policy-making and macroeconomic management to boosting training and investment. All major decisions are made by the members as a whole, either by ministers (who meet at least once every two years) or by their delegates (who meet regularly in Geneva). Decisions are normally taken by consensus. Many WTO agreements say member states have to notify the WTO secretariat of new or modified trade measures (Subedi, 2005).

For many developing countries, a satisfactory outcome on S&D issues will be at the core of their judgment on the results of the Doha negotiations and the utility of the WTO as an institution supportive of development. The focus here has largely been on S&D in terms

of the debate as it has unfolded in the WTO. The discussion is not about whether S&D provisions are legitimate, but how they should be designed to respond to the needs of developing countries as they undergo economic transformation through a process of development. Little mention has been made of other aspects of the multilateral trading system that also influence development. The question of better market access for products of export interest to developing countries has not been addressed. Nor has much attention been paid to the ways in which obligations under the WTO can help to strengthen the ability of developing countries to pursue effective development policies. (Keck and low, 2004).

Developing and least developed nation are getting benefits no doubt. Countries are getting special treatment to uplift the economy but various results have found these countries are still not able to take maximum level of benefits as the developed nation.

Access to the WTO legal system is very costly the second major problem for the developing states to actively participate in the WTO dispute settlement process is that it is very expensive for them to take legal assistance to defend their rights. Considerable human and financial assistance are needed to file WTO litigation. Since developing countries usually have smaller export sector, they participate less frequently in WTO dispute settlement process and thus prefer to work with private law firms or legal services organization of WTO instead of developing their own legal expertise to handle WTO complaints. It is concluded from the above discussion that developing countries face several challenges to participate in WTO dispute Settlement process. The disadvantageous role of developing countries in dispute settlement involves various factors. These factors are either internal or external. The internal factors include little knowledge of developing countries about WTO law and less coordination among the internal bureaucracy. The illegal pressure by the developed states and the discriminatory behavior of the panels and appellate body constitutes the external factors that affect the role of developing countries in WTO dispute settlement. (Waqas, 2014)

2.4 Nepal and WTO

Nepal was the first least developed nation to get the membership of WTO. Membership of WTO has both effects positive and negative. WTO has its own principle for all nations like

MFN, NT and so on. Nepal also can enjoy all these principles, only question is, is Nepal able to take the benefits?

Accession to WTO is not a matter of choice for the small, land-locked and donor dependent countries like Nepal. Membership of WTO brings both 'benefit and cost' where benefits are potential in the long run but the costs are immediate. Opening the economy is an open invitation to foreign players in Nepalese market. Higher the competition, larger the number of new players coming with international experiences, new technologies, bigger capital base, etc. for survives the existing business organizations must increase their efficiency in term of size and quality. Hence, entry into WTO enhances the competitiveness. (Malakar, 2007)

WTO membership will help Nepal integrate with the global trading system. The special provisions of the WTO will guarantee a predictable and stable trading environment for the Nepalese SMEs. The two fundamental principles of the WTO, namely "Most favored nation (MFN)" and "national treatment," will enhance the export potential of Nepalese products and services. Under the MFN clause, the Nepalese products and services will get access to global markets at equal or no less term than being enjoyed by other WTO members. Similarly, the national treatment provision guarantees that the Nepalese goods and services will receive the same treatment as the goods and services of the importing country. (Thapa, 2010)

 The Trade Policy, 2015, also admits that Nepal's trade deficit is widening even after joining the WTO. Though the membership of the WTO had extended opportunities for easy market access for Nepali products with some special and differential provisions of Duty-Free Quota Free to the developed markets. However, various non-tariff measures particularly SPS and TBT related provisions imposed in destination market hindered expected market access for Nepali products. WTO membership also provided a platform to negotiate and secure better market access. Nepal could not stand strong in this field either due to capacity and other constraints. The mobilization of technical and other assistance, as well as trade preferences available under the WTO framework for least developed

countries, could not be adequately utilized for various obstacles so as to narrow down the gap. (Marasini, 2019)

Increased import itself is not a bad indicator for developing economies like Nepal. It should be qualified by disintegrating the data. If the import of raw materials increased and consumables are not large enough it is considered as a healthy trade. Disaggregation of import list suggested that the increasing imports are merely promoting productivity of the economy since most of the imports are for immediate consumptions. Therefore, increasing import is mounting pressure to the domestic industry and affecting their welfare. Finally, either existing policy or structures are not instrumental to achieve the objective of the WTO membership or there are weaknesses on its implementation. Therefore, it is suggested that the further study is deemed necessary for trade policy evaluation of the country. (GC, 2018)

Huge trade deficit due to increase in imports and decrease in exports has been a major problem in Nepalese trade. Since last few years, imports have been increasing rapidly and exports have been stagnant. Economic liberalization initiated in mid-1980's has failed to encourage export diversification and to reduce the trade deficit. Instable political environment and frequent changes in government has contributed to frequent changes in trade policy which is responsible for growing trade deficit. India has been the biggest trading partner of Nepal with about 64percent of total foreign trade. With Indian economy growth is increasing, trade with India is likely to increase in the future. Nepal's trade with China is also increasing rapidly and it is also likely increase in future. Trade Relations of between China and Nepal is expected to raise as Chinese railway is arriving near Nepal Chinese Boarder in Kerung, Tibet by the end of year 2018. Further the signing of trade and transit agreement between Nepalese and Chinese government in year 2015 and up gradation of facilities at Kerung- Rasuwagadi boarder is likely to decrease Nepal's trade dependence with India which was created largely by landlocked Ness of Nepal. (Kafle, 2017)

In case of developing and least developed nations WTO has provided support. Some of the agreements have mentioned about the special and differential treatment which shows that

WTO has provided platform to developing and least developed nations to explore new market to make trade strong and increase the foreign investment.

Some of the WTO agreements have mentioned LDC specific support measures and preferential treatment but many such agreements have included developing and least developed countries within a single basket in terms of providing special and differential treatment. There is huge asymmetry in terms of size of economy, per capita income, size of agricultural farms, level of mechanization and industrialization, company efficiency and digital divide between the developing and least developed countries. Hence, the least developed countries need to forge their own agenda with special consideration of the landlocked countries in the process of advancing reform agenda. Nepal as a landlocked country hoodwinked in the wave of trade liberalization, should be able to raise the voice for a favorable trading condition in the international rule making. It depends on the ability and skills of diplomats and negotiators whether they will be able to influence the negotiation process of the multilateral trading system in favor of like-minded countries. This is crucial time for Nepal. It should remain watchful as countries are discussing WTO reforms. (Ojha, 2019)

To keep development moving, reducing developing country protection is as critical as reducing developed country protection. Active participation in multilateral liberalization is perhaps a more important part of developing country reform now than it was a decade ago. The ground work for developing country participation in the Uruguay Round was the domestic politics underpinning several decades of unilateral reform. Active participation in the Uruguay Round increased the dependence of their domestic politics on outside pressure for continued reform. It is therefore even more important now than it was at the Uruguay Round to maintain pressure through the WTO on developing countries to continue their trade liberalization. (Finger, 2002)

Foreign direct investment has contributed significantly to China's economic growth and will play an important role as China continues to reform its economy. WTO accession is likely to increase foreign direct investment in China, as trade liberalization improves returns to investment and the liberalization of rules on investment eases financial flows

into previously restricted sectors such as services and automobile production. The substantial productivity gaps between local and foreign firms imply that new foreign direct investment will raise productivity. (Ianchovichina and Martin, 2004)

As per UN, overall, Nepal's accession package is considered relatively well balanced in terms of both offering a credible signal to traders and foreign investors about its commitment to economic reform and maintaining the policy space required to protect its development interests. This did not happen by accident. It was a result of a thoughtful negotiating approach taken by the country. It entailed, among other things, coordination across government agencies, mobilization of external support and diplomatic capital, and wide consultations with a range of stakeholders, including the private sector, civil society organizations (CSOs) and farmers' groups.

The increasing interdependence of the world economy underlines the necessity of having appropriate architecture to manage issues and policies which are becoming more interlinked. Finance, trade, development, environment, social issues are only some of those growing interrelations. This is also an important lesson from the financial turmoil in Asia. The role of the trading system in delivering a solution to this financial crisis has been and will continue to be critical. There can be no solution without the positive contribution of the rule-based multilateral system: system which has proved itself a bastion against protectionist pressures. Let me state unequivocally: this is no time for protectionism. (WTO, 1998)

2.5 Policy Review

Nepal launched a detail study of its trade sector which was called the Diagnostic Trade Integration Study (DTIS) with the technical and financial assistance of Integrated Framework (If) in 2003. This was a very useful comprehensive study. But due to several reasons, especially the lack of technical and financial support by the DPs and political turmoil in the country, this study could not be implemented properly. The IF, after its reincarnation as EIF, again started the same program as major component of its technical support to LDCs. Nepal undertook the task of updating DTIS, which it renamed as Nepal Trade Integration Study (NTIS), in 2010. This is a very pragmatic, comprehensive and in-

depth study which elaborates the current status, the constraints and future prospects of trade and also suggests the necessary future actions to be undertaken to promote trade. It complements Trade Policy 2009. The NTIS has identified four major challenges in enhancing its export trade, which include ensuring proper market access, building domestic support institutions, strengthening the supply capacities and mobilizing overseas development assistance. In order to face these challenges, the strategy has set four major objectives: strengthen trade negotiations (especially bilateral); strengthen the technical capacity of domestic non-tariff barriers (NTB) and other business environment supporting institutions; strengthen the export capacity of 'inclusive' export potential goods and services, and strengthen the Government's capacity to coordinate and manage Trade-Related Technical Assistance (TRTA) and Aid for Trade (AfT) and to implement the NTIS. It has also recommended 258 action plans as necessary for the promotion of trade and to improve its contribution to GDP. It has identified 19 products comprising 12 commodities and 7 services as major export potential items that can contribute significantly in the promotion of export. It has also identified 10 major potential markets for Nepalese export. Now the challenge is to fully implement the recommendations of NTIS. The Government, with firm determination to implement the study in a holistic manner, has formally adopted NTIS as its mid-term national trade development strategy. MOCS has started its implementation process. However, thorough implementation of all NTIS' recommendations is not possible from the Government's own limited resources and technical capacity. Therefore, the DPs have been requested to support its implementation. In this process, the Government would like to see the individual donors committing to implement some part of the implementation matrix in such a way that all recommendations of the NTIS are implemented within the timeframe of five years as stipulated in NTIS in a coordinated and coherent manner. (NTIS, 2010)

With the changed context, the government has introduced a new Trade Policy in April, 2009 replacing the trade policy, 1992. It is a comprehensive and updated policy which was framed and brought into implementation after Nepal became a member of the WTO. It is consistent with the principles of WTO and adheres to the principles of liberal, open and transparent economic system. It emphasizes on private sector-led competitive economy. The main objective of this policy is to increase contribution of trade sector in national

economy and thereby reduce poverty and accelerate economic growth. The new Trade Policy, besides emphasizing trade in goods, has also duly recognized trade in services and intellectual property equally as potential trade sectors for Nepal. This policy includes an exhaustive list covering from institutional strengthening to legal and procedural reforms in order to create conducive environment for trade in the country. These measures and provisions are supposed to enhance country's trade both internally and externally. The policy has broadly classified potential Nepalese exports into two categories: Special Focus Area and Thrust Area Development. Four products are included under special focus area, most of which have already been established in the export market. Newly emerging fifteen products have been listed under the second category. Currently, the government is preparing a detailed action plan to expedite the implementation of this policy. (WTO,2009)

The needs for preferential market access and commensurate technical and financial assistance and capacity building to LDCs are recognized all over the world. Till now, almost two-third of the LDCs is members of WTO. However, due to very small size of their economy and insignificant political influence, these countries individually cannot exert pressure on the ongoing multilateral trade negotiations at WTO. Nepal is one of the very active members of this group and, in addition to protecting its own interest within the group, works in the group to develop common positions on several negotiating issues. Moreover, in the ongoing negotiations in Doha Round, several concessions and exemptions are provisioned under the NAMA, Services, Agriculture, and Trade Facilitation, NTBs, SPS modalities and S & D treatment for LDCs. Most of these provisions are almost established as there is no voice of opposition raised against these provisions during ongoing negotiations. Only when the Doha Round concludes, these provisions will be approved. Nevertheless, in the present global economic scenario suffering from turmoil and uncertainty due to recurring multiple global crises, when none of the major players are ready to compromise, there is little possibility of successful conclusion of Doha Round in the near future. It may create crisis of confidence on the multilateral trading system itself. It will also generate strong pessimism among the stakeholders which, as a result, will further deteriorate the present worsening global economy. (WTO, 2012).

In addition, since the LDCs are in a very difficult situation, in particular, due to these global crises for which they have made hardly any contribution, they may not be in a position to overcome the vulnerabilities created by these crises. There is greater risk that if the problems of LDCs are not addressed immediately by providing necessary financial and technical assistance and improving market access, whatever they have achieved during the last decade may be lost and they may fall prey to another round of vicious circle of poverty and unemployment trap. In order to escape such an outcome, the LDCs need immediate and tangible support.

In this backdrop, if the WTO approves those more or less agreed provisions under different negotiating texts, for LDCs as its minimum agenda, it will support LDCs to sustain the development they have achieved in previous years as well as it will significantly boost faith in multi-lateral trading regime. It will regenerate the global confidence that WTO is an inclusive organization which cares the poorest and vulnerable countries. Keeping in view all these prospects, the Government has worked together with the LDC group in Geneva to create consensus among the WTO Members to approve LDCs specific provisions as Early Harvesting.

Nepal government has made different changes in different periods of time. On 2009 new policy was replaced trade policy of 1992. This policy focused to increase contribution of trade sector in national economy, reduce poverty and economic growth as well as trade in goods, and services and intellectual property equally. Nepal Trade Integration Strategy has also introduced detailed study which is called Diagnostic Trade Integration Study (DTIS) in 2010.The NTIS has identified four major challenges in enhancing its export trade, which include ensuring proper market access, building domestic support institutions, strengthening the supply capacities and mobilizing overseas development assistance. In order to face these challenges, the strategy has set four major objectives: strengthen trade negotiations (especially bilateral); strengthen the technical capacity of domestic non-tariff barriers (NTB) and other business environment supporting institutions; strengthen the export capacity of 'inclusive' export potential goods and services, and strengthen the Government's capacity to coordinate and manage Trade-Related Technical Assistance (TRTA) and Aid for Trade (AfT) and to implement the NTIS. It has also recommended

258 action plans as necessary for the promotion of trade and to improve its contribution to GDP. It has identified 19 products comprising 12 commodities and 7 services as major export potential items that can contribute significantly in the promotion of export. It has also identified 10 major potential markets for Nepalese export. Now the challenge is to fully implement the recommendations of NTIS. The Government, with firm determination to implement the study in a holistic manner, has formally adopted NTIS as its mid-term national trade development strategy. MOCS has started its implementation process. However, thorough implementation of all NTIS' recommendations is not possible from the Government's own limited resources and technical capacity. Therefore, the DPs have been requested to support its implementation. In this process, the Government would like to see the individual donors committing to implement some part of the implementation matrix in such a way that all recommendations of the NTIS are implemented within the timeframe of five years as stipulated in NTIS in a coordinated and coherent manner .DTIS was useful comprehensive study and in-depth study which explained current status, constraints and future prospects of trade and suggest future actions to promote trade, due to several reasons this study could not be implemented properly.

Chapter III

Research methodology

This chapter deals with the research design, data information, presentation and other modeling tools regarding membership of WTO in Nepal. The research methodology is the most necessary part of conducting any research. It provides the valuable information and data about the concerned study and also helps for presenting and analyzing the collected information and data.

3.1 Research Design

A research design is arrangement of condition for collection and analysis of data which aims to combine relevance to the research purpose with the economy. This study is designed to evaluate the WTO membership in Nepalese economy. Empirical research design is applied based on secondary data. Comparative analysis of the various economic indicators before and after the membership of the WTO has been observed. Since each macroeconomic indicator is affected by multiple factors but some of the indicator such as remittance, HDI and consumption are also analyzed.

3.2 Sources of Data

The nature of the study is both quantitative and qualitative. The study is based on the secondary data. Data is collected from World Bank (specially), MOF, NRB, journals, newspaper, articles etc. The population of the data for the study related with the economic indicators like GDP, export, import, remittance, HDI and so on, which involve data from 1960 to 2020. Some of the required information are collected and included up to 2022. Collected data are in current USD. Major source of data is World Bank. Some of the data are compared with NRB and CBS data to find the accuracy.

3.3 Data Collection, Presentation and Analysis

Data has been collected through secondary sources. Data are more related with the macroeconomic indicators of Nepal. Data has been collected from World Bank and UNDP.

Few of the other information are gathers from NRB, MOF, FNCCI reports or bulletins. Data are related with Nepalese context and only required data are information are taken from national international journals, articles and reports.

Collected data is coded and edited. The result is presented in the form of statistical graph such as table, graphs etc. Data are analysis and test as per the needed. Computer software is used to analyzed and presents the data. STATA and R-studio is used to analyzed the data. Missing data are interpolated with the help of STATA. Only needed and variables which has few values are interpolated and analyzed in STATA.

3.4 Tool and Methodology of the study

There is structural change on the import pattern after the Nepal's membership of WTO in 2004. A time series data from 1960 to 2020 has been used for the analysis. The data is obtained from various sources; the World Bank data source is the main. To find the relation between dependent and independent variable simple and multiple linear regression models are used.

3.5 Model Specification

This study is focused on the impact of WTO membership on Nepalese economy, for the analysis, few models have been developed. For the econometric modeling and analysis various national and international sources have been used for the data including Central Bureau of Statistics (CBS) Nepal, World Development Indicators of The World Bank Group and Human Development Index of United Nations Development Program (UNDP). World Bank is one of the main sources of Data. Socio-economic variables Human Development Indicators have been used, similarly, export, import, GDP, consumption, remittance, export import ratio etc. have been used to observe the impact of WTO membership on Nepalese economy. Following models have been postulated for the empirical analyzed.

$$\text{Imp} = \beta_0 + \beta_1 \text{ wto\_d} + \varepsilon \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ (1)$$

Here,

29

Imp = Import in current US Dollar

wto_d = WTO as dummy variable

ε = error term, and

β_0 and β_1 are the parameters to be observed.

In model 1, a simple regression has been used just to observe the relation between import and the dummy WTO. This model has been tried to capture how the import has been affected by the WTO membership. More precisely, the model will help to analyze pattern of import before and after the accession to WTO. As the simple regression having a single independent variable may not be sufficient to observe the complete impact on such a vibrant macroeconomic indicator 'import', but it may help to observe the pattern and comparative analysis the trend of import before and after WTO membership.

The import data for around 60 years, i.e. from 1960 to 2020, have been used to analyze the model. Here, wto_d the dummy WTO has been used '0' from beginning to 2003 and '1' elsewhere (i.e. since 2004 till the end of the period 2020). The cutoff date is 2004, since Nepal became full fledge member since April 2004. Here the dummy variable observes the comparative analysis of import before and after the cutoff period 2004 i.e., before and after the WTO membership.

$$\mathbf{Imp = \beta_0 + \beta_1 exp + \beta_2\ wto\_d + \varepsilon} \qquad \text{……………………..(1I)}$$

Here,

Imp = Import in current US Dollar

exp = Export in current US Dollar

wto_d = WTO as dummy variable

ε = error term, and

β_0 and β_1 are the parameters to be observed.

In model 2, multiple regression has been used to observe relation between import on export and WTO membership. This model tried to analyzed the impact of WTO membership in Nepal. As this model has few independent variables it may not be sufficient to analyzed in huge scale. It helps to find the difference between before and after WTO membership in Nepal.

All the data from 1960 to 2020 have been used to analyze the model. Missing data are interpolated through Stata. In model wto_d the dummy has been used '0' from 1960 to 2003 and '1' from 2004 to 2020. Dummy variable analyzed the comparative analysis of the Import before and after WTO membership.

$$\text{Imp} = \beta_0 + \beta_1 hdi + \beta_2 exp + \beta_3 \text{ wto\_d} + \varepsilon \qquad \text{…………………….. (III)}$$

Here,

Imp = Import in current US Dollar

exp = Export in current US Dollar

hdi = Human Development Index

wto_d = WTO as dummy variable

ε = error term, and

β_0 and β_1 are the parameters to be observed.

In model 2, multiple regression has been used just to observe the relation between import on export, HDI and the dummy WTO. Since HDI is a very dynamic and complex as it is the sum of life expectancy, education index and GNI index (living standard) issue but it has been tried to see the relationship and impact on import to WTO membership.

Similar as previous model, data from 1960 to 2020 have been used to analyze then model. Missing data are interpolated through Stata. Here, wto_d the dummy WTO has been used '0' from beginning to 2003 and '1' elsewhere (i.e. since 2004 till the end of the period 2020). The cutoff date is 2004, since Nepal became full fledge member since April 2004.

Here the dummy variable observes the comparative analysis of import before and after the cutoff period 2004 i.e. before and after the WTO membership.

Model Taking LOG

Following equation with taking log for the better observation and to compare the increment ratio. Following models have been postulated for the empirical analyzed. Import as a dependent variable and HDI, export and wto_d as a dummy variables are as independent variables. Variables are descriptions are as follows:

$$\textbf{lnImp} = \beta_0 + \beta_1 \textbf{lnhdi} + \beta_3 \textbf{lnwto\_d} + \epsilon \qquad \textbf{……………………... (1V)}$$

Here,

Lnimp = Natural log of Import of goods and services

lnexp = Natural log of export of goods and service

lnhdi = Natural log of human development index

lnwto_d= Natural log of WTO dummy variables (log cannot be taken for dummy, so there will be just wto_d not the log of that)

β_0 and β_1 are the parameters to be observed.

In model 4, this model has been tried to find increment ratio on import due to WTO membership in Nepal. Model will help to analyzed import on the basis of hdi and export. In this model variables are calculated in term of log. Log cannot be taken for the dummy so that wto_d dummy wto has been used 0 from 1. Dummy variable observes the comparative analysis of the import before and after WTO membership.

$$\textbf{lnImp} = \beta_0 + \beta_1 \textbf{lnexp} + \beta_2 \textbf{wto\_d} + \epsilon \qquad \textbf{……………………... (V)}$$

Here,

Imp = Import in current US Dollar

exp = Export in current US Dollar

hdi = Human Development Index

wto_d = WTO as dummy variable

ε = error term, and

β_0 and β_1 are the parameters to be observed.

In model 5, lnimp as natural log on import of goods and services has been used as dependent variable to observe the impact of before and after membership of WTO on import. In equation lnhdi as natural log on HDI and lnexp as natural log on export. Since HDI is a very complex as it is the sum of life expectancy, education index and GNI index (living standard) issue still it has been tried to observe the relationship and impact on import to WTO membership. Wto_d as a dummy variable. ε as error term. Data set has separated in 0 and 1 before membership and after membership respectively. Data from 1960 to 2020 have been used to analyze the model. Missing data are interpolated.

3.6 Research Gap

Nepal has taken the membership WTO on 2004. Being the member of WTO most of the previous studies have found out the benefit part more than disadvantage of the membership. Most of the previous studies were on related with the trade and agriculture. In fact, Membership of WTO directly and indirectly impacts all sectors. Mostly in previous studies there are not mention of HDI, consumption, remittance and income inequality portion. Export, import and agriculture are also essential part for the prosperity but other sectors and areas are carrying with less important in Nepal.

SAWTEE is an organization which is mostly publishing research related with the WTO. Some of the thesis and dissertations are also written based on trade specially. During the 2001 to 2015 there are research articles and news but from 2015 to 2022 there are lesser studies done. Most of the studies are done in surface so that to get benefit as being the developing nation proper research and deep knowledge of agreement is very important.

3.7Conceptual frame work

This research tried to find the difference of having WTO membership in context of Nepal. This study methodology has been framed in such a way that present the Nepalese economy before and after accession of the WTO membership. Many factors affect the economy, this research tried to find whether membership is advantage or disadvantage for Nepal.

From the following figure, it tried to show the link between the economic indicators and impact of membership of WTO. Here macroeconomic indicators have taken for analysis and compare the result before and after WTO membership. This compare helps to analysis the real impact, growth or drawback of membership to Nepal.

Figure 3.1: Conceptual flow chart

```
                    ┌─────────────────────────┐
                    │    Nepalese Economy     │
                    │ /Macroeconomic indicator│
                    └─────────────────────────┘
                         │              │
                         ▼              ▼
                 ┌──────────┐    ┌──────────────────┐
                 │  Before  │    │  WTO Membership  │
                 └──────────┘    └──────────────────┘
                      │                  │
                      │                  ▼
                      │            ┌──────────┐
                      │            │  After   │
                      │            └──────────┘
                      │                  │
                      ▼                  ▼
                 ┌──────────────────────────────┐
                 │          Compare             │
                 │    Drawback or Benefit       │
                 └──────────────────────────────┘
                              │
                              ▼
                 ┌──────────────────────────────┐
                 │     Better output/result     │
                 │ Before or after membership   │
                 │          of Nepal            │
                 └──────────────────────────────┘
```
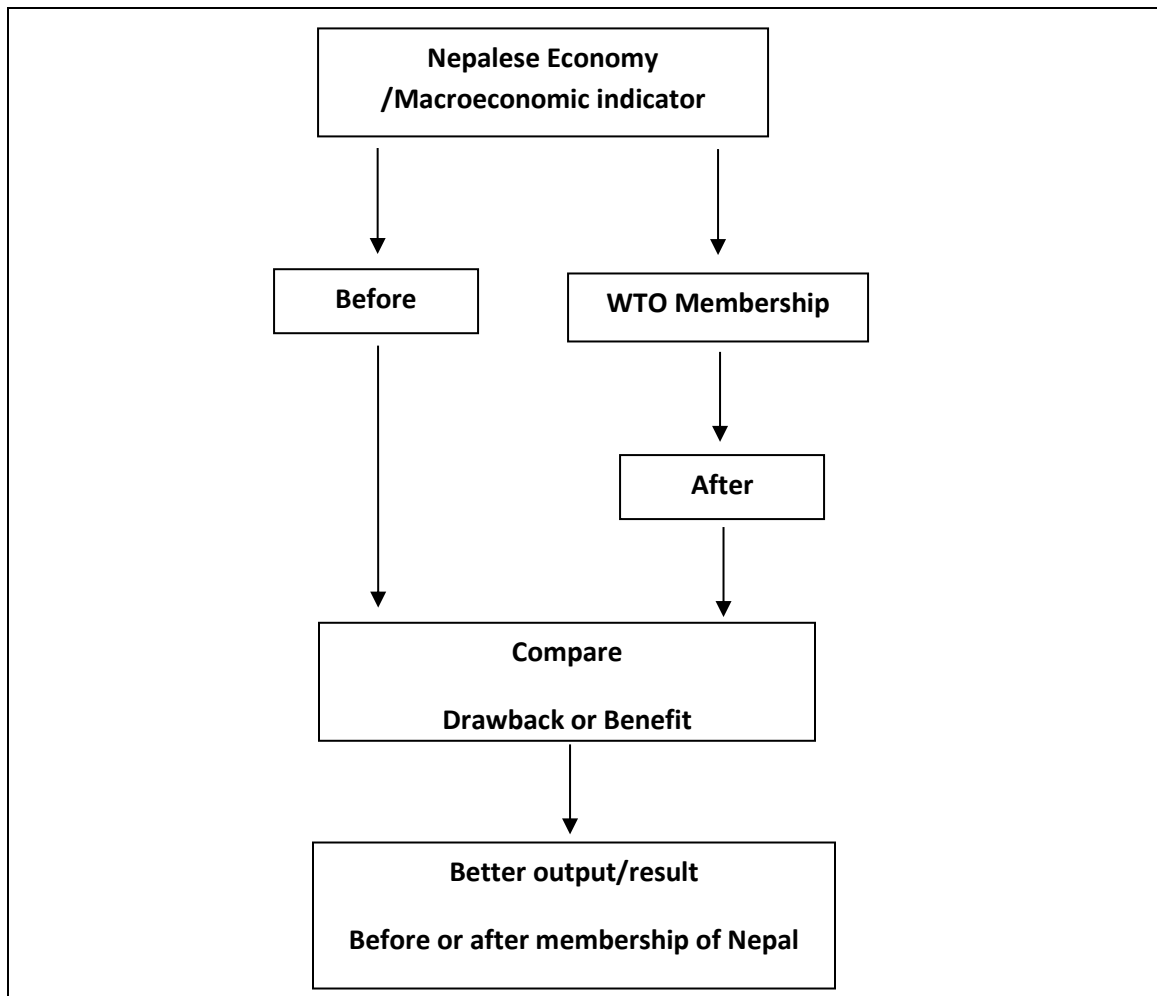
Chapter IV

Data Presentation, Analysis and Findings

This chapter analyzes processed raw data into understandable form. This chapter covers the data analysis and data presentation related to various variables which has directly and indirectly effect before and after membership of the WTO. All the data are analyzed from the period of 1960 to 2020, which result of various statistical test and models are presented in table and figure.

4.1 Global trade Pattern

Global trade pattern seems to increasing from 1960 to 2020. On the duration of the Global Economic Recession 2007-09 world trade has a huge effect and giant economic of the world suffer a lot. Due to Covid-19 also it seems to have effect. In other years of dataset from 1960 to 2020 it's fluctuated but it's increasing too.

According to the World Economic Outlook, 2014, global trade volume was increased by 9.3 per cent in 2006 on an average, the base year for this decade. The growth rate of global trade had slowed-down in 2007 and recorded 7.1 per cent in comparison to 2006. As the world economic meltdown started in 2008, the volume of global trade had lost significantly and it is reflected in the trade statistics accounting the growth rate of global trade was 2.2 percent in 2008. The global trade volume increased inversely positive one year later of economic meltdown and became (-11.4) percent (negative growth) losing significant portion. Despite the world economic meltdown, the volume of global trade realized.

Various statistics in international trade show that the world trade volume has increased almost three-fold since 2002 to reach about US$18 trillion in 2011. According to the World Economic Outlook, the volume of global trade in 2013 is accounted USD 18.5 trillion and expected to be 19 and 20 trillion USD for the year 2014 and 2015 respectively (IMF, 2014)

Figure 4.1: Global Trade (percent GDP)
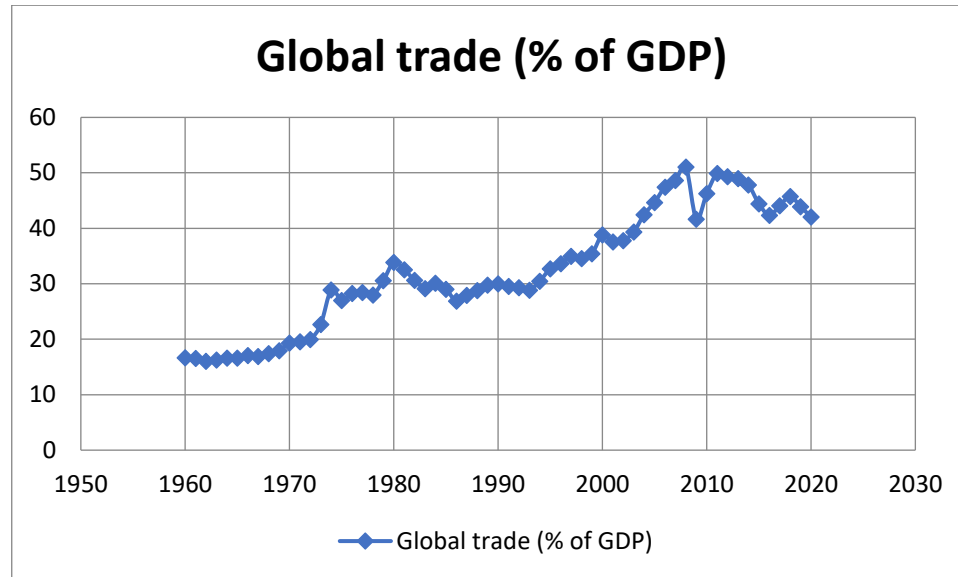
Global trade (% of GDP)

Situation of the global trade as World Bank data is presented on figure 4.1. Analyzing the trend of the global trade it seems that the global trade percent of GDP is increasing. Consequently, the world is expected to realize strong growth rate.

4.1.1 Global Export

Global export trends have improving continually. In global export data set has shown that from 1960 to 2020 trend line is moving upward. Only in few years due to recession and Covid-19 trend lines has decline. Before 2000 trend of trade is smooth and stronger then after 2000. After 2000 global export has increased rapidly till 2009 then it has fluctuated and after 2011 it was rising for few years then on the duration of Covid-19 global export has been decline. Covid -19 is the main reason to decline in global export.

Figure 4.1.1: Global Export

Global Export (in billion)

In figure Global Export trend has been shown from 1960 to 2020 dataset. The total volume of trade seems to increasing gradually. The total volume of the export in 1960 was US$ 122 billion that went on increasing smoothly up to US$ 9270 billion on 2004. It was fluctuated after 2000 then before 2000. Due to recession on 2008 trend has been decline up to US$ 16250 billion and again decline on 2015 was US$ 16636 billion. On 2020 volume of export has been increase and it was US$ 17731 billion.

4.1.2 Global Import

Global export trends have improving continually. In global import data set has shown that from 1960 to 2020 trend line is moving upward. Only in few years due to recession and Covid-19 trend lines has decline. Before 2000 trend of trade is smooth and stronger then after 2000.

Figure 4.1.2: Global Import
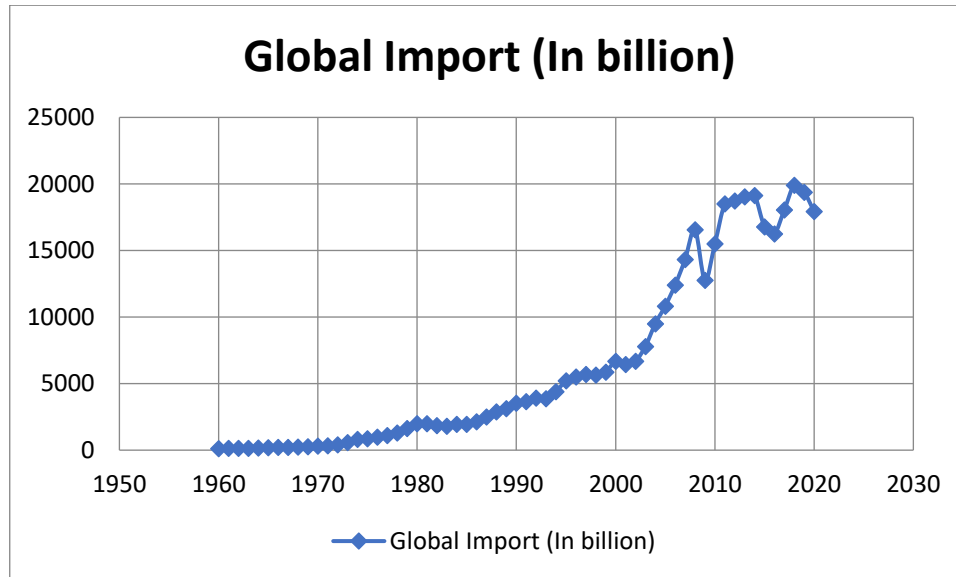
Global Import (In billion)

In figure Global Import trend has been shown from 1960 to 2020 dataset. The total volume of trade seems to increasing gradually. The total volume of the Import in 1960 was US$ 129 billion that went on increasing smoothly up to US$ 9508 billion on 2004. It was fluctuated after 2000 then before 2000. Due to recession on 2008 trend has been decline up to US$ 16560 billion and again decline on 2015 was US$ 16790 billion. On 2020 volume of import was US$ 17929 billion.

Increased import itself is not a bad indicator for developing economies like Nepal. It should be qualified by disintegrating the data. If the import of raw materials increased and consumables are not large enough it is considered as a healthy trade. Disaggregation of import list suggested that the increasing imports are merely promoting productivity of the economy since most of the imports are for immediate consumptions. Therefore, increasing import is mounting pressure to the domestic industry and affecting their welfare. (GC, 2018)

4.2 SAARC Trade

SAARC is the regional intergovernmental organization of the south Asia. SAARC comprises 3percent of the world's land area, 21percent of the world's population and 5.21percent (USD 4.47 trillion) of the global economy, as of 2021. (Wikipedia, 2022)

Figure 4.2 : SAARC Trade
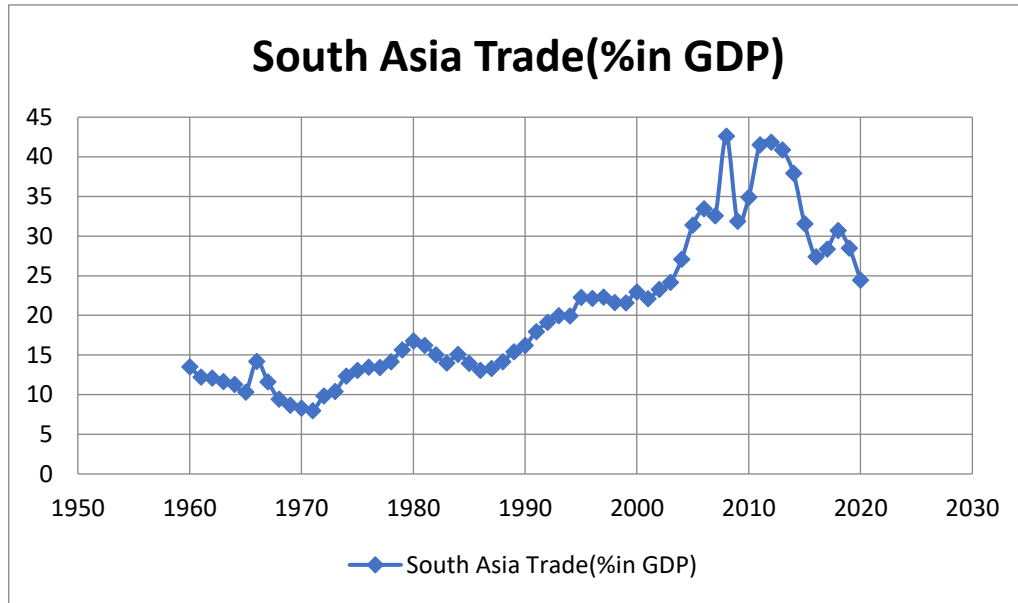
From the figure 4.2 South Asia trade pattern is presented. In 1960 South Asia Trade contribution to GDP was not much better. From 1960 to 2000 trade in GDP seems to be growing but in between 2000 to 2020 trade in GDP pattern is fluctuated more than before 2000.From 1960 to 2000 highest contributions to GDP was 22.3 percent on 1995 and lowest was only 8percent 1971. On the duration from 2000 to 2020 highest contribution to GDP was 42.6percent on 2008 and Lowest was 22.1percent on 2001. Trade looks better than after 2000. Around the 2008 recession South Asia trade has reaches the highest point. Which was the highest of all the time on the trend of South Asia.

4.2.1 SAARC Export

In 2012 SAARC exports increased substantially to $354.6 billion from $206.7 billion in 2009. Export has been increasing continually after 2000. Export pattern is presented in figure 4.2.1.

Figure4.2.1: SAARC Export

From the figure South Asia exports is shown in US$ current from 1960 to 2020. From the figure it can be explained that export was increased after 2000 more. On the duration from 1960 to 2000 trend line is slowly upward or export is increasing. After 2000 to 2020, export is increasing gradually.

On 1960 export was only US$ 2 billion. Gradually Export was increased and on 1978 export was US$ 10 billion. On 1999 export was US$ 55 billion. It can be explained that export was slowly increased on the era from 1960 to 2000. After 2000 export was US$ 64 billion and continually it increased on 3 years from 64 billion to it become US$ 106 billion on 2004. Continually it increased on 2008 was US$ 241 billion, on 2013 was US$ 382 billion. On 2017 was US$ 370 Billion and on 2019 was US$ 402 billion. From the dataset and figure after 2000 was more progressive and improved on export of South Asia.

4.2.2 SAARC Import

Imports too increased from $330 billion to $602 billion over the same period. But the intra-SAARC trade amounts to just a little over 1percent of SAARC's GDP. In contrast to SAARC, in ASEAN (which is actually smaller than SAARC in terms of the size of the economy) the intra-bloc trade stands at 10percent of its GDP. (Wikipedia, 2022)

Figure 4.2.2: SAARC Import

South Asia imports (Billion)
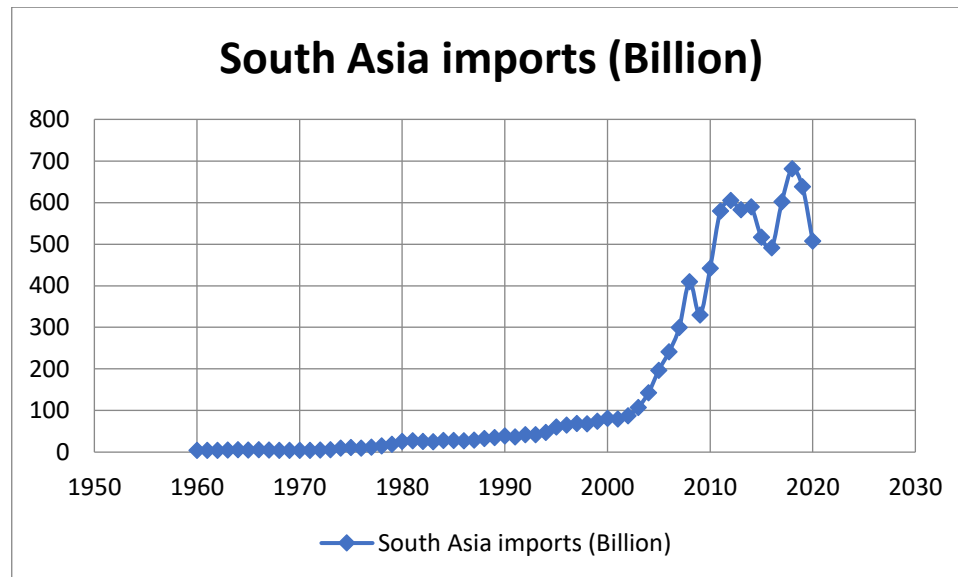
Source-Author 2022

From the figure South Asia import is shown in US$ current from 1960 to 2020. From the figure it can be explained that import was increased after 2000 more. On the duration from 1960 to 2000 trend line is extremely slowly upward or increased. After 2000 to 2020, import is increasing gradually.

On 1960 import was only US$ 4 billion. Gradually import was increased and on 1974 import was US$ 10 billion. On 1995 import was US$ 60 billion. On 1999 import was US$ 74 billion. It can be explaining that import was increased on the era from 1960 to 2000. On 2000 import was US$ 81 billion and continually it increased in 4 years from US$ 81 billion to it become US$ 143 billion on 2004. Continually it increased on 2008 was US$ 410 billion. Only in 4 years from 2004 to 2008 there was difference of US$ 267 billion. Import

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was nearly double on 2008 comparing to 2004. On 2012 was US$ 605 billion. On 2010 was US$ 442 billion and on 2011 was US$ 586 billion. Import increase by US$ 138 billion on a single year. On 2017 was US$ 602 Billion and on 2019 was US$ 638 billion. From the dataset and figure after 2000 was more progressive and improved on export of South Asia.

4.2.3 Export Import Difference in south Asia

South Asia export and import pattern from 1960 to 2020 seems to increasing equally but the import increasing volume was more than export. On the era of 1960 to 1980 export was slowly increasing not fluctuation and only approx. US$ 1 to 2 billion increased as year pass. In context of import, it's increased and on 1968 to 1971 import was decreased with around US$ 1 to 2 billion. Again, import started to increased, from 1973 to 1980 import was rapidly increased with US$ 2 to 7 billion.

From 1981 to 2000, both export and import were increased gradually. Export was increased from US$ 2 to 9 billion a year pass. Import was also increased from US$ 2 to 11 billion on this era. Export has increased lesser than import.

From 2001 to 2020, both export and import were fluctuated around 2008 and 2015 more than other year. Considering only increasing then Export was increased by US$ 3 to 88 billion and import was increased by US$ 6 to 138 billion on this era. Finally, comparing with export and import then export increase lesser than import. Import increasing rapidly then export especially on the era of 2001 to 2020.

4.3 Pattern of trade deficit in Nepal before and after membership of WTO.

Nepal is facing huge trade deficit and the deficit is exponentially widening after Nepal's membership of WTO. Figure 1 shows trend of export and import of Nepal. In general, prior to 1990 total volume and the trend of import and export seems similar but after the date, import start to increase more than the export hence trade deficit started to increase. A remarkable political change from monarchy to democracy in 1990 helped to adopt new political as well as economic policies. Newly elected democratic government also adopted liberal trade policies and results to wider trade deficit. After adoption of multilateral trade

agreement under WTO membership, we can see (as given in figure 1 below), the exponential growth of import but crawling import results such a huge trade deficit.

Figure 4.3: Export & Import in million
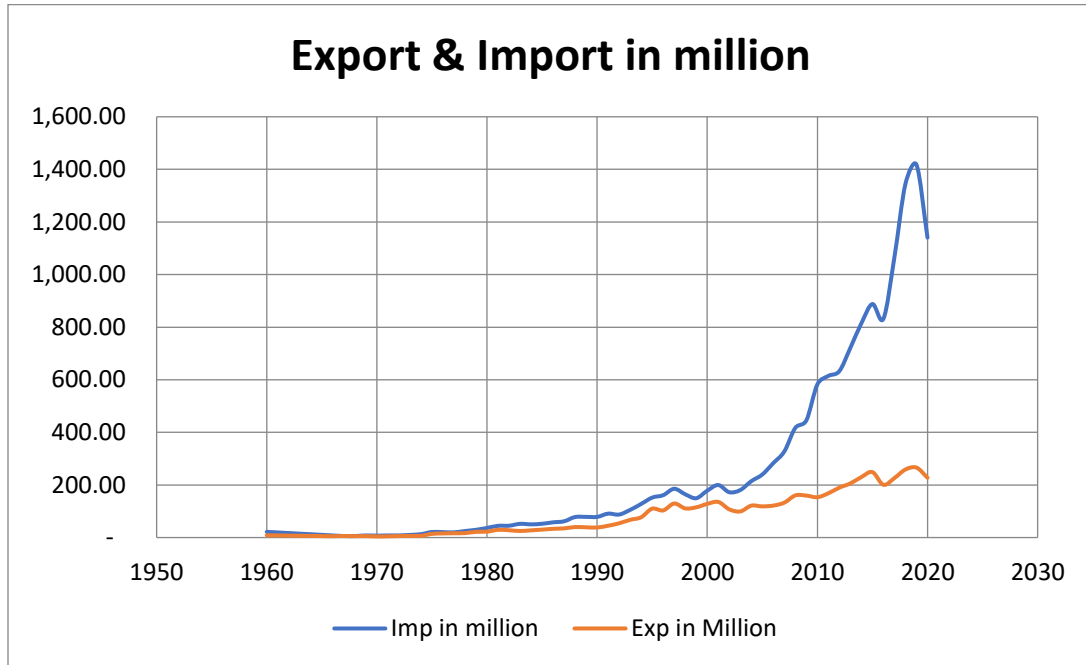
In figure 4.3, Export and Import trend shows from 1960 to 2020 which reflect trade situation negative as import is steady growth. This figure helps to understand the increasing trend of import and slow growth of export and huge gap know as trade deficit. Especially after 2004 import trend has growth more than import.

Though the figure itself may not be sufficient to trace the conclusions but it clearly shows that, import has been increased exponentially since 2004 but export is not. At least we can understand that the import has been increased in such a greater speed after accession to WTO, and it seems obvious that just after the membership of WTO the import has been increased significantly. There is downturn of import from 2019 and it is due to the covid-19 the pandemic, hence the downturn of import from 2019 is the pandemic effect. This figure helps to understand easily that the membership of WTO helped to increase the trade deficit in wider range. There may be several reasons for widening the trade deficit but

simply we can see the negative impact of WTO membership or the multilateral trade liberalization on the trade deficit. None of the economy can reap the benefit of trade liberalization until export does not increase. That shows Nepal is losing competitiveness in international trade i.e. Nepal become more dependent on import after accession to WsTO. It is a fact, but in positive aspect, benefit is potential due to the larger international market. Hence there is no doubt and option other than increase the competitiveness on export capacity. How to increase the competitiveness is beyond the area of this study.

It is widely accepted that 'trade leads to growth'. But does the growth trickle down to ultra poor? A small, land locked, poor and donor dependent country like Nepal the membership to the WTO is not a matter of choice. Membership of WTO was necessary, whether consequences are positive or negative. So, the only choice for Nepal is to mitigate the negative consequences and utilize potential benefits. Membership of WTO for Nepal brings both positive and negative impacts. While the benefits are only potential in the long run, many risks, pitfalls, and costs associated with trade liberalization are bitter realities facing most Least Developed Countries (Malakar, 2007).

4.3.1 Export Import Ratio

Export and import ratio are analysis. From the figure. Nepal export and import trade ratio show the pattern of the trade. On 1979 export import ratio was 0.73. Gradually ratio was increased up to 0.76 on 1999 then it started to decreased. On 2000 it was 0.71 and on 2004 it was 0.56. After 2004 export import ratio decline rapidly.

Figure 4.3.1: Export Import Ratio
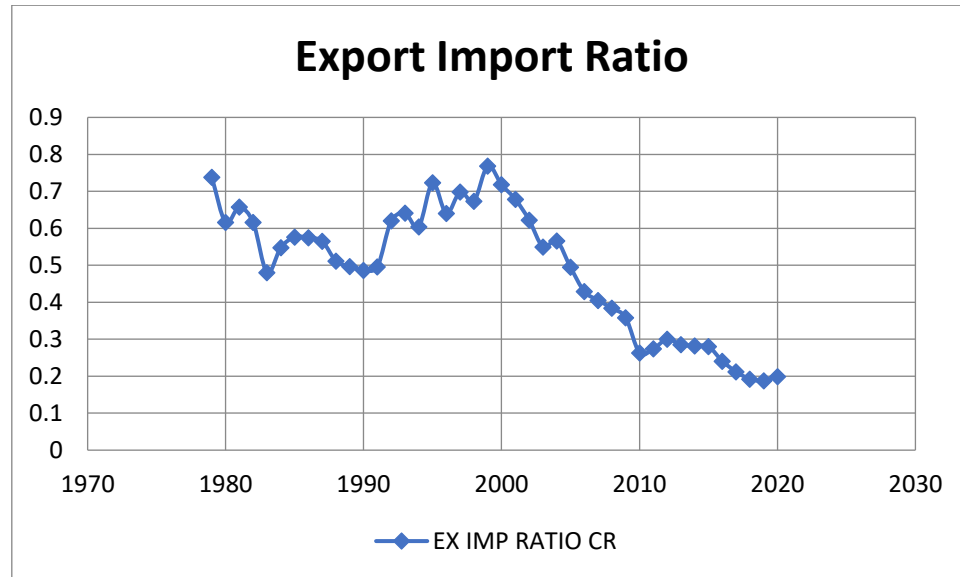
After 2004 export import ratio has been declined rapidly. It means that Nepalese trade deficit is increasing continuously. After 2004 ratio seem to fall more n more on 2005 it was 0.49, on 2010 it was 0.26. 2015 it was 0.28 and on 2020 it was 0.19. Due to several reasons Nepali import has been increasing and export is being declining rapidly. So that trade deficit is also growing continuously. Comparing with before and after the WTO membership, before member highest ratio 0.76 on 1995 was and lowest was 0.48 on 1990 and after membership highest ratio o.56 on 2004 was and lowest ratio was 0.18 on 2019. Before membership ratio was fluctuated more but after membership ratio just decline.

From the obtained ratio that balance of payment should be minimum 1:1 ratio among export and import. Ratio is around 0.8. Export has to increase for the improving trade balance.

However, after accessing the World Trade Organization, the trade volume of Nepal has increased significantly. After accession to the WTO, total trade volume of Nepal by then increased 3.57 folds till FY 2012/13 than that of FY 2003/04 which incorporates total imports increased by 4.43 folds, however total exports increased nominally by 1.43 folds and trade deficit increased by 6.39 folds for the period of 10 years. The ratio of exports on

imports for FY 2012/13 was 1:8 which shows how terms of trade has shifted and diverted into import basis trade structure (TEPC, 2013).

4.4 Consumption before and after WTO membership

Final consumption expenditure is one of the major indicators to analyze the socioeconomic condition of a country. It is quite surprising that the consumption expenditure (of Nepal) has been increased exponentially after the date of Nepal's full fledges membership of WTO. How was the variable affected in such a large scale after the WTO membership? It was a shocking and surprising fact.

Historical trend of the final consumption expenditure is given in figure below. It's clearly that there is complete change in the increasing pattern of the consumption expenditure before and after 2004.

Figure 4.4: Consumption Pattern
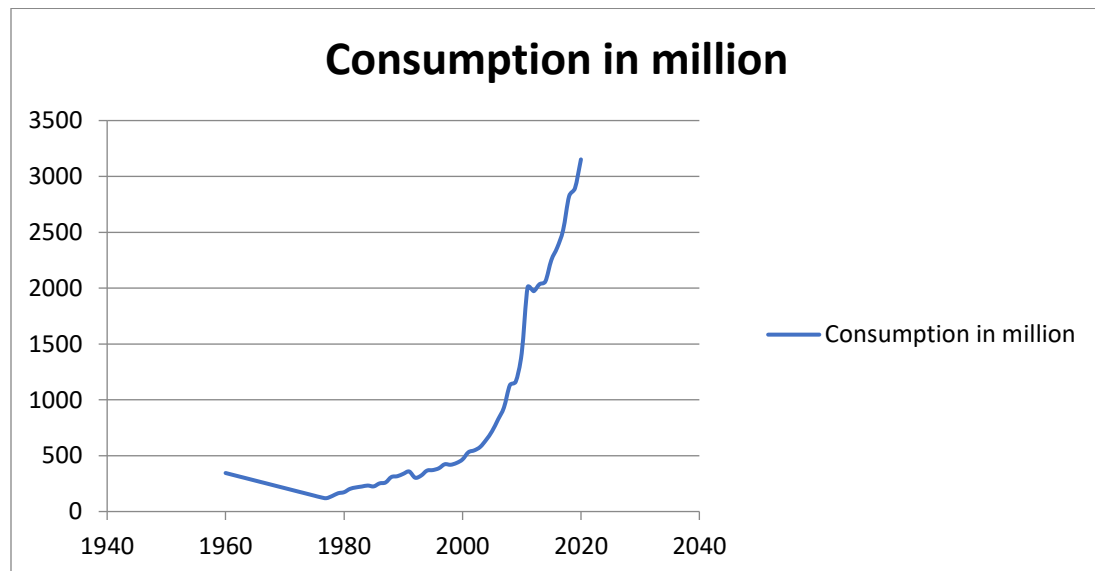
Source: Author 2022

Trade liberalization implies to reduce tariff, obviously it helps to reduce price of the imported goods and services and hence demand increases, and it's quite simple and understandable. So, increment in consumption to some extent is understandable but whatever is seen in Nepalese economy is beyond that.

Moreover, as consumption expenditure is heavily correlated with income, but surprisingly GDP or the national income was not increased in such pattern. Anyway, the fact is that, after 2004 Nepal's final consumption expenditure has been increased exponentially as given in figure 4.4. From 2000 consumption pattern has been increased exponentially than before. It indicated that before WTO membership consumption was start to increase and WTO membership helps to increase in consumption pattern sue to various reason.

4.5 Remittance before and after WTO membership

Nepal's economy has heavily depends on remittance. It might seem good for short term but what about the long run? Department of Foreign Employment (DoFE) has claimed that number of workers going abroad has increased by 3.68 times in 2021/2022.

Nepali migrant workers sent home Rs961.05 billion in the last fiscal year 2020-21 ended mid-July, a record-high money transfer to Nepal since Nepalis started going off to work overseas more than two decades ago. There is a possibility that remittances negatively impact economic growth in the long run. (Shakya, 2021)

Figure 4.5: Remittance
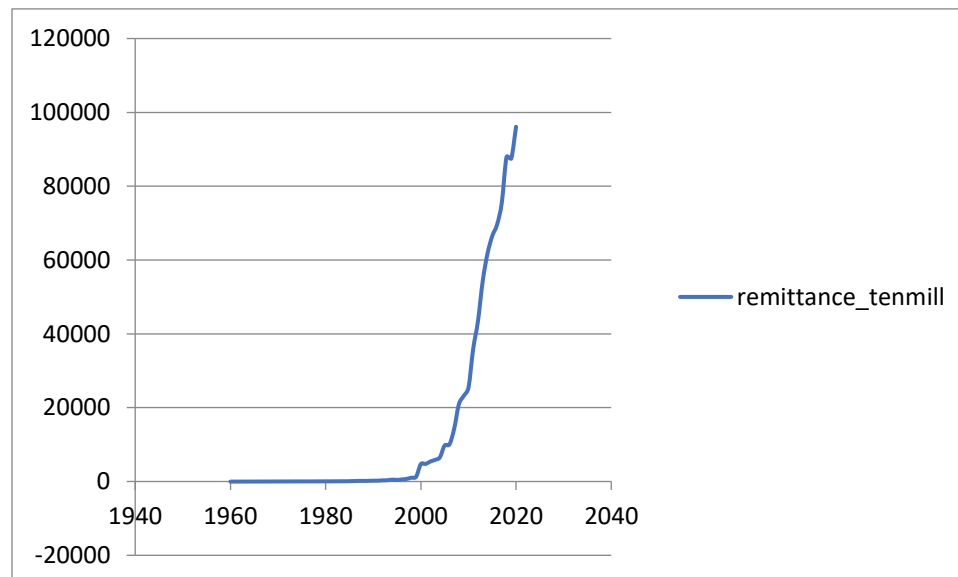
Source-Author 2022

Through Figure 4.5 reflect remittance trend of Nepal from 1960 to 2020. Remittance flow was increased after 2000.Though the figure it clearly shows that, remittance has been increased exponentially since 2000. After the era of 2004flow of remittance has been increased in such a greater speed after accession to WTO, and it seems obvious that just after the membership of WTO the remittance has been increased significantly. During covid-19 it seems remittance effect but again it's in increasing order. This figure helps to understand that membership of WTO helps to increase the remittance rate. There are several reasons for increasing remittance outflow rapidly but simply connecting with membership of WTO to Nepal, in case of remittance it seems negative. Human resource outflow for developing country like Nepal have help to reduce poverty and increase income level. But Nepal heavily dependent on remittance as remittance to GDP ratio of 23.23 percent. (NRB, 2020.)

It reflects that Nepal is seemingly a remittance-based country. Remittance can increase the consumption of no tradable goods, raise their prices, appreciate the real exchange rate, and decrease exports, thus damaging the receiving country's competitiveness in world markets. (World Bank Migration and Development 2014)

Based on an analysis of relevant data, it finds that increasing inflows of remittances in Nepal have a positive association with financial development and human capital accumulation, but a negative association with international trade. In terms of two factors of productivity - entrepreneurship and manufacturing-which are potentially associated with inflows of remittances, it finds a positive association (though not very significant) of remittances with entrepreneurship, but a negative association with manufacturing. Overall, this indicates a mixed (both positive and negative) impact of remittance inflows on economic growth in Nepal. (Dahal, 2014)

4.6. Empirical Analysis and Findings

Increased import itself is not a bad indicator for developing economies like Nepal. It should be qualified by disintegrating the data. If the import of raw materials increased and consumables are not large enough it is considered as a healthy trade. Disaggregation of import list suggested that the increasing imports are merely promoting productivity of the

economy since most of the imports are for immediate consumptions. Therefore, increasing import is mounting pressure to the domestic industry and affecting their welfare.

Analysis of the study is explained by various models as given below:

$$Imp = \beta_0 + \beta_1 \, wto\_d + \varepsilon \qquad \text{……………………} \, (4.1)$$

Import is widely pronounced as one of the agendas for economic growth in present era as well. WTO was as a ray of hope for Nepal too. This model tries to observe the relationship between import and WTO membership. That is, how the WTO membership affects import.

Table 4.6.1: Impact of WTO Membership on Import

```
    Source |       SS         df       MS                  Number of obs =        61
-----------+------------------------------                 F(  1,    59) =    122.17
     Model |  5.0174e+20      1   5.0174e+20               Prob > F       =    0.0000
  Residual |  2.4231e+20     59   4.1069e+18               R-squared      =    0.6743
-----------+------------------------------                 Adj R-squared  =    0.6688
     Total |  7.4405e+20     60   1.2401e+19               Root MSE       =    2.0e+09

-------------------------------------------------------------------------------------
Imp_current |     Coef.   Std. Err.      t     P>|t|     [95% Conf. Interval]
-----------+-------------------------------------------------------------------------
      wto_d |   6.40e+09   5.79e+08    11.05   0.000     5.24e+09     7.55e+09
      _cons |   6.54e+08   3.06e+08     2.14   0.037     4.24e+07     1.27e+09
-------------------------------------------------------------------------------------
```

Source-Author 2022

Since the simple regression may not show all picture but as one of the the main variable of interest is wto_d , the dummy WTO, that is for a simple observation of the impact on import by WTO membership only. More precisely this model observes the impact of WTO

membership on the import. This is a comparative analysis of impact WTO membership on import, before and after the WTO membership.

The result is significant since the p-value is less than 0.05. The positive coefficient of the dummy implies the membership of WTO results higher import, comparative to nonmember condition. To be specific, on an average, the import is more than USD 6 billion (i.e., 6.40e+09 on the table 4.1) higher after the member of WTO comparative to nonmember situation.

$$\text{Imp} = \beta_0 + \beta_1 \text{exp} + \beta_2 \text{wto\_d} + \varepsilon \qquad \text{…………………… (4.2)}$$

Being the member of WTO, a nation got a huge platform and global market to explore and opportunity to grab the market. Nepal has also tried it best to export more but could not succeed as expected. This model seeks to find the relationship between import and export along with the WTO membership.

Table 4.6.2: Impact of Export and WTO membership on Import

```
  Source |       SS       df       MS                Number of obs =        61
---------+---------------------------                F(  2,    58) =  172.45
   Model | 6.3693e+20     2  3.1847e+20             Prob > F       =  0.0000
Residual | 1.0711e+20    58  1.8467e+18             R-squared      =  0.8560
---------+---------------------------                Adj R-squared =  0.8511
   Total | 7.4405e+20    60  1.2401e+19             Root MSE       =  1.4e+09

-----------------------------------------------------------------------------
Imp_current |    Coef.   Std. Err.      t     P>|t|    [95% Conf. Interval]
------------+----------------------------------------------------------------
Exp_current |  3.418084   .3994858     8.56   0.000    2.618427    4.217742
      wto_d |  1.39e+09   7.02e+08     1.97   0.053   -1.91e+07    2.79e+09
```

```
    _cons |  -7.51e+08   2.63e+08     -2.86   0.006    -1.28e+09   -2.25e+08

------------------------------------------------------------------------------
```

In this model, the variable import is dependent on export and the WTO membership. Here, the result shows that the model is well defined since both of adjusted and unadjusted R^2 are more than 85 percent. Result shows that the observed value of export is highly significant but the wto_d is not that much.

As in the previous model, this model also follows the similar pattern, i.e., the WTO membership helps to increase the import comparative to nonmember situation. More precisely, import during membership is more that USD 1 billion than during nonmember situation. Also, one unit increment in export results more than 3-unit increment in import as coefficient of export is approximately 3.42.

$$\text{Imp} = \beta_0 + \beta_1 hdi + \beta_2 exp + \beta_3 \, wto\_d + \varepsilon \qquad \text{……………………… (4.3)}$$

HDI measures each country's social and economic development by focusing different factors like mean years of schooling, life expectancy at birth, GNI per capita. WTO membership directly and indirectly linked with the standard of living/HDI. This equation has involved HDI, export and wto_d as independent variables. Result of model 3 is below:

Table 4.6.3 : Impact of HDI, Export and WTO Membership on Import

```
      Source |       SS       df       MS              Number of obs =      61
-------------+------------------------------           F(  3,    57) =  139.18
       Model |  6.5467e+20     3   2.1822e+20           Prob > F      =  0.0000
    Residual |  8.9372e+19    57   1.5679e+18           R-squared     =  0.8799
-------------+------------------------------           Adj R-squared =  0.8736
       Total |  7.4405e+20    60   1.2401e+19           Root MSE      =  1.3e+09
```

```
 -----------------------------------------------------------------------------

  Imp_current |      Coef.    Std. Err.      t     P>|t|     [95% Conf. Interval]

 -------------+---------------------------------------------------------------

          HDI |  -1.12e+10    3.33e+09    -3.36    0.001    -1.79e+10    -4.53e+09

 Exp_current |   5.242966    .6556224     8.00    0.000     3.930105     6.555827

        wto_d |   1.31e+09    6.48e+08     2.03    0.047     1.71e+07     2.61e+09

        _cons |   2.04e+09    8.63e+08     2.36    0.022     3.08e+08     3.77e+09
```

In this model, the variable import is dependent on HDI, export and the WTO membership. Here, the result shows that the model is well defined since both of adjusted and unadjusted R^2 are more than 87 percent. Result shows that the observed value of export is highly significant.

More precisely, import during membership is more that USD 1 billion than during nonmember situation. Also, one unit increment in export results more than 5-unit increment in import as coefficient of export is approximately 5.24. It concludes that WTO membership helps to increase the import comparative to nonmember situation.s

Model Using Log

Main interest of this study is to observe import with WTO membership. This equation has involved HDI too which helps to analyzed the social factor along with import. Natural log has taken for dependent and independent variables. To observe the changing pattern of import before and after accession to WTO, the log linear models have been considered as follows.

$$\text{lnimp} = \beta_0 + \beta_1 \text{lnhdi} + \beta_3\, \text{wto\_d} + \varepsilon \qquad \text{……………………} (4.4)$$

With the observation of the impact on import in current US dollar, this study has tried to observe its growth pattern as well. For that, the natural log (Ln) has been considered.

Table 4.6.4: Import on HDI and WTO membership

```
 Source |       SS        df       MS               Number of obs =       61
--------------+------------------------------         F(  2,    58) =  281.03
       Model | 26.6197407     2  13.3098704          Prob > F      =  0.0000
    Residual |  2.7469158    58  .047360617          R-squared     =  0.9065
--------------+------------------------------         Adj R-squared =  0.9032
       Total | 29.3666565    60  .489444276          Root MSE      =  .21762

----------------------------------------------------------------------------
       lnimp |    Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+-------------------------------------------------------------
       lnhdi |  3.024411   .2216992    13.64   0.000     2.580632    3.46819
       wto_d |  .4149413     .08495     4.88   0.000     .2448955   .5849872
       _cons |  10.16084   .1205949    84.26   0.000s    9.919438   10.40223
----------------------------------------------------------------------------
```

Source-Author 2022

From the result of the model 4.4 as shown in table 4.4, coefficient of lnhdi is approximately 3 and positively related with the lnimp. This is highly significant (P value is 0), well defined i.e. both of adjusted and unadjusted R squared are around 90 percent and the coefficient of wto_d (main variable of interest of this study) is positive. It implies that, comparatively the increment ratio of import is more after accession to WTO. More precisely, comparative to nonmember situation, the membership of WTO helps to increase import by more than 41 percent. This increment ratio is very high. That implies, WTO membership helps to boost up import in very higher rate, comparative to nonmember situation. Hence opening up the economy or the being a membership of multilateral trade organizations like WTO may affect the international trade and/ or balance of payment adversely.

$$\text{lnimp} = \beta_0 + \beta_1 \text{lnexp} + \beta_3 \text{wto\_d} + \varepsilon \qquad \text{........................ (4.5)}$$

Like previous model 5.4 , this model also tries to observe the growth pattern. For that, the natural log (Ln) has been considered.

Table 4.6.5: Impact of Export and WTO membership on Import

```
Source |       SS       df       MS              Number of obs =      61
-------------+------------------------------           F(  2,    58) = 1300.20
      Model |  28.7259465     2   14.3629733           Prob > F     =  0.0000
   Residual |  .640710016    58   .011046724           R-squared    =  0.9782
-------------+------------------------------           Adj R-squared =  0.9774
      Total |  29.3666565    60   .489444276           Root MSE     =   .1051

------------------------------------------------------------------------------
      lnimp |     Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      lnexp |    1.0035   .0319168    31.44   0.000     .9396119    1.067389
      wto_d |  .3059504   .0414556     7.38   0.000      .222968    .3889328
      _cons |  .1862689   .2673648     0.70   0.489    -.3489199    .7214577
------------------------------------------------------------------------------
```

Source-Author 2022

From the result of the model 4.4 as shown in table 4.4, coefficient of lnexp is approximately 1 and positively related with the lnimp. This is highly significant (P value is 0), well defined i.e. both of adjusted and unadjusted R squared are around 97 percent and the coefficient of wto_d (main variable of interest of this study) is positive. It implies that, comparatively the increment ratio of import is more after accession to WTO. More precisely, comparative to nonmember situation, the membership of WTO helps to increase import by more than 30

percent. This increment ratio is very high. That implies, WTO membership helps to boost up import in very higher rate, comparative to nonmember situation. Hence opening up the economy or the being a membership of multilateral trade organizations, like WTO, may affect the international trade adversely.

4.7 Problems of Nepal's Foreign Trade

There are many problems such as inadequate infrastructure, instability in nation and many more problems arises problems in international trade. As Nepal is also an agricultural nation but in both agricultural and industrial sector have low productivity rate. Nepal has to import everything from kitchen item to daily product and from machines to tooth pick. Nepal has imported 2.5 core tooth pick on first 11 month of 2022 of the financial year. Due to traders focused policy, local Producer are not motivated to invest.

Quality is also the important to get exported but in case of Nepal. Due to low quality Nepali product cannot meet the standard level. Widening Trade gap is also the problem of international trade in Nepal. Nepal has been heavily depending to India and China, which is increasing the Poverty in Nepal.

Lastly due to complex documentation process, higher transportation cost, and limited freedom of foreign exchanging earning, lack of skilled manpower, scarcity of raw materials, political instability and proper negotiation for agreement all these factors are the drawback for export in Nepal.

Chapter V

Summary, Conclusion and Recommendation

This chapter is the final chapter of the thesis. It involves overall summary, conclusion and recommendation of the study.

5.1 Summary

International trade is a key for economic growth. Regional and worldwide organization helps to uplift the condition of the nation. Being member of those organizations seems to be beneficiary with the help of large opportunity of market, technology and so on. Every developing nation greed for betterment like increasing import, development of technology, better life standard, and many more. In case of Nepal, being member of WTO and getting benefit from this membership looks just a myth for economic development.

All nation seek for the multilateral trade for development is ongoing discussion issue. Each country has its own economic structure so that multilateral trade can be beneficial or not, it's the phenomena of research and evidences. This study has tried to figure out whether the WTO membership is beneficial or not. Export, import and HDI are dynamic and complex factor which cannot be linked with a single variable. These variables can be affected by many direct and indirect factors.

This study is based on empirical evidences and the data are taken from widely accepted source the World Bank. In case of global economy, the higher degree of openness was one of the main reasons for such a worldwide economic recession of 2007-09 hence the impact of Covid-19. In case of SAARC, import volume has increased more than export. Figure 4.2.1 & 4.2.2, in chapter IV, shows the trend of import and export of the SAARC. And it is very clear the increasing trend of import and the slower growth of export.

Nepal has been suffering from fundamental deficit in its balance of trade. Economy could move in positive direction if export is in increasing order and import is in

decreasing, if not, at least increasing ratio of export is greater than the increasing ratio of the import. But the empirical evidence shows completely opposite scenario, which is definitely not a good sign for the economic betterment. Quality and competitive product is essential for export, including both of these and lack of proper knowledge of market, Nepal is not being able to promote her products in international market hence export is not increasing as expected. For example, Nepal did not meet the Maximum Residual Level (MRL) of European Union (EU) standard in honey; hence the European Union banned Nepalese honey since 2002. Use of pesticides in bee keeping and brood harvesting were major reasons that have completely halted honey exports for the last three years. (Himalayan times, 2005)

Data since 1960 shows the pattern of the volume of import and export was very slower increment till the date of Nepal's accession to WTO i.e. around 2004. But since 2004 till the period of beginning of COVID-19 in 2019, export is still increasing in slower pace while import is increasing in many times higher than the export and it is clearly seen in the figure 4.3 in chapter IV. Figure has shown clearly the gap between the export and import of Nepal. Results of the econometric models of this empirical study also proves the same, i.e., increasing trend of import is sufficiently higher during WTO membership comparative to the nonmember situation. From the econometric models used in this study, it can be tracing the conclusion that the WTO Membership boost up the import rapidly. In equation 4 and equation 5, where log is taken, this study even show that growth rate of import was found more rapidly than nonmember situation. Increasing pattern of the import after accession to WTO is clear from the data as well as from the obtained result.

Remittance became one of the main sources of revenue in Nepalese economy. Pattern of remittance inflow is rapidly increasing after being member of WTO. It has negative and positive aspect for nation. If remittance is taken as a labor out flow then its negative for nation. Remittance on GDP before 2003 was maximum around 11 percent but after 2004 remittance on GDP was 25.5 percent highest.

In case of developing countries, WTO is beneficial or drawback? This has been a

serious question since the lion's share of benefit from the multilateral trade agreement has been enjoying by the developed countries. There are lots of literatures who believe the agreement as disadvantages for developing economies, on the other hand there are not less literatures who take it as beneficial for those economies. It is really a complex to measures whether the principles, rules, regulation and agreement of WTO are better off or not. The argument of higher return for capital in capital – poor countries is also not valued. The evidence so far is that the richest are the biggest winner and poorest are the worst losers. (NEFAS, 2001)

In case of import, result has shown that after WTO Membership import has increased continuously and more rapidly than export. Which show that Nepal is being more and more import-based economy after accession to WTO.

Finally, the empirical evidence and the result of the models of this study show that the WTO membership is not in favors of Nepalese economy. There are various reasons why Nepal is not being able to reap the benefit from the WTO membership, including the lack of competitive products, human resources, market information; technology etc. analysis of such bottlenecks may be a good issue to be observed in separate research.

5.2 Conclusion

Latest trade data has shown the adverse condition of Nepalese international trade. There is also some provision of positive discrimination for the developing countries in WTO system. But it seems that Nepal is not being able to cash those benefits. This study has tried to observe the trend of international trade including remittance, consumption and other economic indicators too. With the help of regression analysis, the data are observed.

From the findings of this study and the existing literatures proved that WTO membership helps to increase import as well as the increment ratio of import. Since import solely cannot be coined as good or bad, if it is the import of intermediary good, then that may help to boost up the economy. Because, if the imported intermediary goods are processed to final consumer goods or at least few further steps toward the final consumable goods then that value addition will be benefit to the economy. But if the imported goods are final products, then the economy cannot be benefited by trading such final products only. Hence the type of the imported goods may help to analyze whether the import is good or bad for the economy.

On the basis of this study, we can conclude that the WTO membership boosts up the trade volume. Out of the total increment in trade volume, import is much higher than export after accession to WTO. More over the increasing rate of import is also much higher than the increasing rate of the export after 2004.

This study also observed that including import, some other macroeconomic variables such as remittance, consumption expenditure are also increased simultaneously. Outflow of labor force is also found in increasing pattern after 2004.

Finally, as a WTO member, Nepal should be able to reap the benefit by increasing the export as our immediate neighbors India and China is doing. It is better to focus on export, if import cannot reduce.

5.3 Recommendation

This study has studied more about import than other components. Remittance, consumption, export and HDI were also observed. More over this study focused on the pattern of all these variables before and after WTO membership to Nepal.

There are lots of socio-economic variables that can be included for the similar analysis of the impact of WTO membership, such as poverty, sector specific GDP etc. Since the poverty gap and/or income inequality is one of the hot topics on the similar research. Sector wise analysis, such as specific agro product, mining based products, forest products, industrial products, automobiles, trade in services etc. could be some important issues for the future study/ research.

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ANNEX

Annex: 1

Global Trade (% of GDP) with Global import and Global export

Year	Global trade (% of GDP)	Global Import (In billion)	Global Export (in billion)
1960	16.653	129.523	122.82
1961	16.563	134.561	128.233
1962	16.041	141.886	133.931
1963	16.275	154.483	146.809
1964	16.641	172.959	165.019
1965	16.618	188.123	178.966
1966	17.057	206.958	195.894
1967	16.895	216.98	206.817
1968	17.429	240.251	229.95
1969	17.934	272.628	262.558
1970	19.339	313.293	301.912
1971	19.567	349.148	338.152
1972	19.992	411.377	400.202
1973	22.665	566.144	555.695
1974	28.898	827.644	815.265
1975	27.026	865.559	845.11
1976	28.267	977.565	956.922
1977	28.471	1118.455	1086.057
1978	28.007	1296.924	1258.986
1979	30.598	1625.741	1604.76
1980	33.874	1998.43	1973.494
1981	32.564	1995.007	1952.14
1982	30.635	1862.376	1808.557
1983	29.159	1806.595	1759.675
1984	30.134	1937.376	1876.109
1985	29.024	1953.078	1896.147
1986	26.899	2136.019	2067.438
1987	27.932	2504.864	2436.805
1988	28.765	2882.5	2795.217
1989	29.8	3122.413	3032.858
1990	30.025	3532.293	3462.446
1991	29.568	3651.009	3547.842
1992	29.301	3907.744	3804.565

1993	28.866	3863.949	3811.139
1994	30.477	4397.97	4344.916
1995	32.728	5228.535	5183.913
1996	33.616	5503.568	5433.331
1997	34.941	5704.736	5629.118
1998	34.539	5642.274	5528.699
1999	35.437	5876.501	5749.006
2000	38.812	6674.875	6487.13
2001	37.583	6431.968	6227.435
2002	37.788	6682.058	6533.841
2003	39.345	7800.134	7630.338
2004	42.488	9508.231	9270.815
2005	44.685	10826.722	10564.711
2006	47.444	12415.764	12192.935
2007	48.622	14323.225	14102.629
2008	51.07	16560.197	16250.366
2009	41.678	12763.444	12627.59
2010	46.277	15497.744	15380.39
2011	49.917	18509.364	18432.464
2012	49.358	18735.797	18604.948
2013	48.986	19042.335	19053.538
2014	47.852	19128.91	19096.603
2015	44.428	16790.822	16636.415
2016	42.344	16262.504	16117.289
2017	44.081	18054.209	17829.168
2018	45.762	19904.465	19641.644
2019	43.921	19379.164	19097.422
2020	42.053	17929.964	17731.188

Source: World data bank 2022

Annex: 2

SAARC Trade (% of GDP) with SAARC import and SAARC export

Year	South Asia Trade (%in GDP)	South Asia exports (Billion)	South Asia imports (Billion)
1960	13.535	2.326	4.307
1961	12.220	2.394	3.942
1962	12.114	2.401	4.326
1963	11.674	2.668	4.669
1964	11.289	2.849	5.378
1965	10.333	2.957	5.098
1966	14.202	3.262	5.819
1967	11.608	2.937	5.208
1968	9.448	2.680	4.262
1969	8.670	2.797	4.174
1970	8.297	3.138	4.077
1971	7.981	3.218	4.241
1972	9.829	4.403	4.695
1973	10.402	4.961	6.049
1974	12.360	6.302	9.542
1975	13.058	6.632	11.282
1976	13.498	8.110	9.962
1977	13.449	9.229	11.624
1978	14.163	10.126	14.864
1979	15.657	12.511	18.434
1980	16.777	13.800	26.112
1981	16.207	13.921	26.951
1982	15.048	14.378	26.014
1983	13.988	14.863	25.032
1984	15.096	15.203	27.750
1985	13.978	14.984	27.987
1986	13.091	15.631	27.200
1987	13.318	18.679	29.005
1988	14.151	21.224	32.790
1989	15.432	23.941	35.137
1990	16.218	27.728	39.086
1991	17.957	28.516	36.777
1992	19.147	32.179	41.623
1993	19.959	34.854	41.909
1994	19.922	39.137	46.970
1995	22.268	46.620	60.147

1996	22.169	51.463	65.010
1997	22.308	53.954	68.913
1998	21.616	52.698	67.912
1999	21.586	55.157	74.405
2000	22.968	64.379	80.864
2001	22.131	64.516	79.327
2002	23.292	70.924	86.907
2003	24.194	84.099	107.277
2004	27.089	105.531	142.901
2005	31.393	132.978	196.835
2006	33.478	159.319	241.110
2007	32.578	190.415	299.623
2008	42.621	241.304	409.715
2009	31.882	206.751	329.964
2010	34.902	277.640	441.605
2011	41.549	365.279	579.754
2012	41.865	358.091	604.842
2013	40.874	381.560	582.899
2014	37.946	391.471	589.280
2015	31.550	335.047	516.613
2016	27.393	332.194	491.047
2017	28.384	370.377	602.286
2018	30.713	401.951	681.397
2019	28.509	401.813	638.408
2020	24.455	344.611	507.029

Source: World data bank 2022

Annex: 3

Nepal Export, Import and Export import Ratio (interpolated data)

Year	Export current	Import current	EX IMP RATIO
1960	86625541.41	217220107.6	0.398791541
1961	80719254.5	194251214.1	0.415540541
1962	74812967.58	171282320.5	0.436781609
1963	68906680.67	148313427	0.46460177
1964	63000393.75	125344533.4	0.502617801
1965	57094106.84	102375639.8	0.557692308
1966	51187819.92	79406746.29	0.644628099
1967	57881611.76	58537865.86	0.988789238
1968	52859926.58	57919838.08	0.912639405
1969	55308641.98	80592592.59	0.68627451
1970	42469135.8	71901234.57	0.590659341
1971	47703703.7	80592592.59	0.591911765
1972	57975308.64	81086419.75	0.71498173
1973	64260709.31	100827880.8	0.637330754
1974	66375047.55	128470911	0.516654292
1975	140262466.7	210631428.3	0.665914236
1976	156521448.6	205966849.9	0.759935148
1977	162959992	197919992	0.823362968
1978	169586602.2	248201284.5	0.683262387
1979	218166658.3	295583341.7	0.738088477
1980	224583341.7	364500008.3	0.616140841
1981	293583341.7	446416683.3	0.657644198
1982	277668266.8	450515193.7	0.616334967
1983	250371505.2	521619390.4	0.479988877
1984	274961829.1	502021598.5	0.547709162
1985	302055495.9	523971554.7	0.57647308
1986	332467040.8	578787429.2	0.574419941
1987	349348712.9	618261968.8	0.565049656
1988	399163908.4	780457946	0.511448324
1989	390158315.2	785537991.3	0.49667657
1990	381884707.7	785782436.1	0.485992929
1991	450607063.7	909166930.6	0.495626324
1992	542824053.5	875325167	0.620139891
1993	674654166.7	1052504167	0.640999046
1994	772440816.3	1278518367	0.604168728

1995	1099094803	1519145030	0.723495638
1996	1031715001	1611500000	0.640220292
1997	1294985096	1854725583	0.698208461
1998	1108297014	1645665860	0.673464183
1999	1150110375	1495923473	0.768829687
2000	1279281888	1781598378	0.718052903
2001	1355238095	1996693878	0.678741048
2002	1073251679	1724111682	0.622495451
2003	993875698	1807224670	0.549945845
2004	1213488963	2143236207	0.566194691
2005	1185691368	2396739963	0.494710059
2006	1216071411	2832075349	0.429392322
2007	1327426849	3275658805	0.405239656
2008	1602782687	4172661317	0.384115212
2009	1596506175	4455549991	0.358318542
2010	1533460341	5825346141	0.263239352
2011	1684084657	6146526706	0.273989643
2012	1899085037	6331146622	0.299959099
2013	2059901678	7218390373	0.285368562
2014	2301357059	8151234467	0.282332335
2015	2488355029	8879788078	0.280226849
2016	2005967750	8322475418	0.24103018
2017	2263315206	10670300615	0.212113537
2018	2587877945	13453790784	0.192353069
2019	2659663141	14176869010	0.18760582
2020	2275257409	11405416672	0.199489197

Source: World data bank 2022

Annex: 4

HDI, Remittance and Consumption (interpolated data)

Year	HDI	Remittance_current	Consumptioncurrent
1960	0.147	210142406.5	3447808625
1961	0.155	205435821.5	3312471009
1962	0.163	200729236.6	3177133392
1963	0.171	196022651.7	3041795776
1964	0.179	191316066.7	2906458160
1965	0.187	186609481.8	2771120543
1966	0.195	181902896.9	2635782927
1967	0.203	177196311.9	2500445311
1968	0.211	172489727	2365107694
1969	0.219	167783142.1	2229770078
1970	0.227	163076557.2	2094432462
1971	0.235	158369972.2	1959094845
1972	0.243	153663387.3	1823757229
1973	0.251	148956802.4	1688419613
1974	0.259	144250217.4	1553081996
1975	0.267	139543632.5	1417744380
1976	0.275	134837047.6	1282406764
1977	0.283	130130462.6	1195840000
1978	0.291	125423877.7	1389537068
1979	0.299	120717292.8	1635833358
1980	0.307	116010707.9	1729999908
1981	0.315	111304122.9	2027749992
1982	0.323	106597538	2157494732
1983	0.331	101890953.1	2237976181
1984	0.339	97184368.13	2326559714
1985	0.347	92477783.2	2250878745
1986	0.355	87771198.27	2519417401
1987	0.363	83064613.34	2599562413
1988	0.371	78358028.41	3090974382
1989	0.379	73651443.48	3162440321
1990	0.387	68944858.55	3373934630
1991	0.395	64238273.62	3585800919
1992	0.402	59531688.69	3029503341
1993	0.407	54825103.76	3211787500
1994	0.414	50118518.83	3661751020
1995	0.419	56822666.94	3712098420
1996	0.428	44160126.07	3871265473

1997	0.435	49458057.88	4232000701
1998	0.44	67504902.92	4187360775
1999	0.447	83462780.29	4348388521
2000	0.453	111498192	4660648617
2001	0.454	146985151.9	5306354461
2002	0.464	678485892	5476667888
2003	0.47	771072126.5	5788509912
2004	0.476	822608955.2	6419305641
2005	0.482	1211823253	7190753085
2006	0.493	1453231426	8231311322
2007	0.498	1733858518	9311930568
2008	0.509	2727140487	11312084483
2009	0.522	2983336877	11642289113
2010	0.537	3464092682	14170128078
2011	0.545	4216894010	20084397985
2012	0.559	4792506200	19723645646
2013	0.568	5583702128	20349569226
2014	0.576	5888650155	20602852630
2015	0.583	6729935671	22503219014
2016	0.586	6611838544	23630719885
2017	0.588	6928133767	25209699291
2018	0.596	8286629516	28213796814
2019	0.602	8244465869	28954530228
2020	0.604	8107744662	31521468736

Source: World data bank 2022