Master Thesis

Impact of Official Development Assistance on External Trade Balance of Nepal: An Empirical Analysis

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Master Thesis
Advisor Professor InSun Kim

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— 공적개발원조가 네팔의 대외무역수지에 미치는 영향—

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Abstract

Impact of Official Development Assistance on External Trade Balance: An Empirical Analysis

− 공적개발원조가 네팔의 대외 무역 수지에 미치는 영향−

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This paper examines the impact of Official development assistance and official aid received (ODA)on external balance of Nepal for the period 1990−2019. Moreover, the study also includes tax revenue and tourism to analyze with the external balance including the same time period. During this time period, the country experienced many notable

occurrences. Specially, the abolishment of monarchy resulted in Nepal and it was declared as a republic country. As many important phenomena happened during this period, so this particular time period is chosen as a research study.

In order to analyze the data and find the outcome, a multiple linear regression model was conducted. According to the research and its hypotheses that were tested with the model confirmed that ODA had a significant negative relationship with external balance. Moreover, other independent variables tax revenue and tourism were also regressed together with the dependent variable and found the similar significant negative effect on external trade balance of a country.

During the study, the annual time series data from 1990-2019 has been regressed including external balance as dependent variable and ODA, tax revenue and tourism as independent variables.

Keywords: [External Balance, ODA, Tax Revenue, Tourism, Multiple Linear Regression, Nepal]

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List of Abbreviations

ODA: Official Development Assistance

GDP: Gross Domestic Product

FDI: Foreign Direct Investment

VAT: Value-added Tax

WDI: World Development Indicators

WB: World Bank

FAO: Food and Agriculture Organization

BOP: Balance of Payments

LDCs: Least Developed Countries

UN: The United Nations

US: The United States

UK: The United Kingdom

IMF: International Monetary Fund

ADB: Asian Development Bank

OLS: Ordinary Least Squares

ARDL: Autoregressive Distributed Lag

VECM: Vector Error Correction Model

DAC: Development Assistance Committee

NTB: Nepal Tourism Board

NGOs: Non-governmental Organizations

INGOs: International Non-governmental Organizations

EDPs: External Development Partners

USOM: United States Overseas Mission

WAEMU: Western African Economic Monetary Union

Chapter 1: Introduction

1.1 Background

Economic development is an essential requirement to increase countries' economic and social welfare. While the world economy has achieved great material and technological improvements since the Industrial Revolution, the performance of different countries has been quite diversified. While some countries in North America and Western Europe have achieved persistently higher economic development levels, other countries like South Korea converged to the advanced country levels only in the second half of the 20th century (Amsden, 1992, p.1). Still, some countries in Africa and South Asia have failed to display economic development in sustained ways. Nepal is one of these less developed countries in the world.

The primary sources of the economy in Nepal are agriculture and remittance. Nepal is known as an agricultural country as 66 percent of the population is involved in farming, and 33 percent of agriculture contributes to the country's GDP. Moreover, in the case of remittance, the contribution to GDP is around 30 percent. As remittance's contribution plays a vital role in the Nepalese economy, the study regarding remittance and trade deficit has mainly been carried out. They have mentioned in their paper its significance for a country.

Nepal is between two giant neighbors, India and China, and its small landlocked country. Nepal has been officially regarded as the Federal Democratic Republic of Nepal since 2008. It is a sovereign country

with cultural and geographical diversity. According to its population and land area, the government is ranked 49th and 93rd, respectively. Nepal lies within three topographies, including mountains, hills, and plains. The country borders Tibet in the north and India in the south, east, and west, where Bangladesh lies only 27 kilometers from its southeastern tip, and Bhutan is detached from it by the Indian state called Sikkim. Nepal is geographically diverse, including its stunning mountains, beautiful hills, dense forests, and fertile plains.

Moreover, the country has eight tallest mountains among the world's ten, including Mount Everest, the highest peak in the world. The capital of Nepal is Kathmandu, and also the largest city. Nepal is a multiethnic country, a country with unity in diversity. Nepali is the official language of Nepal. Nepal has been heavily dependent on foreign aid for a few decades. To ease foreign aid and prosper the relevant programs in Nepal, the donors have been involved in coordinating developmental aid programs and policies through the channel of Development Forum Nepal. The members of this forum include various donor countries, international financial institutions, and inter-governmental organizations. However, the government receives aid through multiple sources, Nepal's largest bilateral aid donor in the United Kingdom. In contrast, the World Bank and Asian Development Bank are the biggest multilateral donors.

Foreign aid becomes a vital income source, especially for less developed countries regarding poverty reduction and economic development objectives. In this context, Nepal also gets sizable foreign aid flows. For example, the government obtained an average

of 6.25% aid flows relative to GDP in the 1990－2018 period. Some studies examine the effects of support flows on economic growth in Nepal (Bhattarai, 2009, p.283; Sharma and Bhattarai, 2013, p.895). However, the literature on the effects of aid on other economic and social indicators is minimal. This situation arises from the lack of data for some social dimensions. For example, it would be valuable to examine the impact of aid flows on poverty and inequality dynamics in Nepal. However, the relevant data are very scarce, and therefore, conducting a quantitative analysis is not feasible for poverty and inequality issues. Hence, the present dissertation aims to expand its relevant literature by examining the possible effects of aid and external balance and adding a few other aspects that relate to the balance of trade.

1.2 Statement of the problem

Being a small landlocked and less developed country, Nepal relies heavily on foreign aid. A quarter of the population is still living under the poverty lines.

Various reasons obstruct the path of smooth economic development of Nepal. In the context of Nepal, around 20% of people live under the poverty line, and the numerous people inside the country are also suffering from inequality. For moving towards economic development, the government needs to reduce poverty which is the biggest challenge of Nepal. Furthermore, infrastructure for development is traditional and unadvanced. The various rural regions of a country are not interlinked with the capital, Kathmandu. Therefore, the rural areas

are inaccessible from multiple development facilities and services in comparison to cities and the capital.

Moreover, many youths every day leave the country abroad for employment. This sort of many obstacles have hindered the path of development in Nepal. For the less developed country like Nepal, Official development assistance is an essential tool to support economic growth. The financial condition of Nepal reveals that the government is dependent on Official development aid for operating various economic aspects of a country and fulfilling the basic needs of its people despite enhancing development. The effectiveness of aid depends on where and how it is used. For instance, aid may have a higher impact or no impact on food programs in a specific region. So, utilizing aid is more important than just receiving and operating it without a better policy. Nepal receives official development aid every year, and it is challenging to get the country out of its development trap as there are still a lot of problems to sort out first. Overall, little hope is seen in the measurement of aid in Nepal. The citizens of the country and development partners have also realized that they need to move collectively to obtain development rapidly. Besides, the country considered evaluating and coordinating aid programs to see their effectiveness in the country. The government is also focusing on selecting aid packages that require the most attention.

Although Nepal receives a considerable amount of official aid every year, the development in the economy of Nepal is not found satisfactory yet. This means that the investment of official aid has not resulted effectively. There are a lot of reasons behind it. Firstly,

the political disturbance in Nepal has been seen again and again. Secondly, the investment is not entirely used in the right sector at the right time. Besides, the people involved in agriculture still lack to follow the modern way of farming, resulting in food production insufficiency. Moreover, the industries in Nepal are too small for the production of goods. There are not any vast industries that could support the exports of the countries. Even small enterprises to fulfill local needs are at risk and face lots of political and institutional obstacles to running smoothly. On the other hand, the budget distributed for the development sector is frozen many times where the share of aid might have been included. Similarly, various Ngo's and Ingo's financial support are getting into the pockets of bureaucrats. When these sorts of ineffective results are seen due to improper and weak policy of the government, it weakens the economic condition of a country, and external sources like official development aid and remittance show no impact on growth. As a result, the government is also facing a huge trade deficit for a long time. So, our present dissertation brings this issue and tries to find its impact, including a few other variables.

Therefore, the government of Nepal should address the fundamental problems as explained above by utilizing the official development aid and other sources like tax revenue. Hence, official development assistance plays a vital role by supporting government spending, boosting the economy, and balancing some economic aspects that support the growth of a country.

1.3 Structure of the Research

The dissertation is structured as follows. Chapter one consists of the background of the research, a statement of the problem, and an outline of the study, respectively. Chapter two provides a literature review of the Nepalese economy, and relevant literatures of ODA, tax revenue and tourism as well.

Moreover, chapter three presents the research design, including research objectives, hypotheses, and the research question. Likewise, Chapter four includes data and the data collection sources with the definition of the variables. Chapter five consists of the methodology part, including regression analysis in it. The findings and results of the empirical research are presented in the sixth section regarding the relationship of official development assistance (ODA), tax revenue, and tourism with external balance in the case of Nepal. Then, the other section presents the discussion part with implication, and the regression analysis is concluded in the final chapter of the research.

Chapter 2: Literature Review

2.1 An Outlook of Nepalese Economy

Nepal is considered one of the least developed countries in the world, where almost a quarter of its total population lives under the national poverty line. The economy of Nepal is mainly dependent on agriculture, remittances, tax revenues, tourism, and foreign aid. The heavy dependence on remittances amounts to 30% of GDP. Agriculture in Nepal is still the primary source of income, providing livelihood to approximately two-thirds of the total population. The contribution of agriculture accounts for almost a third of GDP. The activities regarding industries mainly include the processing of agricultural products, consisting of pulses, jute, sugarcane, tobacco, and grain.

Nepal has a total capacity of 83,000 megawatts in hydropower production, but an estimation of 42,000 MW is a commercially feasible capacity. Nepal has made agreements regarding trade and investment with India, China, and some other countries. But political disturbance and unstable government tenure, seen repeatedly, are discouraging such agreements, and it is also creating a worrisome business climate. Therefore, the effect of all these scenarios has been seen in foreign investment.

A dreadful earthquake that struck Nepal during the early year of 2015 has destroyed and damaged a thousand lives and homes of people. It has also harmed a lot of infrastructures and homes and set back the economic development of a country. Most importantly, the landlocked

structures, underdeveloped transportation infrastructure, lack of skilled workforce, and financial insufficiency are significant challenges to Nepal's growth and development. However, the lack of economic and technological capacity has been obstructing the path of smooth post-earthquake recovery; the government of Nepal and its reconstruction efforts have been speeding up to pick up the expected result as soon as possible. But the hard-hit properties in various areas still have seen a little assistance. Besides, the industry sector has been rapidly exporting its carpet and garments mainly in recent years, accounting for nearly 70% of merchandise exports. Furthermore, towns and villages are connected to the capital and major cities of a country by roads, telephone facilities, and domestic air services.

Although economic development has been hindered by the frequent change in political leadership, corruption, and lack of government's exemplary policy implementation, Nepal has been moving towards sustainable economic growth since the 1950s. Similarly, the country has also opened its way to economic liberalization leading to economic development and improvement in people's lifestyle and their living standards compared to the past.

Nepal is an agricultural country with the majority of people involved in farming. Agriculture is still a significant source of income for the Nepalese people, and it has a considerable contribution to the economy of a country. The statistic shows that around 66 percent of the population is involved in agriculture and generates about one-third of GDP. Likewise, the World Bank also recognizes

agriculture as a primary source of food, significant income, and employment for most Nepalese, contributing about 33% of the gross domestic product (GDP). If we look back at the past, almost 90% of the population was involved in farming for their livelihoods in the late 1990s, where 20% of the land was cultivable. But the scenario has changed in recent years.

Nepal's landscape and agricultural production are defined by three contrasting climatic zones, running in parallel east to west. The sub-tropical lowlands of the Terai, bordering India, have the best agricultural potential. Rice is the main crop, but pulses, wheat, barley, and oilseeds are also grown, including jute, tobacco, indigo, and opium.

In the densely populated temperate hill regions, rice and maize are grown in the summer season, with wheat, barley, and vegetables in winter. Mustard, grown for its oil and used in cooking, is another important crop. Higher still, in the mountains of the sparsely populated north, yields are limited to potatoes, barley, and buckwheat, with yaks providing meat, milk, and wool. Nepal's water resources, ample labor supply, and geography give Nepal a comparative advantage in agriculture production. Most of the area of Nepal has a similar wet season; however, the temperature and rainfall differ from location to location. In this sector, the foreign investment is estimated to be around NPR 3.37 billion (USD 338 million) in a total of 180 agriculture projects, which almost employ more than 75,00 people. The mountainous regions of Nepal have suffered from food shortages for almost six months. According to the FAO, almost half of the

districts in Nepal suffer from food deficiency. The main reason for this problem is due to poor technical knowledge, subsistence farming, and lack of irrigation facilities. Moreover, pest epidemics, erratic weather patterns, improved seeds, and lack of fertilizers exacerbate the problems.

In the context of Nepal, Agriculture is one of the biggest contributors to GDP; the government of Nepal is trying to promote this sector as rapidly as possible. The government is currently focusing on the modernization, diversification, commercialization, and marketing of the agriculture sector. To implement its plan and policies effectively, the government makes easy availability of its agricultural inputs, such as irrigation, electricity, transportation, and agricultural credits.

Figure 1: Nepal Agriculture, Forestry, and Fishing, Value Added
(% of GDP
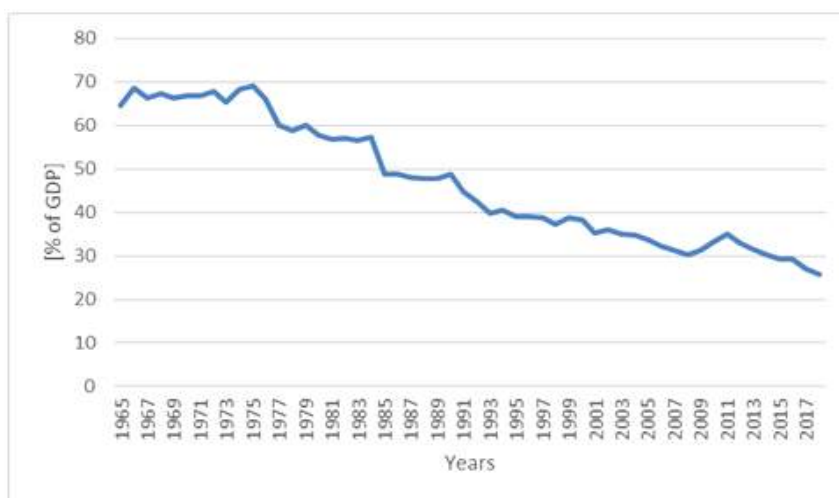
Source: WDI, The World Bank

The above figure shows the ratio of Nepal's agriculture and its relevant aspects that contribute to GDP from the year 1965 to 2017.

According to the figure, from a starting year to almost a decade, the contribution to GDP was above 60%, whereas it started to fall down gradually and reached around 25% of GDP in 2017. This shows that many Nepalese citizens are giving up their job in agriculture every year, and it is finally affecting the economy of a country. This decreasing trend to GDP contribution from agriculture is supporting the creation of a trade deficit in Nepal every year. If it continues constantly, Nepal will have to face a huge economic crisis in the near future. Additionally, the economy of Nepal has been facing a negative trade balance for a long time due to its huge imports and fewer exports. Therefore, to balance the economic transactions, external sources like foreign aid, remittance have been making a positive impact in many economic aspects of a country.

Other than agriculture and remittance, the country's economy is also highly dependent on foreign aid, tax revenue, and tourism, where the government has been receiving foreign aid as its external source of economy. Regarding foreign aid, tax revenue, and tourism, there is separate literature explained below in the other sections of this chapter.

The trade relation of Nepal was only limited to India and Tibet before 1951 AD. But the country's trade relationship expanded with many other countries after the decline of the Rana regime in 1951. Nepal also got an opportunity to develop its trade relationships with various nations when it joined a Colombo Plan in 1952. In recent years, the foreign trade of Nepal has expanded rapidly with many different countries around the world, and the volume of work has also

been expanded. The total export of Nepal in the fiscal year 1956/57 corresponded to 95 million, whereas the full import equaled 170 million. Hence, the total trade volume during these years was equivalent to 265 million. But in the present, Nepal's foreign trade has mainly increased compared to the past. Table 1 shows the trend of the Nepalese trade and transactions.

Table 1: Nepal's Trade and Transactions (in current US $)

Fiscal Year	Export (Current US$)	Import (Current US$)	External Balance (Current US$)	Current Account Balance (BOP, current US$)
2000	1,279,281,888	1,781,598,378	-502,316,490.5	-130,649,853.8
2001	1,355,238,095	1,996,693,878	-641,455,782.3	-164,687,682
2002	1,073,251,679	1,724,111,682	-650,860,002.6	215,187,101.2
2003	993,875,698	1,807,224,670	-813,348,972	180,266,177.6
2004	1,213,488,963	2,143,236,207	-929,747,244.6	99,960,063.22
2005	1,185,691,368	2,396,739,963	-1,211,048,594	153,094,707.2
2006	1,216,071,411	2,832,075,349	-1,616,003,938	150,080,619.4
2007	1,327,426,849	3,275,658,805	-1,948,231,956	5,659,482.662
2008	1,602,782,687	4,172,661,317	-2,569,878,630	733,341,812.3
2009	1,596,506,175	4,455,549,991	-2,859,043,816	21,414,155.63
2010	1,533,460,341	5,825,346,141	-4,291,885,800	-127,615,743
2011	1,684,070,416	6,227,147,635	-4,543,077,219	288,604,650.2
2012	1,899,081,335	6,331,151,559	-4,432,070,225	577,455,898.4
2013	2,059,901,678	7,218,386,963	-5,158,485,285	1,159,387,766
2014	2,301,357,059	815,1231,413	-5,849,874,354	496,227,113.2
2015	2,488,355,029	8,879,788,078	-6,391,433,049	2,446,630,400
2016	2,005,967,750	8,322,475,418	-6,316,507,668	-167,829,918.9
2017	2,263,315,206	10,670,300,614	-8,406,985,408	-1,032,642,816
2018	2,598,536,508	13,471,570,566	-10,873,034,059	-2,774,672,221

Source: WDI, The World Bank

The above table shows an overview of the Nepalese trade and transaction, including exports, imports, the external balance of goods and services, along with its current account balance (BOP). In the above table, the data consists of the time period of 2000 to 2018 where export of a country has been increasing from the beginning to the end except for a few years. Although there is a vast difference between the export of the beginning year and the ending year, the yearly difference is not seen too large in ratio. However, in the case of import, it seems to be the same as the case of export. Additionally, in some years the import is found to be the same as the previous years.

More importantly, there is an extreme gap between export and import where imports seem to be large every year compared to exports. This has negatively impacted external balance where its every-year transaction is falling down in minus sign and facing the deficit. Similarly, the current account balance (BOP) also has the same effect in its transaction. This is all because the country has to depend on the excessive import of goods and services from other countries. Still, it cannot make adequate production for exports and therefore faces a constant loss in trading activities with a considerable trade deficit every year.

Additionally, the continual deficit in foreign trade is due to the low production of export-oriented goods and higher import of consumer goods. To decrease this deficit, the country should mainly focus on producing competitive goods, which will help increase exports and reduce imports.

Hence, the present dissertation relates and signifies its research area mainly regarding external balance and its relationship with official development assistance, tax revenue, and tourism. According to the above table, the external balance is found negative and needs to be improved for establishing an equivalence on trade in Nepal to reduce deficit.

Therefore, the trend of receiving ODA, tourism receipts, and taxation collection in Nepal can be an appropriate source to fill the gap of negative trade balance until there isn't any other solution. For a few decades, aid and remittance are seemingly expected to resolve and improve the scenario of external balance and government expenditures. Our present study is particularly interested in finding whether or not foreign aid impacts the external balance expenditures of Nepal.

2.2 Gross Domestic Product and GDP per Capita Nepal

Nepal's high import and low export has directly affected the GDP growth of a country. More specifically, the lack of production of goods for exports has been considered a significant challenge for the smooth growth and development of the country. Moreover, the political and government instability during different times in Nepal lacks behind to implement its effective policies regarding the developmental activities mainly.

Furthermore, the overview of the Gross Domestic Product (GDP) and GDP per capita of Nepal is included below respectively to see how the economic growth is moving further in the country.

The line graph below represents a country's GDP amount from the year 1960 to 2017 in Nepal.

Figure 2: Gross Domestic Product Nepal (GDP Current US$)
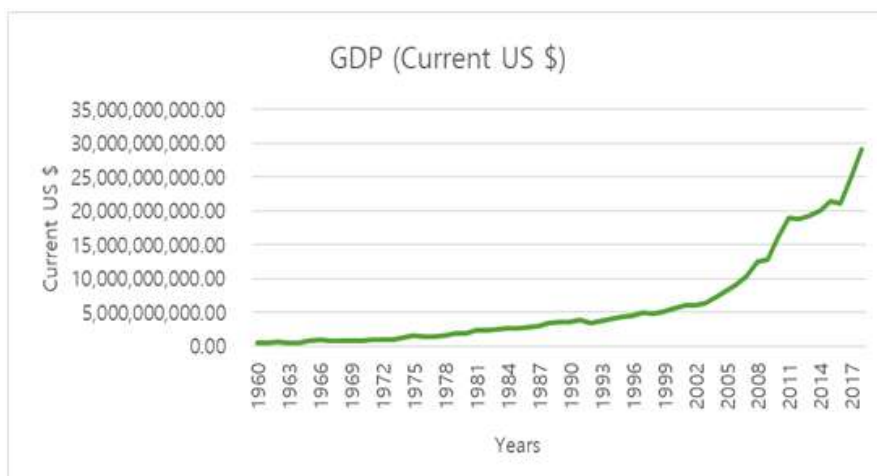
Source: WDI, World Bank

According to the above figure, the GDP of Nepal from 1960 to almost four decades was found very low, which is below five billion US dollars. Moreover, after 2000, the amount of GDP started to grow in an average ratio with a gradual increment every year. More importantly, during the year 2016, the country's GDP reached around twenty-one billion and reached twenty-five billion in 2017, which was a higher increase than the average increase found some years back. Even after 2017, the GDP keeps increasing essentially and seems to reach around thirty billion in the forthcoming year. Although in the previous section, it is interpreted that Nepal has been facing a current account deficit, the GDP of a country is shown moving upwards gradually every year in this figure. It is because colossal remittance inflow in Nepal and foreign aid received has been directly

and indirectly supported to result from a positive impact on a country's GDP. Therefore, the GDP of Nepal seems to be increasing despite facing a trade deficit in a Nepalese economy. Here is a figure below representing the GDP per capita of Nepal from 1960−2017.

Figure 3: GDP per capita Nepal (current US$)
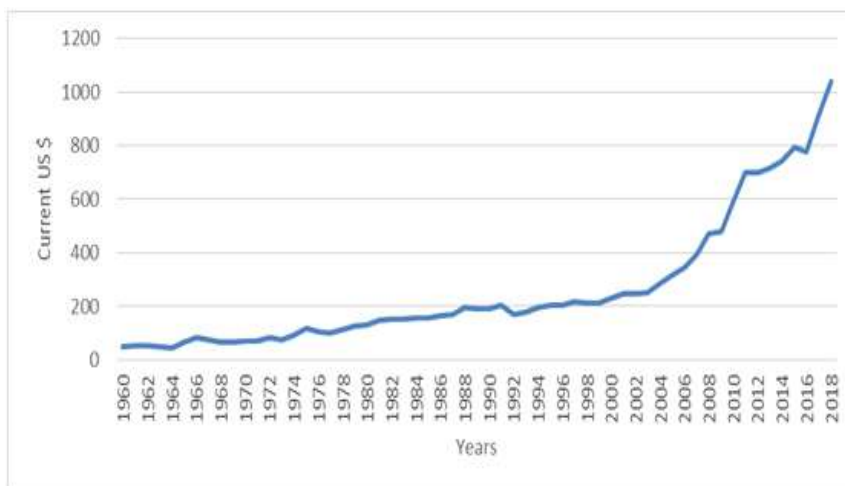
Source: WDI, World Bank

As figured out above, the GDP per capita of Nepal before 1990 was very low, including below 200 US dollars, but from the year 1990 to 2000, the amount is almost the same, which is found to be around 200 US dollars. That means to say that the growth ratio has not gone upwards, and economic progress was not effectively seen during these years. But after the year 2000 A.D., the per person income seems to be moving upwards, which shows the hope towards a country's economic growth. Nepal needs to rapidly gear up its growth ratio as a least developed country, but the result does not seem like that. There are many reasons behind it. The reasons mentioned above are also closely relevant; however, Nepal is trying to implement its

policy and practices to upgrade its least developed rank to a developing nation.

2.3 Official Development Assistance and its Inflows to Nepal

Official development aid is the primary source of deficit financing in LDCs globally. The least developed countries have less capacity to mobilize their resources due to the low-income level of the people living in these nations. In the past, official development assistance used to be a significant source of a country's spending for development activities. Although it is still projected in many aspects of LDCs, the ratio seems decreased, which currently occupies about 20 percent of the national budget.

Official development aid flows are meant to fill the gap between the investment needs and the domestic savings of the recipient's states to help reduce poverty, if not eradication. During the last centuries, developed nations have offered aid to countries typically bracketed in the "third world" category. Foreign assistance has played a crucial role in these countries in many aspects— from carrying out development activities to democracy building. However, not everything is well with the aid and the developmental works undertaken (Sharrock, 2013).

After joining the Colombo Plan for Cooperative, Economic, and Social Development in Asia and the Pacific in 1952, Nepal received foreign aid persistently. In 1951, the plan was established and named differently, saying it to the Commonwealth of Nations. Many Nepalese students received scholarships through the Colombo Plan in the 1950s

to go to various countries for study purposes in different fields, technical and professional areas.

Initially, Nepal had received almost all types of aid in grants. But a large amount of official assistance was provided to develop the agriculture sector, strengthening infrastructure development and power generation. The different areas targeted for help were health, education, industry, and communications. The United States and India were primarily responsible for more than one-third of all grants during that time. These two countries established aid missions and conducted aid to many unique projects in Nepal. During the 1950s, the People's Republic of China and the Soviet Union were the other major donors. Moreover, the countries such as Britain, Japan, Switzerland, Australia, and New Zealand had lesser assistance of programs provided to Nepal than the major donors. Nepal also received some technical assistance from the United Nations (U.N.) in this period.

Nepal has been one of the official development assistance receiving countries for more than 60 years through foreign Governments, multilateral agencies, and INGOs, collectively referred to as external developmental partners (EDPs). EDPs have been involved in Nepal's policymaking, program design, and implementation in various areas. Among the South Asian countries, Nepal is one of the highest aid receiving nations. During 1995-2001, official aid to Nepal averaged 8.68 percent higher than that of Sri Lanka and Pakistan as a percentage of the GDP. They received 3.06 percent and 2.09 percent respectively during the same period. Although Nepal has been

receiving foreign assistance constantly and a few decades of aid-financed developmental support, the country remains one of the poorest nations in the world, with a per capita income of nearly 1000 US$ and around 20 percent of the total population living in absolute poverty. A casual observer of these facts could easily conclude that foreign aid to Nepal has not been effective. Still, they will be unable to say what can happen without aid. The aid donors to Nepal have reported that it has lost confidence in Nepal. They have mentioned the reason for interference from politics and corruption seen in poverty relief attempts and the country's weak capability to utilize aid. This shows that official development aid in terms of grants and loans is being treated as a free lunch, neither affecting economic growth nor supporting raising living standards and maintaining equity among the people. Foreign grants may impose many undesirable terms and conditions, while foreign loans are considered a burden for future generations. Besides, they crowd out the trade sector of the economy. Nepal's first involvement in official development aid was seen after signing a four-point agreement on 23 January 1951 both by Nepal and the U.S. Under the four-point program policy, the US government handed Rs. 22,000 as of foreign assistance to Nepal. Regarding the case of foreign aid, Nepal has primarily received in the form of grants and loans. In the period 1960 and 1970s, the country received aid mainly in the form of grants, and it was almost 70 percent of total aid. But later on, the structure and the ratio of receiving foreign aid was changed. Nepal had received 64.07 percent of aid in the form of loans, and 35.93% was obtained through grants

(Sigdel, 2004). Again, the scenario of receiving ODA kept changing, and during the year 2009/10, Nepal received 77.4% of grants where 22.6% was loaned. This data shows that the amount of loans is growing, but grants have been declining in recent years. In the case of Nepal, it has been receiving loans mostly from various multilateral sources like IMF, W.B., and ADB. Besides, ODA in the form of grants was obtained from different bilateral sources.

As a tendency to increase international development assistance from the 1970s, it contributed to rising aid flows to Nepal. In 1950, the worsening relations between India and China for the disputed land of Aksai Chin contributed to a rise in ODA to Nepal as well. And this official aid inflows to Nepal continued until the mid−1990s. When the cold war between India and China ended, there was a global decline in development aid, which led to a reduction in support to Nepal from the late 1990s. The fall was almost 10 percent of the GDP in the late 1990s and 7 percent during the mid of 2000. The other cause for the reduction in development assistance was the outbreak of the civil war in the mid−1990s. The battle continued till the early period of 2000. As a result, the donor groups suspended their foreign assistance projects due to the risks that appeared to their staff and the increasing spoliation of their programs in the recipient country (Sharma, 2006).

In the beginning, the primary source of development assistance to Nepal was bilateral aid consisting of more than 70 percent of the total development aid. Although various multilateral agencies, the UN, and the regional development bank also started to play an essential

role in the developmental efforts of Nepal. By 2006 Nepal received more than 90 percent of total aid from different bilateral donors, including India, the US, the UK, Canada, Switzerland, and China.

Among all of them, the first western nation providing aid was the US in the early 1960s. The US wanted to keep the communist impact out of the country. To succeed in its plan and objective, it proposed budgetary aid, and helped to make the East−West Highway. Moreover, it carried out many rural development programs that offered employment to the United States Overseas Mission (USOM) staff and deployed Peace Corps volunteers to address the shortages of skilled persons in the country (Khadka, 1997).

The U.S. was the leading donor country by the mid 1990s, and its contribution of total developmental aid was more than 50 percent. However, the assistance provided by the US started to reduce slowly. Still, the foreign aid from other countries began to flow, including India and other western countries. Then, the Indian aid to Nepal started to flow, but it was also influenced by political and strategic reflection. After China invaded Tibet and Aksai Chin in September 1949, India suspected China of China's expansionist policy and probability of creating insecurity in Nepalese land. Therefore, the doubt perceived in New Delhi made improving access to Nepal by investing in communication and transportation for its own security. As a result, India provided a tremendous amount of aid for developing highways that could connect Nepal's central Indian borders and main towns.

Moreover, India's development assistance helped construct an airport

in Kathmandu as of strategic location. India's aid also helped establish industrial estates, many hospitals, irrigation, and water supply projects. The developing assistance provided by India made it a significant development partner to Nepal. The democratic countries, including India and the US, and their increasing influence in the Nepalese land also attracted other communist countries to show their presence on the Nepalese soil. Hence, China is also interested in constructing Nepal highways named Araniko and Kodari highways, connecting them from Tibet to Kathmandu.

Additionally, China wanted to reduce Nepal's economic reliability on India, so the country also offered cash and commodity aid and supported establishing many import-substitution industries like sugar, textile, paper, modern brick, and cement industries. Besides, the assistance provided by the former USSR succeeded in establishing Janakpur's cigarette factory and hospital in central Kathmandu and the hydroelectric project Panauti village. It provided scholarships for many students related to medical and engineering. It assisted in operating a metrological survey for the very popular East-West highway.

There are many different sectors where Nepal needs to utilize foreign assistance properly. Notably, Nepal has spent a significant portion of its budget, including 47 percent of total aid received from foreign aid, into the transportation, power, and communication sectors. These are in the control of public sector enterprises. Similarly, the budget spending in the social sector regarding health, education, and drinking water comes in the second row with 23 percent of total development assistance from 1975 — 2006. In recent years, the social service

sectors have attracted a sizable foreign aid receiving nearly 50 percent of the total aid in 2006. It is also because the donors considered poverty reduction strategies to succeed the Millennium Development goals carried out since the late 1990s.

Furthermore, agriculture, forestry, and irrigation are the third row of highest aid recipients of aid from 1975−2006. Finally, until the 1980s, the industry, and commerce sector allotted nearly 10 percent of total assistance to help the I.S. strategy. But it started to decline as the country began on market−oriented reforms. The trend of ODA in Nepal from 1960 to 2018 shows the following statistical records.

Figure 4: Net Official Development Assistance and Official Aid Received Nepal (Current US$)
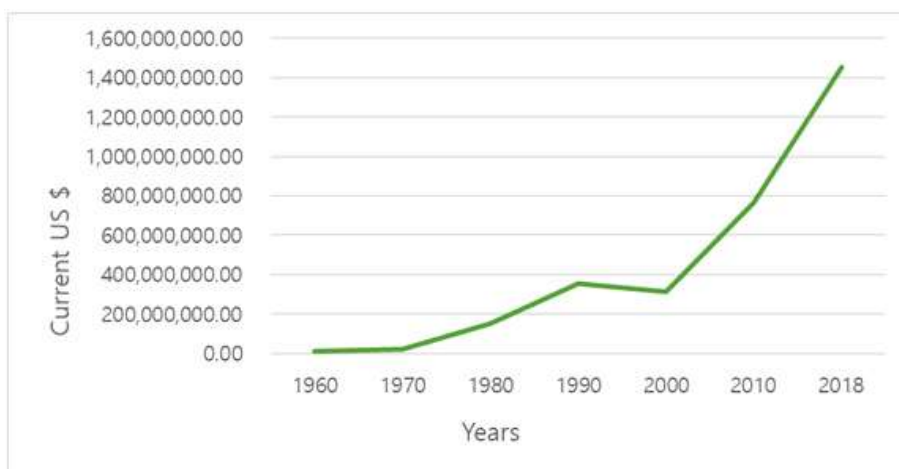
Source: WDI, World Bank

As mentioned above in figure 5, the data indicate that official development assistance flows from 1960 to 1970 is very low, i.e., below 200 million dollars but, it gradually started increasing from 1971 and reached around 400 million dollars in 1990. Moreover, the

aid flows slightly decreased for a decade, i.e., from 1990—2000. But the flow of support from 2000 to 2018 is massive compared to the previous decades. In 2018 the aid received nearly 1.5 billion dollars, the highest amount among all last years.

To sum up, the trend of ODA inflows in Nepal is increasing every year. As the data starts from 1960, the flow of aid is deficient in the starting years, whereas its ratio has been substantial in recent years. Overall, the foreign aid inflows in Nepal have been seen to increase every year since 1970, and it seemed to be overgrowing, especially from 2000 to the final year shown in the figure. Hence, this figure of ODA indicates that Nepal has depended on official development assistance for many decades.

2.4 Tax Revenue and International Tourism receipts in Nepal

Tax Revenue

Economic growth plays a crucial role in transforming several aspects of any particular country, such as improving quality of life or gradual, well—ordered socio—economic change (Macek, 2014). There are several issues such as poverty, lack of job opportunities, unstable governments, discrimination against gender, and racism that Southeast Asian countries are trying to resolve, which are seen as major problems. Moreover, the additional difficulties hindering economic growth consist of rapid population growth resulting in lacking food and nutrients, clothing, housing, and safety. It's a reality that there are vast differences between countries in terms of population, wealth, supply of the resource, cultural aspects, and variation in the scope

and capability of the public sector. (Schmidt & Wingerstedt, 2019).

As per the economic structure and resources, the countries vary in terms of having high or low taxation, large public sector or small; every government aims to internalize the externalities, fix the prevalent deficiencies, and direct the nation towards growth (Schmidt & Wingerstedt, 2019). The government needs various resources such as workforce, money, materials, machinery to carry out development activities and is financed as taxing its citizens. As the governments invest their earning income in operating and regulating infrastructure development, it is known as government revenues (government income earnings). Every government tries its best to utilize the collected revenues in various functions like politics, society, and economics to promote the social and economic welfare of a nation (Abomaye-Nimenibo et al., 2018).

The critical source of government revenue to the country is taxation. The governments collect taxes from their citizens, companies, investors, and so on to generate the economy. More importantly, the government's taxation collection is also considered the principal source of government earnings, where revenue is regarded as the fuel of government machinery. In the modern system of governance, the tax system is essential, which provides governments with reliable and sustainable means of revenue collection, reduces dependency on foreign aid, increases financial autonomy, enables the government to provide various cash support to deserving citizens, encourages good governance, accountability. Transparency supports formalizing the economy and promoting economic growth, etc. Collecting the revenues

from different sources and mobilizing them efficiently helps increase a nation's economic growth, an essential key feature of a government (Bâzgan, 2018).

The contribution of tax revenue is around 80% of the total government revenue of Nepal. It is also considered as the primary source of income. So, this has been made mandatory for everyone to contribute tax to the government. In this way, tax collection is then best utilized and spent in development activities. It again provides expected benefits in return for everyone rather than just benefiting the taxpayers (Bâzgan, 2018). The collection of taxes by governments is usually done directly from the taxpayers or indirectly through manufacturers or retailers on behalf of the final consumers of goods and services. Direct Taxes (DTX) are now paid by the taxpayers (individual or organization) to the taxing entity, and such tax burden cannot be transferred to any other. This consists of income tax, property tax, corporate income tax, etc. Indirect Taxes (ITX) are finally charged at the time of purchasing products and services by the end-users. Intermediate entities (such as a retailer, supplier, or producer) collected the tax from consumers. They paid it to the government on behalf of consumers. The government collects indirect taxes in the form of VAT, custom and excise duties, service tax, and so on. Besides tax revenues, the government also contains funds in the form of dividends, public utilities, fines and penalties, other fees, and charges.

Table: 2 Tax Revenue Nepal (Current LCU) from 1990-2019

Year	Tax Revenue	Year	Tax Revenue
1990	7235700000.00	2005	54104800000.00
1991	8196000000.00	2006	57426995000.00
1992	9901000000.00	2007	71126700000.00
1993	11691000000.00	2008	85155400000.00
1994	15402000000.00	2009	117051300000.00
1995	19694000000.00	2010	159785382000.00
1996	21705000000.00	2011	181254599000.00
1997	24471000000.00	2012	211723000000.00
1998	25991000000.00	2013	259215000000.00
1999	28808000000.00	2014	312439915000.00
2000	33152000000.00	2015	355942929213.10
2001	38865000000.00	2016	421058768820.90
2002	39331000000.00	2017	535708367000.00
2003	42586900000.00	2018	659492791638.80
2004	48173000000.00	2019	764417848000.00

Source: WDI, World Bank

The table represents the tax revenue of Nepal in the current LCU from the 1990-2019 time period. During this period, Nepal's highest collection of taxation is in the ending year 2019, as mentioned in the table. In contrast, the lowest tax revenue by the government was collected during the year 1990, the very beginning of the period. According to the data included in the table, the increasing trend of tax revenue has been seen every year. There is no fluctuation in the whole period, like increasing and decreasing trends during different years. Instead, it is going up every year. This is good for governments as it will promote growth as more tax revenue will be obtained. Still, the income receipts need to be invested in the productive sector to result in the actual development.

International Tourism Receipts, Nepal

International tourism is one of the world economy's most significant and largely beneficial sectors in the present world. International tourism is considered an important place as a system of world for economic relations and universal values. It contributes to enhancing the positive trends in society's economic, political, and socio-cultural life.

Additionally, international tourism is one of the most dynamic sectors developing intensively in the world economy. The impact of tourism is more significant in the countries where the service industry exists. Today, tourism plays a crucial role in many countries of the world as a formation of gross domestic product (GDP), creating additional jobs and employment, and intensifying the external trade balance. More importantly, many researchers believe that the tourism industry has a meaningful relationship with engagement, as new jobs are created geographically more widely than in other sectors of the economy. From statistical point of view, some works often do not address in detail about the relationship between tourism and the foreign trade balance of a country. Therefore, the role and significance of international tourism in the formation of macroeconomic indicators of the country, in particular — the balance of trade — is a highly pressing issue for the development of the economy of an individual country and the world.

As tourism is one of the largest industries in the world, playing a significant role in economic development, the previous studies examining many different economies also revealed that tourism

contributes to economic growth and development of a country if organized and planned well. The significance of tourism and its contribution to changing a country's economic structure from traditional farming to service is thus highly appreciable.

Some studies also mentioned that International Tourism receipts could help solve the adverse balance of payments. Although tourism has a crucial role to play in an economy and has many benefits, its social and environmental costs, including opportunity costs, are also high on the other side. Therefore, there have been efforts to reduce the social costs accruing from tourism so that social benefits outweigh the social costs. It is recognized that travel by non-resident visitors does not in itself bring advantages to local economies. But the purchase of goods and services by these non-resident visitors supports the local economy. So that it is better to use and supply the local commodities, maintaining appropriate quality and hygiene for providing services to the tourists is more required than the supply of Imported goods. The more supply of locally produced goods also promotes other sectors of local economy. Therefore, the relation of locally produced goods with other products and their usage results in generating more income and employment.

Moreover, the tourists also spend on transport services such as airplanes, railways, buses and taxis, and other transport services, and pay for entertainment. They also do expenditures for different facilities such as hotels, resorts, bars and restaurants, sales of handicrafts and souvenirs which leads to an increase in income of local people whether whole or part. Therefore, the increase gained in

the payment of local people will change the demand curve, shifting it upward, meaning that tourism receipts helped poor society for food and clothing because of the high-income elasticity of demand for goods in the Nepalese context.

In the context of Nepal, tourism is one of the main-stay of Nepal's economy. Tourism is also considered the primary source of foreign exchange and revenue. Nepal consists of 8 of the ten highest mountains globally, and it is also taken as a famous destination for mountaineering people, rock climbing activities, and people looking for adventures. Besides, the other attractions include Hindu, Buddhist, and some more cultural heritage sites of Nepal, the fair weather around the year, and many more beauties.

Mount Everest is the highest mountain peak globally that lies in Nepal. It is also renowned as the birthplace of Gautam Buddha-Lumbini. There are so many other adventures and beautiful places like mountaineering, adventure tourism, and ecotourism as attractions for the visitors. Moreover, there are also many other popular religious pilgrimage sites throughout the country for the people following various sects and religions.

Nepal Tourism Board (NTB) survey of statistics in 2012 recorded a total of 598,204 foreign tourists entering the country through airways. The government's plan and policy declared for 2011 is celebrating it as Nepal Tourism Year and hoped to attract one million foreign tourists to the country during that year. Nepal Tourism Board (NTB) practiced to implement its plan and policy effectively, for reducing the poverty ratio and achieve higher social equity inside the country.

The tourism industry in Nepal attracts international tourists facilitating its visitors with significant activities of wilderness and adventure such as mountain biking, bungee jumping, rock climbing, and mountain climbing, trekking, and hiking. Likewise, similar activities include bird watching, mountain flights, ultra-light aircraft flights, paragliding and hot air ballooning over the Himalayas mountains. Moreover, other schemes for the visitors include mountain biking, and exploring the waterways by raft kayak, or canoe, and jungle safaris are also available for the visitors. The figure below represents the number of tourists arriving during 1993-2019.

Figure: 5 Statistical number of international tourist arrivals from1993-2019
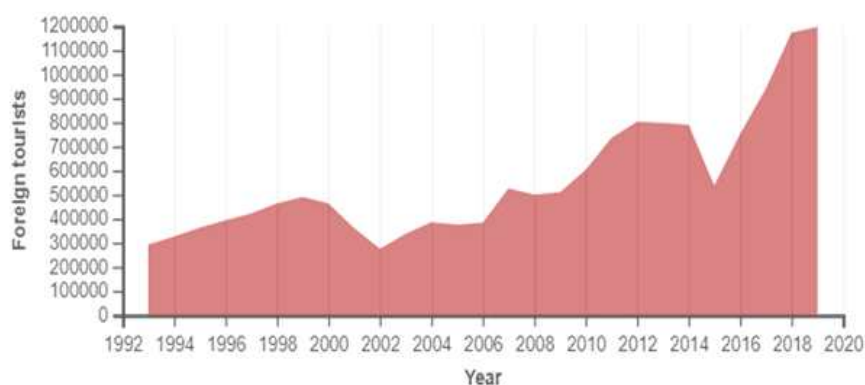
Source: Online data

The graph represents the numbers of international tourists from the 1992-2019 time period taken as a statistical record in the context of Nepal. In the very beginning year, 1993, the number of inbound tourists was 300 thousand in the country. Moreover, visitors started

increasing gradually and reached around 500 thousand in nearby 2000. But the numbers slowly started decreasing and kept fluctuating until 2015. At the very ending years, the number of tourists began to rise again. They reached 1 million and two hundred thousand eventually in 2019.

Today international tourism receipts are considered a tool for providing an essential contribution in supporting the trade balance in less-developed countries like Nepal. In any particular country, tourism receipts primarily depend on its demand in the world tourism market. The need for Nepalese tourism is governed by word of mouth, income, own price, and cross-price variables in the long run, and terms of mouth and instabilities in the short-run (Paudyal, 1993, 2012).

The international tourism receipts are not only the earnings of tourism industry, but also considered a tool to support as a government exchequer. Thus, we can say that tourism can significantly affect a country's trade balance, specially in less developed countries like Nepal.

Here is a table below representing the international tourism receipts in the US $ for the time period of 1995-2018.

Table: 3 International Tourism receipts in current US$ from 1995-2018

Year	Tourism Receipts	Year	Tourism Receipts
1995	232000000.00	2007	234000000.00
1996	237000000.00	2008	353000000.00
1997	201000000.00	2009	439000000.00
1998	248000000.00	2010	378000000.00
1999	229000000.00	2011	415000000.00
2000	219000000.00	2012	379000000.00
2001	191000000.00	2013	460000000.00
2002	134000000.00	2014	511000000.00
2003	232000000.00	2015	509000000.00
2004	260000000.00	2016	498000000.00
2005	160000000.00	2017	712000000.00
2006	157000000.00	2018	744000000.00

Source: WDI, World Bank

The table presents the flows of international tourism receipts from 1995-2018 in the case of Nepal. In the very beginning year, 1995, the total tourism receipts include 232 million US dollars. Like the expenditures of international tourists slightly increased and reached 237 million dollars in 1996. But the tourism receipts decreased in 1997 and were seen to be fluctuating until 2005. Moreover, from 2006 the international tourist expenditures are found to be rising continuously until the final years as mentioned in the table. Eventually, the tourism receipts recorded 744 million US dollars which is also the highest amount during the whole time period. Therefore, it can easily be considered that Nepal's tourism industry is gradually rising except for a few ups and downs in some years in the past.

2.5 Existing literatures relevant to the present dissertation

Our present dissertation specifically used official development assistance (ODA) as a part of foreign aid. We also have literature notably including ODA in their research with interpretation in the below section. Moreover, the literature regarding tax revenue and tourism is also presented sequentially. But here, in the beginning, we have literature regarding foreign aid and growth as it is also a relevant term of ODA.

There is a large number of research examining the impact of foreign aid in less developed countries (Boone, 1996, p.289; Riddell, 2008, p.1; Dornan and Pryke, 2017, p.386). These studies mainly focus on foreign aid's economic growth and development effects. There is a primary debate in the relevant literature regarding the effectiveness of aid in supporting development. This debate is stated by Radelet (2006) as follows: "Some experts charge that aid has enlarged government bureaucracies, perpetuated bad governments, enriched the elite in developing countries, or just been wasted. Others argue that although aid has sometimes failed, it has supported poverty reduction and growth in some countries and prevented worse performance in others" (p.1). Hence, some studies argue that aid supports the elite and government bureaucracy in developing countries and might be hindering actual economic Development (Easterly, 2003, p.23).

In contrast, some other studies note the positive effects of foreign aid on poverty reduction and economic development. It can be said that having a single perspective for all aid-receiving countries would not be feasible, as the case of each county would be different in

terms of aid effectiveness. Hence, it is more appropriate to examine the case of each country separately. This can be the right research approach.

The study carried out by Santanu Chatterjee, Paola Giuliano, and Ilker Kaya (2012) investigated the relationship between foreign aid and the composition of expenditures in aid receiving countries. The author raised two fundamental questions. First, whether foreign aid crowds out the government spending on aid receiving countries or not. Second, he tried to find whether or not the fungible intensity varies to different types of aid. Moreover, including the time period of 1972-200, the study applied an unbalanced panel dataset of 67 aid receiving countries. As a result, the research found that foreign aid that focused on public investment crowds out nearly 80-90 percent of the government's domestic spending. The other finding in the study confirmed that almost 70 percent of total aid at the aggregate level consists of fungibility.

Samuel Kwabena Obeng and Daniel Sakyi (2017) examined the growth of government spending in Ghana. The study found the long-term and short-term effects of foreign aid, population growth, per capita income, minimum wage, tax share, public debt, and democracy on developing a country's government expenditure and the annual time series data from 1980 to 2012 was applied for the analysis. The research analysis was conducted using the autoregressive distributed lag (ARDL) bounds test for cointegration and the error correction model (ECM) to find the relationship between the variables. Consequently, the findings in the research revealed that foreign aid,

population growth, public debt, per capita income, minimum wage, tax share, and democracy stood as the essential factors of Ghana's development on government spending in the long term. Moreover, these variables are also prominent factors of the growth for a country's government spending in the short time, the expectation of the minimum wage.

The research regarding the impact of foreign aid on public expenditure is examined by James Njeru (2003) in the case of Kenya. Moreover, the study applied time-series data from 1970-1999, and analyzed its research model applying Heller's (1975) utility model to find the effect of foreign aid on government expenditures. Similarly, the study's outcome revealed that the flows of foreign aid in Kenya's economy do affect the government spending pattern. Furthermore, the study also states whether foreign aid inflows are on average or aggregate level; it influences Kenya's government spending.

Mbaku (1993) applies the Ordinary Least Squares method in a neoclassical production type function to examine the association between Cameroon's foreign aid and economic growth. The time-series data from 1971 to 1990 in Cameroon presents the insignificant effect of foreign aid on a country's economic development. Besides, the research finds that domestic resources have a better impact than foreign resources on economic growth in Cameroon. However, tests should be done using more extended periods with more advanced techniques to determine the influential role of foreign resources in economic development. The

Durbin-Watson (DW) test has selected the presence and extent of autocorrelation in variables that have been chosen by the Durbin-Watson (DW) test. The Cochrane-Orcutt or first-order autoregressive correction technique has dealt with this serial correlation. (Murthy, Ukpolo, & Mbaku, 1994) applied unit-root test and Johansen's maximum likelihood procedure to present empirical evidence to support the hypothesis developed by (Mbaku, 1993) and the result contradicts the existing result and shows the positive contribution of foreign aid to economic growth in Cameroon (Murthy et al., 1994).

The other study carried by Papanek (1973) is a cross-country regression analysis of 34 countries, where foreign aid, foreign investment, different flows, and domestic savings are taken as explanatory variables. The result shows that foreign aid has a more significant impact on growth than the other variables. He illustrates that "aid is supposed to be specifically designed to foster growth and, more importantly, is biased toward countries with a balance-of-payments constraint". The finding of his study also shows a strong negative association between foreign aid and domestic savings, which he believes is a co-contribution to the growth performance.

Additionally, the study showing a relationship of aid-growth in Ghana by Kwablah, Amoah, Panin, and development (2014) used fully modified OLS to test whether foreign aid receipts significantly affect the level of gross national income. The study
applied autoregressive distributed lags (ARDL) bounds and Johansen

cointegrating equations for the data analysis. Their study examined the long-run equilibrium covering the period of 1980-2005and using it into three different sample periods: pre-structural break, post-structural break, and entire period. The result varies for three different periods. There is a positive and significant relationship between foreign aid and national income in the pre-structural break, a positive and insignificant relationship in the post-structural gap, and a negative and insignificant relationship in the entire period (Kwablah et al., 2014).

The study carried out by Basnet (2013) investigates the impact of aid on growth and domestic saving by conducting a simultaneous equation system. His research found a positive and significant effect of foreign aid on growth in five South Asian countries. In contrast, the other results find a negative relationship between the variables, including foreign aid and domestic savings for the study period of 1980-2008. Finally, his development brings up a precious policy issue stating that the positive effects of foreign aid on GDP growth might be offset, showing the negative impact on domestic saving.

Given that foreign aid flows are essential sources of income in Nepal, several studies examine the impact of foreign aid in the country. For example, Bhattarai (2005, p.1) is a very detailed study investigating the effects of foreign aid on different economic variables, including GDP per capita level and investments. The author uses annual data for the 1970-2012 period and employs error correction and cointegration methods. The relevant results indicate that foreign aid has positive effects on GDP per capita level and savings and

investments in the long run. Both bilateral and total aid flows generate similar positive effects. However, as an exciting finding, the results indicate that aid has an adverse impact on economic growth in the short run. In a follow-up study, Sharma and Bhattarai (2013, p.895) look at the effect of foreign aid on economic growth. The main difference from the previous research is that the dependent variable was the GDP per capita level in the previous study, while it is the real GDP growth rate in the follow-up study. The study examined long-run relationship applying the autoregressive distributed lag (ARDL) and cointegration model. Their results indicate that, in the presence of sound economic policies, foreign aid has positive effects on the economic growth in Nepal. Bhattarai (2014) extends the analysis to the 1981-2010 period and employs growth regression models. The relevant results also confirm the positive effects of foreign aid on Nepal's GDP per capita level.

A more recent study on the relationship between foreign aid and economic growth in Nepal was conducted by Karki (2019, p.1). The author uses the 1983-2013 period data and employs a cointegration method. The results imply that the impact of foreign aid economic growth is different over time. Namely, there is a negative effect in the 1983-2002 period, whereas, in the 1983-2013 period, the relevant outcome is estimated to be positive.

Acharya (1998) examined the impact of foreign aid and growth in the case of Nepal.He interpreted that aid did not considerably contribute to the economic development of Nepal. On the other hand, he further added that the significance of aid cannot be ignored as the

mobilization of domestic resources of Nepal is yet very small to fulfill the requirements. Therefore, new techniques and grand visions have to be launched from both parties, including donors and recipients, to properly utilize these aids in the relevant or required sectors optimally, not just considering aid as a gift.

The research carried out by Bista (2006) argued that the government of Nepal's incapability of implementing the aid effectively makes the official development assistance inefficient. He further says, "Donors are perplexed, as aid has been unable to strengthen growth in many underdeveloped nations." Though a nation's effort has been made to achieve growth, the variety of cultures, languages, religions, and corrupt government has hindered the path of national integrity and development. Furthermore, he suggests that the donors should work directly with the cooperation of NGOs and local governments in their aid-carried projects. Similarly, they should also conduct the problem and issues of any particular country specifically before distributing the aid.

The study carried out by Nigel Driffield and Chris Jones (2013) examined the impact of foreign direct investment (FDI), ODA, and migrant remittances on economic growth in developing countries for the time period of 1984-2007. The researcher found that FDI and migrant remittances have a positive impact on growth in developing countries, whereas the relationship between ODA and growth was found to be negatively associated and poorly targeted. The study mentioned that due to adequate bureaucratic quality, the effect of aid results in negative.

Binod Bhattarai, 2014 conducted a study examining the impact of ODA and its effect on the growth of the Nepalese economy for the period 1981－2010. In this study, the researcher analyzed the effect of ODA in nominal and per capita gross domestic product, where it confirmed that ODA has a close positive relationship with a high level of significance. Besides, the study suggested that to show more effective growth, the country needs to increase the level of investment and improve per capita GDP. Finally, the study concluded that ODA is doing well to contribute to the economic development of Nepal.

The comparative study regarding the effects of foreign direct investment (FDI), ODA, and international remittances on growth is studied by Mamoun Benmamouna and Kevin Kehner (2013). The study applied the panel data for 1990－2006 and used the System－Generalized Method of Moments (GMM) approach. The result of the research study found that FDI, ODA, and international remittances had a positive and significant association with the growth of low－income countries. Moreover, the comparison analysis also found that international remittances had a greater impact, although the countries are highly dependent on FDI. Overall, these studies focus mainly on the growth effects of ODA in Nepal and generally find positive effects for more recent decades. As most of the studies relate official development aid to its growth effects in Nepal, the present dissertation aims to expand the relevant literature by examining the effects of aid on external balance in the case of Nepal. Moreover, there are a large number of research analysis on the empirical background that examined the effects of taxation on

economic growth. One particular research defined taxation, mentioning that it is the process or machinery by which groups or communities of persons are made to contribute in some agreed quantum and method for the purpose of the administration and development of the society Ogundele (1999). Therefore, it can be concluded that the payment of tax will, in turn, be beneficial to the entire citizenry. This conclusion is also very similar with the study carried by Soyode and Kajola (2006) where they included tax as a compulsory exaction of money by a public authority for public purposes. The other research carried by Nightingale (1997) illustrated tax as a mandatory contribution imposed by the government. From these various studies and the analysis, the researcher gave his conclusion saying that the taxpayers have some possibility not to receive anything identifiable for their contribution but can take advantage of living in a relatively educated, healthy, and safe society. Ugwunta and Ugwuanyi (2015) used panel data estimation under the fixed effect assumptions and reported a positive but insignificant relationship between non-distortionary taxes and economic growth of sub - Saharan countries. Moreover, N "Yilimon (2014) found a similar outcome using the unit root test on panel data. The result showed the absence of a nonlinear relationship between taxation and economic growth of West African Economic Monetary Union (WAEMU) countries. The study conducted by Anne (2014) found a negative but insignificant effect of income taxes on the Kenyan economy where she applied Ordinary Least Squares, Unit Root tests, Johansen Cointegration Test, Vector Error Correction Model (VECM) for her analysis. The study examined

by Wisdom (2014) found that tax revenue had a positive and statistically significant impact on the economic growth of Ghana both in the long-run and short-run, applying the Cointegration and Granger Causality tests.

There are several studies examined by many researchers applying the tourism-led growth effects, including Eugenio et al. (2004), Fayissa et al. (2008), Du et al. (2014), Bojanic and Lo (2016), Vita and Kyaw (2016), and Chiu and Yeh (2017), to find whether tourism has an impact on the economic growth of a country or not. For instance, the study by Eugenio et al. (2004) presented that spendings by foreign visitors can enhance tourism development as well as human capital investment; thus, it contributes significantly to economic growth.

The other research carried out by Fayissa et al. (2008) also found that there is a significant impact on the income per capita growth rate in Africa from international tourism receipts. Further, Vita and Kyaw (2016) included in their analysis that the effect of tourism development on GDP growth varies for different countries at various levels of economic development. A recent study by Dritsakis (2004) regarding the economic growth performance of Greece indicates that tourism has a long-run economic growth effect. There has been a developed consideration for long that tourism is important for economic development, particularly in developing countries, and for its potential to reduce poverty (see Bryden 1973, Clancy 1999, Scheyvens 2007).

(Ashley and Roe 2002, Schilcher 2007) examined the effect of

tourism on economic growth. He also tried to find whether tourism benefits poor people more than non-poor people. Copeland (1991) was the first researcher to find that the benefits in real income might have different distributional impacts on different segments of the society, thereby affecting the income distribution, using a theoretical model. The study examined by Bartik (1991) showed that as tourism development appears, income distribution will worsen as economic growth arising from tourism expansion will raise property values to a larger ratio than it increases real wages or employment prospects.

There are many research studiesexamining the impactof remittance, ODA, FDI, tax revenue and tourismon growth. Our present dissertation also follows a bit similar prospective but we are not finding growth effect of our chosen variables. Therefore, our present dissertationexpands its literature by adding external balance as the dependent variable to see whether ODA, tax revenue, and tourism have an effect on external balance of Nepal.

Chapter 3: Research Design

3.1 Research Objectives

All research is done for certain goals and objectives. Likewise, I have come up with my thesis objectives by studying and analyzing the various books, journals, research papers, and many relevant materials that have already been published. The main purpose and goal of the thesis is to sort out the impact of Official development assistance on external balance in the case of Nepal. Furthermore, other variables like tax revenue and tourism are also regressed with the dependent variable in the regression analysis. More importantly, different recent data and figures are included to reveal the clear body of thesis objectives. Hence, the corresponding research objectives are given as follows:

i. to look at the relationship of external balance with foreign aid,

ii. to examine the association of external balance with tax revenue and

iii. to ascertain the effect of tourism on the external balance of Nepal.

These research objectives can be examined using macroeconomic data. The World Development Indicators database becomes a useful public data source to obtain the relevant variables (World Bank, 2021, n.p.). The relevant variables are chosen as external balance (i.e., exports

minus imports), official development assistance (ODA), tax revenue, and tourism.

3.2 Research Hypotheses

The research hypotheses are as follows:

Hypothesis 1: Official development assistance has a significant negative relationship with external balance.

Hypothesis 2: Tax Revenue has a significant negative relationship with external balance.

Hypothesis 3: Tourism has a significant negative relationship with external balance.

These research hypotheses are tested using the macroeconomic data from the World Development Indicators database for the 1990-2019 period (World Bank, 2021, n.p.). The dissertation hopes to get supportive evidence for the above research hypotheses.

3.3 Research Question

Although there are many types of research that have studied the relationship between foreign aid and economic growth in the case of Nepal, the present dissertation varies from the previous research and adds new literature examining the effects of aid flows on external balance in the country.

It can be argued that since Nepal is a low-income country, it can face major constraints in importing goods from the rest of the world.

Similarly, the government can have a limited capacity to make spending for public policy purposes. Hence, the analysis of the relationship between official development assistance, tax revenue, and tourism with external balance becomes a feasible research topic.

The research question of the present dissertation is as follows: "What are the effects of Official Development Assistance, Tax revenue, and Tourism on external balance in Nepal?" In these relationships, official development assistance, tax revenue, and inflation, as independent variables, are regressed with a dependent variable, external balance.

Chapter 4: Data

4.1 Data Collection

In terms of the data requirement, the dissertation needs information on the official development aid flows and various macroeconomic variables. Our present dissertation has four macroeconomic variables in total. As we have interpreted in the previous section of literature review, we have structured external balance as our dependent variable and ODA, tax revenue, and tourism as our independent variable. This can be measured by the unit of the current US dollar. The present study uses the same observations of all variables in the sample. Then, since the present dissertation is interested in the effects of official development assistance (ODA) flows and its impact on external balance, the variables included in the study are taken as the current US dollars; these variables are also collected in the sample dataset. Moreover, the variable tax revenue and tourism are also taken as the same measurement unit as other variables in the research.

For the research study, the world bank is a very useful and reliable data source as most of the research has used the data from a similar source so, I too used this authentic source and applied the data from it. Therefore, all the data variables are taken from the World Development Indicators (WDI), the World Bank (2021, np).

4.2 Definition of the Variables

This section presents the definitions of variables used in the dissertation. The study tries to follow the relevant studies in the

literature so that comparable results are produced. The variables and
their definitions are presented below in Table 4.

Table 4: Variables and Their Definitions

External Balance of goods and services	External balance on goods and services (formerly resource balance) equals exports of goods and services minus imports of goods and services (previously non factor services.
Net Official Development Assistance (ODA in current US$)	Net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. It includes loans with a grant element of at least 25 per cent (calculated at a rate of discount of 10 per cent). Net official aid refers to aid flows (net of repayments) from official donors to countries and territories in part II of the DAC list of recipients. Data are in current US dollars.
International tourism receipts (current US$)	International tourism receipts is defined as the expenditures done by international inbound visitors that includes the payments to national carriers for international transport. It also includes any other prepayment made for goods or services received in the destination country.
Tax Revenue (current US$)	Tax revenue is defined as the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes on the ownership and transfer of property, and other taxes.

Chapter 5: Research Methodology

5.1 Regression Analysis

Regression analysis is one of the most common and popular models of statistics for estimating the relationship between dependent and independent variables. Basically, there are two types of regression, including linear regression and multiple linear regression. Although, some researchers also use the non-linear regression method for complex data and their analysis.

In a statistical model, simple linear regression is a common type of linear regression consisting of a single numeric dependent variable and a single numeric independent variable. This single dependent variable depends upon the value of the single independent variable in the simple linear regression model. The formula for simple linear regression is; $Y = a + bx$, where Y is the dependent variable, a is the y-intercept, b is the slope of the line, and x is the independent variable.

On the other hand, multiple regression is a statistical technique that consists of many independent (explanatory) variables to predict the result of a dependent (response) variable. Moreover, it is included in the analysis to find the association between a single dependent variable and many independent variables. More importantly, multiple regression is the generalization or extension of simple linear regression. The equation for the multiple regression model is as follows:

$$y = \beta_0 + \beta_1 X_1 + \ldots + \beta_n X_n + \varepsilon$$

Where y is the predicted value of the dependent variable, B0 is the y-intercept (value of y when all other parameters are set to 0), B1 is the regression coefficient of the first independent variable, and X1 is the effect that increases the value of the independent variable on the predicted y value. Moreover,.... sign means that the case is alike as B1X1 for however many independent variables have on the predicted y value. BnXn represents the last coefficient of the last independent variable, and e means an error of the residuals. Furthermore, Ordinary Least Squares regression (OLS) is also a commonly used model in regression analysis. Similarly, itis a common technique for estimating coefficients of equations, which describe the relationship between one or more independent variables and a dependent variable (simple or multiple linear regression). In a linear regression model, OLS is a kind of linear least-squares method for the estimation of unknown parameters. While conducting the method, it estimates the relationship by minimizing the sum of squares in the difference between the observed and predicted values of the response variable configured as a straight line.

For the simple linear regression, the OLS estimation is as follows:

$$\hat{\beta}_0 = \bar{y} - \hat{\beta}_1 \bar{x};$$

$$\hat{\beta}_1 = \frac{\sum_{i=1}^{n}(x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^{n}(x_i - \bar{x})^2},$$

In the given estimation, the "hats" above the coefficients tells that it concerns the coefficient estimates, and the "bars" above the x and y variables mean that they are the sample averages, which are computed as:

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i, \qquad \bar{y} = \frac{1}{n}\sum_{i=1}^{n} y_i.$$

The relevant papers examining the impact of foreign aid on economic growth employ various regression methods such as cointegration analysis or growth regression analysis. The present study also follows a similar empirical methodology. Namely, it estimates a multiple regression model where the dependent variable is the external balance of goods and services. Then, the independent variables include Official development assistance, tax revenue, and tourism.

In this context, the following multiple linear regression model is estimated using the OLS method (Wooldridge, 2016, p.1):

Regression Equation:

$$EXB_t = \beta_0 + \beta_1 ODA_t + \beta_2 TR_t + \beta_3 TM_t \varepsilon_t$$

Where:

EXB = External balance of goods and services

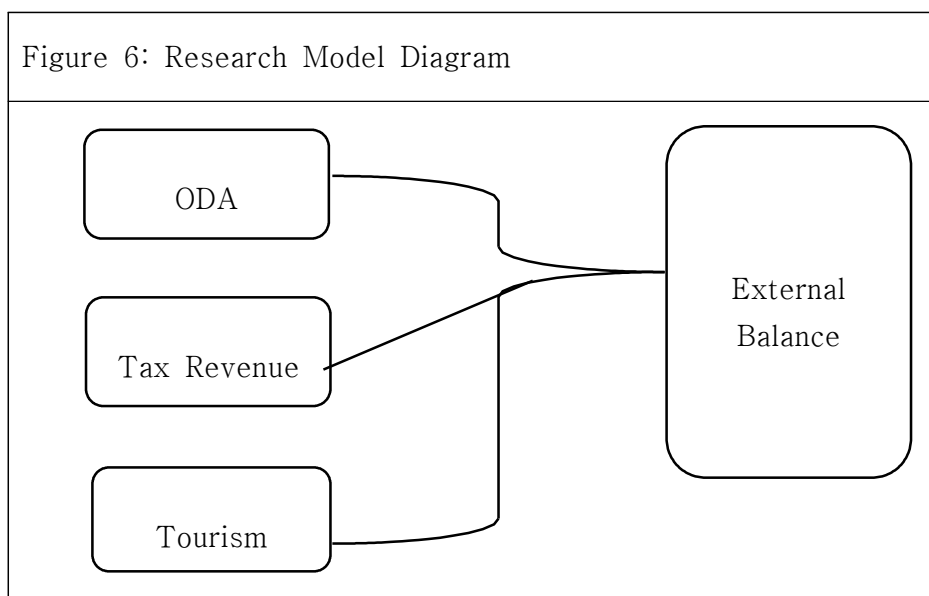ODA = Official development assistance and official aid received

TR = Tax revenue

TM = International tourism receipts

In these relationships, our dependent variable is an external balance of goods and services, and the independent variables include official development assistance, tax revenue, and international tourism receipts.

The regression model is estimated with the professional statistical software of STATA. The relevant studies in the literature showed the impact of ODA on external balance. Moreover, the other two independent variables added in the equation also presented a significant negative effect on external balance. Specifically, they show that there are significant negative effects during the recent study period. In this context, the regression models are estimated for the 1990－2019 period.

Figure 6: Research Model Diagram

Figure 6: Research Model Diagram

The above regression model can also be represented as a research

model diagram as figured here. The relevant diagram tries to figure out the impact of Official Development Assistance (ODA), tax revenue, and tourism on the external balance of a country for the period of 1990-2019. Hence, the three arrows from ODA, tax revenue, and tourism connecting with external balance represent the three hypotheses in a sequence, respectively. The arrow regarding ODA to external balance stands out as the first research hypothesis. Similarly, the next arrow drawn in the middle connecting from tax revenue to external balance presents our second research hypothesis, and the last arrow attaching tourism with external balance represents our last research hypothesis of the dissertation. In this way, our research model diagram figures out the core part of our research analysis with an indication of the actual model of our study and all three research hypotheses as well.

Here we present the empirical analysis of the data in line with the proposed research methodology in the previous section. The empirical findings are presented in another section. Here, the research provides the summary statistics and various statistics values of the variables. Then, the similar section also gives an explanation of the regression outcome of the summary statistics.

Examining the descriptive statistics of the variables and looking at the various statistical aspects of the variables in a few decades would be informative to provide quantitative background information on the topic. In this context, Table 5 presents the summary statistics of the variables used in the analysis. The result is presented by analyzing the data of the 1990-2019 period. In this way, it becomes possible

to see how the variables and their association with statistical measures look like.

The main aim of the present dissertation regarding the time period is to analyze the data from 1990 to 2019, and the data analysis also shows statistically negative significance to our dependent variable for the selected period supporting the thesis hypotheses.

The given table shows the summary statistics of our research variables from 1990－2019.

Table 5: Summary Statistics (1990－2019)

Summary Statistics of 1990-2019 period					
Variable	Obs.	Mean	Std. Dev.	Min	Max
EXB	30	-2.865e+09	3.227e+09	-1.152e+10	-3.325e+08
ODA	30	6.154e+08	3.524e+08	2.922e+08	1.452e+09
TR	30	1.540e+11	2.043e+11	7.236e+09	7.644e+11
TM	30	2.978e+08	2.192e+08	1.162e+08	8.030e+08

Table 3 shows the summary statistics for the time period 1990－2019 regarding the most recent period. One important property of this period is that there is no difference in observations of any variable. Hence, the comparisons of the variables become more feasible as they have the same observations. It is seen that in this period, the average of the External balance is minus 2 billion and 865 million which is negative. For example, the minimum external balance ratio and maximum both show a negative that is minus 11 billion 520 million and 332 million 500 thousand respectively. The standard

deviation is estimated at 3 billion 227 million. ODA flows varied between a minimum value of 292 million 200 thousand and a maximum value of 1 billion 452 million. Moreover, the tax revenue exceeded 764 billion 400 million as a maximum value and 7 billion 236 million with its minimum value. According to the table, tourism exceeded in recent years where its maximum value is 803 million, and the minimum value is 116 million 200 thousand. Moreover, the standard deviation for tourism is 219 million 200 thousand, and the mean is 297 million 800 thousand. The following figures show the inflows of the different variables included in the present dissertation as a percentage of GDP.

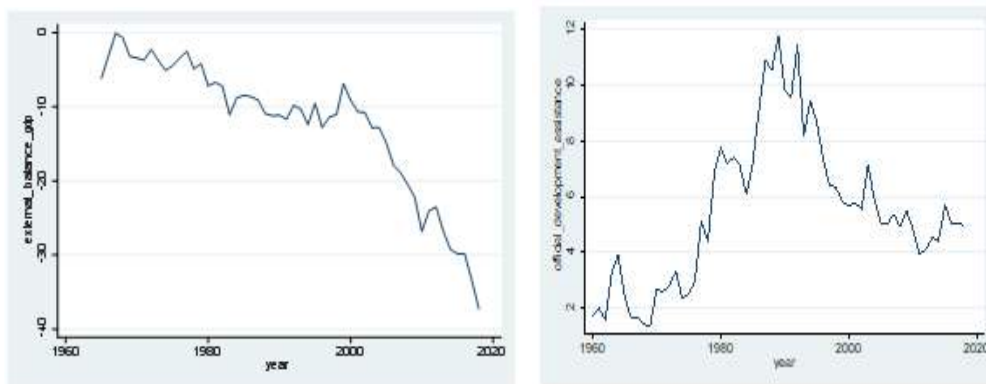Figure 7: External Balance [% of GDP]　Figure 8: ODA [% of GDP]

Figure 7 shows that the external balance in Nepal fluctuated between 0% and 10% in the 1965-1980 period. Then, for the 1985-2000 period, the external balance fluctuated around 10%. This period also witnessed relatively high and stable growth rates, as well as large foreign aid inflows. However, after 2000, the external balance of Nepal started to worsen significantly and in a persistent fashion. As

of 2018, the external deficit of the country was more than one－third of its GDP. Figure 8 indicates the official development assistance and official aid received in Nepal from 1960－2019. As the data mentioned in the figure, it shows that aid fluctuated around 2 to 4% of GDP during 1960－ 1975. Then the aid inflows started increasing after the 1980s and reached around 5% of GDP. The aid flows in Nepal started after 1980 in an increasing fashion continuously except few fluctuations in some years. During the 1990s, the ODA was found to be the highest among all decades, 10－12 % of GDP. But from 1995, the ODA started decreasing and kept on going down and reached around 5 % of GDP in 2019. The overall trend of aid flows shows the lows during the beginning years, highest during the middle time period, and again lows in ending years.

Figure 9: Tax Revenue (% of GDP)　　Figure 10: International Tourism Expenditures (% of total imports)
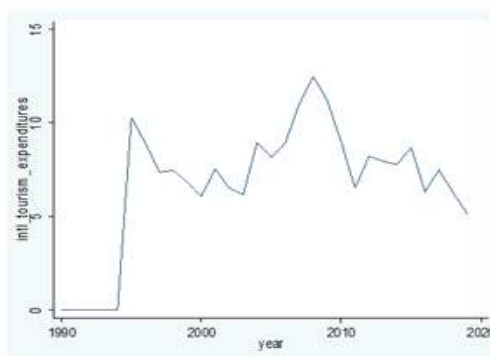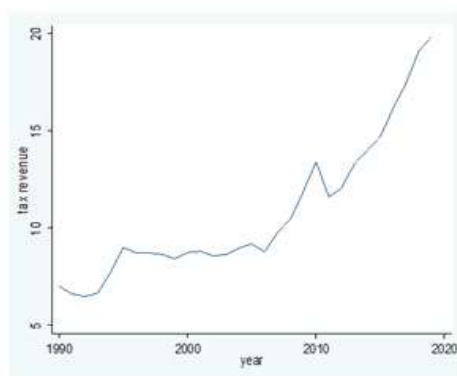

Figure 9 shows that the tax revenue in Nepal fluctuated between 7% and 10% in the 1990－2005 period. Then in 2010, the tax revenue was 13% of GDP and had a slight fall around 2 to 3 years and again

started increasing higher than from previous decades. For the time period of 2012/2013 to 2019, the growing ratio of tax revenue is highest among the whole time periods, as mentioned in the figure. Finally, in 2019, the tax revenue reached almost 20% of GDP, which is the largest collection of revenue in the country. Therefore, this figure shows that there is a considerable contribution of tax revenue in the country's GDP as well.

Figure 10 indicates the international tourism expenditures of inbound tourists in Nepal from 1990−2020. As the data mentioned in the figure, it shows that tourism receipts were found to be 10% of GDP in 1995. However, after 1995 the tourism receipts trend is seen as a slight decrease initially, it is seen increasing again after 1/2 years. So, we can say that around 1995−2005 the data fluctuated nearly 5% to 10% of GDP. In 2007/2008 the tourism receipts reached highest among whole years contributing approximately 13% of GDP. Then, after 2010 to 2019, there is no regular trend in change; rather, it has a fluctuation around 5% to 8% of GDP. Therefore, this trend in the figure shows that it has mostly a fluctuating fashion during this time period.

Chapter 6: Findings and Results

6.1 Regression result of dependent and independent variables

This part presents the results of the regression models. In order to obtain robust findings in the analysis, we applied OLS linear regression as an estimation of the model. One dimension in these regressions is the sample time period.

As discussed in the previous sections, the period of 1990−2019 is carried out to see whether ODA, tax revenue, and tourism affect external balance or not. In these relationships, our three independent variables, namely ODA, tax revenue, and tourism, are regressed with an external balance to see the negative relationship between our dependent variable and independent variables, as mentioned. And the findings are very similar to our research hypotheses.

This part examines the relationship between dependent and independent variables, carrying 30 observations in total. We have one dependent variable and the other three independent variables in the regression analysis. Table 6 presents the regression results where the dependent variable is the external balance, and the independent variables are official development assistance (ODA), tax revenue, and tourism.

Table 6: Regression result for External Balance with ODA, Tax Revenue and International Tourism Receipts from 1990-2019

EXB	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
ODA	-3.675	.872	-4.21	0.000	-5.467	-1.883	***
TR	-0.008	.001	-6.04	0.000	-.011	-.005	***
TM	-1.199	.563	-2.13	0.043	-2.357	-.042	**
Cons	1.036e+09	2.839e+08	3.65	0.001	4.524e+08	1.619e+09	***
Mean dependent var		-2865212635.7	SD dependent var		3227294067.6		
R-squared		0.98	Number of obs		30		
F-test		851.743	Prob > F		0.000		
Akaike crit. (AIC)		1272.66	Bayesian crit. (BIC)		1278.27		

*** p<.01, ** p<.05, * p<.1

Table 6 presents the significant results for all the variables. The three independent variables are negatively associated with our dependent variable showing a significant negative effect on external balance for the period 1990-2019.More specifically, ODA is found to be negatively significant at 1% with a coefficient of -3.675.

It can be explained that when there is a 1 unit increase in ODA, the external balance decreases by -3.675, which means to say the increase in the trade deficit. Moreover, the minus sign of the coefficient indicates the negative relationship between ODA and external balance, saying that it deteriorates trade balance by raising the importation of goods. Likewise, tax revenue is also found to be negatively associated with external balance with the p-value of 1% significance level. The coefficient of tax revenue is -0.008, which means to say that an increase in one unit of tax revenue decreases

the external balance by 0.008. However, the economy of Nepal is facing a trade deficit, so in an actual sense, the external balance has to be increased to balance the Balance of Trade (BOP) of the country. Therefore, the negative sign with our above explanation, including the ODA and tax revenue with external balance asserting the negative relationship, are valid in the result.

In the case of tourism as well, we have found a significant negative effect of it with external balance for the study period. The p-value of tourism shows at 5% significance level slightly less than the other two findings. When tourism increases by a unit, external balance decreases by 1.199 as this result is also similar to our other findings that it induces trade deficit with the rise of importation of goods in the context of Nepal. Additionally, the high R2, i.e., 0.98 found in the regression result, also clarified that our model best fits the observed data.

According to the result, all our hypotheses claiming a negative association with external balance are clarified from the regression table. There we can say that all three hypotheses are accepted.

Chapter 7: Discussion

Although Nepal has been receiving foreign aid for many decades, drastic change and improvement in the development sector have not resulted, but gradual progress has been found through the assistance of official development assistance. Many researchers have mentioned that the economy of Nepal is worsened due to poor governance, bureaucracy, and ineffective policies, which hinders the economic growth of a nation. Likewise, this study and its result of a few parts come to show the identical consequences in the context of Nepal as well.

In the case of foreign aid, there is much literature showing its positive effect on the GDP growth of the countries. Although the research on foreign aid has been done many times, our present dissertation is quite different from the previous ones. We took external balance as our dependent variable and also added tax revenue, tourism as our independent variables, including official development assistance. We tested our hypothesis of whether official development assistance (ODA) has negative significance with external balance or not. According to our research hypotheses, we found a similar finding that ODA is negatively associated with external balance with a 1% significance level. Moreover, the coefficient of ODA indicates that if there is one unit rise in ODA, the external balance of a country deteriorates by −3.675, which means to say the trade deficit increases in Nepal.

In the case of tax revenue, as explained in literature review, the

country is also dependent on its taxation collected from various sectors. However, Nepal does not have such bigger factories, industries, and companies from which it is unable to collect an immense ratio of revenue compared to large economies. However, tax revenue does not have an influential positive effect on GDP, it is playing an important role in operating various economic aspects of a country. For example, it is used for the importation of goods, and also it is used for filling the gap of government expenditures. Our research analysis and its findings also examined the effect of tax revenue with the external balance as a dependent variable where the result is found to be significant in the case of Nepal. Although tax revenue is not found to have a significant positive effect on external balance, it is negatively associated with our independent variable.

In addition, this thesis is also expected to find the significant negative result regarding the other independent variable as well. Likewise, the result, including tourism, also confirmed that it had a significant negative effect on the external balance of Nepal during the study period of 1990－2019. Although the level of significance of tourism is slightly less than other independent variables in the analysis, we can easily accept our research hypothesis showing the negative effect of tourism on external balance from 1990－2019 as the level of significance is <0.05 %. This means to say when there is an increase in international tourism receipts, it deteriorates the trade balance of Nepal with an increase in imports. As Nepal has been facing a trade deficit for decades due to its excessive import but less export, the sources like official development aid, tax revenue

have become very helpful to support its economic condition like external balance, one of the very important aspects of the economy. In the case of tourism as well, the result showed that the country is expanding its international tourism receipts in the importation of goods.

As we took all data and variables from the world bank, we also checked whether our data variables were stationary or not and found all stationary. Moreover, we have all data variables with the same observations and the same unit of measurement. Therefore, the result of our regression analysis was found as hypothesized in our research model.

Therefore, all these variables are seen to be found negatively related to the external balance of a country. This does not mean to say that our independent variables do not have any contribution to the economy of Nepal; rather, they are playing a very important role in importing goods and services. Moreover, they may be helpful as well in the case of fulfilling the needs for government consumption and many more aspects of a country.

Besides, we also have the very significant constant term in the regression result, but the numbers are very high, showing million or billion units as scientific notation. It is because neither we used % of GDP nor any log transformation for our variables in the regression model; rather, we applied the current US dollar as a unit of measurement for our variables. We chose all data variables from WDI, World Bank, which is our secondary data, and we found our result very significant without using log transformation.

Nepal, being one of the least developed countries, needs to invest in building its physical infrastructure, improving quality of life, etc. But due to its poor economic condition, the country's government is unable to operate developmental activities in the absence of aid. Therefore, it is clearly found that Nepal needs official development assistance to decrease government expenditures and bring improvement in the external balance of a country.

The government should make good policies and focus on its implementation. Foreign aid should be used at the right time and at the right place. Moreover, it should focus its foreign aid investment on the industrial and production sector. Similarly, the Nepalese government needs to balance the ratio of imports and exports properly. The country should bring better policies of increasing international trade with an increment in its exports. The focus also needs to be given to producing skilled manpower and developing advanced tools and technologies.

As mentioned in the literature review part and many other sections of the dissertation, the study on aid, remittance, and growth has been examined numerous times. The present dissertation also followed the relevant aspect of Nepal's economy regarding the remittance flows and their effect on some economic aspects of a country. In this case, the present dissertation focused on a particular country regarding the effect of remittance, tax revenue, and inflation on the external trade balance of a country. Our dissertation is varied from the existing literature by choosing the external balance as our dependent variable. Moreover, the present dissertation also varies by adding tax revenue

and tourism as independent variables and testing with the given dependent variable.

The very considerable limitation applied in our model is it does not account for sectorial variations of our variables such as ODA, tax revenue, and tourism. The further research can be benefitted by adding the differential effects of these inflows in the various sectors and their impact on the external balance of a country. Moreover, as we choose only in the case of Nepal, the next researcher can apply various countries in its model and look after the effect of the same variable for various economies.

In our research, we have particularly used ODA as foreign aid; future research can use bilateral aid showing its relationship with other economic indicators. Likewise, the impact of ODA can also be examined on education, poverty reduction, and investment. As Nepal has a huge trade with India, the research can be carried showing the growth effects of trade using this variable. In the case of tax revenue, the country receives taxation from various sectors inside the country, so future research can apply the revenue of any particular sector and its effect on the other sector of the economy. The variables that we tested for our research analysis, including international tourism receipts, also have various research areas other than the impact on external balance. The tourism industry is expected to create employment, reduce poverty, and contribute to the growth of a country. Therefore, further study can be done in looking after the effect of tourism on employment and the impact of tourism on growth.

In the case of further research study, it can be extended by applying some relevant aspects by adding some different variables and methods of analysis. More detailed analysis separating tax revenue and its short and long－run effect can be the project for future research. Future research can also examine the reasons for such differential impact of taxation in Nepal.

Likewise, regarding aid flows, research can be conducted on how aid received in any particular sector can affect the economy of a country. Future research can examine showing its impact on investment and growth of the country. The future researcher may also analyze extending the time period and adding more variables like unemployment, population, labor force, etc., in their research model, including the present model variables and comparing them to it.

In the case of tax revenue, the future researcher can find taxation on some particular sector like tourism, remittance, etc., and show a relationship with any particular economic indicator like we included external balance in our model. Similarly, regarding tourism, there is income from cultural, adventurous, and some other ways of tourism receipts. So, further research can find the difference of these sorts of various aspects of tourism receipts and differentiate which impacts more on the economy. With these similar variables, the interested researcher can expand its literature by finding how tourism, tax revenue is affecting investment, or some productive sectors, and so on. Therefore, there are various ways that the future researcher can apply adding its new literature from these same variables from our research study.

Chapter 8: Conclusion

This dissertation aims to document the impact of official development assistance on the economic indicators in Nepal. There are many types of research that carried the study of foreign aid and economic growth in less developed countries. The literature finds some contrasting evidence in the sense that aid and remittance can hinder or support economic growth. In the case of Nepal, studies covering the earlier decades find short-run negative effects of aid on economic growth, while more recent periods display the positive association between aid and growth. Likewise, in the case of Nepal, many studies regarding remittance are carried out relating household expenditures as remittance are sent to household spending. Additionally, there is existing literature that mostly examined the growth effect of aid, tax revenue, or tourism. But there is very little literature examining the case of ODA, tax revenue, and tourism showing a relationship with external balance. Therefore, the present study found it interesting and different and took as a research study. As mentioned in the previous chapters that in our research, we kept one research question, three research objectives, and three research questions with are based on our three independent variables and one dependent variable. The variables that are taken in the present dissertation, such as ODA, tax revenue, and tourism, were taken from the world bank with the same observations.

As the relationship between remittance, household expenditures, poverty reduction, education, and growth are studied extensively in

the case of less developed countries, the present study expands the relevant literature by examining the impact of official development assistance on external balance in the case of Nepal. Moreover, to see whether external balance does have an effect on other economic indicators, the study also added tax revenue and tourism along with ODA in the same multiple regression model and regressed with external balance as we mentioned one research question, three research objectives, and three research hypotheses. More importantly, all our three research hypotheses regarding ODA, tax revenue, and tourism showing the relationship with external balance are estimated to obtain significant negative effects for the time period 1990-2019. Consequently, the result regarding ODA with an external balance is found to have a significant negative effect with the p-value of 1%. So that it confirmed our first hypothesis that says ODA has a significant negative effect on external balance.

The result in the same regression table also confirmed that other two research hypotheses regarding the negative effect of tax revenue and tourism on external balance. We conducted the regression analysis and confirmed the research hypotheses using the data for the 1990-2019 period which were collected from the World Bank. The regression results show statistically significant negative effects of tax revenue and tourism to external balance with a significance level of 1% and 5%, respectively, from the 1990-2019 time period. All negative coefficients with the variables in the regression result table also provide support to our research hypotheses, indicating a negative relationship with our dependent variable. The result of our research

also presented the high R2 with a value of 0.98, which showed that it best fits our observed data. There are some high values of the mean dependent variable, SD dependent variable, and constant term in the regression result. It is because we used the measurement unit of current US dollar data downloaded from the world bank. The high values of mean dependent variable and SD dependent variable did not affect our regression analysis. Neither these values decrease our R2 nor did it affect our significance level. Moreover, we did not apply log in our analysis as we got a good result without including it in our model. We analyzed the data to get the expected result as we hypothesized in our research model and we found a similar outcome from our analysis as well. As we already presented enough evidence for why we have a significant result and why our hypotheses should be accepted, we can now clearly say that our research model, hypothesized study and the entire research is in favor of regression analysis.

Therefore, the result supports all three research hypotheses including official development assistance (ODA), tax revenue, and tourism and its negative effect on the external balance of a country for the study period of 1990－2019.

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국 문 초 록

−공적개발원조가 네팔의 대외무역수지에 미치는 영향−

한 성 대 학 교 대 학 원
국 제 무 역 경 제 학 과
국 제 무 역 경 제 학 전 공
아르빈다 게시

이 논문은 1990−2019년 동안 네팔의 대외 균형에 대한 공적 개발 원조 및 공적 원조(ODA)의 영향을 조사합니다. 또한 같은 기간 네팔의 대외수지와 함께 세수 및 관광수지를 분석합니다.

이 기간 동안, 그 나라는 많은 주목할 만한 사건들을 경험했습니다. 군주제의 폐지는 또한 이 기간 동안 네팔을 낳았습니다. 많은 중요한 현상들이 이 기간 동안 일어났기 때문에 이 특정한 기간은 우리의 연구를 위해 선택된 것입니다.

데이터를 분석하고 결과를 찾기 위해 다중 선형 회귀 모형이 수행되었습니다. 연구 분석 결과 ODA는 외부 균형과 상당한 부정적 관계가 있는 것으로 확인됐습니다. 마찬가지로, 세금 수입과 관광도 한 나라의 대외 수지

와 상당한 부정적인 관계를 가지고 있었습니다.

우리는 1990-2019 기간의 연간 시계열 데이터를 사용하여 세계은행의 데이터를 적용했습니다. 이번 연구는 대외수지를 종속변수로 하고 ODA, 세수, 관광을 독립변수로 삼았습니다.