

A Study on Export Receipts and Import Payments of Goods and Services the Analysis for Bank of Bangladesh

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ABSTRACT

Bangladesh's Central Bank regulates international trade and monetary policy. To maintain a balanced trade, the bank promotes exporters and controls imports. The bank monitors the foreign exchange market and implements policies to help the country's economic growth and development. Bangladesh's export payments and receipts by key commodities, geographic region, and service delivery approach is studied. The banking sector has grown exponentially, resulting in new banks, modernised banks, and new services to meet people's requirements. Over 50 local and foreign banks compete for service delivery, interest rates and customer base. Export receipts of services and import payments of services the number of observations in the two variables, and our hypothesised mean difference to the degrees of freedom. Thus, the null hypothesis is accepted and the two-tail p-value increases. The significance of the difference between groups is unaffected by a negative t-value. Imports Major Commodities research F-value is good, but P-value is (0.00), which is highly significant. The null hypothesis is rejected. The study focusing on export receipt and import payments is essential as it deals with the financial aspect of international trade. Export receipts essentially refer to the payments received by a nation for the goods and services it exports to other countries while import payments refer to the goods and services brought in from other countries. This study is import payments as it provides insights into the economic conditions of nations concerning their global trade relations. It also helps nation assess their trade strengths and weaknesses to complete globally.

Keywords: Export Receipts Goods and Services, Import Payments of Goods and Services, Imports and Export Major Commodities, Import Payments, Merchandise Trade, Services Trade

1. INTRODUCTION

The Bangladesh Bank, the Central Bank of Bangladesh, plays a pivotal role in the regulation and supervision of commercial banks. It has implemented various measures and policies to ensure that the banking sector remains stable and efficient. Some of these measures include the introduction of stricter rules on loan disbursement and credit evaluation, mandatory use of technology in banking operations, and periodic monitoring of financial institutions to assess their overall health. The Bangladesh Bank has also promoted financial inclusion by encouraging banks to extend their services to the unbanked population, particularly in rural areas. Despite these achievements, the banking sector in Bangladesh still has some challenges that it must overcome. One of the primary concerns is loan default, which has been a significant issue in recent years. The government and the Bangladesh Bank have been taking measures to address the situation by increasing oversight and encouraging responsible lending practices. Another challenge is the need to upgrade technology and digital banking infrastructure to meet the needs of a rapidly evolving market. Banks will need to embrace digitalisation to remain competitive and meet the needs of tech-savvy customers. Overall, the Bangladesh banking sector has come a long way, and while there are challenges, there is optimism that to satisfy the demands of the economy and its people.

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In the past of banks in Bangladesh can be traced back to the early 19th century when the British established the first banking institution in Dhaka. The United Bank of India was established in 1948, followed by the National Bank of Pakistan in 1949. After the partition of India, the State Bank of Pakistan retained control over the banking sector in East Pakistan (present-day Bangladesh). Bangladesh gained independence in 1971, and the Bangladesh Bank (the country's central bank) was established in 1972. The Bangladesh Bank was responsible for regulating and supervising the country's banking sector, which at the time was highly centralised and dominated by public sector banks. In the late 1970s, the government of Bangladesh began to liberalise the banking sector, allowing for private banks to operate in the country. All banking and financial institutions in Bangladesh are governed by the Central Bank of Bangladesh, usually referred to as Bangladesh Bank. It was established in 1971 after the liberation war of Bangladesh. Bangladesh Bank is responsible for formulating and implementing monetary policy, managing foreign exchange reserves, and supervising the banking sector in Bangladesh. It works towards achieving economic growth and financial stability in the country by ensuring a stable banking system.

Since the 1990's, the banking sector in Bangladesh has experienced significant growth and diversification. The sector has become more competitive, with the emergence of private sector banks, foreign banks, and specialised banks that cater to specific customer segments. The banks have also introduced new products and services, including mobile banking, online banking, and e-commerce platforms. Despite these developments, the banking sector in Bangladesh still faces challenges such as inadequate infrastructure, limited access to credit, and a shortage of skilled human resources.

The Bangladesh Bank, commonly known as the Central Bank of Bangladesh, is a key player in the export industry of the nation. Bangladesh's main exports include garments, leather products, jute goods, and seafood. The Central Bank of Bangladesh works closely with exporters in these industries to provide financing and support their export activities. It provides credit facilities to exporters to help them purchase raw materials, pay workers, and cover other costs associated with production. The Central Bank of Bangladesh is also responsible for managing the exchange rate of the country's currency, the Bangladeshi taka. To maintain exports' competitiveness on the international market, the bank controls the currency rate. It also provides incentives to exporters by offering concessional exchange rates and other promotional schemes. The bank also cooperates with other central banks around the world to ensure the smooth flow of trade finance. Overall, the Central Bank of Bangladesh plays an important role in the country's export sector by providing support to exporters and regulating the exchange rate of the country's currency. The central bank supports the nation's economy and encourages growth by making sure exports are competitive on the international market. Furthermore, the bank's efforts to facilitate trade finance through cooperation with other central banks around the world have helped to improve the ease of doing business in Bangladesh. The Central Bank of Bangladesh plays a significant role in regulating the import of goods and services in the country. It has the authority to issue import permits and licenses, which are needed to conduct import activities. The central bank also sets policies and guidelines that importers must adhere to before and during import transactions. These measures help to control the influx of goods, maintain the stability of the economy, and ensure the country's financial health in the long term.

Furthermore, the Central Bank of Bangladesh also levies import tariffs and duties to discourage the import of goods that may have a negative impact on the country's economy. These tariffs are meant to protect local industries from cheap foreign imports and promote the production of local goods. The central bank also has mechanisms in place to identify the origin and quality of imports to ensure that the country receives goods that meet the required standards.

2. REVIEW OF LITERATURE

Import and export are crucial components of any economy, playing a crucial role in driving growth and development. The role of banks in facilitating imports and exports is significant, and as such, it is essential to examine the literature on the subject from recent years.

Hasan et al. (2019) said remittances have emerged as one of Bangladesh's most significant economic factors in recent years due to their effects on national savings, economic development, balance of payments, foreign exchange reserves, and velocity of money. Remittances have been adding to export revenues at a rate of roughly 35% for the past 20 years. Additionally, it outweighs foreign aid and lessens reliance on it as a result. Remittances are now Bangladesh's second-largest source of foreign exchange earnings, right behind the garment industry. The garment industry becomes the sector with the highest foreign currency earnings when the cost of imported raw materials is subtracted. Due to the growing proportion of unskilled or semi-skilled labourers compared to professionals in foreign migration, remittance earnings are rising daily but at a slower rate than the increase in emigration from Bangladesh. Remittances' percentage of GNI (Gross National Income) is rising daily. Nearly all of a country's macroeconomic metrics are positively impacted by remittances. Remittances include both positive and bad aspects, such as the brain drain, but overall, they have a significant positive impact on the economy of Bangladesh.

Tasneema and Bipasha (2017) said the increased internationalisation of banking institutions is a result of recent technological advancements and increased global interconnectedness. Banks are the key actors in the Bangladeshi financial industry and are known as the "engine of economic growth." Banks in Bangladesh are inclining to shift towards the foreign market as a result of the fierce competition and rapid saturation of the domestic market. This study intends to investigate the nature and difficulties of foreign banking practices in Bangladesh's banking industry as well as to provide pertinent policy viewpoints. In May 2015, the top-level management of 41 of the 56 scheduled banks operating in Bangladesh was surveyed using a semi-structured questionnaire. According to the study's analysis of the survey results, Bangladeshi banks do not follow the typical path of internationalisation, tend to be more cost-intensive, are taking a defensive stance against internationalisation, and are currently experiencing a number of challenges and issues with their international banking practises. This research adds to the body of knowledge by being the first to examine the aspect of Bangladeshi bank internationalisation and to produce fresh ideas for improved bank regulation.

Habib and Shah (2017) stated that in a strong trade system depends on the availability of finance and other pertinent services, which must be supported by established financial industries in order to be effective. Trade is the mainstay of international economic activity in Bangladesh, and trade facilitation is closely related to the integration of the nation on the world stage. Banks help traders by facilitating payment, finance, and risk management services as part of trade facilitation, which helps Bangladesh and other nations' economy become more integrated globally. The purpose of the article is to assess and evaluate Bangladesh's trade service activities. The study determined that documentary credit has been the primary trade facilitation tool of the nation based primarily on secondary data. The two biggest issues in the field of trade services are compliance and trade-based money laundering.

Sayera and Chowdhury (2016) article aims to investigate if Bangladesh's export, import, and trade balance are impacted by the Real Exchange Rate (RER) depreciation. Real exchange rate is calculated using nominal Tk/USD exchange rate and Bangladeshi and US consumer price indices. The effects of depreciation on the variables have also been studied using the trade-weighted real effective exchange rate (REER). Utilising the exchange rates of the eight (8) principal trading partners and the consumer price index, the real effective exchange rate is determined. As a stand-in for domestic and international income, Bangladesh's industrial production index and that of its trading partners are employed. Utilising monthly data for the sample period from June 2003 to June 2014, the models were estimated using the co integration test, the Vector Error Correction model (VECM), and the Impulse Response Functions (IRFs) obtained from the unrestricted VAR. The empirical findings indicate a link between the trade balance, RER, and domestic income in both the short- and long-terms. When the model is estimated using RER, evidence of a reverse L-shaped impact is seen, indicating that real exchange rate depreciation has an impact on Bangladesh's export, import, and trade balance. Although the J curve effect is apparent with respect to exports, this study does not detect any effects of the trade-weight real effective exchange rate on the trade balance or imports.

Nobinkhor (2015) In this study investigates the gravity modelling phenomena to investigate the significant connections between Bangladesh's trade balances with the BRICS nations. Particularly, the trade balance model is impacted by the relative factors that govern trade in the well-known gravity model. The trade balance is influenced by the partner nations' relative GDP, per capita GNI, real exchange rate, import-weighted distance proxy for home country transportation costs, and currency rate. The model is empirically verified using common panel data methodologies for the years 1991 to 2013, and the findings indicate that all of the relative components have a significant impact on Bangladesh's bilateral trade balance with the BRICS nations. The model's robustness test verifies that the specification is accurate. With heterogeneous economies, the static panel data analysis investigates cross-country variations as well as time-invariant country-specific impacts on trade balance and identifies substantial effects of all relative factors on the trade balance of Bangladesh.

Chowdhury and Abul Hossain (2014) concluded that the balance of payments is the most significant factor in a nation's economy. Our results are unsatisfactory considering that we are a growing nation. The goal of this analysis is to gain some understanding of Bangladesh's balance of payments. Trade liberalisation may result in import growth that is faster than export growth, which could negate the positive effects on supply by creating an unsustainable balance of payments. This study estimates their impact on the trade balance using a 36-year observation of Bangladesh's GDP, import, export, and exchange rate. Our conclusion is that Bangladesh should ease import restrictions more gradually than export limitations.

Hazera (2014). about half of the gross national income (GNI) of emerging nations comes from international trade. Commercial banks facilitate international trade, which is widely referred to as international trade finance, to promote efficient exchange of goods. Although it is well acknowledged that commercial banks play a significant role in international trade, no systematic study has been done to show the impact of commercial bank trade financing on the expansion of the least developed countries' (LDCs') international commerce. Such a study doesn't exist for Bangladesh either. This study looked into how Bangladeshi commercial banks' assistance for increased trade volume through client trade financing. This essay is based on a case study of Pubali Bank Ltd. (PBL), one of Bangladesh's biggest commercial banks. The panel data gathered from 20 client companies who used the bank to do foreign business for three consecutive fiscal years, from 2009 to 2011, confirms the notion of the bank's beneficial role. The results of this study imply that trade financing provided by commercial banks like the PBL helps to increase the amount of their clients' international trade.

3. OBJECTIVES OF THE PAPER

1. To research the Bank of Bangladesh's export receipts and import payments for goods and services.
2. To assess the payments and receipts for exports of goods and services.
3. To analyse Bangladesh's export receipts and import payments for goods and services by Category-Wise Imports Major Commodities, by regions, and by service delivery method.

4. HYPOTHESIS

The following hypothesis is framed and tested with T-test and ANOVA Analysis for Export Receipts and Payments of Goods and Services in the Bank of Bangladesh.

H0₁: There is a positive significant relationship between export receipts of services.

H0₂: There is a positive significant relationship between import payments of services.

H0₃: There is a positive significant relationship between category-wise imports major commodities.

5. RESEARCH METHODOLOGY

The current study is descriptive in nature and relies solely on secondary data from the Export Receipts and Payments of Goods and Services in Bank of Bangladesh. The data was acquired from the Bank of

Bangladesh's annual reports for the previous three years as well as other pertinent publications. The literature was compiled from legitimately published journals on national and international levels as well as associated websites. Using MS Excel, the secondary data was subjectively examined and made available in tables and charts. The data were analysed using growth analysis, compound annual growth rate (CAGR), descriptive statistics, forecasting analysis, and a hypothesis frame based on t-test and ANOVA.

6. RESULTS AND DISCUSSION

The Central Bank of Bangladesh (BB) is responsible for regulating the export and import activities of the country. However, several problems have arisen over time that has hindered the efficient functioning of the bank. One such problem is the BB's lack of collaboration with other governmental organisations engaged in export and import operations. This leads to delays, confusion, and duplication of efforts, ultimately causing inconvenience and financial losses to importers and exporters. The BB also has issues with corruption and a high level of bureaucracy in the export and import industries. The complex regulatory procedures and documentation requirements create significant hurdles for businesses, and corrupt officials often demand illegal fees to facilitate the process. This not only increases the cost of trade but also undermines the credibility of the BB and the government itself. The inefficient handling of these problems can also lead to illegal activities such as smuggling or money laundering, which can harm the economy in the long run.

Finally, another issue for the BB is the absence of technology and infrastructure to support the nation's import and export operations. The absence of advanced technology and logistical facilities causes delays, higher costs, and a lower overall quality of trade activities. Furthermore, the lack of quality control, standardisation, and certification procedures also limits the country's ability to engage in high-value exports, thus reducing the potential for growth, productivity, and competitiveness. The Central Bank of Bangladesh must address these issues to ensure the efficient functioning of the country's export and import activities, promoting economic growth and sustainability.

Table 1 Forecasting Analysis (2022-23 to 2028-29) for Export Receipts of Goods and Services (Taka in crore)

| Year | Export Receipts of Goods | Export Receipts of Services | Total Export Receipts of Goods and Services (A+B) |
|---------|--------------------------|-----------------------------|---|
| 2019-20 | 254005 | 51560 | 305565 |
| 2020-21 | 288080 | 56548 | 344628 |
| 2021-22 | 376976 | 76672 | 453648 |
| 2022-23 | 429325 | 86705 | 516030 |
| 2023-24 | 506039 | 103466 | 609504 |
| 2024-25 | 566509 | 115741 | 682250 |
| 2025-26 | 637808 | 131007 | 768815 |
| 2026-27 | 701888 | 144279 | 846167 |
| 2027-28 | 770781 | 158880 | 929661 |
| 2028-29 | 836465 | 172595 | 1009061 |

Source: Annual Report for Export Receipts of Goods and Services (2019-20 to 2021-22)

It is cleared that Table 1 that was analysis to forecasting for Export Receipts of Goods and Services. In the prediction of Export Receipts of Goods is 429325 to 836465 (2022-23 to 2028-29). Export Receipts of Services is 86705 to 172595 (2022-23 to 2028-29). Total Export Receipts of Goods and Services are 516030 to 1009061(2022-23 to 2028-29). Finally, the result was positively grown.

Table 2 Descriptive Statistics Analysis for Export Receipts of Bangladesh by Major Commodities

| Year/ Commodities | 2019-20 (Taka in crore) | 2020-21 (Taka in crore) | 2021-22 (Taka in crore) | Mean | SD | Coefficient of Variation (%) | Growth | Compound Annual Growth Rate (CAGR) |
|--|-------------------------------|-------------------------------|-------------------------------|---------------|--------------|------------------------------------|--------------|---|
| Knit Wear | 107433 | 127037 | 171773 | 135414 | 32978 | 24 | 0.599 | 0.169 |
| Woven Garments | 83442 | 85062 | 110866 | 93123 | 15387 | 17 | 0.329 | 0.099 |
| Jute and Jute Manufactures | 7186 | 9147 | 8762 | 8365 | 1039 | 12 | 0.219 | 0.068 |
| Leather and Leather Manufactures | 4398 | 4618 | 6342 | 5120 | 1065 | 21 | 0.442 | 0.13 |
| Fish, Shrimps and Prawns | 3443 | 3485 | 4013 | 3647 | 318 | 9 | 0.166 | 0.052 |
| Home Textile | 3098 | 4336 | 5908 | 4447 | 1408 | 32 | 0.907 | 0.24 |
| Vegetable Products | 1381 | 1816 | 1688 | 1628 | 223 | 14 | 0.222 | 0.069 |
| Pharmaceutical Products | 880 | 1082 | 1161 | 1041 | 145 | 14 | 0.32 | 0.097 |
| Plastic and Plastic Products | 538 | 734 | 950 | 741 | 206 | 28 | 0.767 | 0.209 |
| Bicycle | 451 | 863 | 1025 | 779 | 296 | 38 | 1.272 | 0.315 |
| Petroleum and Petroleum Products | 9 | 94 | 7 | 37 | 49 | 135 | -0.22 | -0.079 |
| Others | 11290 | 16092 | 20214 | 15865 | 4466 | 28 | 0.79 | 0.214 |
| Total | 223548 | 254366 | 332709 | 270208 | 56278 | 21 | 0.488 | 0.142 |

Source: Annual Report for Export Receipts of Goods and Services (2019-20 to 2021-22)

In the observed that Table 2 that is Descriptive Statistics Analysis for Export Receipts of Bangladesh by Major Commodities than last three years mean range are 37 to 135414. It is an effective central value measure since the Std. Deviation (SD) process. Covariance (CV) is a better result. Growth range is positive and negative that is -0.22 to 1.272. Compound Annual Growth Rate (CAGR) range is -0.079 to 0.315. In the results for negative is Petroleum and Petroleum Products (-0.079) and Positive is Bicycle (0.315).

Table 3 Percentage Analysis for Export Receipts of Bangladesh by Major Ten Countries (Taka in crore)

| Countries/year | 2021-22 | % of Total | 2020-21 | % of Total | 2019-20 | % of Total |
|----------------|-----------------|------------|-----------------|------------|-----------------|------------|
| U.S.A. | 63945 | 19.2 | 41942 | 16.5 | 33767 | 15.1 |
| Germany | 43947 | 13.2 | 35999 | 14.2 | 33003 | 14.8 |
| U.K. | 30606 | 9.2 | 24152 | 9.5 | 22800 | 10.2 |
| Spain | 22731 | 6.8 | 16898 | 6.6 | 16317 | 7.3 |
| France | 18623 | 5.6 | 14312 | 5.6 | 13186 | 5.9 |
| Poland | 14737 | 4.4 | 10273 | 4 | 8707 | 3.9 |
| India | 12983 | 3.9 | 8552 | 3.4 | 7339 | 3.3 |
| Italy | 12352 | 3.7 | 10259 | 4 | 10219 | 4.6 |
| Netherlands | 11426 | 3.4 | 8184 | 3.2 | 7056 | 3.2 |
| Canada | 9571 | 2.9 | 7378 | 2.9 | 6540 | 2.9 |
| Others | 91789 | 27.6 | 76418 | 30 | 64615 | 28.9 |
| Total | 332709.2 | 100 | 254365.7 | 100 | 223548.4 | 100 |

Sources: The sum represents cash export receipts excluding EPZ.

It is measured Table 3 that Percentage Analysis for Export Receipts of Bangladesh by Major Ten Countries in first rank is U.S.A. (19.2%), second rank is Germany (13.2%) and third rank is preferred U.K. (9%).

Table 4 Descriptive Statistics Analysis for Region wise Export Receipts (Taka in crore)

| YEAR/BLOC/GROUP/C COMMUNITY | 2019-20 | 2020-21 | 2021-22 | Mean | SD | Coefficie nt of Variation (%) | Growt h | Compoun d Annual Growth Rate (CAGR) |
|--------------------------------|----------------------|----------------------|----------------------|--------|-------|--|------------|---|
| G20 | 208390.2 | 234459.2 | 308814.2 | 250555 | 52111 | 21 | 0.482 | 0.140 |
| G7 | 125918.7 | 141044.7 | 186635.7 | 151200 | 31607 | 21 | 0.482 | 0.140 |
| E.U. | 108334 | 117831.2 | 154273 | 126813 | 24251 | 19 | 0.424 | 0.125 |
| NAFTA | 41593.3 | 50561.5 | 75534.5 | 55896 | 17588 | 31 | 0.816 | 0.220 |
| Other European Countries | 31331.3 | 34134.6 | 40355.3 | 35274 | 4619 | 13 | 0.288 | 0.088 |
| Other Asian Countries | 14119 | 16189 | 18061.1 | 16123 | 1972 | 12 | 0.279 | 0.086 |
| OIC | 12162.6 | 16192.8 | 16907.9 | 15088 | 2558 | 17 | 0.390 | 0.116 |
| ACU | 8711.3 | 10451.6 | 15333.8 | 11499 | 3433 | 30 | 0.760 | 0.207 |
| SAARC | 8426.5 | 10153.9 | 15024.6 | 11202 | 3422 | 31 | 0.783 | 0.213 |
| Other Countries | 9644.6 | 11395.7 | 13901.7 | 11647 | 2140 | 18 | 0.441 | 0.130 |
| Developing Eight | 6309.4 | 7846.7 | 7468.9 | 7208 | 801 | 11 | 0.184 | 0.058 |
| OPEC | 4443 | 6308.6 | 7456.3 | 6069 | 1521 | 25 | 0.678 | 0.188 |
| ASEAN | 4170.1 | 5456 | 5705.1 | 5110 | 824 | 16 | 0.368 | 0.110 |
| Total | 223548. 4 | 254365. 7 | 332709. 2 | 270208 | 56278 | 21 | 0.488 | 0.142 |

Source: Annual Report for Export Receipts of Goods and Services (2019-20 to 2021-22)

It is considered Table 4 that Descriptive Statistics Analysis for Region wise Export Receipts than last three years mean range is 5110 to 250555. It is an effective central value measure since the Std. Deviation (SD) process. Covariance (CV) is a better result. Growth range is better. Compound Annual Growth Rate (CAGR) range is 0.058 to 0.213. In the result higher then is SAARC.

Table 5 Growth Analysis for Export Receipts of Services

| Mode of Services | 2021-22 | 2020-21 | Growth | CAGR |
|--|-------------|-------------|--------|--------|
| A. Goods procured in ports by carriers | 253 | 67 | 2.776 | 0.943 |
| B. Goods sold under Merchanting | 9 | 14 | -0.357 | -0.198 |
| C. Services | 8604 | 6587 | 0.306 | 0.143 |
| 1. Manufacturing services on physical inputs owned by others (CMT) | 635 | 464 | 0.369 | 0.170 |
| 2. Maintenance and repair services | 15 | 8 | 0.875 | 0.369 |
| 3. Transportation | 1753 | 853 | 1.055 | 0.434 |
| 4. Travel | 356 | 219 | 0.626 | 0.275 |
| 5. Construction services | 1052 | 742 | 0.418 | 0.191 |
| 6. Insurance services | 9 | 4 | 1.250 | 0.500 |
| 7. Financial services (Other than insurance) | 155 | 115 | 0.348 | 0.161 |
| 8. Charges for the use of intellectual property | 1 | 3 | -0.667 | -0.423 |
| 9. Telecommunications, computer and information services | 755 | 437 | 0.728 | 0.314 |
| 10. Other business services | 1131 | 923 | 0.225 | 0.107 |
| 11. Personal, cultural & recreational | 36 | 24 | 0.500 | 0.225 |
| 12. Government goods and services | 2709 | 2797 | -0.031 | -0.016 |
| Total Services (A+B+C) | 8866 | 6668 | 0.330 | 0.153 |

Source: Annual Report for Export Receipts of Goods and Services (2019-20 to 2021-22)

In the observable Table 5 that is Growth Analysis for Export Receipts of Services in last two years growth range is -0.031 to 2.776 and Compound Annual Growth Rate (CAGR) range is -0.016 to 0.943. Finally, Export receipts of services are highly significant.

Table 5.1 Analysis to T-Test: Paired Two Sample for Means for Export Receipts of Services

| Items | Variable 1 | Variable 2 |
|------------------------------|-------------|-------------|
| Mean | 883.800 | 1164.867 |
| Variance | 3007010.314 | 4833025.695 |
| Observations | 15.000 | 15.000 |
| Pearson Correlation | 0.991 | |
| Hypothesized Mean Difference | 0.050 | |
| df | 14.000 | |
| t Stat | -2.030 | |
| P(T<=t) one-tail | 0.031 | |
| t Critical one-tail | 1.761 | |
| P(T<=t) two-tail | 0.062 | |
| t Critical two-tail | 2.145 | |

It is contained Table 5.1 the mean of each sample, Variable 1 = Beginning and Variable 2 = End and the variance of each sample. The number of observations in each sample and the Pearson Correlation which indicates that the two variables are rather highly correlated (0.991) and our entry for the Hypothesized Mean Difference to the degrees of freedom is 14. Thus, the two-tail p-value for this t-test is P-value = (0.062); since the p-value is less than our alpha, 0.05, so the null hypothesis is approved, and the t-test result is (-2.030). A negative t-value denotes a change in the direction of the impact, which is unrelated to the importance of the group differences.

Table 6 Forecasting Analysis (2022-23 to 2028-29) for Import Payments of Goods and Services (Taka in crore)

| Year | Import Payments of Goods | Imports of EPZ | Total Import Payments of Goods (A+B) | Import Payments of Services | Total Import Payments of Goods and Services (C+D) |
|---------|--------------------------|----------------|--------------------------------------|-----------------------------|---|
| 2019-20 | 387220 | 25632 | 412852 | 58794 | 471646 |
| 2020-21 | 433046 | 28314 | 461360 | 63942 | 525302 |
| 2021-22 | 654896 | 27498 | 682394 | 89941 | 772335 |
| 2022-23 | 759397 | 29015 | 788411 | 102039 | 890451 |
| 2023-24 | 942130 | 28976 | 971106 | 123405 | 1094511 |
| 2024-25 | 1072709 | 29974 | 1102683 | 138592 | 1241275 |
| 2025-26 | 1238057 | 30281 | 1268338 | 157898 | 1426236 |
| 2026-27 | 1380225 | 31049 | 1411274 | 174459 | 1585733 |
| 2027-28 | 1537847 | 31509 | 1569356 | 192850 | 1762206 |
| 2028-29 | 1685167 | 32174 | 1717341 | 210020 | 1927361 |

Source: Annual Report for Import Payments of Goods and Services (2019-20 to 2021-22)

It is cleared that Table 6 that was analysis to forecasting for Import Payments of Goods and Services. In the guessed of Import Payments of Goods is 759397 to 1685167 (2022-23 to 2028-29). Imports of EPZ are 29015 to 32174 (2022-23 to 2028-29). Total Import Payments of Goods is 788411 to 1717341 (2022-23 to 2028-29). Import Payments of Services is 102039 to 210020 (2022-23 to 2028-29) and Total Import Payments of Goods and Services is 890451 to 1927361 (2022-23 to 2028-29). Finally, the result was positively grown.

As presented in Figure 1 that the Country-wise Import payments under (cash+Buyer's Credit+IDB/ITFC+ Loans & Grants) of Bangladesh with Top Twenty Countries the first rank are People's Republic of china (167149) then second rank is India (118287) and third rank is preferred (35511).

Figure 1 Import payments under (cash+Buyer's Credit+ IDB/ITFC+ Loans & Grants) of Bangladesh with Top Twenty Countries

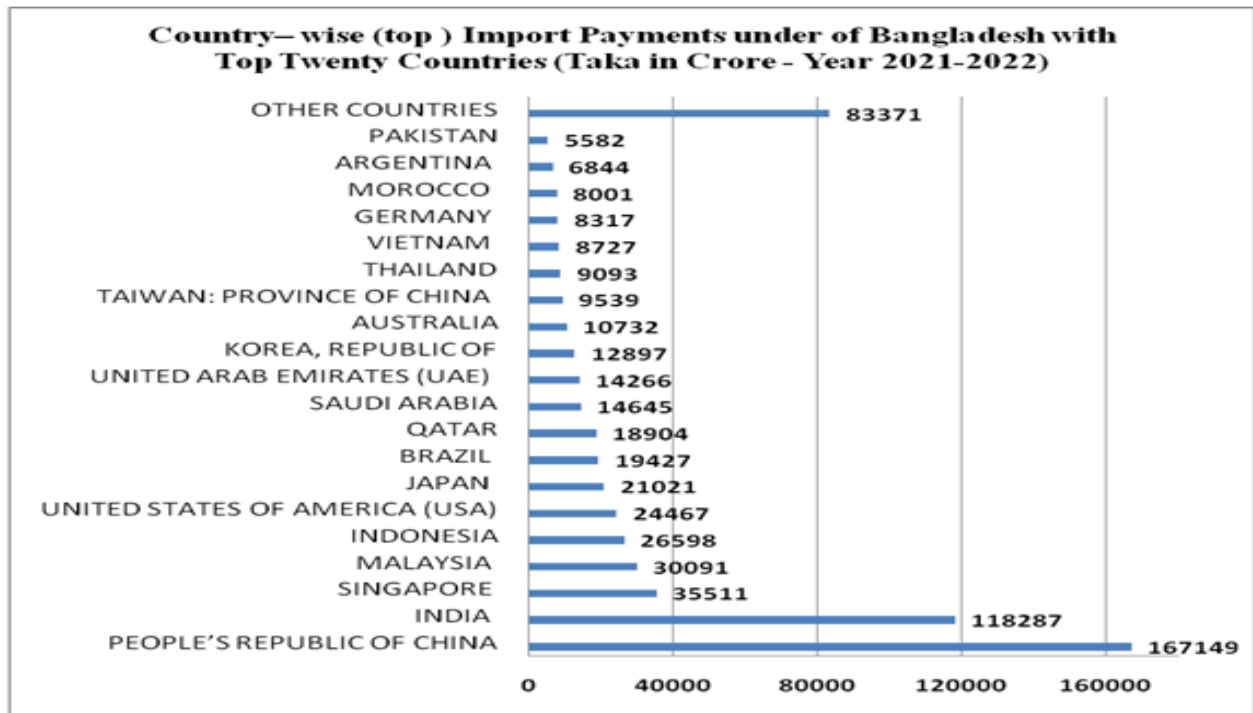


Table 7 Descriptive Statistics Analysis Import Payments classified by Bloc/Group/Community

| Bloc/Group/Community | 2019-2020 | 2020-2021 | 2021-2022 | Mean | SD | Coefficient of Variation (%) | Growth | Compound Annual Growth Rate (CAGR) |
|---|-----------|-----------|-----------|--------|-------|------------------------------|--------|------------------------------------|
| G20 | 280749 | 320597.3 | 469027.9 | 356791 | 99221 | 28 | 0.671 | 0.187 |
| Other Asian Countries | 131766 | 145601.6 | 213798.8 | 163722 | 43916 | 27 | 0.623 | 0.175 |
| Organisation of Islamic Conference | 82093 | 82228.2 | 147289.7 | 103870 | 37602 | 36 | 0.794 | 0.215 |
| Asian Clearing Union | 55674 | 79360.3 | 126598.6 | 87211 | 36108 | 41 | 1.274 | 0.315 |
| South Asian Association of Regional Cooperation | 54711 | 78708.1 | 125301.4 | 86240 | 35893 | 42 | 1.290 | 0.318 |
| Association of South-East Asian Nations | 57747 | 63783.5 | 112723 | 78085 | 30149 | 39 | 0.952 | 0.250 |
| Developing Eight | 38626 | 37824.5 | 72037.2 | 49496 | 19525 | 39 | 0.865 | 0.231 |
| G7 | 57459 | 59827.9 | 71176.4 | 62821 | 7332 | 12 | 0.239 | 0.074 |
| Organisation of the Petroleum Exporting Countries | nil | 21214.5 | 34717.8 | 27966 | 9548 | 34 | 0.637 | 0.279 |

| Bloc/Group/Community | 2019-2020 | 2020-2021 | 2021-2022 | Mean | SD | Coefficient of Variation (%) | Growth | Compound Annual Growth Rate (CAGR) |
|-------------------------------------|-----------|-----------|-----------|-------|------|------------------------------|--------|------------------------------------|
| North American Free Trade Agreement | 26226 | 27916.4 | 30274.3 | 28139 | 2033 | 7 | 0.154 | 0.049 |

Source: Annual Report for Import Payments of Goods and Services (2019-20 to 2021-22)

It is considered Table 7 that Descriptive Statistics Analysis Import Payments classified by Bloc/Group/Community than last three years mean range are 27966 to 356791. It is an effective central value measure since the Std. Deviation (SD) process. Covariance (CV) is a better result. Growth range is better. Compound Annual Growth Rate (CAGR) range is 0.049 to 0.318. In the result higher then is South Asian Association of Regional Cooperation.

Table 8 Category-Wise Imports Major Commodities for Ten Years (In Million USD)

| Major Commodities | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-2020 | 2020-2021 | 2021-2022 |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Food Grains | 726 | 1465 | 1574 | 1034 | 1107 | 2973 | 1272 | 1506 | 1930 | 2611 |
| i. Rice | 30 | 347 | 554.9 | 119 | 76 | 1746 | 124 | 15 | 373 | 546 |
| ii. Wheat | 696 | 1118 | 1018.8 | 915 | 1031 | 1227 | 1148 | 1491 | 1558 | 2065 |
| 2. Milk & cream | 214 | 289 | 310.4 | 226 | 252 | 288 | 336 | 349 | 310 | 382 |
| 3. Spices | 118 | 183 | 214.6 | 204 | 259 | 288 | 315 | 327 | 400 | 336 |
| 4. Oil seeds | 242 | 508 | 353.5 | 522 | 413 | 509 | 653 | 968 | 1287 | 1597 |
| 5. Edible oil | 1402 | 1761 | 1573.5 | 1331 | 1495 | 1761 | 1718 | 1448 | 1786 | 2533 |
| 6. Pulses all sorts | 422 | 455 | 393.7 | 463 | 589 | 406 | 411 | 590 | 658 | 717 |
| 7. Sugar | 731 | 902 | 743 | 661 | 841 | 951 | 647 | 629 | 817 | 1186 |
| 8. Clinker | 487 | 619 | 596.4 | 443 | 476 | 518 | 716 | 662 | 774 | 767 |
| 9. Crude petroleum | 1102 | 929 | 854.4 | 382 | 533 | 554 | 930 | 468 | 809 | 869 |
| 10. POL | 3642 | 4070 | 3371.2 | 2278 | 2776 | 4145 | 5731 | 5084 | 4939 | 11189 |
| 11. Chemical | 1302 | 1498 | 1569.4 | 1688 | 1870 | 2136 | 2222 | 2215 | 2708 | 3211 |
| 12. Pharmaceutical products | 119 | 120 | 112.2 | 120 | 147 | 152 | 146 | 150 | 292 | 687 |
| 13. Fertilizer | 1188 | 1026 | 1241.6 | 1044 | 727 | 870 | 1120 | 948 | 974 | 2891 |
| 14. Dyeing, tanning etc. materials | 399 | 538 | 555.4 | 546 | 561 | 618 | 693 | 616 | 746 | 928 |
| 15. Plastics and rubber articles thereof | 1366 | 1793 | 1845.2 | 1818 | 1937 | 2163 | 2383 | 2323 | 3017 | 3706 |
| 16. Raw cotton | 2005 | 2426 | 2275.3 | 2152 | 2612 | 2949 | 2932 | 2657 | 3141 | 4121 |
| 17. Yarn | 1356 | 1506 | 1593.8 | 1646 | 1666 | 1907 | 2113 | 1677 | 2132 | 4430 |
| 18. Textile and articles thereof | 3273 | 3584 | 3677.7 | 4121 | 4140 | 4567 | 4985 | 4220 | 4209 | 6314 |
| 19. Staple fiber | 455 | 493 | 524.8 | 602 | 611 | 691 | 811 | 724 | 726 | 1078 |
| 20. Iron, steel and other base metals | 2335 | 2657 | 2949.4 | 2801 | 3269 | 3827 | 4325 | 3897 | 4173 | 5905 |

| Major Commodities | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-2020 | 2020-2021 | 2021-2022 |
|-----------------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 21. Capital machinery | 1835 | 2332 | 2612.1 | 3053 | 3618 | 4585 | 5147 | 3715 | 3034 | 4896 |
| 22. Others | 6860 | 8603.55 | 8616.2 | 9846.4 | 10545 | 12526 | 12785 | 10503 | 12202 | 15415 |
| Sub total: | 31579 | 37757 | 37557.5 | 36979 | 40444 | 49384 | 52391 | 45675 | 51063 | 75770 |
| Imports of EPZ | 2505 | 2975 | 3021.8 | 3119 | 3097 | 3556 | 3669 | 3025 | 3339 | 3180 |
| Grand Total: | 34084 | 40732 | 40579.3 | 40098 | 43541 | 52940 | 56061 | 48700 | 54402 | 78950 |
| Mean | 1420 | 1697 | 1691 | 1671 | 1814 | 2206 | 2336 | 2029 | 2267 | 3290 |
| SD | 1528 | 1841 | 1827 | 2067 | 2223 | 2633 | 2812 | 2305 | 2540 | 3615 |
| CV | 108 | 108 | 108 | 124 | 123 | 119 | 120 | 114 | 112 | 110 |

Source: Annual Report for Import Payments of Goods and Services (2019-20 to 2021-22)

In the cleared Table 8 that was Category-Wise Imports Major Commodities for last Ten Years the mean range is (1420 to 3290). It is an effective central value measure since the Std. Deviation (SD) process. Covariance (CV) is a better result.

Table 8.1 Analysis of ANOVA in Imports Major Commodities

| Groups | Count | Sum | Average | Variance | | |
|--------------------------------------|-----------|--------|----------|----------|---------|--------|
| Rice | 10 | 3931 | 393 | 267258 | | |
| Wheat | 10 | 12268 | 1227 | 151188 | | |
| Milk & cream | 10 | 2956 | 296 | 2876 | | |
| Spices | 10 | 2645 | 264 | 7196 | | |
| Oil seeds | 10 | 7053 | 705 | 193351 | | |
| Edible oil | 10 | 16809 | 1681 | 116876 | | |
| Pulses all sorts | 10 | 5105 | 510 | 13835 | | |
| Sugar | 10 | 8108 | 811 | 29221 | | |
| Clinker | 10 | 6058 | 606 | 15002 | | |
| Crude petroleum | 10 | 7430 | 743 | 57428 | | |
| POL | 10 | 47225 | 4723 | 6280827 | | |
| Chemical | 10 | 20419 | 2042 | 344785 | | |
| Pharmaceutical products | 10 | 2045 | 205 | 31448 | | |
| Fertilizer | 10 | 12030 | 1203 | 374388 | | |
| Dyeing, tanning etc. materials | 10 | 6200 | 620 | 20532 | | |
| Plastics and rubber articles thereof | 10 | 22351 | 2235 | 463929 | | |
| Raw cotton | 10 | 27270 | 2727 | 374512 | | |
| Yarn | 10 | 20027 | 2003 | 789849 | | |
| Textile and articles thereof | 10 | 43091 | 4309 | 735872 | | |
| Staple fiber | 10 | 6716 | 672 | 33284 | | |
| Iron, steel and other base metals | 10 | 36138 | 3614 | 1107280 | | |
| Capital machinery | 10 | 34827 | 3483 | 1248621 | | |
| Others | 10 | 107902 | 10790 | 6262415 | | |
| ANOVA | | | | | | |
| Source of Variation | SS | df | MS | F | P-value | F crit |
| Between Groups | 120959223 | 7 | 54981465 | 66.83 | 0.00 | 1.59 |
| Within Groups | 170297744 | 207.00 | 822694 | | | |
| Total | 137988998 | 214.00 | - | | | |

It is clear from table 8.1 that the difference between Imports Major Commodities ANOVAs analysis based on F-value is 66.83 and P-value is (0.00) that is highly significant. That is a 1% level significant. So, the null hypothesis is rejected.

Table 9 Growth Analysis for Import Payments of Services

| Mode of Services | 2021-22 | 2020-21 | Growth | CAGR |
|--|--------------|-------------|--------|--------|
| A. Goods procured in ports by Carriers | 7.5 | 0.4 | 17.750 | 3.330 |
| B. Goods acquired under Merchanting | 6.7 | 6.3 | 0.063 | 0.031 |
| C. Services | 10373 | 7533 | 0.377 | 0.173 |
| 1. Manufacturing services on physical inputs owned by others | 0 | 0 | Nil | Nil |
| 2. Maintenance and repair services | 22.6 | 26.3 | -0.141 | -0.073 |
| 3. Transportation | 6962.9 | 4773 | 0.459 | 0.208 |
| 4. Travel | 1018 | 422.7 | 1.408 | 0.552 |
| 5. Construction services | 631.3 | 680.5 | -0.072 | -0.037 |
| 6. Insurance services | 153.8 | 56.8 | 1.708 | 0.646 |
| 7. Financial services (Other than insurance) | 187.6 | 240.2 | -0.219 | -0.116 |
| 8. Charges for the use of intellectual property n.i.e. | 52 | 78.6 | -0.338 | -0.187 |
| 9. Telecommunications, computer and information services | 123.7 | 104.3 | 0.186 | 0.089 |
| 10. Other business services | 820.7 | 640.7 | 0.281 | 0.132 |
| 11. Personal, cultural & recreational | 31.8 | 19.7 | 0.614 | 0.271 |
| 12. Government goods and services, n.i.e. | 368.6 | 489.9 | -0.248 | -0.133 |
| Total Services (A+B+C) | 10387 | 7540 | 0.378 | 0.174 |

Source: Annual Report for Import Payments of Goods and Services (2019-20 to 2021-22)

In the recognizable Table 9 that is Growth Analysis for Import Payments of Services in last 2 years growth range is -0.072 to 17.750 and Compound Annual Growth Rate (CAGR) range is -0.073 to 3.330. Finally, Import Payments of services are highly significant.

Table 9.1 Analysis to T-Test: Paired Two Sample for Means for Import Payments of Services

| Items | Variable 1 | Variable 2 |
|------------------------------|-------------|-------------|
| Mean | 1004.860 | 1384.013 |
| Variance | 4697010.091 | 9262247.641 |
| Observations | 15.000 | 15.000 |
| Pearson Correlation | 0.998 | |
| Hypothesized Mean Difference | 0.050 | |
| Df | 14.000 | |
| t Stat | -1.648 | |
| P(T<=t) one-tail | 0.061 | |
| t Critical one-tail | 1.761 | |
| P(T<=t) two-tail | 0.122 | |
| t Critical two-tail | 2.145 | |

It is contained in Table 9.1 the mean of each sample, Variable 1 = Beginning and Variable 2 = End and the variance of each sample. The number of observations in each sample and the Pearson Correlation which indicates that the two variables are rather highly correlated (0.998) and our entry for the Hypothesized Mean Difference to the degrees of freedom is 14. Thus, the two-tail p-value for this t-test is P-value = (0.122); since the p-value is less than our alpha, 0.05, so the null hypothesis is approved, and the t-test result is (-1.648). A negative t-value denotes a change in the direction of the impact, which is unrelated to the importance of the group differences.

The Central Bank of Bangladesh has played a crucial role in promoting and facilitating export growth in the country. The bank has implemented various policies and initiatives to increase access to credit and trade finance, reduce transaction costs, and improve export procedures. Studies have shown that the central bank's efforts have had a positive impact on export growth and competitiveness. Going forward, it is essential for the central bank to continue its efforts in export promotion to ensure sustainable economic growth and development in Bangladesh.

The Central Bank of Bangladesh has taken several steps to promote and regulate exports and imports in the country. The bank has implemented various policies, including the liberalisation of trade policies, to encourage foreign investments and encourage international trade. The bank has also

established various financial facilities, including export credit facilities, to provide financial assistance to exporters. Furthermore, the Central Bank of Bangladesh has made significant efforts to regulate imports through various measures, including the imposition of restrictions on the imports of certain goods. The bank closely monitors the country's import bills to maintain a balance of payments and prevent any adverse effects on the country's economy.

Overall, the Central Bank of Bangladesh's policies, regulations, and initiatives has contributed to the development of the country's export and import sectors. However, there are still challenges that must be addressed, including the improvement of infrastructure and addressing corruption issues in imports and exports, to achieve sustained economic growth and development. With continued efforts from the government and the Central Bank, Bangladesh can continue to grow and enhance its position in the global trade market.

7. CONCLUSION

Bangladesh's central bank plays a vital role in regulating imports to ensure that the country's economy remains stable and sustainable. It collaborates with other government agencies and international organisations to set policies and guidelines to ensure that the import process is transparent and efficient. The bank also works to protect local industries and promote the production of local goods by imposing import duties and tariffs. Overall, the central bank's efforts enable Bangladesh to maintain a favourable balance of trade and safeguard its economy from external shocks. It has implemented various policies and regulations to promote financial inclusion and increase access to banking services. The central bank has introduced various schemes and initiatives to encourage entrepreneurship and promote financial literacy. It has established a regulatory framework to ensure that all banks and financial institutions adhere to the highest ethical standards in conducting their operations. Export Receipts of Services and Import Payments of Services the number of observations in each sample and the Pearson Correlation, which shows a strong correlation between the two variables, and our entry for the Hypothesised Mean Difference to the degrees of freedom. As a result, the null hypothesis is accepted and the two-tail p-value is larger. A negative t-value on the t-test shows a reversal in the directional of the effect, which is irrelevant to the significance of the difference between groups. Imports Major Commodities study based on F-value is well, while the P-value is (0.00), which is a highly significant difference. That is a 1% level significant. So, the null hypothesis is rejected.

In conclusion, the Central Bank of Bangladesh is an essential institution for the development and growth of the country's economy. Bangladesh Bank has been instrumental in ensuring the stability and soundness of the banking sector. The central bank's initiatives and policies have improved access to financial services, encouraged entrepreneurship, and facilitated economic growth in the country. Bangladesh Bank plays a critical role in the country's economic development and will continue to do so in the coming years.

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