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Import dependency of export – a study of RMG sector in Bangladesh

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Import Dependency of Export – A Study oF RMG Sector in Bangladesh

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Abstract: **Looked at from the point of view of dependency of an export sector on imported components and given its various vulnerabilities to external politico-economic dynamics - disruptions in global supply chain, cost of production, net foreign exchange earnings - the proposed study shall focus on the experiences of the readymade garment sector of Bangladesh (RMG) with a view to highlighting respective implications for net foreign exchange earning of the sector and for future policy planning. Specifically, the study shall appraise the nature and level of import dependency of the RMG sector in Bangladesh with a view to underline different factors associated thereof and to highlight policy options towards redeeming such dependency for the greater good of the sector. As a backdrop to the exercise, the study shall provide an overview of the of readymade garment sector in Bangladesh. Level, composition and direction of RMG exports from Bangladesh apart, the major focus here shall be on different RMG related imports. These include, in particular, raw cotton, yarn, textiles and articles thereof, staple fiber, dyeing and tanning materials, silk, knitted or crocheted fabrics, etc. Goal here shall be to compare and contrast RGG exports with related imports, and respective trend over time.**

Methodologically, the study shall deploy, in particular, three research tools: literature review, key informant interviews, and analysis of secondary data. An exhausted literature review shall focus on conceptual issues, determinants and consequences of import dependency, and tools and techniques that can be used to estimate import dependency. Similarly, select key Informant Interviews shall enable insights into various aspects of import dependency of the RMG sector particular its reasons, implications, and possible options. The study, however, shall rely mostly on the analysis of secondary data to be available from different sources, particularly from the Bangladesh Bank (BB), Bangladesh Bureau of statistics(BBS), and Bangladesh Economic Review. The collected data shall be analyzed using statistical tools such as tables, charts, co-variance, and multi-variate analysis. Exports earnings of the RMG sector shall be contrasted against different elements of imports related to the sector. Whilst simple correlation shall demonstrate possible links – one on one, multiple regression exercise shall estimate the level of correspondence between import of related items and RMG exports – individually and combined. The estimated value of the coefficient of determination – R^2, shall point to the percentage variation in RMG export with respect to imports thereof, therefore, the level of dependence of the sector on imports. The importance of the exercise shall lie in the implications of its findings for: (a) net foreign exchange earnings of Bangladesh from the RMG sector – export earnings adjusted for the related imports, (b) effects of such import dependency for the future of the sector, and (c) options to redeem import dependency of the sector moving forward. Together, the study shall contribute both academically and policy wise.

Keywords: **Import dependency of exports; RMG sector in Bangladesh; elements of import dependency; determinants of import dependency.**

I.INTRODUCTION

1. Perspective

Ready-made Garments (RMG) sector stands as the cornerstone of Bangladesh's industrial landscapes. It has significantly shaped the country's economic trajectory and societal transformation [1]. Capitalizing on low labor cost and Bangladesh strategic location for global trade, the RMG sector gained a huge momentum in the late 1980's supported by prudent government policies [2, 3].

The RMG industry now directly employs around 3.5 to 4 million people, making it the largest formal employment sector in the country, with women accounting for approximately 60% of the workforce [4, 5]. In FY1983-84, apparel accounted for less than 4% of Bangladesh's total exports [6]. Over the next few decades, this share grew exponentially. Between 2002 and 2022, the RMG sector's contribution to GDP nearly doubled from 11% to 22% [7]. Today, Bangladesh is the second-largest exporter of garments globally, trailing only China [8].

In FY2022–23, RMG exports made up 84.5% of the country's total export earnings, generating approximately $47 billion and supporting between 3.5 and 4 million jobs [9, 10, 5, and 11]. The sector has played a transformative role in female employment, providing economic opportunities and challenging traditional gender norms. To sustain export performance, the government offers various incentives such as cash support, bonded warehouse facilities, low-interest loans, and reduced bureaucratic hurdles [12].

2.Import Dependency of RMG Exports

Despite being a global leader in RMG exports, Bangladesh surprisingly imports ready-made garments worth approximately Tk 5 billion each year, reflecting a notable level of import dependency [13]. Key import sources include India, China, and Pakistan [14]. According to data from the National Board of Revenue (NBR), the country legally imported around 23.5 million units of garments in the previous year, valued at

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approximately Tk 5.02 billion [13]. More crucially, the industry is heavily reliant on raw material imports such as cotton, yarn, dyes, chemicals, and fabrics—particularly in the woven and high-end knitwear segments. In 2024, cotton yarn imports rose by 39%, totaling $2.28 billion, while fabric imports for knitwear increased by 38%, adding another $2.59 billion to the import bill [14]. This import dependency exposes the sector to risks such as customs delays, transit inefficiencies, theft, and irregularities in dumping and valuation [12].

A significant concern arises from the cost structures. For instance, while the average import cost per garment was Tk 214, customs duties inflated the final cost to Tk 475 per piece [13]. However, many industry leaders argue that imports remain financially advantageous. One company managing director claimed that importing 800 tonnes of yarn saved them $208,000—compared to just $56,000 in savings from local purchases, even after cash incentives—resulting in a net gain of $148,000 [14].

3. **Purpose and Scope**

While there is a substantial body of research on the RMG sector's contributions to economic growth and employment, limited attention has been given to its import dependence. To the best of the author's knowledge, no prior studies have specifically explored import dependence per unit of export in Bangladesh's RMG sector. This study aims to fill this critical gap by analyzing the extent, structure, and implications of import dependency in the RMG sector. The broader objective is to understand how this dependency affects export competitiveness, net foreign exchange earnings, and long-term sustainability.

II.METHODOLOGY

Different research instruments have been utilized in the current report. Important among these are: literature review, use of secondary data, key informant interviews, and bi-variate and multi-variate analysis. Use of these different instruments varied across different types of analysis carried out.

Analytical tools and techniques utilized by the study are varied. Descriptive methods have been commonly used. This includes tables, charts and graphs. Discussions related to level, composition, and trend of RMG exports, related imports, etc. relied heavily on descriptive statistical tools.

Towards enabling better insights into the dependence of the RMG sector on imported materials, analysis of secondary data has been complemented by views and opinions of those with years of experience in RMG sector in the context of Bangladesh. These Key Informants Interviews (KPI) – drawn from different areas of expertise in the RMG sector, though very limited in number, provided valuable insights into the issue of import dependency of the sector. Perceptions of KPIs regarding import dependency and various options to redeem it moving forward has been particularly important.

The study utilized – in a limited way though, correlation and regression tools to analyze the nature and extent of association between export of RMG products from Bangladesh and imports associated thereof.

Pearson's correlation coefficient – "r", between RMG export and select list of imports associated with such exports – called RMG related imports was estimated. It was applied for total RMG exports and total RMG related import, and variations in total with respective individual items.

III.RMG SECTOR IN BANGLADESH

From a humble beginning in early 1980, the readymade garment (RMG) exports from Bangladesh has gone up to become the second largest in the world; next to China only. As of 2024 RMG export earnings reached US$ 36 billion; accounting for about 84% of country export receipts. Both the level and relative importance of RMG sector increased steadily over time. For instance, in 1990 RMG export was 1.2 billion; this grew to 12.5 billion in 2010, and 31.45 billion in 2020. And its relative share of total export grew from less than 60% in 1990 to about 81% in 2024 [19].

The growth of the RMG sector, and its progress over times, has been supported by prudent government policy at home and preferential trade arrangements offered by the major export markets such as the European Union (EU) and the USA. Domestically, cash incentives, bonded warehouse, back to back LCs, etc. redeemed greatly costs of production and international competitiveness of the sector boosting its growth over time. Similarly, Bangladesh benefitted immensely from GSP – until recently, in the case of the USA and the European Union countries. What underlined most, however, has been Bangladesh's comparative advantage in lower labor costs.

Two broad commodity groups comprise RMG exports from Bangladesh namely - woven products and knitwear. Knitwear and woven products account for 19 and 17 billion of RMG exports – out of a total RMG export of 36 billion as recently as FY 23-24. Their shares of total RMG exports are 53% and 47% respectively.

Whilst a list of countries account for the export of RMG products from Bangladesh, three major destinations alone, however, account for almost 80% of total exports from Bangladesh. These include the European Union countries, USA and UK.

European Union countries are the single most important destination for RMG exports from Bangladesh; more than half of the RMG exports go to these countries. Important among these countries are Germany, Spain and

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France. Next important destination is the USA; accounted for a fifth of RMG exports in 2024. Country wise, the USA is the single most important importer of RMG products from Bangladesh. Historically, the prominence of these two geographical destinations consistently remained the same.

Notably, government efforts to diversify the destinations of RMG products has led to the emergence of some non-tradition markets. Important among these emerging markets are countries like Japan, Australia, India, Turkey and Russia. These five countries together account for about 10% of total RMG exports in 2024.

IV.IMPORTS OF RMG RELATED PRODUCTS

RMG related imports refer to those import items which are used mostly but not necessarily only by the RMG sector. Based on 'Trade Map', published by ITC, United Nations level of RMG related imports is estimated at \$12.29 billion in 2024. In 2001 RMG related imports were 1.36 billion increasing to 8 billion in 2015, and 12.29 in 2024.

Six broad commodity groups account for the bulk of the imports related to the RMG sector. Most import among these re raw cotton. In 2024, Bangladesh imported an estimated US\$ 7.7 billion worth of cotton from numerous sources. Historically, raw cotton imports consistently remained one of the major items of the country. Man-made staple fiber stands as the second important RMG related import item. It cost about US\$ 2.2 billion worth of materials in 2024, and the value of such imports has been increasing consistently.

Relatively speaking, cotton accounts for almost three fifths of RMG related imports, and it has been so most consistently. Similarly, import of man-made stable fiber accounts for about a fifth of total import, followed by import of dying extracts and related items.

IV DEPENDENCY OF RMG SECTOR ON IMPORTED MATERIALS

1. Level of RMG related imports

RMG exports from Bangladesh depends heavily on imported materials. The extent of such dependence is significant both in absolute and relative terms. It involves some of the most critical inputs; trend in dependency has been significantly positive.The value of imports related to the RMG sector is estimated at US\$ 12 billion as of 2024, and this accounts for more than one third of total RMG export US \$ 36 billion in that year. Both the value and relative importance have been increasing over time.

Moreover, RMG related imports have a significantly positive association with total RMG exports from the country. Between 2020 and 2024, relative importance of the RMG related imports increased from 27% to 34%

The differential changes in RMG exports and import dependency, could be traced back to the nature of goods imported related to the RMG sector and changes in respective importance over the years. Both the volume and composition of imports associated with RMG changes similar changes in RMG exports.

The RMG sector is alleged to depend on various services sourced from outside the country. For example, the sector depends on expatriate experts in various capacities, and drawn from countries such as India, Sri Lanka, China, Pakistan and South Korea, in particular.

Unofficial estimates suggest the number of such expatriates – mostly undocumented, could range in millions. This is particularly important with respect to expatriates from India. What is most important is out remittances sent by these expatriates. Unofficial sources suggest this amount to be USD 5-7 billion. If all this could be duly adjusted with the volume of imports related to RMG exports, the extent of import dependency of the sector could exceed above 40%.

2. Variance and co-variances

For a deeper understanding of the nature and extent of import dependency of the RMG sector on imported materials, both bivariate and multi-variate analysis has made using correlation and regression tools. This will underscore extent of relationship between export of RMG products from Bangladesh and major elements of imports related to this.

Based on Pearson correlation between RMG exports from Bangladesh and major components of related imports. RMG related imports demonstrate a significant covariance with total RMG exports from Bangladesh.

To investigate how much of the total variation in RMG exports is explained by the select RMG related imports, a multiple regression exercise is made. The estimated values the simple R^2 and adjusted R^2 are estimated at 0.97 and 0.96 respectively. This underscores the high explanatory power of the selected RMG related imports in explaining for total RMG export from Bangladesh. The following shows the salient features and results of the multiple regression exercise.

V.CONCLUSIONS

RMG sector has been the cornerstone of the Bangladesh economy, generating employment, alleviating poverty and generating various linkages to move forward and sustain growth and development. The sector, however, is highly dependent on imported material which is estimated at between 30% and 40% of total export earnings. Such dependence relates to import of raw cotton, woven fabrics, man-made staple fibers, articles of apparel and clothing accessories, dyeing chemicals, etc.

This high import dependence underscores the importance of countries in terms of sources of the required imported

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materials and associated uncertainties associated. The extent of such dependency on different countries varies in terms of nature and volume of such imports. For RMG related industrial raw materials Bangladesh depends mostly on China and India. For items like cotton, however, the dependence is on a wide range of countries given the volume of such imports per year.

Dependence on imported materials – especially when it involves large volume, critical nature and geographical concentration, leads to the risks and uncertainties in production and exports. It all adds to the costs of production and international competitiveness of the sector. Appreciation of level and nature import dependency are critical shall key elements in future policy planning.

RMG related imports significantly underscore the net foreign exchange earnings from the sector. The higher such imports the less foreign exchange from the sector shall be. Adjusted accordingly, net foreign exchange earnings from RMG shall be much than lower than official estimates.

That being the case, for 1$ of RMG export. 0.4$ will be required for import payments, giving a net foreign exchange earning of only 0.6$. Overall, therefore, net foreign exchange from the RMG sector - out of estimated 38 billion in 2024, will stand at 27 billion.

Import dependency makes the sector vulnerable to politico-economic dynamics in the global economy. It underscores supplies, price of imports, costs of production, therefore, ultimately country's international competitiveness.

Product diversification in the RMG sector could be geared up in an effort to reduce import dependency. Import intensive products could be discouraged against products with greater domestic input components. Most important more studies shall be conducted to understand the nature and level of import dependency of the RMG sector, underlying factors and ways and means towards redeeming such import dependency in the future.

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