The Bangladesh Accountant

Efficiency Through Investments in Science and Technology

January - March 2025

CA BANGLADESH

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF BANGLADESH

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In the quarterly journal, articles of ICAB Members, Members from other Accountancy bodies, Academics and Business Leaders from home and abroad are published.

In half yearly journal, articles focus on macro-economy of the country are published.

The monthly news bulletin publishes different ICAB events of the month. This bulletin acts as an information hub for the Members to keep up-to-date about ICAB and its activities in addition to these publications, ICAB also publishes books, monographs, booklets and Students' Study Manuals regularly.

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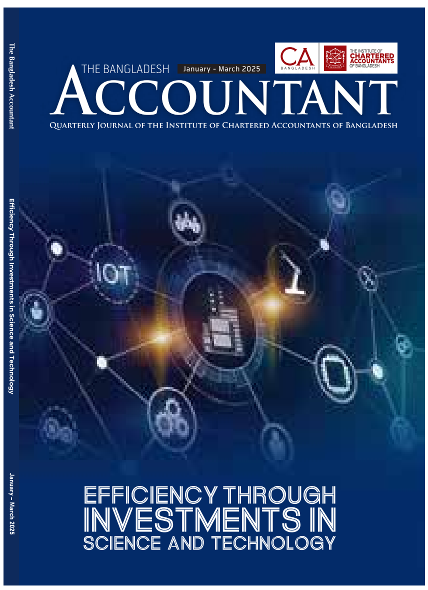

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Editorial

> **"Our economy is gradually expanding and it will be one of the largest economies in the world in terms of purchasing power parity (PPP) and Gross Domestic Products(GDP) in the next few years."**

Dear valued readers,

For the last three consecutive years I have been heading the Editorial Board under which the ICAB quarterly journal 'The Bangladesh Accountant' has been being published. I hope we shall bring out the publication in a more innovative manner in the days ahead. This issue of the journal would come out when Bangladesh has been passing through a trajectory.

Our economy is gradually expanding and it will be one of the largest economies in the world in terms of purchasing power parity (PPP) and National Gross Domestic Products(GDP) in the next few years. To assess this eligibility, Bangladesh has to achieve the benchmark of three specially designed indices; GNI per capita, human assets and economic vulnerability. These criteria have enabled Bangladesh to become and to have been recognized as a developing country by the UN.

With the hope of a new Bangladesh, we have to work collectively and diligently. We also hope that the government will initiate pragmatic policies to expedite the pace of the development wheels of the country from decade-old debacles as we believe our land has enormous opportunities to grow up. As a professional Institute, ICAB always emphasizes increasing internal resources. Therefore, the Institute is maintaining strong liaison with the Ministries and other regulatory bodies to help the government formulate policies to rejuvenate the economic activities and boost up the ease of doing business environment in the country.

To achieve our long-expected dream, development of infrastructures and the supply of power & energy, acquiring expertise in technology, knowledge based skilled manpower, applied education with the needs of our industry which are sine qua non. Coalition among the education, profession and skills is highly needed for ensuring sustainable development.

The Bangladesh Accountant specially focuses on the macro and micro economy, trade and commerce, capital Market, investment, international economy, etc. This January-March issue contains articles depicting the current economic scenario, problems and prospects. Readers would find sufficient information on current state of economy and its movement towards improving ease of doing business.

My warmest greetings to you all.

Md. Shahadat Hossain FCA
Chairman - Editorial Board and Past President & Council Member - ICAB

President's Desk

"Research and insightful thoughts on the concurrent economic, business and professional issues published in this journal will enrich the knowledge of accounting professionals and the policy makers who can actually contribute a lot to the development and improvement of financial sector of the country."

Needless to say, it is a mammoth task to bring out a new issue of a Journal on Accounting, especially when that Journal aims at publishing high quality manuscripts. This responsibility has been shouldered by a very efficient editorial board led by its Chairman. Write-ups and articles that have been contributed to this issue by the intellectuals deserve special appreciation.

Research and insightful thoughts on the concurrent economic, business and professional issues published in this journal will enrich the knowledge of accounting professionals and the policy makers who can actually contribute a lot to the development and improvement of financial sector of the country.

I would like to take this opportunity to extend my heartfelt gratitude to all the esteemed members of the editorial board, reviewers and contributors for their talented work. I believe that this issue will be a giant leap forwards a more insightful look at our professional milieu.

The current issue contains a number of articles written by some of our learned external accounting professionals, academics and other intelligentsia. We are proud of bringing out this issue for our esteemed readers.

Dear members, as you read through the January-March 2025 Issue, I would like to recap that the success of our Quarterly Journal largely depends on your active involvement and contributions of your colleagues and friends. We hope you will keep supporting our endeavour tirelessly.

Finally, I appreciate support from our members as we strive to make our Journal an authoritative one on finance and accountancy profession.

Maria Howlader FCA
President - ICAB

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ARTICLES

The Bangladesh Accountant | January - March 2025

CA BANGLADESH

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF BANGLADESH

Adapting to the Carbon Border Adjustment Mechanism
Challenges and Strategies for Export-Driven Economies

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Introduction

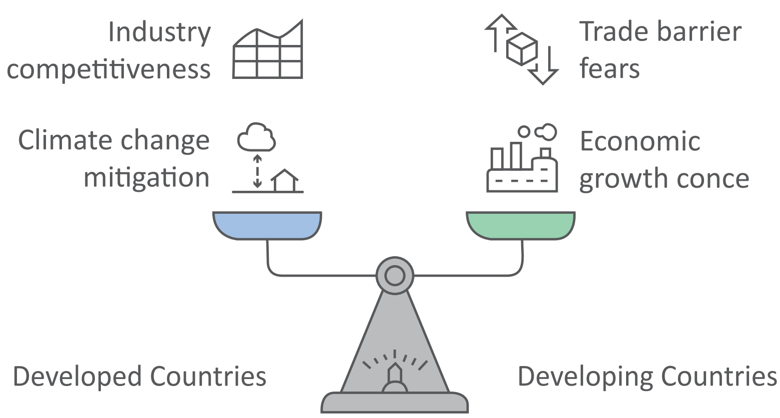
As the world economy grapples with the pressing need to address climate change, the Carbon Border Adjustment Mechanism (CBAM) has emerged as an important policy tool. CBAM is a technique for pricing the carbon content of imported goods in order to incentivize emission reductions and promote a fair playing field for domestic industry. Kirkby et al., 2017. This approach has far-reaching consequences, especially for export-oriented economies like Bangladesh, which rely significantly on international trade. (Eicke et al., 2021).

The importance of CBAM to countries like Bangladesh cannot be emphasized. Bangladesh, as a developing country, has made modest contributions to global greenhouse gas emissions, yet it is disproportionately exposed to the effects of climate change. (Roy, 2019) CBAM confronts Bangladesh's export-oriented sectors with both difficulties and possibilities as they navigate the complexity of this new trade landscape. (Perdana and Vielle, 2022).

This essay seeks to provide a detailed understanding of the problems faced by CBAM, as well as specific ideas for Bangladeshi industry to adapt and grow in the face of policy shifts. By investigating the implications of CBAM and providing practical solutions, this essay hopes to contribute to the ongoing discussion about sustainable commerce and climate action.

Understanding CBAM and Its Global Impact

The European Union's Carbon Border Adjustment Mechanism (CBAM) is a significant policy initiative aimed at addressing carbon leakage and strengthening global climate



Balancing Climate Goals and Economic Impact

action by imposing a carbon price on certain imports. It was formally proposed by the European Commission in July 2021 and is part of the EU's broader climate strategy under the European Green Deal. The concept of border carbon adjustments has been discussed for over a decade as a potential tool for climate policy (Droege, 2011), but CBAM represents the EU's first formal implementation of such a mechanism. CBAM, which will be implemented in 2026, is intended to impose a price on the carbon content of imported goods in order to incentivize emissions reductions and create a fair playing field for domestic sectors. (Fadly, 2020). CBAM is a carbon pricing system that applies to a limited number of high-emitting industries, including steel, aluminum, cement, fertilizers, and electricity generation. The policy will be implemented gradually, with a three-year transition period between 2023 and 2025 before becoming fully effective. (Beaufils et al., 2023) During the transition period, importers will be required to report the carbon emissions embedded in their goods without any financial obligation. This period is meant to allow businesses and governments to become acquainted with the new system and make any necessary adjustments. Beginning in 2026, importers will be forced to obtain CBAM certificates to cover the carbon content of their imported goods, with the price of these certificates directly tied to the EU's Emissions Trading System.

The international response to CBAM has been varied and multifaceted. Developed economies, such as the United States and European Union member states, have traditionally been more supportive of border carbon adjustments as a means to level the playing field for industries facing strict environmental regulations. While discussions on carbon border measures date back over a decade (Гладун & Ahsan, 2016), the EU formally proposed CBAM in July 2021 as part of the European Green Deal (Eicke et al., 2021). The mechanism aims to prevent carbon leakage and ensure that imports to the EU reflect the same carbon costs as domestic production.

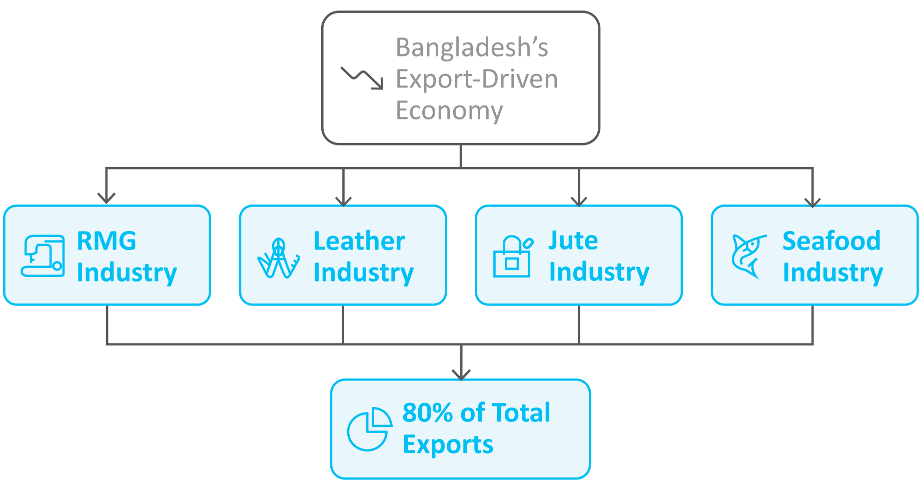
However, developing countries, particularly those with export-driven economies, have raised concern about the possible impact of CBAM on economic growth and commerce. Countries like India, China, and Bangladesh, which rely largely on exports to drive their development, are concerned that CBAM may construct additional trade obstacles, undermining their competitive advantage in global markets. (Eicke et al., 2021).

To address these concerns, the European Union has engaged in extensive consultations with affected countries and has sought to design CBAM in a way that minimizes potential trade disruptions. For example, the policy includes provisions for "carbon leakage," which aims to prevent the relocation of carbon-intensive industries to countries with less stringent environmental regulations, thereby undermining the overall emissions reduction goals of CBAM.

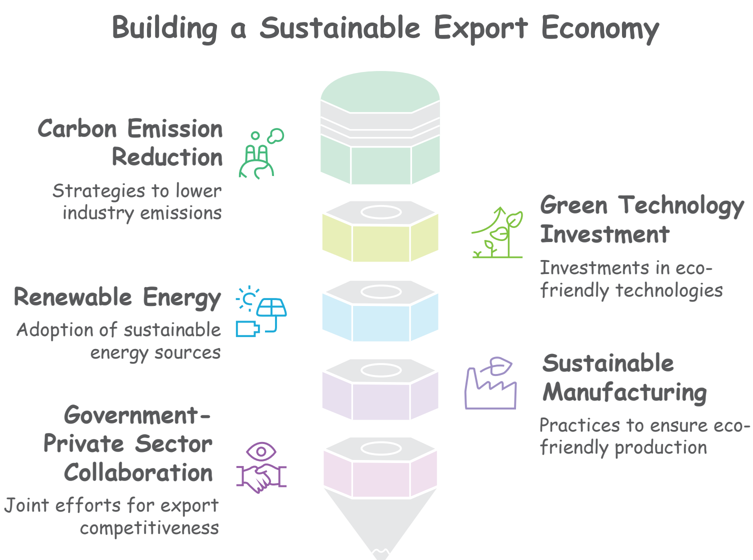
The Importance of Export in Bangladesh's Economy

Bangladesh's economy is heavily reliant on exports, with the ready-made garment (RMG) industry serving as its backbone. Contributing over 80% of total export earnings, the RMG sector plays a decisive role in sustaining economic growth, employment, and foreign exchange reserves. Beyond garments, the leather industry has established itself as a key player, recognized for its high-quality finished products that cater to global demand. Similarly, jute—historically known as the 'golden fiber'—has regained prominence due to its biodegradable nature and growing preference for eco-friendly alternatives. Additionally, the seafood industry has seen steady international demand, particularly for shrimp and freshwater fish, further diversifying the country's export base. While these industries collectively drive the nation's trade balance, challenges such as compliance requirements, environmental concerns, and global market fluctuations continue to shape their future trajectory (Ahaduzzaman et al., 2017)

Bangladesh's export reliance on the European Union, which accounts for 45% of total exports, makes it vulnerable to EU trade policy shifts (Ruba et al., 2021). While carbon border adjustments have been discussed globally for years (De et al., 2012), the EU's Carbon Border Adjustment Mechanism (CBAM) now poses direct challenges. High-carbon sectors like RMG and leather face rising production costs, compliance hurdles, and potential loss of competitiveness in the EU market. Adapting to evolving environmental regulations is crucial for sustaining Bangladesh's export-driven economy.



Compounding these challenges is Bangladesh's upcoming transition from the status of a Least Developed Country (LDC) to a developing nation by 2026. This shift will result in the loss of preferential trade benefits, such as duty-free or reduced-tariff access to EU markets, which have long been a lifeline for its export-driven industries. The introduction of CBAM, coupled with the loss of LDC benefits, could place additional pressure on the country's primary industries, which may struggle to remain competitive under these new conditions.



To navigate this evolving trade landscape, Bangladesh's major export sectors, including RMG, leather, and jute, must adopt forward-thinking strategies. Comprehensive policies aimed at reducing carbon emissions will be imperative to align with international sustainability standards and maintain market access. Significant investments in green technology, renewable energy, and sustainable manufacturing practices will be necessary to reduce the carbon footprint of export industries. Moreover, the government and private sector will need to collaborate to ensure a smooth transition to the developing country status while maintaining the competitiveness of Bangladeshi exports in the global market. This approach will not only mitigate the challenges posed by CBAM but also pave the way for a more resilient and sustainable export economy.

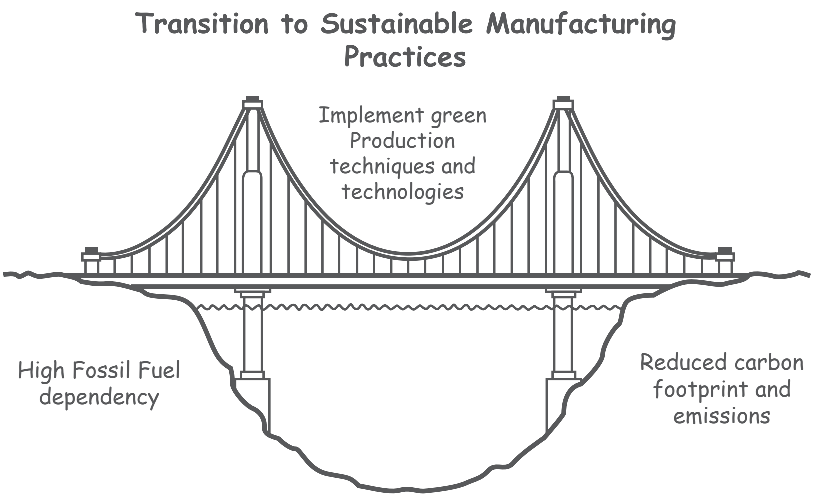
Challenges for Bangladesh's Export Sector

Lack of Green Production Practices

Bangladesh's export-driven industries have long faced challenges in adopting green manufacturing techniques, making compliance with evolving environmental standards difficult (Nulkar, 2014). Key sectors like the ready-made garment industry remain heavily reliant on energy-intensive and fossil fuel-based production methods,

raising concerns about sustainability and future trade competitiveness, particularly in markets with stringent environmental regulations.

The RMG business, which accounts for more than 80% of Bangladesh's overall exports, is an excellent example of this difficulty. The dyeing and finishing procedures in garment production demand a significant amount of energy, which is generally derived from nonrenewable sources such as natural gas and coal. This reliance on fossil fuels adds significantly to the industry's carbon footprint, making it susceptible to CBAM pricing methods.



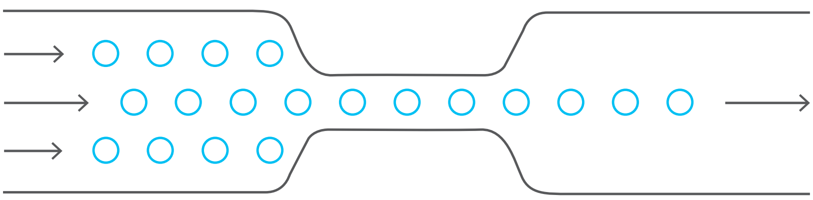
Furthermore, Bangladesh's manufacturing industries' inadequate investment in renewable energy and energy-efficient technologies impedes the country's potential to reduce overall emissions and increase export carbon efficiency. Many industries in Bangladesh use antiquated equipment and infrastructure, resulting in higher energy consumption and limiting their ability to implement more sustainable manufacturing techniques.

The lack of access to capital and technical skills also impedes the adoption of green technologies and complete sustainability programs, particularly among small and medium-sized firms, who account for a large component of the export sector. (n.d.)

Cost Implications of CBAM Compliance

Bangladesh's export-driven industries face significant financial challenges in adopting low-carbon manufacturing processes, particularly as global trade policies increasingly emphasize sustainability (Worrell & Carreón, 2017). Reducing carbon emissions and aligning with stricter environmental standards require substantial investments, potentially impacting the competitiveness of key export sectors (Knez et al., 2014).

Undermine competitiveness and hinder necessary investments for sustainability.



Adapting to the CBAM's criteria will necessitate significant investments in Bangladesh's manufacturing industries to improve carbon efficiency and reduce environmental impact. This will include the use of renewable energy sources, the installation of energy-efficient equipment, and the execution of comprehensive sustainability efforts throughout the supply chain.

For example, Bangladesh's ready-made garment industry, which accounts for more than 80% of total exports, will need to make significant modifications to its manufacturing procedures. The dyeing and finishing processes of garment manufacture are extremely energy-intensive and extensively reliant on fossil fuels, which contribute significantly to the industry's carbon footprint. Transforming these operations into more sustainable and low-emission alternatives will necessitate significant expenditures in new equipment, technology upgrades, and employee training.

Similarly, other significant export sectors, such as leather, jute, and fisheries, will need to address their environmental impact in order to meet CBAM standards. This could include investments in renewable energy sources, waste management improvements, and the adoption of environmentally friendly production processes. (Devarajan et al., 2022). The financial burden of these necessary reforms is especially difficult for small and medium-sized businesses, which make up a sizable component of Bangladesh's export-driven industry. Many of these enterprises lack the finance, technical experience, and resources needed to carry out comprehensive sustainability projects. Without targeted support and funding methods, the expense of CBAM compliance may disproportionately impact smaller, more vulnerable businesses. (Aïd&Biagini, 2021). In addition to the financial burden of lowering carbon emissions, the CBAM's carbon tariffs will increase production costs for Bangladesh's export-driven sectors. The CBAM requires importers into the EU market to purchase certificates to cover the carbon content of their imported goods, with the price of these certificates directly tied to the EU's Emissions Trading System. (Perdana and Vielle, 2023).

Policy Gaps

1. Weak Enforcement of Environmental Regulations: The lack of robust enforcement of environmental regulations across Bangladesh's manufacturing industries poses a significant challenge in adapting to the EU's Carbon Border Adjustment Mechanism. (Decarbonizing Heavy Industry, 2020) Many factories, particularly in export-oriented sectors, operate with little regard for environmental compliance, leading to high levels of pollution and energy-intensive production practices. This lack of enforcement allows industries to continue relying on outdated, energy-inefficient technologies and processes without facing meaningful consequences, discouraging the adoption of sustainable practices.

2. Bangladesh's lack of a comprehensive national framework for carbon pricing or offsetting means that industries have little financial motivation to reduce their carbon emissions or invest in low-carbon alternatives. (Sultanuzzaman et al., 2018)

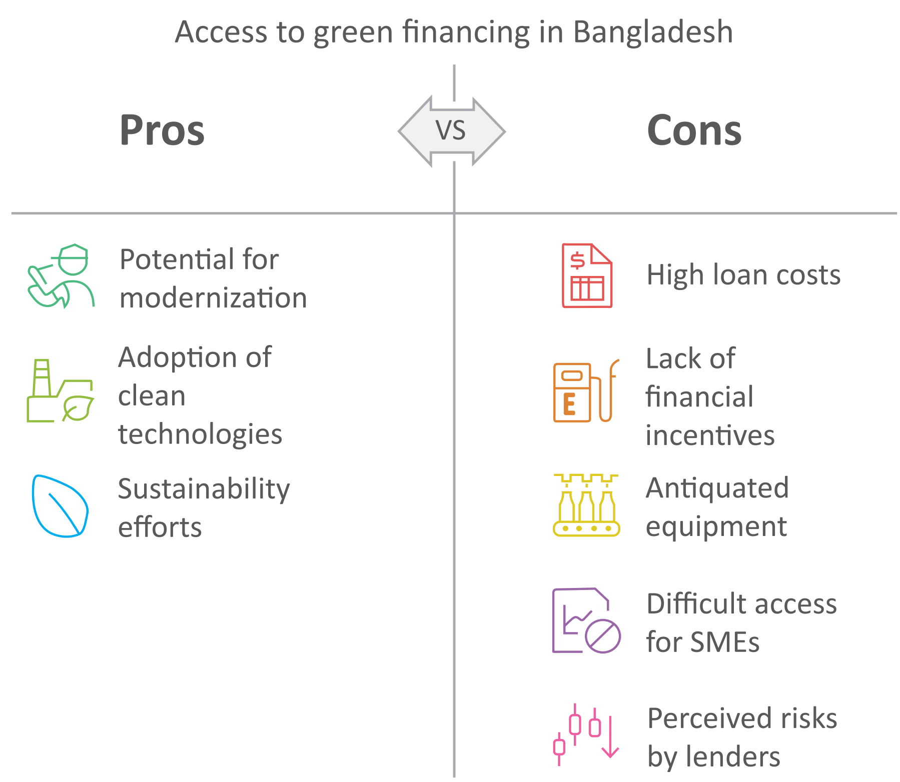
Without a well-designed and implemented carbon pricing system, the true cost of carbon-intensive production is not reflected in the prices of exported goods, making it difficult for Bangladeshi exporters to adapt to the CBAM's requirements. The absence of a national carbon offsetting program also hinders Bangladesh's ability to mitigate the impact of its carbon-intensive industries. (Sultanuzzaman et al., 2018)

Limited Access to Green Finance

Access to Financing for Sustainable Transformation in Bangladesh: The limited access to green funding and investment is a significant problem for Bangladesh's export-driven businesses as they adapt to the EU's Carbon Border Adjustment Mechanism. Yu et al., 2021. Obtaining the necessary funds to modernize manufacturing processes, adopt clean technologies, and implement complete sustainability efforts is a big challenge for many organizations, particularly small and medium-sized enterprises.

The high cost of loans, along with a lack of financial incentives for green innovation, constitute substantial barriers to the adoption of low-carbon technologies and the implementation of sustainable practices throughout Bangladesh's manufacturing sectors. Many industries use antiquated equipment and infrastructure, resulting in higher energy consumption and limiting their ability to convert to more environmentally friendly production processes.

Accessing inexpensive funding for green upgrading is particularly difficult for SMEs, which account for a sizable proportion of Bangladesh's



export-oriented sectors. These smaller enterprises frequently lack the collateral, credit history, and technical competence needed to get loans from established financial institutions for sustainability-related initiatives. The perceived dangers and unfamiliarity of lenders with clean technology increase the financing gap for SMEs looking to improve their carbon efficiency and meet CBAM standards.

Competitiveness of Exports

Challenges to Bangladesh's Export Competitiveness: Bangladesh's export-driven businesses are grappling with the ramifications of the EU's Carbon Border Adjustment Mechanism, which poses serious obstacles to their export competitiveness. (Khamon, 2020). One major concern is the possibility of losing market share to countries using more sustainable production methods.

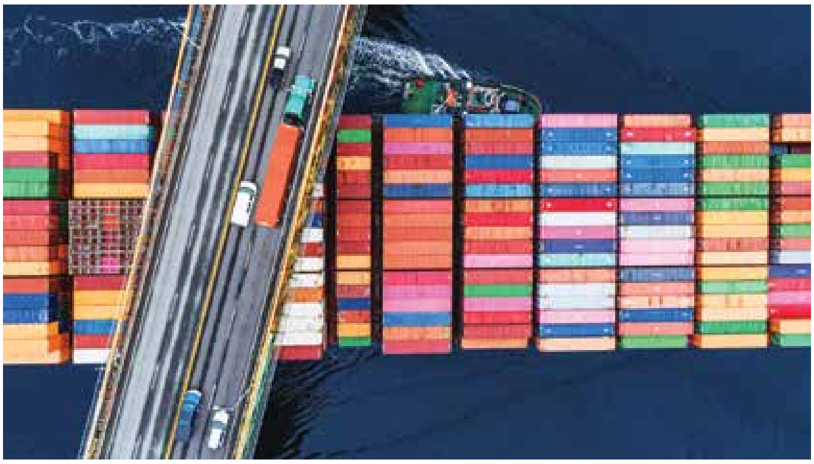
Many of Bangladesh's primary export sectors, including textiles, leather, and jute, are highly energy-intensive and heavily reliant on fossil fuels, which contribute significantly to the country's carbon footprint. (Ruba et al., 2021). As the CBAM levies tariffs on imports based on their embedded carbon emissions, Bangladeshi exporters may find their products at a competitive disadvantage compared to those from countries that have already invested in greener production practices.

Countries with more sophisticated environmental rules, more access to clean technologies, and higher incentives for sustainability stand to gain a competitive advantage in the EU market. (Sikidar, 2006) If Bangladeshi industries fail to quickly convert to low-emission alternatives, they risk losing market share to international competitors with lower carbon footprints.

Furthermore, supply chain disruptions represent a considerable challenge (Chowdhury et al., 2019) The CBAM compels importers to get certificates covering the carbon content of their goods, adding a new compliance cost to the whole supply chain. If Bangladeshi suppliers, particularly smaller firms, are unable to comply with the CBAM criteria, it may result in supply chain bottlenecks and the potential exclusion of Bangladeshi products from the EU market.

The financial and technical challenges associated with improving production processes, adopting cleaner technologies, and implementing comprehensive sustainability initiatives are especially daunting for small and medium-sized enterprises, which account for a sizable portion of Bangladesh's export industries. (Islam et al., 2023). Many of these businesses lack access to the cash, expertise, and resources needed to make the essential reforms, placing them at danger of slipping behind larger, better-resourced competitors.

Without targeted support and tailored financing, small and medium enterprises (SMEs) may struggle to adopt sustainable practices, potentially leading to greater market concentration among larger, more resourced companies (Datta, 2002). This might have far-reaching ramifications for Bangladesh's economic diversification and the welfare of the millions engaged in its export-oriented industries.



Opportunities and Strategies for CBAM Adaptation

Adopting Green Technology

As Bangladesh's export-driven sectors face the challenges posed by the EU's Carbon Border Adjustment Mechanism, implementing green technology and sustainable manufacturing practices is a vital adaptation strategy. (Roy, 2019) Bangladeshi enterprises can lower their carbon footprint while also increasing their worldwide competitiveness by investing in renewable energy sources and energy-efficient production methods.

Some Bangladeshi enterprises have already taken proactive initiatives to green their operations. For example, Denim Expert Limited, a renowned denim manufacturer, has constructed a 3.2 MW solar power plant at its manufacturing facility, sourcing a significant amount of its energy from renewable sources. This investment has not only decreased the company's carbon footprint, but it has also reduced its dependency on grid electricity, protecting it against variable energy prices (Hercegová et al., 2021). Similarly, Fakir Apparels, a major garment exporter, has built a comprehensive energy management system that includes LED lighting, energy-efficient machinery, and waste heat recovery systems. These methods enabled the company to reduce its energy consumption by 20%, resulting in significant economic savings and a lower environmental effect (Hercegová et al., 2021).

Firms can position themselves to meet the CBAM's requirements while remaining competitive in the European market by replicating and scaling up such creative methods across Bangladesh's export sectors. Government incentives, including as renewable energy subsidies and tax breaks for energy-efficient upgrades, can help to accelerate this green transformation, allowing Bangladeshi enterprises to stay ahead of the global sustainability curve.

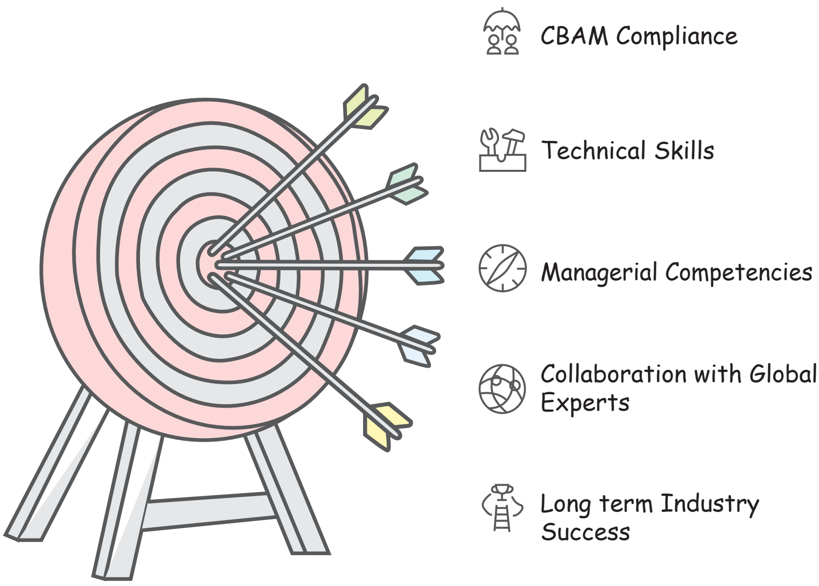
Capacity Building and Training

To deal with the problems provided by the EU's Carbon Border Adjustment Mechanism, Bangladeshi industry must invest in comprehensive capacity building and training activities. (Ruba et al., 2021). This multifaceted strategy should prioritize teaching industries about CBAM regulations and providing them with the required skills and knowledge to implement green practices.

Bangladesh can harness global expertise and experience to establish bespoke training programs for its export-driven sectors by working collaboratively with foreign organizations (Masukujjaman & Aktar, 2014). These initiatives could include carbon accounting, energy efficiency, renewable energy integration, and the deployment of comprehensive environmental management systems. Bangladeshi enterprises can obtain a better understanding of the CBAM's technical and compliance requirements by encouraging information sharing and best practice exchange, allowing them to navigate the changing sustainability landscape more effectively.

Furthermore, capacity building should go beyond technical know-how and include the

Capacity Building for CBAM Compliance



development of managerial and entrepreneurial competencies. This would enable Bangladeshi businesses, particularly small and medium-sized enterprises, to strategically plan and implement sustainability changes, overcome financial and operational challenges, and investigate innovative financing mechanisms to support green investments. Bangladesh may increase its industries' capability in response to the CBAM's needs, preparing its export sectors for long-term success in the global marketplace.

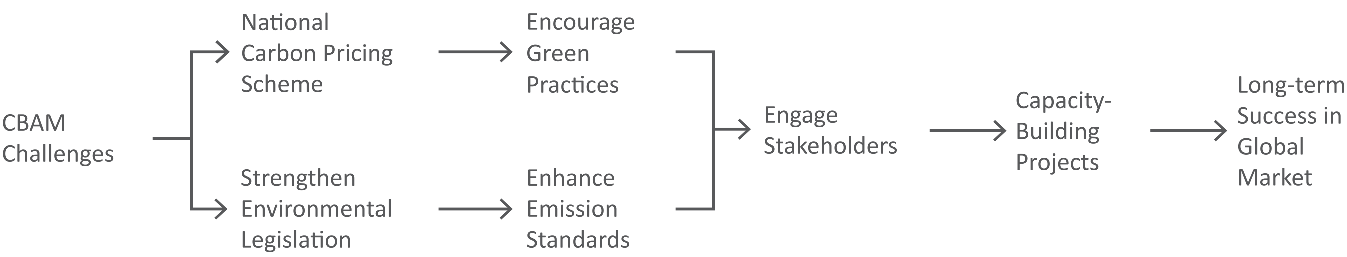
Policy Reforms

As Bangladesh's export-driven sectors face the challenges posed by the EU's Carbon Border Adjustment Mechanism, the government must implement comprehensive policy reforms to strengthen its resilience and competitiveness. (Rahman and Kazi, 2021). Two significant areas of concentration should be the establishment of a national carbon pricing scheme, as well as the strengthening and enforcement of environmental rules.

To begin, the implementation of a national carbon pricing scheme would provide a critical market-based incentive for Bangladeshi businesses to cut their carbon emissions and align their operations with the CBAM's standards. (Khana, 2020). By putting a price on greenhouse gas emissions, this system would encourage businesses to invest in clean technologies, energy-efficient measures, and sustainable manufacturing methods. The revenue generated by the carbon pricing scheme may then be directed toward support programs for small and medium-sized businesses, such as subsidies and low-interest loans, to help them migrate to greener practices.

Second, Bangladesh must enhance its environmental legislation and implement effective enforcement procedures to provide a level playing field for its export industry (Momtaz, 2002). This would entail increasing emissions limits, requiring full environmental impact assessments, and establishing stringent monitoring and compliance systems. By raising the bar for environmental performance, the government can compel Bangladeshi businesses to adopt more sustainable practices, so increasing their worldwide competitiveness.

To ensure that these policy reforms are effectively implemented, the Bangladeshi government should interact closely with industry stakeholders, foreign organizations, and civil society groups. (Islam et al., 2020). This collaborative approach will ensure that the policy framework is customized to the specific demands and problems of the country's export-driven sectors, all while fostering transparency and accountability. Furthermore, the government should engage in capacity-building projects to



provide industries with the technical and management capabilities required to negotiate the changing sustainability landscape. (Ruba et al., 2021). By proactively addressing the CBAM through policy reforms, Bangladesh may turn a challenge into an opportunity, positioning its export businesses for long-term success in the global marketplace.

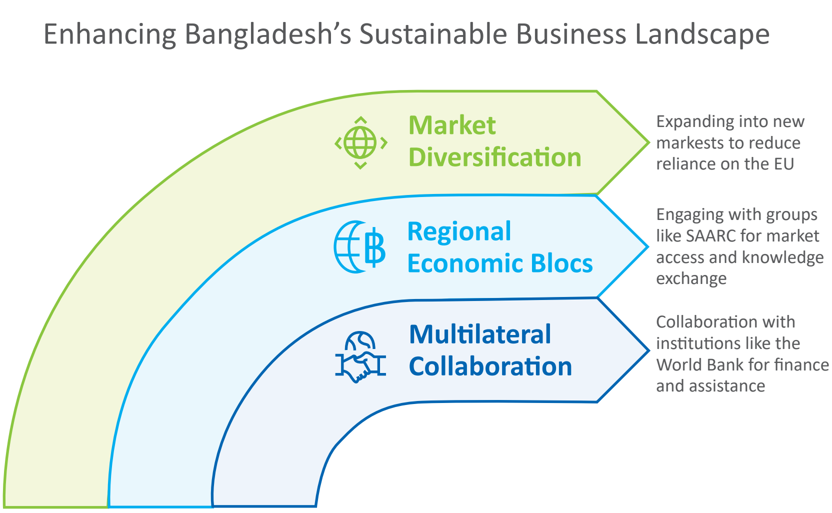
Accessing Green Finance

Bangladeshi firms can look at several green finance options to help fund the shift to sustainable practices. One promising approach is to acquire international climate money and subsidies. (D'et al., 2018) Mechanisms such as the Green Climate Fund, the Global Environment Facility, and the Clean Technology Fund provide concessional financing and technical help to developing nations in their efforts to reduce carbon emissions and improve climate resilience. (Monaco 2024) Bangladeshi businesses that align their sustainability projects with the priorities and eligibility criteria of these global climate finance instruments can secure much-needed capital to invest in energy efficiency upgrades, renewable energy installations, and the implementation of comprehensive environmental management systems. This can help cover the upfront expenses of green transitions, making them more financially viable for small and medium-sized businesses.

Bangladeshi firms can also seek collaborations with multilateral development banks, such as the World Bank and the Asian Development Bank, to get concessional financing and technical assistance for their sustainability projects. (Kee, 2014) These institutions frequently offer favorable funding terms and can aid in developing and implementing bankable green projects that adhere to worldwide best practices (Masukujjaman & Aktar, 2014). By using these foreign finance options, Bangladeshi businesses can gain access to the resources they need to improve their environmental performance, strengthen their competitiveness, and future-proof their operations in the face of the EU's Carbon Border Adjustment Mechanism. (Lalon, 2015).

Diversifying Export Markets

Bangladeshi businesses can also seek collaboration with multilateral development institutions, such as the World Bank and the Asian Development Bank, to obtain concessional finance and technical assistance for their sustainability initiatives. (Kee, 2014) These organizations usually provide attractive funding terms and can assist in creating and implementing bankable green projects that follow international best practices (Masukujjaman & Aktar. 2014). Using these international financing options, Bangladeshi enterprises can acquire access to the resources they require to improve their environmental performance, strengthen their competitiveness, and future-proof their operations in the face of the EU's Carbon Border Adjustment Mechanism. (Lalon, 2015). This might include strengthening commercial relations with growing countries in Asia, Africa, and Latin America, where environmental rules may be less strict than in the EU. Bangladesh should use its competitive advantages, such as its strong textile and

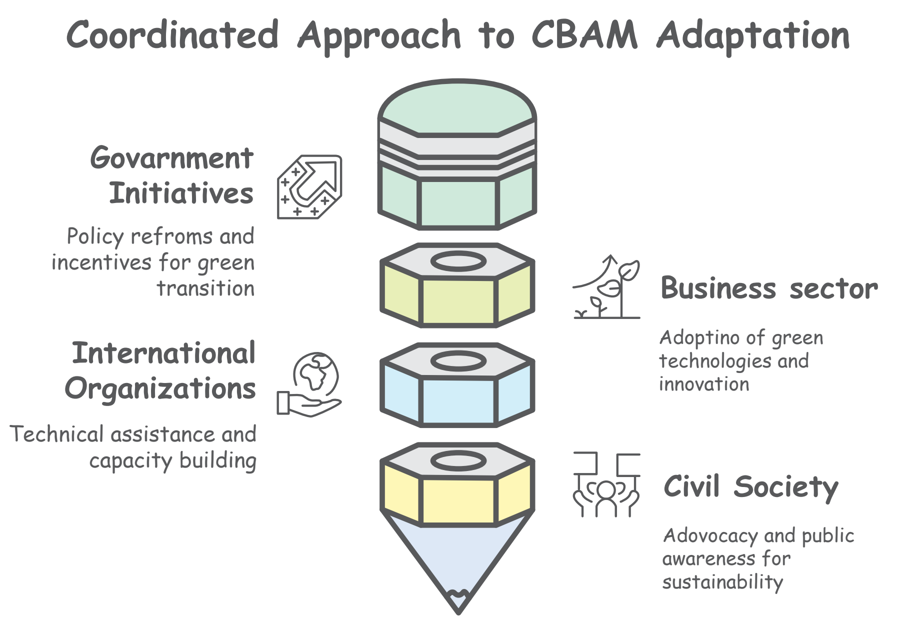


garment industry, to enter these new markets and diversify its export portfolio.

Bangladesh can also work with regional economic blocs and trade agreements, such as the South Asian Association for Regional Cooperation and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, to improve market access and pursue new trade opportunities (Pavel et al., 2019) These regional collaborations can provide Bangladeshi enterprises with preferential access to developing consumer bases while also facilitating the exchange of knowledge and best practices in sustainable trade practices. By expanding its export markets, Bangladesh may lessen its reliance on the EU and better navigate the changing global landscape formed by the CBAM, thereby enhancing the long-term competitiveness and resilience of its export-driven sectors.

Role of Stakeholders in CBAM Adaptation

To effectively adjust to the EU's Carbon Border Adjustment Mechanism, Bangladesh must organize a coordinated effort from key stakeholders such as the government, commercial sector, international organizations, and civil society (Kenney, 2009). The Bangladeshi government must take the initiative in promoting policy reforms that provide a favorable climate for CBAM adaption. This should include creating a comprehensive set of incentives and support programs to encourage the commercial sector to adopt green technologies and sustainable practices. The government can use fiscal incentives, such as subsidies, tax credits, and low-interest loans, to assist small and medium-sized businesses in overcoming the financial barriers associated with green transition. Along with these financial incentives, the government must tighten its environmental legislation and enforcement measures to provide a level playing field for



Bangladeshi exporters. This could include tightening emissions standards, mandating comprehensive environmental impact assessments, and implementing robust monitoring and compliance protocols. By raising the bar for environmental performance, the government can compel industries to adopt more sustainable practices, improving their competitiveness in the global market.

To ensure that these policy reforms are effectively implemented, the Bangladeshi government should interact closely with industry stakeholders, foreign organizations, and civil society groups. This collaborative approach will ensure that the policy framework is customized to the specific demands and problems of the country's export-driven sectors, all while fostering transparency and accountability. (warren, 2020) Furthermore, the government should engage in capacity-building projects to provide industries with the technical and management capabilities required to negotiate the changing sustainability landscape.

To increase environmental performance and fulfill CBAM standards, businesses must actively embrace green technologies and innovation. Bangladeshi businesses should look into international climate finance options, such as accessing global funds and grants, to secure the funding needed for sustainability-focused investments. (warren, 2020)

International organizations can help Bangladesh adapt to CBAM by offering technical assistance and capacity-building initiatives to enable Bangladeshi firms plan and implement bankable green projects that adhere to international best practices. These groups can also help people share their knowledge and skills on sustainable trading practices.

Civil society organizations can play an important role in lobbying for sustainable practices and developing public understanding about the value of environmental performance in export-driven companies. Their efforts can complement the government's policy reforms and the business sector's green initiatives, resulting in a more comprehensive approach to CBAM adaption.

Recommendations for Adapting Bangladesh's Export Sector to the Carbon Border Adjustment Mechanism

As Bangladesh navigates the challenges posed by the EU's Carbon Border Adjustment Mechanism, it is crucial for industries, policymakers, and key stakeholders to take immediate action to ensure the country's export sectors are well-prepared by 2025. Here are the key actionable steps:

For Industries

1. Conduct comprehensive carbon footprint assessments: Bangladeshi industries must undertake thorough assessments of their carbon emissions across their entire value chains. This will help them identify hotspots and prioritize areas for emission reduction.

2. Invest in green technologies and process innovations: Firms should allocate resources to adopting energy-efficient technologies, renewable energy sources, and sustainable production processes to lower their carbon footprint.

3. Implement transparent environmental reporting: Bangladeshi exporters must establish robust systems for monitoring, verifying, and publicly reporting their environmental performance data. This will ensure compliance with the CBAM's transparency requirements.

4. Diversify export markets: To reduce reliance on the EU market, Bangladeshi firms should explore new trade opportunities in regions with less stringent carbon regulations, such as Asia, Africa, and Latin America.

For Policymakers

1. Strengthen environmental regulations and enforcement: The Bangladeshi government should tighten emission standards, mandate environmental impact assessments, and establish rigorous monitoring and compliance mechanisms to create a level playing field for sustainable practices.

2. Provide financial incentives and support programs: Introduce tax credits, subsidies, and low-interest loans to help industries overcome the financial barriers associated with green transitions.

3. Invest in capacity-building and skills development: Allocate resources to training programs that equip industries with the technical knowledge and managerial expertise required to navigate the evolving sustainability landscape.

4. Facilitate stakeholder collaboration: Engage in regular consultations with the private sector, international organizations, and civil society to ensure the policy framework addresses the unique needs and challenges of Bangladesh's export-driven industries

Conclusion

To summarize, Bangladesh has considerable obstacles in transitioning its export-driven economy to the EU's Carbon Border Adjustment Mechanism (Sultanuzzaman et al., 2018) The primary issues include financial impediments to green transitions, the need for stronger environmental rules and enforcement, and the demand for comprehensive environmental reporting. (Bari, 2017) However, adapting to CBAM provides prospects for Bangladesh. By leveraging financial incentives, capacity-building efforts, and stakeholder collaboration, Bangladesh can position its industries to satisfy the CBAM's sustainability standards while remaining competitive in the global market. (Husain and Amin, 2018). It is crucial for the Bangladeshi government, private sector, and international organizations to work together to address these challenges and seize the opportunities presented by the CBAM. Only through a collective and concerted effort can Bangladesh successfully navigate the transition towards a more sustainable export sector and ensure the long-term viability of its export-driven economy.

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Visionary Export Diversification is the Key to Sustainable Economic Growth

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Bangladesh entered into the new year 2025 with the enormous expectations of July - August student-led mass uprising and the new interim government lead by chief Adviser Nobel Laureate Prof Muhammad Yunus since 8 August 2024. The country has been facing economic challenges harshly in addition with the political challenges and demands of different deprived groups. Export earnings and remittance are the two main source of Bangladesh foreign currency in addition to some foreign investments or loans. Amidst in challenges, Bangladesh has recorded its highest ever remittance inflow in December 2024 with USD 2.64 billion, a rise of 32.54 per cent compared to December 2023 and in Bangladesh the previous highest remittance inflow was USD 2.59 billion in July 2020. The exports flowed to USD21.88 billion in total during the July-December period, marking a USD2.74 billion or 12.52 percent rise compared to USD21.88 billion in the previous fiscal's corresponding period. Due to such a robust flow of export earnings and remittances during the period helps mitigate the crisis of forex reserves and quite stable exchange rate of Bangladesh. On 24 December, the central bank reported a forex reserve of USD24.97 billion. As per the international monetary fund's (IMF) BPM-6 method, the reserves were USD21.8 billion, up from USD18.6 billion in the previous month. Forex reserves slightly edged up to around $21.4 billion on the last day of 2024, its growth will be eroded if foreign direct investments (FDIs) don't pick up and upward trend of remittance inflow. Bangladesh has been grappling with a dollar crisis for

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over two years, with a steady decline in forex reserves. Following the political changeover, the interim government took various measures, leading to a halt in the falling spree. This good growth in remittance came at a time when the country has been hit by persistent dollar crisis. Stakeholders believe such good growth in remittance that a rise in expatriate income might play a major role in addressing this shortage of dollars.

Bangladesh's interim government is preparing the budget for the Financial Year 2025-2026 which will be declared in June 2025. Government should evaluate very carefully the ongoing real challenges facing by the country and prioritize the issues for the greater interest of the mass people and its durable infrastructural developments. The evaluation is also so important for the ongoing reforms for overall strong economic structure and sustainable economic growth of Bangladesh. Bangladesh will face new year with economic challenges particularly controlling of inflation and unemployment as aspiration of the student lead anti-discrimination movement along with political stability and participatory, free and fair upcoming national election.

Export Growth

Export is the main source of foreign currency earnings in the Bangladesh economy and export also contributes large number of employment opportunity particularly huge number of female groups. Bangladesh encountered a significant setback in its export growth in the aftermath of the quota reform movement and subsequent developments. The growth, however, bounced back soon after the student-led uprising despite different challenges faced the garments sector. According to the Export Promotion Bureau (EPB), the exports surged to USD24.53 billion in total during the July-December 2024 period, marking a USD2.79 billion or 12.84 per cent rise compared to USD21.74 billion in the previous fiscal's corresponding period. In 2024, Bangladesh's exports reached USD50 billion, which was an 8.3% increase year-on-year. This was due to a sharp increase in exports in December alone earned USD4.62 billion, a 17.72 percent increase compared to the same month in the previous year. Bangladesh exports data summary below according to the Export Promotion Bureau (EPB) for the period: Jul-December 2024-2025:

According to the national board of revenue (NBR), in each of the previous three months (October-December 2024), the country exported goods worth more than USD4 billion. Now to continue the increasing trend is going to be a big challenge for Bangladesh as labor unrest, layoffs and scattered closures have been continuing before and after July – August 2024 student-led mass uprising. As well as countries overall law and orders situation, internal tensions in the factory, interruption of supply chain, interruption of transportation, security threat of labor forces, etc. also observed during the period of July-August 2024. So, to continue the export growing trend and avoiding any negative impact effective measures need

Value in Million US$

Products	Export for 2023-2024	Export Performance for Jul-Dec. 2024 -2025	Export Performance for Jul-Dec. 2023-2024	% Change of export Performance Jul-Dec. 2024-2025 Over Jul-Dec. 2023-2024	Export Performance for Dec. 2024	Export Performance for Dec. 2023	% Change of export performance Dec. 2024 Over Dec. 2023
All Products (A+B)	**44,469.74**	**24,533.50**	**21,741.92**	**12.84**	**4,627.49**	**3,930.94**	**17.72**
A. Primary Commodities (1-24)	**1,357.66**	**850.50**	**770.09**	**10.44**	**150.21**	**129.40**	**16.08**
(1) Frozen And Live Fish (01-03)	376.68	245.71	217.42	13.01	47.62	39.95	19.20
(2) Animal Origin (05)	16.64	9.28	7.90	17.47	2.46	1.93	27.46
(3) Agricultural Products (04-24)(Excl. 05)	964.34	595.51	544.77	9.31	100.13	87.52	14.41
B. Manufactured Commodities (25-98)	**43,112.08**	**23,683.00**	**20,971.83**	**12.93**	**4,477.27**	**3,801.53**	**17.78**
(1) Cement, Salt, Stone Etc (25)	18.42	6.62	9.07	-27.01	1.46	1.99	-26.63
(2) Ores, Slag and Ash (26)	42.38	16.67	21.96	-24.09	3.36	2.25	49.33
(3) Petroleum bi Products (27)	21.19	7.34	9.58	-23.38	2.64	0.12	2,100.00
(4) Chemical Products (28-38)	349.73	191.24	179.61	6.48	33.06	34.61	-4.48
(5) Plastic Products (39)	244.43	157.94	121.75	29.72	26.12	24.38	7.14
(6) Rubber (40)	43.11	23.03	18.57	24.02	3.68	3.51	4.84
(7) Leather And Leather Products (41-43 And 6403)	1,039.15	577.29	522.72	10.44	110.90	89.30	24.19
(8) Wood And Wood Products (44-45)	16.17	5.82	6.76	-13.91	1.43	2.13	-32.86
(9) Handicrafts (46)	34.96	20.60	17.86	15.34	4.47	3.33	34.23
(10) Paper And Paper Products (ch. 48)	273.06	149.37	134.40	11.14	26.46	20.40	29.71
(11) Printed Materials (49)	9.89	6.47	3.72	73.92	1.14	0.66	72.73
(12) Silk (50)	0.11	0.07	0.06	16.67	0.00	0.00	#DIV/0!
(13) Cotton And Cotton Product (Yarn, Waste, Fabrics etc) (52)	554.50	319.06	274.29	16.32	53.51	47.77	12.02
(14) Jute And Jute goods (53, 630510)	855.23	417.39	454.21	-8.11	75.69	74.59	1.47
(15) Man Made Filaments And Staple Fibres (54-56)	341.19	191.49	155.23	23.36	37.15	23.73	56.55
(16) Carpet (Jute And Others-57)	26.51	15.74	13.04	20.71	2.37	2.65	-10.57
(17) Specialized Textiles (58-60)	337.28	195.23	158.97	22.81	34.90	26.84	30.03
(18) RMG (61 & 62)	36,151.31	19,887.70	17,556.92	13.28	3,770.51	3,210.40	17.45
(19) Home Textile (63 Excluding 630510)	851.01	410.81	380.90	7.85	83.98	69.71	20.47
(20) Other Footwear (64) (Excluding 6403)	416.83	273.89	196.90	39.10	56.08	42.27	32.67
(21) Headgear/Cap (65)	327.58	190.24	174.45	9.05	35.88	30.70	16.87
(22) Wigs And Human Hair (67)	118.14	65.80	62.48	5.31	14.65	9.46	54.86
(23) Ceramic Products (69)	33.09	19.93	17.22	15.74	3.22	1.96	64.29
(24) Glass And Glass ware (70)	7.99	3.10	5.01	-38.12	0.25	0.69	-63.77
(25) Engineering Products (71-88)	486.75	250.07	235.23	6.31	44.27	40.52	9.25
(26) Ships, boats And floating structures (89)	0.14	2.23	0.08	2,687.50	0.01	0.02	-50.00
(27) Other mfd Products (90-98)	511.92	277.86	240.84	15.37	50.07	37.56	33.31

USD Rate **119.436**

Data Source NBR (National Board of Revenue)

to be taken by establishing necessary rights of labor, ensuring security in the industrial areas and safe and secure work environment, establishing good relation among owner, labor and labor union, ensuring good governance and functioning of industrial bodies, uninterrupted supply of utilities and so on.

Remittance Growth

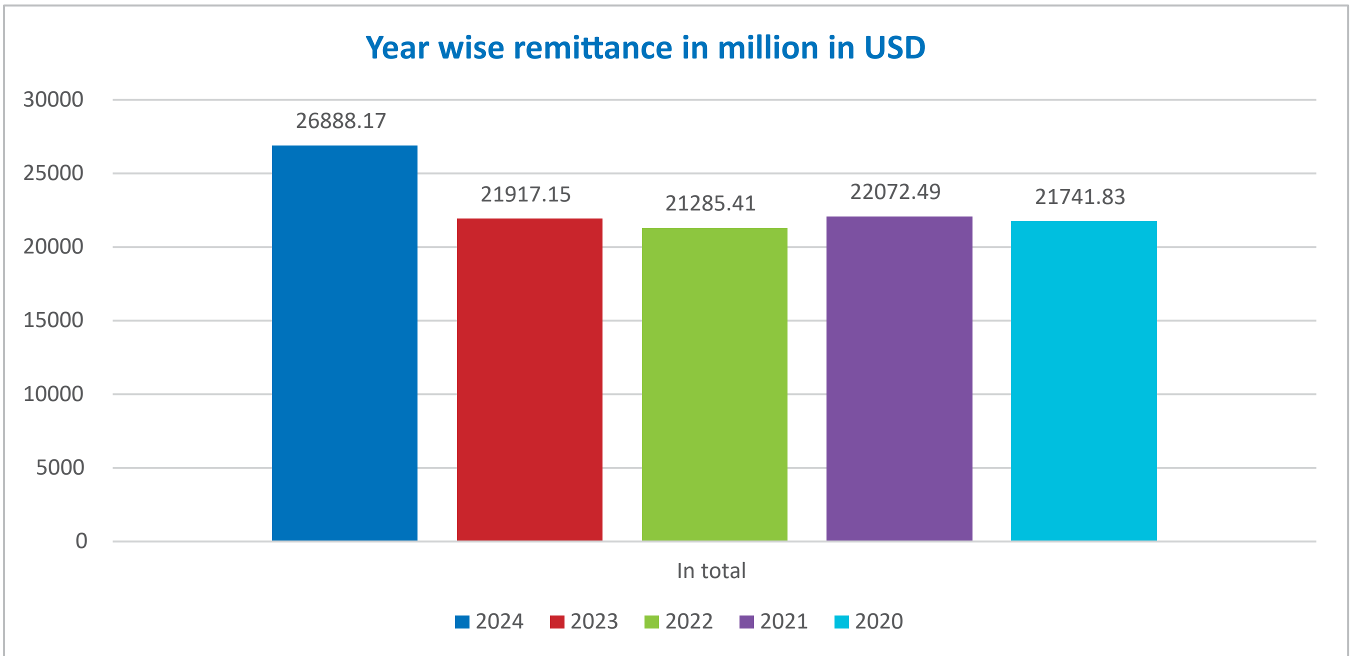
A remittance is a non-commercial transfer of money by a foreign worker, a member of a diaspora community, or a citizen with familial ties abroad, for household income in their home country or homeland. Money sent home by migrants competes with international aid as one of the largest financial inflows to developing countries. Workers' remittances are a significant part of international capital flows, especially with regard to labor-exporting countries. Remittance has been defined by the World Bank as the part of the earnings which a migrant worker sends back to family members in the country of origin. (wikipedia)

Remittance earnings is the second largest source of foreign currency earnings in Bangladesh. Bangladesh sees highest ever remittance inflow USD in December 2024 USD 2.64 billion, a rise of 32.54 per cent compared to December 2023 and the previous highest remittance inflow was of USD 2.59 billion in July, 2020. In the first half of the fiscal year 2024-25 (July-December), expatriates sent USD13.78 billion in remittances, USD2.98 billion more than the same period last year. During the first half of the previous fiscal year, remittances totaled USD10.8 billion. In recent years remittances are being played significant contribution to forex reserve of Bangladesh which is close to 50% in average of total export earnings though significant attention is not given on remittance as like as attention given for exports earnings. The remittance inflow has been bolstered since the interim government took charge in August 2024. Last 5 years total remittance statistics are shown blow:

Month	Remittances in million USD				
	2024	2023	2022	2021	2020
*December	2639.00	1991.26	1699.7	1630.66	2050.65
November	2199.52	1930.04	1595.17	1553.7	2078.74
October	2395.08	1971.43	1525.54	1646.87	2102.16
September	2404.11	1334.35	1539.6	1726.71	2151.05
August	2224.15	1599.45	2036.93	1810.1	1963.94
July	1913.77	1973.15	2096.32	1871.49	2598.21
June	2538.6	2199.08	1837.27	1940.81	1832.63
May	2254.93	1691.66	1885.34	2171.03	1504.6
April	2044.23	1684.91	2010.81	2067.64	1092.96
March	1997.07	2022.47	1859.73	1910.98	1276.26
February	2164.56	1560.48	1494.47	1780.59	1452.2
January	2113.15	1958.87	1704.53	1961.91	1638.43
In total	**26888.17**	**21917.15**	**21285.41**	**22072.49**	**21741.83**
In Average	**13444.09**	**10958.58**	**10642.71**	**11036.25**	**10870.92**

*:= Provisional

Source: BB Monthly Economic Trend



As per Bureau of Manpower, Employment and Training (BMET), in 1976 total overseas employment in Bangladesh was 6,087 and foreign remittance entered Bangladesh USD 23.71 million which is USD 26888.17 in 2024. The Chief Adviser of Bangladesh's interim government Prof Muhammad Yunus address to the 79th session of the United Nations General Assembly (UNGA) on 27th September 2024, during speech he mentioned about 15 million Bangladeshi live and work worldwide. In order for migration to be beneficial for all, we have to create pathways for safe, orderly, regular, and responsible migration and mobility of people. The international community has to ensure full respect for human rights and the humane treatment of migrants, regardless of their migration status. While Bangladesh remains committed to the full implementation of the Global Compact on Migration, Bangladesh government is also committed to curve unsafe migration. He also added that about 2.5 million youth people in Bangladesh enter labor market every year.

As remittance by the overseas employees is the second largest source of foreign currency earnings in Bangladesh which is also in growing trend. To boost the remittance inflow and continuing the upward trend in a sustainable manner, a number of measures need to be taken by the government and its related agencies both in short term basis as well as long term basis. Which may include focus on increasing skilled and professional migrant workers, ensuring job seekers with easy access as well as low costs, incentive and post return rehabilitation arrangements after return at home country, continue the incentives for sending remittance through formal banking channel, ensuring extra ordinary level support by the embassy/foreign office staffs as and when requires, reducing the allegations about airport harassment faced by the workers at airports while they travelled to Bangladesh.

Inflation Trend Concern

Inflation is a rise in prices, which can be translated as the decline of purchasing power over time. Prices rise, which means that one unit of money buys fewer goods and services. The rate at which purchasing power drops can be reflected in the average price increase of a basket of selected goods and services over some time. This loss of purchasing power impacts the cost of living for the common public which ultimately leads to a deceleration in economic growth. The consensus view among economists is that sustained inflation occurs when a nation's money supply growth outpaces economic growth. An increase in the supply of money is the root of inflation, though this can play out through different mechanisms in the economy. Inflation is the equivalent of a regressive tax on the poor people. It also erodes the buying power particularly the low-income groups. Those with tangible assets, like property or stocked commodities, may like to see some inflation as that raises the value of their assets and stocks. Inflation is one of the major challenges of Bangladesh and its ongoing development phases. Inflation in December 2024 slightly dropped at 10.89, food inflation at 12.92 and non-food inflation at 9.26

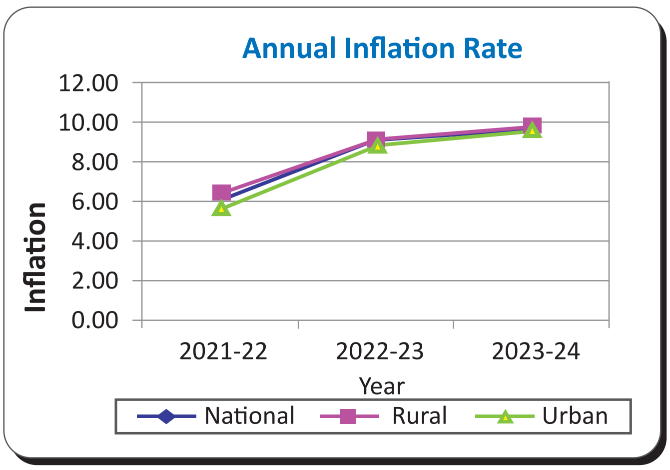
comparing to in November 2024 inflation 11.39, food inflation 13.80 and non-food inflation 9.39 according to the latest data published by the Bangladesh Bureau of Statistics (BBS). Inflation could not be tamed even though various initiatives have been taken by the government including tightening monetary policy by Bangladesh Bank for January-June 2024 with a moderated inflation aimed at 7.6% by June FY24. Latest monetary policy by Bangladesh Bank for July-December 2024 aimed to bring down inflation around 6.5 percent at the end of FY25. Annual inflation in the FY 2020-2021 was quite stable below 6 percent, in FY 2021-2022 just over 6 percent but in FY 2022-2023 general inflation climbed at 9.02 percent, in FY 2023-2024 general inflation further climbed at 9.73 percent with a top level at 11.7 percent in July 2024 which was the highest in 12 years.

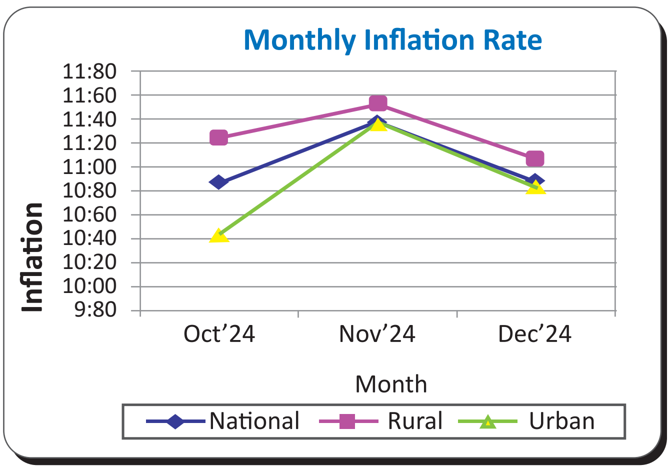
Printing money without creating real assets can fuel inflation. Bangladesh Bank (BB) the central bank said they will not print money and this step would play a role in controlling inflation. But Bangladesh Bank has extended Tk 22,500 crore as liquidity support to six crisis-hit banks in November 2024 backtracking from their earlier decision.

Demand of some specific import-based essentials are increased remarkably ahead of

CPI Classification	2021-22	2022-23	2023-24	(Base Index 2021-22 =100)					
				2023-24			2024-25		
				Oct'23	Nov'23	Dec'23	Oct'24	Nov'24	Dec'24
1	2	3	4	5	6	7	8	9	10
NATIONAL									
General index	306.18	109.02	119.63	120.24	119.10	118.40	133.32	132.66	131.30
Inflation	6.15	9.02	9.73	9.93	9.49	9.41	10.87	11.38	10.89
Food index	332.86	108.71	120.30	123.90	120.04	117.48	139.58	136.61	132.65
Inflation	6.05	8.71	10.65	12.56	10.76	9.58	12.66	13.80	12.92
Non-food index	271.98	109.39	119.08	117.27	118.33	119.16	128.22	129.44	130.19
Inflation	6.31	9.39	8.86	8.30	8.16	8.52	9.34	9.39	9.26
RURAL									
General index	304.76	109.08	119.73	120.33	119.24	118.55	133.88	132.99	131.69
Inflation	6.42	9.08	9.76	9.99	9.62	9.49	11.26	11.53	11.09
Food index	326.34	108.79	120.41	123.62	120.07	117.70	139.38	136.18	132.56
Inflation	6.51	8.79	1067	12.53	10.86	9.66	12.75	13.41	12.63
Non-food index	270.42	109.54	119.10	117.22	118.46	119.36	128.66	129.97	130.87
Inflation	6.25	9.54	8.71	8.01	8.00	8.41	9.76	9.72	9.65
URBAN									
General index	308.81	108.87	119.30	119.96	118.76	118.00	132.48	132.26	130.79
Inflation	5.66	8.87	9.57	9.72	9.16	9.15	10.44	11.37	10.84
Food index	348.75	108.52	120.09	124.49	120.04	117.05	140.09	137.62	132.92
Inflation	5.02	8.52	10.65	12.58	10.58	9.46	12.53	14.63	13.56
Non-food index	274.07	109.13	118.81	117.14	117.96	118.59	127.75	128.94	129.47
Inflation	6.38	9.13	8.87	8.50	8.17	8.39	9.06	9.31	9.17

Note : Figures in italics indicate inflation over previous year/month





Bangladesh Bureau of Statistics (BBS), visit www.bbs.gov.bd

Ramadan each year whatever the inflation level such as soybean oil, palm oil, dates, chickpeas, yellow peas, pulses. In addition, some other domestic produced and import mix essentials like onion, garlic, ginger, sugar and some other spicy items.

The Ministry of Commerce of Bangladesh is responsible for regulation and implementation of policies applicable to domestic and foreign trade. It has a separate cell in the name of Price Monitoring and Forecasting Cell to ensure the price-level of different essential commodities in a convenient range Price Monitoring and Forecasting Cell was established on 24.11.2014 under revenue budget within the Ministry of Commerce. Comparative analysis of different data on essential commodities such as production, demand, amount of import, stock and supply, domestic and international market price etc. is carried out by the Cell. As part of doing this business, the cell collects information from different organization regarding production, stock, demand, supply, local and international market price, information on LC open and settlement of these essential goods and further works as a helping hand of the Government to keep the market of essential commodity stable by Ministry of Commerce-Price Monitoring and Forecasting Cell.

The Ministry of Commerce of Bangladesh has wing named Trading Corporation of Bangladesh (TCB) having mission Maintain buffer stock of some selected essential commodities to stabilize the market price. Trading Corporation of Bangladesh (TCB) should conduct its activities throughout the year by selling essentials commodities at subsidized prices at different places to ensure relief in some extent the low-income groups.

During the year, import of sufficient essential commodities should be ensured by giving importance all complications of opening LC, sufficient dollars, timely transportation and distribution need to be ensured uninterruptedly. The National Board of Revenue (NBR) should reduce customs tariffs on the imports of such essential commodities helping to ease inflationary pressure on consumers.

Foreign Exchange Reserves

Foreign Exchange Reserves is one of the major economic indicators which has been with a steady declined last few years in Bangladesh. Following the political changeover by July - August 2024 student-led mass uprising, the interim government took various measures, leading to a pause in the falling reserve.

In addition, Bangladesh should work for global context competitive environment and attract the foreign direct investment (FDI) which declined by 8.8% in FY2024. Though FDI is very important for economic development, enhance productive capacity, create employment opportunities, transfer technology and managerial

Period	Foreign Exchange Reserves (Gross)	Foreign Exchange Reserves (as per BPM6)
2024-2025*	24350.2	18611.4
2023-2024	26714.2	21686.3
2022-2023	31203.0	24753.9
2021-2022	41826.7	
2020-2021	46391.4	
2019-2020	36037.0	
2018-2019	32716.5	
2017-2018	32943.5	
2016-2017	33679.4	
2015-2016	30355.6	

*: data upto month of **November** of Financial Year **2024-2025**.

Note : Reserves (Gross) represents Total International Reserves of the country.

Source : Accounts & Budgeting Department, Bangladesh Bank.

know-how of local labor forces. Government should ensure a sustained socio-political stability, significant policy level and institutional reforms for safe and comfortable movement of Foreign direct investment (FDI) in Bangladesh.

Interest rates was effective a single digit @ 9% since April 2020 and after 31 months the rate withdrawn by the Bangladesh Bank to tame the inflation. In July 2023 introduced the Six-months Moving Average Rate of Treasury bills (SMART) again in May 2024 ending of the SMART is in line with the prescription of the International Monetary Fund (IMF) that has proposed a market-based rate-setting system. Due to insufficient dollar supply and political instability, a large number of companies operated business in small scale and could not utilized the factory capacity fully during 2024 whereas finance expenses increased significantly as result it became a big concern for the country's businessmen to recover the losses. Interest rate should set at a moderate level plus minus 10 percent consistent to a realistic business profitability which also may support the business model otherwise production costs will be increased subsequently inflation will raise nonstop and new investment will be discouraged.

Conclusion

Effective reforms are badly needed for sustainable economic and financial growth of Bangladesh. It is very significant to continue the July-December 2024 upward trend of export earnings and records of remittance earnings for sustainable economic growth of Bangladesh and fulfilling the expectation of student-led mass uprising in 2024 which started mainly due to unemployment and inflation. Nurturing the export-oriented industries and services along with diversification plan is so important to continue the raising trend of export earnings, remittance earnings and sustainable infrastructural development of the country. Though export diversification is a multi-faceted concept, which requires multi-dimensional policy guidelines for a wide range of aspects like product diversification, geographical diversification, vertical diversification, quality diversification, intermediate good diversification, and goods-to-services-diversification and so on. Ready-Made-Garments (RMG) sector contributes more or less 80% of total export earnings and Bangladesh yet to reproduce same achievement in other potential sectors as like other countries being made replication such as Vietnam, India, China etc. Beyond the heavily dominated Bangladesh's export economy of ready-made garments sector, Bangladesh has shown optimistic signs in other industries and services, such as agricultural products, jute and jute products, leather and leather goods, footwear, home textiles, pharmaceuticals, engineering products, furniture, cotton and cotton product, Ships, boats and floating structures, ICT and IT-enabled services. Bangladesh should take sufficient and appropriate preparation as once Bangladesh graduates from Least Developed Country (LDC) status in 2026, it will no longer have access to the duty-free and quota-free regime and simplified rules of origin in the EU market, the main export destination of RMG. The use of

Artificial Intelligence (AI), transformation and automation for competitive advantages and low labor costs as well as rapid change of fashion trends should be addressed seriously to fit and competitive with neighboring countries. Global brands are striving to address social and environmental concerns while decide for Foreign Direct Investment and global export. Bangladesh Government should continue the subsidy on fuel and energy sector to reduce production costs and transportation costs which helps controlling inflation and continuing competitiveness in terms of productions costs and new industry establishment to mitigate the unemployment problem and export sustainable economic growth.

Bangladesh is an over populated country with huge labor surplus so new labor market and requirements need to be searched to create the employment opportunities in abroad for skilled, semi-skilled and non-skilled labor. Hence, increasing remittance to the economy. Bangladesh is the eighth-most populated country in the world, marking a significant increase and highlighting the continued importance of these financial inflows to the Bangladeshi economy. Bangladesh Government should identify and addressed the accumulated barriers dedicatedly in the sector and give significant attention in this sector targeting on the requirements of manpower importing countries. Since remittance earnings of Bangladesh which represents almost 50% in average of total export, Bangladesh Government should plan to utilize its labor surplus to increase in remittance earnings as well as to advance in the world ranking. Law and security agencies should keep alter in respect of money laundering to boost up and continue the upward trend of remittance inflow through the official channels. All sort of malpractice and irregularities must be addressed and Bangladesh government should show zero tolerance and act to dismantle the exploiting syndicates.

The logistics industry is crucial for our economy to attract domestic and foreign direct investment, which is growing at a high pace. Today investing in a Smart Bangladesh is not just an economic imperative, it is a moral one. A sustainable, better future for all can be built by prioritizing the right budgetary allocations and executions in infrastructure, education, technology, energy and social inclusion.

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Impact of Foreign Direct Investment on Science and Technology
Empirical Evidence from Asian Countries

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The article was reviewed by ***K. Atique-e-Rabbani*** *FCA*

Abstract

Research Objectives: This study aims to explore the effect of foreign direct investment on the exploration of science and technology sector.

Research Methods: This paper employed the POLS, 2SLS, and GMM models.

Empirical Results: In GMM model, there is a significant positive relationship between foreign direct investment and research and development expenditure. In Two stage Least Square Model, technicians and researcher in research and development, patent applications in both resident and non-residents, scientific and technical journal articles have the significant positive relationship with foreign direct investment. In Pooled Ordinary Least Square Model, technicians and researcher in research and development, patent applications in resident, scientific and technical journal articles have the significant positive relationship with foreign direct investment

Research Originality: This study contributes to look at the impact of foreign direct investment on science and technology. Panel data from 40 Asian countries were gathered for this study, which spanned the years 2007 to 2021.

Keywords

Foreign direct investment; Agriculture; Research and development expenditure; Researcher; Technician; Gross Domestic Product; Article

Introduction

Over the past several years, Asia has had the greatest rate of growth in the globe, and its economies have significantly increased their level of competitiveness. One of the main reasons Asian nations have seen such rapid economic growth is foreign direct investment inflows. These are the nations that mostly offered tax breaks, exclusive rights, and financial benefits to foreign investors. They succeeded in exporting their high-tech, very valuable items in the highly competitive worldwide market after internalizing the knowledge and technology.

The study's objective was to examine how foreign direct investment (FDI) affected science and technology in 40 Asian nations between 2007 and 2021. China emerged as the top beneficiary of foreign direct investment (FDI) in the 1990s, and it saw notable economic development in the wake of the FDI inflows during the previous ten years. Similar to this, tax breaks, monopoly rights, and cost advantages were extended to MNCs by India, Malaysia, Singapore, and South Korea in an effort to boost foreign direct investment into their nations.

MNEs seek to exploit knowledge resources from various local contexts via R&D internationalization, with the ultimate goal of converting these resources into financial

returns (Mudambi, 1998; Andersson et al., 2016; Cantwell, 2017; Dachs, 2014; Meyer et al., 2011). The growing possibility of breaking down the R&D function into distinct, independent activities (Martínez-Noya et al., 2012) or, to put it another way, of fine-slicing (Mudambi, 2008) or organizational decomposition (Schmitz and Strambach, 2009) innovation is what is driving the internationalization of corporate R&D.

The location of research and development centers (R&D) of multinational enterprises (MNEs) is determined by various factors, including conventional ones like market size, income level, and costs, as well as knowledge-related ones like the availability of skilled scientists or the ability to access globally distributed knowledge repositories (Kafouros et al., 2012; Lewin et al., 2009; OECD, 2011; Thursby and Thursby, 2006).

After that, they assimilated the technology and technological know-how brought in by foreign investors to create high-tech, highly valued items, and at last they were able to export. Following the liberalization program launched in the early 1980s, foreign direct investment (FDI) inflows began, and more recently, Turkey has seen an increase in FDI inflows due to the improved position of the intellectual property system.

It is anticipated that FDI inflows will boost host nations' R&D and innovation efforts by the conclusion of the research. Again, the study aims to highlight the necessity for foreign direct investment (FDI) in nations seeking to boost innovation and R&D. The impacts of FDI influx on R&D and innovations will be the subject of a literature review that is provided in the next section. The research aim and the study's data gathering procedure are included under the methodology heading of the third section. The model and comprehensive findings of the successive tests that are used to examine the impact of foreign direct investment (FDI) on science and technology in 40 Asian nations are covered under the subheading Analyses and Results. The conclusion will highlight the results of the study and discussion will be provided in the last section.

Methods

This paper conducted exploratory analysis by using following data and techniques.

Data

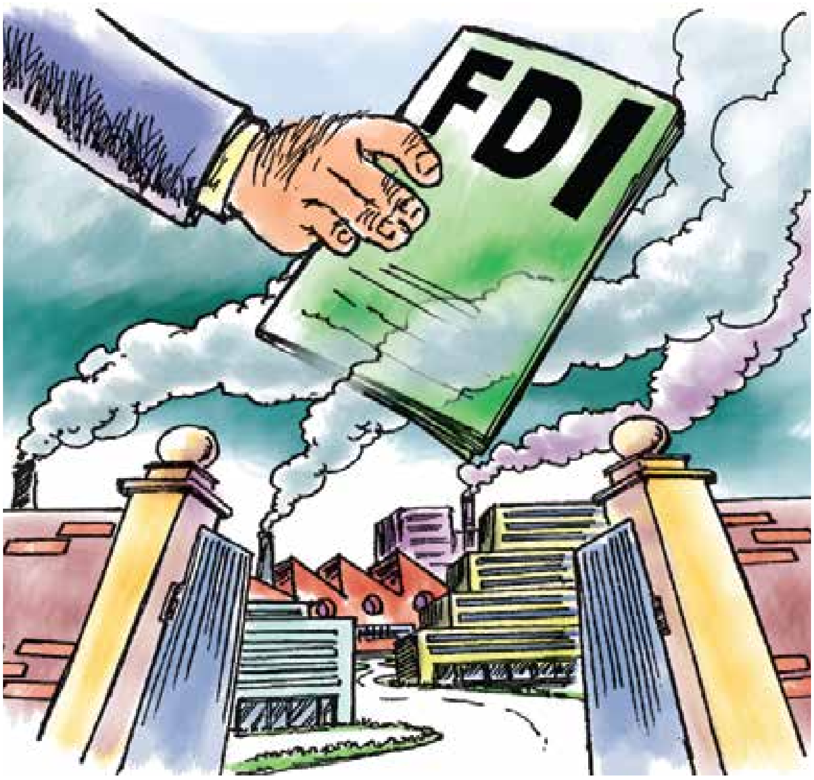
Secondary panel data of 40 Asian countries during the period of 2007-2021 is compiled from the World Bank's World Development Indicators. The data comprises the information of 15 years of 40 Asian countries that considers 13 variables. Among these, 13 variables, 1 dependent variable (Foreign Direct Investment), 5 control variables (Gross Domestic Product, Market Capitalization, Inflation, Export, Import) and 7 independent variables (Technicians in R&D, Researchers in R&D, High-technology exports, Patent applications, nonresidents, Patent applications, residents, Research and development expenditure, Scientific and technical journal articles).

Methods

This paper conducted a step-by-step model-based combined analysis. At first, the Pooled Ordinary Least Squares (POLS) model is used to outline the relationship between FDI and some variables related to employment of agriculture, industry and service sector for both male and female among the 44 Asian countries in the world. Then Two Stage Least Square model (2SLS) is employed to determine the relationship between FDI and same variables mentioned above. Finally, the Generalized Method of Moments (GMM) is used to classify important explanatory variables that can explain why FDI and some variables related to employment of agriculture, industry and service sector for both male and female.

Variables and Description

SL	Name	Type	Source	Description
1	LnFDI	Dependent	World Bank	Foreign direct investment, net inflows (BoP, current US$)
2	LnGDP	Control	World Bank	Log normal of Gross Domestic Product
3	LnMC	Control	World Bank	Market capitalization of listed domestic companies (current US$)
4	LnINF	Control	World Bank	Inflation, consumer prices (annual %)
5	LnEXP	Control	World Bank	Exports of goods and services (% of GDP)
6	LnIMP	Control	World Bank	Imports of goods and services (% of GDP)
7	LnTR&D	Explanatory	World Bank	Technicians in R&D (per million people)
8	LnRR&D	Explanatory	World Bank	Researchers in R&D (per million people)
9	LnHTE	Explanatory	World Bank	High-technology exports (current US$)
10	LnPAN	Explanatory	World Bank	Patent applications, nonresidents
11	LnPAR	Explanatory	World Bank	Patent applications, residents
12	LnR&DE	Explanatory	World Bank	Research and development expenditure (% of GDP)
13	LnSTJA	Explanatory	World Bank	Scientific and technical journal articles



Results and Discussion

We examine the impact of science and technology variables on attracting FDI in the Asian countries, as well as the significance of other control variables. As previously mentioned, we apply a two-step system GMM method to estimate our empirical model as the presence of lagged dependent variable on the right-hand side of the equation makes OLS estimators inconsistent. Other than GMM, we apply two stage least square model and pooled least square model to check the robustness of the relationships among variables.

In column (1) of Table 1, we estimate a baseline model with all the variables such as the control variables as well as instrumental variables. From column (2) to (8), we introduce respectively our seven proxies of science and technology discussed in the previous section, namely technicians in R&D, Researchers in R&D, high technology exports, non-resident patent applications, resident patent applications, research and development expenditure, scientific and technical journal articles. The control variables have the expected signs but only some of them are significant. As predicted, the lagged value of FDI is a robust predictor of current FDI. The coefficient is statistically significant at 1% level. Moreover, the value of the coefficient is positive and less than one, which ensures the stability of our models. Ahmed (2012) looked into how Malaysia's GDP and productivity growth were affected by FDI inflows between 1999 and 2008. The findings indicate that the impact of foreign direct investment (FDI) on economic growth is primarily driven by a noteworthy positive correlation among human capital, labor force, and absorptive capacity. Conversely, there is a negative correlation with physical capital.

In column (2) and (3) of Table 1, 2 and 3, we introduce our measure of science and technology by two proxies: technicians in R&D and researchers in R&D. Both are indicated in per million people. In GMM model, technicians in R&D shows a positive sign and researchers in R&D shows a negative sign, but both are insignificant. But in two stage least square model and pooled ordinary least square models, both variables show significant positive results. R&D-related foreign direct investment (FDI) can be attracted through a variety of policy tools, and a number of authors have stressed the need for strong policy coordination between FDI policies and science, technology, and innovation policies (Cassiolato et al., 2014; Guimón, 2009; Mudambi and Mudambi, 2005; Mytelka and

Barclay, 2006). Policy interventions should strive to integrate the current R&D activities of MNE subsidiaries into the national innovation system in addition to drawing in new FDI connected to R&D (Heidenreich, 2012). Without embeddedness, foreign capital's R&D centers risk becoming isolated pockets with little connections, little knowledge sharing, and a research agenda that is unrelated to the local economy and wastes limited resources that could be used for more beneficial endeavors (Agosin and Machado, 2005; Athreye and Kapur, 2015).

The next three proxies of science and technology in column (4), column (5) and column (6) relate to high technology exports, non-resident patent application and resident patent applications. All coefficients are positive and not significant at 10% level in GMM model. But in two stage least square model, non-resident patent applications and resident patent applications have the significant positive relationship and in pooled ordinary leased square model, the resident patent applications have the significant positive relationship. Cheung and Lin, (2004) stated that developing nations are attempting to draw in more foreign direct investment (FDI) and import advanced technology from wealthy economies through indirect routes such supplier-customer partnerships, skilled labor turnovers, reverse engineering, and demonstration effects. Research and development (R&D) activities by multinational corporations (MNCs) and the internationalization of industries are acknowledged as important drivers of long-term economic growth and the advancement of innovative products and processes (Gorodnichenko et al., 2014). In China, Cheung and Lin (2004) discovered empirical evidence of the beneficial spillover effects of foreign direct investment on local patent applications. Ito et al. (2012) looked at how foreign multinational corporations' research and development impacts total factor productivity (TFP) and patent applications in domestic Chinese industry. According to Sandu and Ciocanel Bogdan (2014), FDI is boosting the amount of patent applications, high-tech product manufacturing capability, and national intellectual capital through R&D by creative foreign businesses.

We investigate the effect of research and development expenditure, scientific and technical journal articles on FDI inflow and report the result in column (7) and column (8). In GMM model, we found research and development expenditure has the positive coefficients. This result is significant at 10% level. In 2SLS and POLS model, scientific and technical journal articles have the positive coefficients. These results are significant in 1% and 5% respectively. According to Crescenzi et al. (2015), developed nations like the UK benefit from foreign direct investment (FDI) because it fosters creative performance among local enterprises operating in the same industry. Emerging nations face difficulties in establishing knowledge-intensive connections between foreign investors and local actors because they lack research infrastructures, innovative firm clusters, and superior human capital (Behera, 2014; Cassiolato et al., 2014; Nadvi and Halder, 2005; Narula and Guimón, 2012; Paus and Gallagher, 2008). Indeed, host nations must reach a threshold level of absorptive ability in order to draw in R&D-related FDI and profit from its possible externalities (Criscoulo and Narula, 2008; Filippetti et al., 2017; Hatani, 2009). The ability to obtain, assimilate, and utilize knowledge created outside of the company or nation is known as absorbtive capacity (Cohen and Levinthal, 1990). In empirical research, this capacity is typically represented by measures of research and development spending, human capital, and willingness to cooperate on innovation (Lane et al., 2006).

Table 1: GMM Estimation Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
L.LnFDI	.067	.093*	.105*	.103*	.104*	.103*	.104*	.084
	(1.21)	(1.68)	(1.92)	(1.88)	(1.89)	(1.88)	(1.91)	(1.54)
LnGDP	-1.016	-.973	-.922	-1.124	-1.331	-1.197	-.987	-1.028
	(-0.98)	(-1.01)	(-0.95)	(-1.13)	(-1.33)	(-1.22)	(-1.02)	(-1.06)
LnMC	-.108*	-.117**	-.116**	-.12**	-.123**	-.124**	-.116**	-.121**
	(-1.84)	(-2.00)	(-1.98)	(-2.06)	(-2.11)	(-2.12)	(-1.99)	(-2.08)
LnINF	.612**	.626**	.592**	.656**	.664**	.665**	.633**	.676**
	(2.07)	(2.23)	(2.08)	(2.30)	(2.35)	(2.35)	(2.25)	(2.38)
LnEXP	.86	.623	.48	.459	.54	.478	.475	.448
	(0.82)	(0.60)	(0.46)	(0.44)	(0.52)	(0.46)	(0.46)	(0.43)
LnIMP	.544	.854	1.079	1.102	.99	1.073	1.134	1.086
	(0.49)	(0.78)	(1.00)	(1.02)	(0.92)	(1.00)	(1.05)	(1.00)
LnTRD	.378**	.15						
	(2.26)	(1.08)						
LnRRD	-.146		-.108					
	(-0.99)		(-0.94)					
LnHTE	.006			.019				
	(0.11)			(0.36)				
LnPAN	.183				.191			
	(0.75)				(1.170)			
LnPAR	.001					.142		
	(0.00)					(0.89)		
LnRD	.843*						.733*	
	(1.70)						(1.74)	
LnSTJE	-.006							.02
	(-0.06)							(0.21)
Observations	520	520	520	520	520	520	520	520
Mean dependent var	19.815	19.815	19.815	19.815	19.815	19.815	19.815	19.815
SD dependent var	6.152	6.152	6.152	6.152	6.152	6.152	6.152	6.152
Chi-square	55.017	47.256	46.881	46.305	47.417	46.834	49.206	45.960

t-statistics in parentheses

***,**and* denote significance at 1, 5 and 10% respectively

Table 2: Panel 2 SLS (IV) Estimation Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
LnGDP	.046	.056	.048	.056	.06	.039	.055	.063
	(0.73)	(0.89)	(0.76)	(0.89)	(0.95)	(0.63)	(0.88)	(1.01)
LnMC	.151***	.15***	.148***	.152***	.146***	.144***	.153***	.15***
	(7.34)	(7.33)	(7.20)	(7.40)	(7.07)	(7.05)	(7.40)	(7.36)
LnINF	.914***	.987***	1.05***	1.022***	1.024***	1.004***	1.015***	.97***
	(4.17)	(4.66)	(4.90)	(4.75)	(4.83)	(4.79)	(4.72)	(4.60)
LnEXP	1.2***	.898**	.911**	.888**	.928**	1.053***	.917**	.917**
	(2.95)	(2.22)	(2.24)	(2.18)	(2.29)	(2.61)	(2.23)	(2.27)
LnIMP	-.997**	-.854**	-.805*	-.778*	-.804*	-.81**	-.827**	-.796*
	(-2.43)	(-2.08)	(-1.96)	(-1.89)	(-1.96)	(-1.99)	(-1.98)	(-1.95)
LnTRD	.284*	.274***						
	(1.89)	(2.71)						
LnRRD	-.213*		.128*					
	(-1.90)		(1.90)					
LnHTE	-.023			.022				
	(-0.80)			(0.90)				
LnPAN	-.097				.163***			
	(-0.81)				(2.68)			
LnPAR	.368***					.256***		
	(3.37)					(4.36)		
LnRD	-.448*						-.136	
	(-1.82)						(-0.65)	
LnSTJE	.15							.261***
	(1.54)							(3.57)
Observations	600	600	600	600	600	600	600	600
Mean dependent var	19.910	19.910	19.910	19.910	19.910	19.910	19.910	19.910
SD dependent var	5.981	5.981	5.981	5.981	5.981	5.981	5.981	5.981
R-squared	0.219	0.185	0.180	0.176	0.185	0.200	0.175	0.192
F-test	13.689	22.412	21.651	21.087	22.374	24.764	21.009	23.503
Prob> F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

t-statistics in parentheses

***,**and* denote significance at 1, 5 and 10% respectively

Table 3: POLS Estimation Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
LnGDP	.324**	.303**	.048	.301**	.297**	.275**	.302**	.299**
	(2.45)	(2.35)	(0.76)	(2.31)	(2.31)	(2.19)	(2.32)	(2.35)
LnMC	-.005	-.004	.148***	-.005	-.006	-.004	-.006	.002
	(-0.16)	(-0.11)	(7.20)	(-0.14)	(-0.18)	(-0.13)	(-0.17)	(0.05)
LnINF	1.038***	1.096***	1.05***	1.132***	1.13***	1.137***	1.115***	1.14***
	(4.42)	(4.81)	(4.90)	(4.88)	(4.95)	(5.00)	(4.88)	(5.00)
LnEXP	.959	.84	.911**	.819	.848	.927	.81	.886
	(1.61)	(1.42)	(2.24)	(1.38)	(1.44)	(1.58)	(1.36)	(1.51)
LnIMP	-.553	-.414	-.805*	-.307	-.341	-.388	-.302	-.434
	(-0.92)	(-0.70)	(-1.96)	(-0.52)	(-0.58)	(-0.66)	(-0.51)	(-0.74)
LnTRD	.327**	.197*						
	(2.28)	(1.72)						
LnRRD	-.278**		.128*					
	(-2.39)		(1.90)					
LnHTE	.008			.012				
	(0.25)			(0.39)				
LnPAN	-.073				.118			
	(-0.44)				(1.20)			
LnPAR	.279*					.213**		
	(1.74)					(2.18)		
LnRD	-.164						.027	
	(-0.51)						(0.09)	
LnSTJE	.102							.175**
	(1.07)							(1.97)
Observations	600	600	600	600	600	600	600	600
Mean dependent var	19.910	19.910	19.910	19.910	19.910	19.910	19.910	19.910
SD dependent var	5.981	5.981	5.981	5.981	5.981	5.981	5.981	5.981
Overall R-squared	0.117	0.092	0.180	0.081	0.092	0.112	0.080	0.104
R-squared within	0.077	0.061	0.077	0.059	0.058	0.058	0.059	0.059
R-squared between	0.172	0.137	0.172	0.117	0.140	0.183	0.115	0.163
Chi-square	53.569	41.900	53.569	38.883	40.319	44.065	38.730	42.984
Prob > chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

t-statistics in parentheses

***,**and* denote significan ce at 1, 5 and 10% respectively

Conclusion

Given the important role of FDI in promoting science and technology, most countries place significant emphasis on attracting FDI. This paper studied the determinants of FDI inflows in 40 Asian countries from 2007 to 2021 by further assessing the importance of science and technology in many aspects. We employed an empirical model with the agglomeration economy effects following a conventional approach. The control variables used in our empirical model are lagged dependent variable, GDP, Market capitalization, inflation, export and import. Our key independent variables relating to seven proxies of science and technology including technicians and researchers in R&D, high technology exports, resident patent applications, non-resident patent applications, R&D expenditure, scientific and technical journal articles. FDI inflows in our study exhibited both efficiency-seeking and market-seeking nature.

The results confirm the agglomeration effects through the significance of the coefficient of lagged dependent variable. We have found that GDP, market capitalization and openness are important determinants of FDI inflows in the studied countries. It is worth mentioning the counterintuitive effect of the institution in attracting FDI. Countries pursuing more R&D expenditure consider improving the investment climate.

The main findings of this study are the effects of science and technology on attracting FDI in Asian countries. The evidence was being extended to other measures of science and technology while it was confined in the R&D in most previous studies. We found a explanatory power of R&D, patents, journal articles in attracting FDI.

In order to boost capital accumulation and economic progress, it is advised that nations facing issues related to technological gaps and capital shortages draw in more foreign direct investment (FDI). FDI investment helps to accelerate R&D and innovation efforts that allow host nations to create products with added value and boost national income through high-tech product exports. It is believed that host nations should give MNCs a variety of perks, including tax breaks, property rights, and cost advantages, in order to increase FDI inflows.

Relating to science and technology, FDI exhibits a particular efficiency-seeking behavior. Foreign investors are drawn to hosted countries with

R&D expenditure, patent and journal articles. Finally, further study should regard the composition of FDI to better understand the influence of other science and technology variables in this region.

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Appendix 1: List of countries

SL	Country	SL	Country
1	Armenia	21	Kyrgyz Republic
2	Azerbaijan	22	Lao PDR
3	Bahrain	23	Malaysia
4	Bangladesh	24	Mongolia
5	Bhutan	25	Myanmar
6	Brunei Darussalam	26	Nepal
7	China	27	Oman
8	Cyprus	28	Pakistan
9	Georgia	29	Philippines
10	India	30	Qatar
11	Indonesia	31	Saudi Arabia
12	Iran, Islamic Rep.	32	Singapore
13	Iraq	33	Sri Lanka
14	Israel	34	Syrian Arab Republic
15	Japan	35	Tajikistan
16	Jordan	36	Thailand
17	Kazakhstan	37	Timor -Leste
18	Korea, Dem. People's Rep.	38	Turkiye
19	Korea, Rep.	39	Turkmenistan
20	Kuwait	40	United Arab Emirates

Can the Model of Department of Government Efficiency (DOGE), USA be Implemented in Bangladesh to Improve Public Expenditure Efficiency and Control?

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"We have the right as individuals to give away as much of our own money as we please in charity but as members of Congress, we have no right to appropriate a dollar of the public money."

- COLONEL DAVID CROCKETT
[August 17, 1786 - March 6, 1836]
American politician, militia officer and frontiersman

The 47th President of the United States is pledged to uphold his own popular slogan "Make America Great Again". He being a businessman unquestionably believed that without bringing efficiency in cost management and remove wastage thereby, his ultimate objective to make America Great will remain a far-fetched goal. With this objective, Department of Government Efficiency (DOGE) was created and Elon Musk, a businessman who owns globally known companies including Tesla, SpaceX, and Twitter (which he rebranded as "X") has been appointed as a senior advisor to United States president Donald Trump and the de facto head of DOGE. Political Leaders all over the world are often motivated to take decisions with an objective to make voters "happy" without having a sustainable impact on the society or some initiatives may be even detrimental in the long-run. Given this limitation of political leaders, the US President opted a well proven businessman who is fond of innovation and tech-based enterprise development.

DOGE is not an official Government department which rather came into effect through one of Trump's presidential executive orders, and operates as an advisory body with at least four employees, typically including a team lead, one engineer, one human resources specialist, and one attorney dedicated to each government agency. Immediate after taking over the office, Elon Musk took some stern initiatives which brought in significant amount of monetary savings to US public money. With a savings target of USD 1 trillion, estimated savings of USD 130 billion already registered on account of combination of asset sales, contract/lease cancellations and renegotiations, fraud and improper payment deletion, grant cancellations, interest savings, programmatic changes, regulatory savings, and workforce reductions. Such kind of action would result tax savings of USD 807.45 to each taxpayer. (Source: Official website of DOGE). To ensure the accountability of US Government in using public money, DOGE will post all grant payments to its official portal. A brief justification of the approving authority about the payment authorization will be disclosed in public. Despite having some criticisms from oppositions, US Government is adamant to continue the ongoing function of DOGE and confident to remove all inefficiencies from Government departments in dealing with public money. It is accepted without any debate by all democratically elected Governments across the globe

that every single penny of public money must be spent in a judicious manner and hence, the initiative of Trump administration deserves kudos.

The Republicans won US voters' mandate through free and fair election. So, they must have commitment and deliverables to general people. On the other hand, explicit lack of democracy created through mockery elections in last 15 years provoked the past regime and its allies to consider people as an auxiliary element in the Government system. As a result, autocracy and corruption forced out accountability and transparency. The corruption of Bangladesh in handling Government projects is nothing new. Though the project approval process passes through a rigorous system, the concerted effort for corruption is designed taking all stakeholders under the common roof. Hence, their collective effort circumvents the internal control system. Every project is usually adopted in line with the mid-term (e.g. Five-year plan) and long-term plans and such plans are developed to meet the political vision of the elected Government. Apart from the executing agency and relevant ministry/division, Planning Commission and IMED (Implementation, Monitoring and Evaluation department) are also involved in project approval process. Any project involving planning of all developments work in Bangladesh (largely known as ADP or Annual Development Program) are implemented through projects. Projects having cost exceeding BDT 500M should obtain the nod of ECNEC (Executive Committee of National Economic Council) and others will be approved by the Minister for Planning. Despite having this well documented process in place, rampant corruption from the inception of a project till the end of it is clear like broad daylight.

The stories of corruption during the fallen regime were a very common issue. The philosophy of the then rulers was, development-projects and corruption go hand in hand and

corruption is an inevitable by-product of development. That's how, corruption was de facto took an institutional shape. There was no minimum sympathy for public money or foreign debt which is ultimately on the shoulder of the citizens. The list of projects involving corruption is like a "laundry list". Among many much-talked-about projects, Rooppur Nuclear Power Plant (RNPP) raised huge concerns inside and outside the country. It has been reported in media that ousted PM Sheikh Hasina, along with her family members, siphoned off more than USD 5 billion as kickbacks, linked to the purchase of Soviet-era nuclear reactors from the Russian state-owned company, Rosatom. The total construction cost of the RNPP stands at a staggering USD 12.65 billion, raising concerns about inflated prices and misappropriated funds. (Source: The Mirror Asia, 18/08/2024). Construction of the largest bridge in Bangladesh also obtained the signature of corruption. The World Bank pulled out its planned finance, citing corruption concerns. It cancelled a USD 1.2 billion credit for the 6km-long (four miles) road-rail bridge over the Padma River. (bbc.com, 30/06/2012). Power sector's corruption perhaps comprehensively defeated all other sectors. Adani Group signed a deal to provide 1600 MW electricity to Bangladesh from its coal-powered plant in India's eastern state of Jharkhand. This was a deal of 25-year signed in 2017 during the tenure of expelled prime minister Sheikh Hasina, who maintains exceptionally warm relations with India and she is currently living since she fled her country. Bangladesh hoped to renegotiate the deal, which was awarded by then-Prime Minister Sheikh Hasina without a tender process and costs Bangladesh far more than its other coal power deals (Source: The Financial Times, 30/12/2024). Another Government department which deals with mega projects along with "mega" corruption. Through the tripartite collusion of politicians, contractors, and high-level officials, 23 to 40 percent of the total value of road and bridge-related construction works between the fiscal years 2009-10 and 2023-24 is attributed to corruption, amounting to Tk 29,230 to Tk 50,835 crore. (Source: TIB, 09/10/2024). The findings unveiled by the White paper Committee formed by Interim Government is deeply horrifying. Due to corruption, project cost of 8 mega projects (Padma Bridge, Padma Bridge Rail Link, Jamuna Railway Bridge, Dhaka-Mawa Expressway, Bangabandhu Tunnel, Dhaka Metro Rail Line-6, Terminal 3 of Hazrat Shahjalal International Airport, and BRT Line-3) increased by 70% (average). Again, of the USD 60 billion invested in development projects through the Annual Development Programme (ADP), an estimated USD 14–24 billion (BDT 1.61–2.80 lakh crore) was lost to corruption, including political extortion, bribery, and inflated budgets. The most miserable example of impulsive decision of Sk. Hasina of misusing public money was spending of BDT 1,231 Crore to

celebrate the birth centenary of Sk. Mujib, late father of Sk. Hasina. These all are nothing but the "tip of the iceberg".

The Interim Government has initiated reform programs to bring governance in several critical sectors. These sectors were demolished by the past regime for its own ill-interest. To stop the recurrence of such "subversive" financial and social crimes, a sustainable tool to be devised in Bangladesh which will eradicate the root of corruption, duly take care of public money and pave a way towards genuine development.

The legendary Finance Minister of Bangladesh and Past President of ICAB late Saifur Rahman formed a commission named "Public Expenditure Review Commission" (PERC) during sometime 2002/2003 to overview the public expenditure. That commission was led by former adviser to the caretaker government M Hafizuddin Khan. The function of that commission was to ensure transparency and accountability of public expenditure and the justification of spending public money. According to the report of PERC submitted in June 2003, many projects were not necessary, financially and technically unviable, fund already spent while project was not approved, no work took place since the project was taken 10 years back while BDT 2.76Cr. spent in project office management, less important projects were taken while important projects were ignored etc. (Source: 07/06/2003, The Daily Star)

The revolution of July 2025 costed a lot for the people of Bangladesh. 1500 died and more than 20,000 people wounded during this massacre conducted by the past autocrat. The dream of these devoted Bangladeshis was to create a society free from any discrimination and eventually a hunger-free Bangladesh. To materialize the sacred dream of these people, corruption has to be removed from the root and accountability of peoples' money must be established to pull out people from below poverty level. Bangladesh needs to create an independent body to review Public Expenditure and efficiency of Government employees, evaluate the effectiveness of various departments of the Government system. The framework, function, scope etc. of this body may be identical with DOGE. The functions of the Peoples' Republic of Bangladesh are carried out through 44 Ministries and several Divisions. Team of experts can be constructed to be embedded with each Ministry/Division to evaluate the efficiency of workforce, justification of public expenditure, project implementation status etc. Its team members should be free from partisanship, ready to work ignoring greed and fear. People having dynamic track record in the field of business operation, performance management, audit, legal and IT should be eligible to be a member of this body. They should have access to all records of the Republic to justify the spending of each penny including unveiling any attempt of corruption. Government can run a pilot project in a Ministry/Division and utilize its experience in other Ministries on multiple phases. Core team may obtain hands-on training from DOGE to develop the detailed work process, reporting system, scope of work, key performance areas (KRA) etc. All Government contracts (unless confidentiality clause is breached), project cost and implementation status, job description of each Government official should be stated in public domain and each citizen will have access to that information.

Neither increasing size of GDP nor per capita income growth can change the socio-economic conditions of the country. The ongoing effort of Government to improve Tax-GDP ratio will not bring value to a basket of income which is having hundreds of holes of corruptions, inefficiencies. To ensure a sustainable economic development of the country, revenue collection and expenditure management need to have similar level of focus. So, efficiency in Government offices should be continuously monitored, evaluated and corrective measures to be taken to handle wrongdoers and underperformers.

Boosting Non-Tax Revenue in Bangladesh
How Auto Challan Systems Are Making a Difference

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Background and Purpose

Non-Tax Revenue (NTR) has long been an overlooked yet vital part of Bangladesh's public finances. While the focus often leans heavily on tax reforms, the government's efforts to modernize NTR collection—particularly through digital solutions—deserve more attention. Over the years, various reform programs like the Strengthening Public Expenditure Management Program (SPEMP) and Strengthening Public Financial Management Program to Enable Service Delivery (SPFMS) have opened new doors for improving how the government handles funds. Among these, the Auto Challan System has emerged as a practical innovation to streamline payments and plug longstanding gaps in revenue management.

This article takes a closer look at how this system is helping transform the way NTR is collected in Bangladesh—making the process more efficient, transparent, and user-friendly.

Why This Matters

Despite various reforms in budgeting and treasury operations, collecting non-tax revenue continues to be riddled with problems: paper-based processes, long queues at banks, poor record-keeping, and even leakages that never make it to the government's account. These issues don't just slow things down—they reduce public trust and limit how quickly funds can be used for critical services. Clearly, something had to change. That's where the Auto Challan System comes in.

How the Article Was Developed

This write-up is based on a review of relevant policy documents, discussions with government officials, and insights gathered during field visits under the SPFMS program. Input was also taken from user agencies and finance officers who have used the Auto Challan platform firsthand. The goal was to understand not just the technical aspects, but also the practical impact and challenges of this digital shift.

What the Auto Challan System Is and How It Works

Think of the Auto Challan as a digital bridge between citizens and the national treasury. Instead of standing in line at a bank counter or filling out a paper form, people can now pay government fees, license charges, or service dues online—with options ranging from mobile money and debit cards to internet banking and over-the-counter deposits.

Some standout features include:

- **Digital Receipts:** Every transaction generates a unique digital challan, giving citizens immediate proof of payment.

- **Real-Time Reconciliation:** Payments are automatically synced with accounts at Bangladesh Bank and relevant accounting offices.
- **Ease of Use:** Whether you're paying from a village in Khulna or from Dhaka city, the platform is designed to be accessible from anywhere.
- **Less Room for Error:** By removing most manual steps, the system minimizes errors and helps reduce the chance of misuse or corruption.

What This Means for Public Finance

The early results are promising. Agencies that have adopted the Auto Challan System report faster deposits into the government account and fewer delays in fund disbursement. It also provides a clear audit trail, making life easier for both citizens and auditors.

From a broader lens, the system is helping reduce the government's reliance on short-term borrowing, since available funds are visible in real time. The transparency also gives policymakers more confidence when planning budgets or assessing revenue trends.

What We Still Need to Work On

That said, the shift isn't without its challenges. Many agencies have yet to fully integrate with the Auto Challan platform. In some rural areas, internet access and awareness remain barriers. Also, as more people use the system, technical capacity and data security will need to keep pace.

Wrapping Up

Bangladesh's journey toward more accountable and tech-enabled public finance has taken a strong step forward with the Auto Challan System. By embracing this approach, the government isn't just modernizing revenue collection—it's building trust and making the system work better for everyone. With the right support and continued rollout, this could become a model for digital public finance in the region.

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An Analytical Investigation of Voluntary Reporting
A Sectoral Comparative Study of Service and Manufacturing Companies Listed on the DSE

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Abstract

Voluntary disclosures are the disclosures that are presented in the annual reports of the companies voluntarily to increase the transparency, reliability and decision usefulness of the provided information. It boasts the confidence of the stakeholders as it proves the organization's commitment towards the society, environment and ecosystem of the business. This paper aims to explore the level of disclosure provided by the listed companies of the Dhaka Stock Exchange (DSE) and to examine whether there are notable variances between the practices of voluntary disclosure by listed manufacturing and service companies. In total, 116 firms have been used as a sample for this particular investigation. This report is based on annual reports of the selected companies and content analysis technique has been applied. The findings of the study show that the average disclosure level of the sample companies is 68.58% with a standard deviation of 14.05%. The banking industry tops the list of reporting disclosures as the Banks and NBFIs are also obliged to provide extra regulatory disclosure mandates as imposed by the Bangladesh Bank and other regulators beyond the normal voluntary disclosure. The mandates involve instructions on financial stability, risk management framework, and adherence to international accounting standards, resulting in inherently high levels of voluntary disclosures. Cement, NBFI, Food & Allied, IT, and Jute industry's voluntary disclosure practices are greater than the average value and greater disparity in practices is observed in the Tannery, Food & Allied, and Insurance industry. The Textile industry and Engineering industry showed closer voluntary reporting performances with the mean value. When comparing the practice of the service company with that of the manufacturing companies, it can be inferred that the average disclosure level of the service companies is higher than the manufacturing companies with lower variation in practice. The result of the independent t-test shows that Levene's test for equality of variances has a significance value of .001 which supports that there are significant differences in practice of voluntary reporting disclosure between service and manufacturing companies. The findings of the study will help policymakers to make better policies for the reporting of voluntary reporting in corporate annual reports.

Keywords

Disclosure, Voluntary disclosure, Corporate reporting, Independent T-test, DSE.

Introduction

Disclosures in corporate annual reports can be generally categorized as mandatory and voluntary disclosures. Mandatory disclosures are

governed by regulatory stipulations such as the Dhaka Stock Exchange (DSE) Listing Rules, the Bangladesh Securities and Exchange Commission (BSEC) guidelines, and the applicable financial reporting standards (e.g., IFRS and BAS). These disclosures typically entail financial statements, board reports, corporate governance disclosures, and risk assessments. Voluntary disclosures, however, extend beyond these regulatory imperatives and encompass non-financial data such as sustainability initiatives, corporate social responsibility (CSR), and strategic visions, aimed at fostering transparency and stakeholder engagement.

In modern world of corporate governance, financial reporting, and accounting practices; voluntary disclosure in annual reports has become a vital tool for communicating with stakeholders. Annual reports used to be seen as plain financial statements submitted to meet regulatory obligations, it has now transformed into complex instruments that contain a wider range of information. To improve accountability, transparency, and trustworthiness and maintain good relations with the different groups, firms may voluntarily announce more than what is necessary according to regulatory bodies in their annual reports. This practice is called voluntary disclosure. In recent times, corporate moves and activities are increasingly being scrutinized; therefore, it serves as a significant resource for firms to manage their reputation and brand image.

Investors, financial markets, and other key stakeholders have demanded that firms voluntarily share comprehensive information about their long-term strategies and performances in recent years as these stakeholders have shown major dissatisfaction with mandatory financial reporting (Boesso & Kumar, 2007). Companies choose to disclose information voluntarily to accomplish a variety of goals, including reduction of information asymmetry between management and investors, extenuating agency conflicts, attracting investment, and enhancing their competitive position. Publication and presentation of non-financial information such as sustainability practices, corporate social responsibility initiatives, and risk management strategies; companies can align themselves with stakeholder expectations of having more non-financial insights enabling them to have a holistic understanding of the business's operations.

There might be a lot of research gaps that have remained vacant in Bangladesh's voluntary disclosure settings and this study intends to fill out one such notable gap. Various contexts have been searched for voluntary disclosures in past studies but very few have concentrated on studying the dissimilarities between service and manufacturing firms. Many investigations have been conducted about the voluntary disclosure of data inside corporate annual accounts; most of them have centered on developed countries (Binh, 2012). This study intends to tackle an important research

gap in the area of voluntary disclosure practices in Bangladesh. Although previous studies have investigated voluntary disclosure research from different perspectives, little attention has focused on examining the variations of practice between service sector i,e, Bank, Financial Institutions, Insurance, IT Sector, Telecommunication and Travel & Leisure and production enterprises.

The Objectives of the Research

The main objectives of this research are to –

- Assess the extent of voluntary disclosures in the annual reports of the companies listed on the Dhaka Stock Exchange (DSE) for a period from 2017-2022.
- To check whether there are any significant differences in the practices of voluntary disclosure reporting practices between the manufacturing sector and service sector.

Literature Review

Voluntary Disclosure

Voluntary disclosure in the annual reports can be termed as when any company or organization, in a non-obligatory way voluntarily reveals to its stakeholders or the public, information that is not required by any law or regulation. It is characterized by the release of information beyond what is legally required so that there can be transparency and confidence in the business among the parties involved. Voluntary disclosures can take various forms, such as financial information, non-financial information, sustainability reports, corporate social responsibility reports, and other types of disclosures. The motives behind voluntary disclosure can include improving corporate reputation, meeting consumer preferences, attracting investors, enhancing stakeholder relationships, and demonstrating accountability. Factors influencing voluntary disclosure can include industry norms, corporate governance practices, regulatory environment, and the company's strategic objectives (Sharma & Rastogi, 2023).

Over time, corporate financial reporting has seen a significant evolution under voluntary disclosure since this has made it possible for the annual financial statements to become more elaborate reports giving a clear perspective on company activities. To highlight compliance measures, companies operating in heavily regulated sectors may provide

more voluntary information than necessary, while big businessmen frequently share crucial news to satisfy public interest as well as have the means to report them. Due to the importance of voluntary disclosure issues to the international society, someone has to be cautious and mindful of various voluntary disclosure practices that might be influenced by actions of the state, regulators, and other agents as a result of variations in the context of different countries (Boesso & Kumar, 2007).

Voluntary Disclosure Practices in Bangladesh

Voluntary disclosure practices have garnered substantial attention in the field of corporate communication and governance internationally, yet a paucity of research exists within the specific context of Bangladesh. Bangladesh is currently experiencing a period of transformation in its business environment marked by increased economic growth, changing regulation as well as rising stakeholder expectations and involvement in this regard; therefore, it goes without saying that significant voluntary disclosure serves to support various business choices.

There are unique challenges faced by different businesses in Bangladesh concerning adopting voluntary disclosure practices. The limited awareness of the advantages of transparency along with the lack of resources may impede full reporting. Furthermore, the absence of uniform non-financial reporting frameworks may lead to varying disclosures which make it difficult to compare firms. Additionally, the low internet penetration rate and illiteracy in finance amongst stakeholders may hamper the proper dissemination and understanding of revealed information.

One study in the field of voluntary disclosure in Bangladesh by Sufian (2016) showed that 87% of the sample organizations revealed significant irregularities in the voluntary disclosure scores of their annual reports. The average score recorded was 59.28%, as mandated by the range of allowed disclosures between 45.34% and 71.85%. This shows that there are considerable differences in disclosures among the sample firms.

According to the study of Rakiv (2019), among 120 sample observations, the highest voluntary disclosure reporting score was 96% while the lowest was 37%. The average voluntary disclosure value was 62% with a variation of 16.65% indicating higher discrepancies in the practices among sampled companies.

Theories Explaining Voluntary Disclosure Practices

The agency theory, signaling theory and legitimacy theory are the main theories that explains the voluntary disclosure practices. These theories altogether underpin the necessity and requirements of voluntary disclosure

The agency theory model underlies the relationship between the owner (principal) and the agent (manager) which is based on the contractual design of the company (Jensen & Meckling, 1976). The study of voluntary information as a

means of reducing agency costs by providing information that helps the owner understand the overall business activities of the company without even getting involved. Barako (2007), Lundholm & Van Winkle (2006), and Healy & Palepu (2001) have stated that managers (agents) act in the organization on behalf of shareholders, in place of the principal who is represented by the agent. It implies that firm managers can decide for themselves what financial or non-financial performance characteristics they want to share with people who use their yearly financial reports (Meek et al., 1995). Lundholm & Van Winkle (2006) have found that having voluntary disclosure can help in resolving the discrepancies that exist in knowledge levels among different people. According to Healy & Palepu (2001), outside investors have less information regarding firm performance compared to managers. They believed that in actual business markets, which are not perfectly efficient, managers employ financial disclosure policies to balance their decisions and communicate them to external shareholders.

Since its inception to examine the challenge of information asymmetry experienced by employers and workers (Spence, 1973) this theory has also been used to explain cases of voluntary disclosure in corporate reporting (Ross, 1977) Because there is an asymmetry of information between investors and firms, companies may choose to send certain signals to potential investors to win their favor and build a good name for themselves. For instance, it may disclose more than what is legally required as part of its efforts to demonstrate superiority over other firms (Campbell et al., 2001).

The basis for the legitimacy theory is that a company can only exist if it is in price with the values of the society where it operates (Lindblom, 1994; Magness, 2006). Therefore, it can be said that the idea of legitimacy theory is like a social contract between the enterprise and its community (Magness, 2006). The accounting profession has integrated this theory into its practices as a way of explaining why some things are covered in corporate messages sent to the public, what these things are when they occur, and how they are conveyed (Magness, 2006) because one of the primary purposes of accounting is to provide decision-makers with information satisfying social interests. Because the legitimacy theory is based solely on how society perceives it, managers have no choice but to reveal secrets that may modify outsiders' impressions of their corporations (Cormier & Gordon, 2001). This is why O'Donovan (2002) identified the annual report as one of the key instruments for legitimizing companies. Legitimizing may take place through required disclosures, those contained within financial documents as per law and optional ones found elsewhere in an annual report (Magness, 2006). Legitimization could happen through both mandatory disclosures - those contained within financial statements as dictated by legislation - and other sections of annual reports with voluntary disclosures (Magness, 2006; Lightstone & Driscoll, 2008).

Financial Reporting and Disclosure Environment: Bangladesh Context

The public limited companies that are listed on stock exchanges are required to provide information guided by the Bangladesh Securities and Exchange Commission (BSEC). Although there is still a lack of evident requirements for voluntary reporting of the listed firms, constant efforts have been laid down to improve the overall reporting environment. In addition, BSEC sends out reminders and recommendations on several matters to improve the level of exposure of firms that trade their shares in stock markets. Furthermore, to guarantee greater clarity and unveiling of crucial accounting regulations of financial institutions and banks, Bangladesh Bank distributes circulars for compulsory and voluntary disclosure of data. The principal laws that govern the financial reporting and disclosure practices for all listed banks involve the Companies Act 1994, Banking Companies Act 1991, Securities and Exchange Ordinance 1969,IFRSs (International Financial Reporting Standards)/BFRSs (Bangladesh Financial Reporting Standards), DSE's and CSE's Listing Regulations among others. To enhance transparency and accountability, Bangladesh Bank issued an indicative guideline on December 22, 2014, outlining the allocation and end-use monitoring of Corporate Social Responsibility (CSR) engagements within the financial sector, effectively making CSR reporting a mandatory requirement for banks and financial institutions. This mandate ensures that financial entities actively engage in and disclose CSR activities as part of their broader governance and sustainability commitments. In Bangladesh, there are two recognized accountancy professional bodies which are the Institute of Chartered Accountants of Bangladesh (ICAB) and the Institute of Cost and Management Accountants of Bangladesh (ICMAB) along with the supreme accounting body named Financial Reporting Council (FRC).

Methodology of the Research

The population of the study consisted of all the companies listed on the Dhaka Stock Exchange (DSE). A convenient purposive sampling technique was used to select the companies as a sample. For this purpose, a total number of 116 companies have been selected. The objectives of the study determined how samples were picked while the availability of annual reports acted as a restriction. To evaluate the amount and type of voluntary disclosures contained within a sample of annual reports, quantitative analysis is applied. This paper relies entirely on secondary data. The data source for the report is the annual reports of the sampled company for the year 2017-2022.

Table 1: Sample of the research

Sl. No.	Sector	No. of Companies Listed	No. of Companies Selected as Sample	% of Population	% of Sample
1	Bank	35	10	28.57%	8.62%
2	Cement	7	2	28.57%	1.72%
3	Ceramics Sector	5	3	60.00%	2.50%
4	Engineering	42	10	23.81%	8.33%
5	Financial Institutions	23	13	56.52%	10.83%
6	Food & Allied	21	6	28.57%	5.00%
7	Fuel & Power	23	6	26.09%	5.00%
8	Insurance	57	17	29.82%	14.17%
9	IT Sector	11	4	36.36%	3.33%
10	Jute	3	2	66.67%	1.67%
11	Paper & Printing	6	1	16.67%	0.83%
12	Pharmaceuticals & Chemicals	34	15	44.12%	12.50%
13	Services & Real Estate	4	3	75.00%	2.50%
14	Tannery Industries	6	2	33.33%	1.67%
15	Telecommunication	3	2	66.67%	1.67%
16	Textile	58	18	31.03%	15.00%
17	Travel & Leisure	4	2	50.00%	1.67%
Total		**342**	**116**	**33.92%**	**100.00%**

The research methods involved initial scrutiny of the annual reports using content analysis techniques to observe the incidence of voluntary disclosure reporting practices. For this purpose, all sections of the annual report were carefully examined to note the presence of any voluntary disclosures.

The Hypothesis of the Research

Since one of the objectives of the report was to check whether there is any significant difference between manufacturing companies and service companies, the hypothesis of the study is as follows:

H1: There is a significant difference in practice in the voluntary disclosure practices of manufacturing and service companies.

Voluntary Disclosure Reporting Index (VDRI)

A Voluntary Disclosure Reporting Index (VDRI), was developed from reviewing the existing literature on voluntary reporting and a thoughtful scrutiny of the available reporting guidelines and the relevant literature. VDRI is expressed below:

$VDRIi = \Sigma vj / V$

Where,

VDRIi =Voluntary Disclosure Reporting Index of Entity i

vj = Voluntary Disclosure practice j. Dummy variable, whose value is 1 if the entity develops that practice and 0 if the entity does not develop it

V = Maximum number of Voluntary Disclosure Reporting practices (28)

Analysis, Results & Discussions

The analysis of the paper deals with testing the hypotheses and obtaining a conclusion from the findings. Intriguing trends in the voluntary disclosure policies of Bangladeshi corporations are shown through the analysis of quantitative data taken from annual reports. Yet, there is a great deal of variance over time and among industries when it comes to voluntary disclosures that go beyond financial data.

Table 2: Voluntary Reporting Disclosure Index Result (Industry & Year wise) (in %)

Industry Name	Sample	Measure	2017	2018	2019	2020	2021	2022	Average
Bank	10	Mean	87.78	88.52	89.63	90.74	91.48	91.85	90.00
		Std. Deviation	6.31	5.64	4.55	4.36	3.51	2.92	4.55
Cement	2	Mean	55.56	83.34	85.19	87.04	87.04	87.04	80.87
		Std. Deviation	10.47	7.86	5.24	2.62	2.62	2.62	5.24
Ceramic	3	Mean	60.49	53.09	58.03	62.96	65.43	70.37	61.73
		Std. Deviation	21.71	11.91	11.31	11.11	9.32	11.11	12.74
Engineering	10	Mean	59.26	59.26	62.59	62.96	65.93	70.74	63.46
		Std. Deviation	12.95	13.41	11.51	11.04	9.69	9.95	11.43
NBFI	13	Mean	76.35	74.64	77.49	78.63	81.20	83.76	78.68
		Std. Deviation	10.86	10.57	11.06	10.81	11.36	10.32	10.83
Food & Allied	6	Mean	60.49	73.46	74.69	75.93	77.16	80.87	73.77
		Std. Deviation	19.41	15.96	14.14	13.41	11.57	8.89	13.90
Fuel & Power	6	Mean	66.05	63.58	66.67	68.52	70.99	73.46	68.21
		Std. Deviation	10.84	15.79	13.25	11.89	9.49	8.26	11.59
IT	4	Mean	49.08	71.30	74.08	79.63	79.63	79.63	72.22
		Std. Deviation	7.64	7.64	4.28	2.14	2.14	2.14	4.33
Insurance	17	Mean	59.48	56.86	59.04	60.13	63.62	66.45	60.93
		Std. Deviation	17.35	12.21	11.38	10.84	10.33	10.68	12.13
Jute	2	Mean	42.59	87.04	87.04	88.89	88.89	88.89	80.56
		Std. Deviation	2.62	7.86	7.86	5.23	5.23	5.23	5.67
Paper	1	Mean	44.44	66.67	70.37	70.37	74.07	74.07	66.67
		Std. Deviation	0	0	0	0	0	0	0
Service & Real estate	3	Mean	56.79	49.38	53.09	55.56	59.26	61.73	55.97
		Std. Deviation	21.39	5.66	5.66	3.71	3.70	2.14	7.04
Tannery	2	Mean	59.26	64.82	68.52	68.52	72.23	74.08	67.90
		Std. Deviation	10.48	23.57	18.33	18.33	18.34	20.95	18.33
Telecommunicat ion	2	Mean	66.67	48.15	55.56	57.41	61.11	64.82	58.95
		Std. Deviation	10.47	0.00	0.00	2.62	2.62	2.62	3.05
Travel & Leisure	2	Mean	50.00	62.97	64.82	64.82	72.22	72.22	64.51
		Std. Deviation	13.10	10.47	7.86	7.86	13.10	13.10	10.91
Pharmaceuticals	15	Mean	65.19	64.94	66.42	67.16	70.12	72.10	67.65
		Std. Deviation	12.27	10.92	10.52	9.79	10.24	9.58	10.55
Textile	18	Mean	47.74	58.03	59.88	62.55	65.23	67.08	60.08
		Std. Deviation	6.21	11.08	9.86	8.88	10.79	10.07	9.48
Total	**116**	**Mean**	**62.16**	**65.58**	**67.91**	**69.48**	**72.03**	**74.33**	**68.58**
		Std. Deviation	**16.56**	**15.10**	**14.03**	**13.55**	**12.91**	**12.16**	**14.05**

From the above table, it can be inferred that the Banking industry tops the list in providing voluntary disclosure. Cement, NBFI, Food & Allied, IT, and Jute industry's voluntary disclosure practices are greater than the average value of the sample mean value for the study. The rest 11 industries have a lesser mean value than the sample mean value. Greater disparity in voluntary disclosure reporting practices is seen in the Tannery, Food & Allied, and Insurance industry whereas the Banking, Cement, and Telecommunication industry has less instability in the practice of voluntary disclosure reporting.

It is interesting to note that companies in sectors like manufacturing and telecommunications often show a higher propensity to make voluntary disclosures, particularly on dimensions related to corporate social responsibility (CSR) and environmental sustainability. Annual reports published by these sectors often cover a wider range of non-financial indicators, such as initiatives related to employee well-being, local community partnerships, and conservation measures. This phenomenon indicates that companies within industries of greater environmental and social impacts are more prone to disclose related information in order to promote transparency and achieve a good corporate reputation among stakeholders.

With the heightened worldwide emphasis on Environmental, Social, and Governance (ESG) reporting, many firms are increasingly aligning their voluntary disclosures with existing ESG frameworks to enhance corporate accountability and strengthen stakeholder trust. ESG reporting is an extension of conventional CSR reporting in that it takes a systematic method of quantifying sustainability performance by integrating climate change-related risks, social effects, and corporate governance practices into corporate reporting. In Bangladesh, regulatory institutions like the Bangladesh Securities and Exchange Commission (BSEC) and Bangladesh Bank are progressively incorporating ESG considerations into corporate disclosure requirements, thereby highlighting the need for transparent sustainability reporting.

Table 3: Voluntary Disclosure % by Industry Type

Industry Type	2017	2018	2019	2020	2021	2022
Service Company	64.89%	67.07%	70.10%	71.89%	74.88%	76.45%
Manufacturing Company	56.17%	65.78%	68.41%	70.04%	72.40%	74.58%

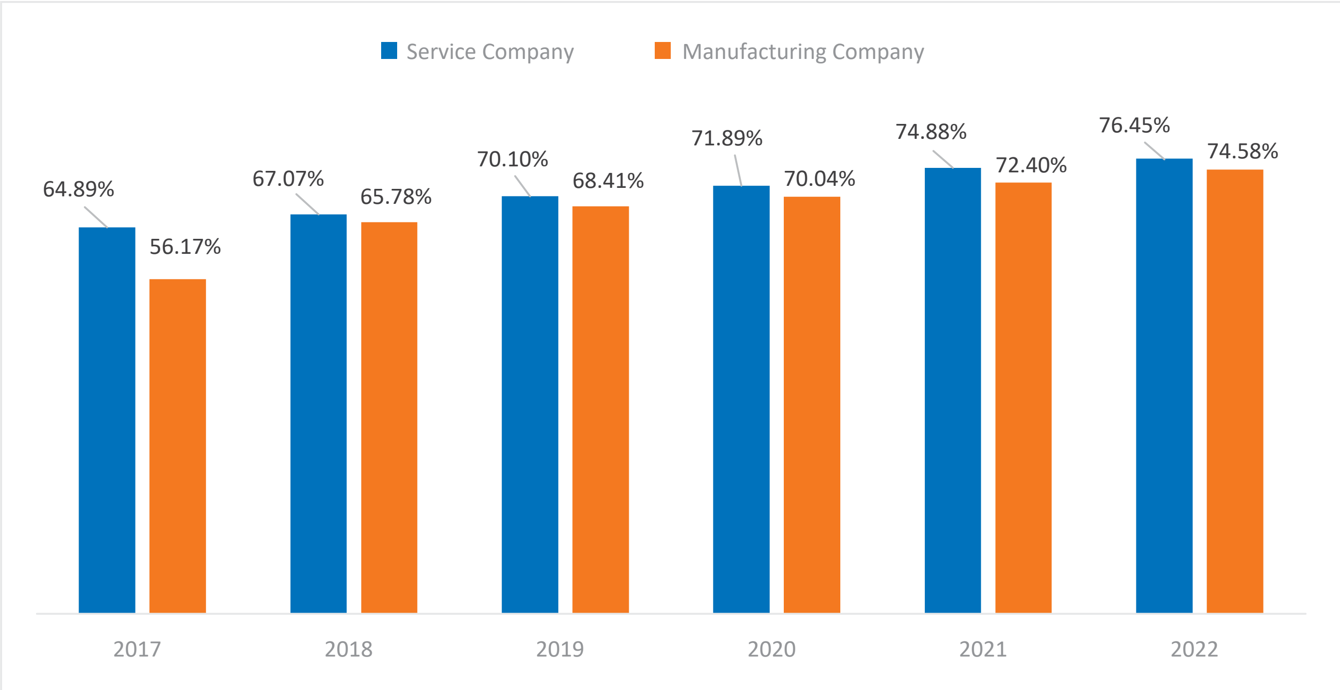

Figure 1: Voluntary Disclosure % by Industry Type

From the above diagram, it can be seen that service companies listed in DSE always provided more voluntary disclosure than the manufacturing companies. On the contrary, it can also be observed that manufacturing companies are now providing more voluntary disclosures than in previous years due to their impact on the environment because of their production.

To check the robustness of the findings, an independent t-test will be conducted.

Table 4: Group Statistics

	Industry Type	N	Mean (%)	Std. Deviation (%)	Std. Error Mean
Voluntary Disclosure Reporting Index (VDRI)	Service Company	53	68.6930	17.96357	2.46749
	Manufacturing Company	67	56.9373	13.55286	1.65575

The sample company consists of 53 service companies and 67 manufacturing companies. The mean of VDRI is higher for the service companies (68.69%) than that of manufacturing companies (56.94%) with a higher standard deviation.

Table 5: Result of Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Upper	Lower
Voluntary Disclosure	Equal variances assumed	11.87	.001	4.08	118	.000	11.75	2.87	6.05	17.45
Reporting Index (VDRI)	Equal variances not assumed			3.95	94.31	.000	11.75	2.97	5.85	17.65

The result of the independent t-test shows that Levene's test for equality of variances has a significance value of .001 which is lower than 0.05 (acceptance level), so equal variance not assumed result has been used. The p-value of equal variance not assumed is 0.000 which is also lower than 0.05. Thus, the null hypothesis that there are no differences between Service Companies and Manufacturing Companies regarding practices of VDRI cannot be accepted.

The findings of this study are particularly important for the policymakers and practitioners of voluntary reporting as they depict the level of voluntary disclosure they are providing in their annual reports. Policymakers may use these insights to improve regulations on non-financial reporting standards so that disclosures across companies and sectors are standardized and comparable. The information can be helpful for companies to pursue voluntary disclosure strategies that are in line with what stakeholders expect and with specific trends within their industries.

Conclusion and Scope for Future Research

The voluntary disclosures demonstrate a firm's commitment to transparency, and accountability and establish relationships with stakeholders by nurturing trust and creating value. As the business landscape continues to advance, the tactical use of voluntary disclosure will remain pivotal in shaping the perception of companies and their contributions to society. The scope of voluntary disclosure will be unceasingly shaped by regulations, stakeholders' expectations and demands, and technological advancements. 'Industry 4.0' requires the integration of technology in producing voluntary disclosures to make them more tailored for the stakeholders.

Numerous areas for further research could examine voluntary disclosure practices against financial performance as well as alternative modes of communication like online platforms in enhancing stakeholder involvement. In addition, it would be beneficial to examine how culture and institutional factors affect voluntary disclosures which would contribute to understanding corporate reporting dynamics more generally in Bangladesh. A longitudinal analysis of voluntary disclosure practices over time would reveal trends and patterns in disclosure behavior. A major area of interest would be analyzing whether improved voluntary disclosure positively influences investment decisions making a difference in the bottom line of firms.

As the significance of ESG reporting continues to increase, future research can address the different forms and formats in which organizations make ESG-related disclosures. Many organizations already release sustainability reports, integrated

reports, and corporate responsibility reports, which, albeit in different formats, are based on ESG principles. Knowing the influence of such ESG disclosures on stakeholder sentiment, corporate reputation, and investment decision can offer great insight into the changing dynamics of non-financial reporting.

To sum it up, studying voluntary disclosure in the Bangladeshi context has opened up numerous research pathways that can provide insights into corporate transparency, stakeholder engagement, and the communication dynamics changing in business practices. In short, the practice of voluntarily disclosing information in annual reports is more than just a financial reporting approach. It gives room for companies to provide a holistic understanding of their performance, values, and activities. This trend has gained momentum due to increased calls for transparency and accountability from stakeholders. Despite the inherent challenges, the adoption of new technologies coupled with global acceptance of uniform non-financial reporting structures augurs well for an improvement in future outcomes.

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Fundamentals of Expected Credit Losses
Loan Classification and Provisioning under IFRS 9 in the Banking Sector of Bangladesh

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Introduction

Expected Credit Loss (ECL) based loan provisioning is an advanced approach to recognizing credit losses in banks and financial institutions. Unlike the traditional incurred loss model, which records losses only when they occur, the ECL model requires banks to estimate potential credit losses in advance, enhancing financial stability and transparency. In Bangladesh, loan classification and provisioning are governed by Bangladesh Bank (BB) through its regulatory circulars. However, the current system follows an incurred loss model rather than the expected credit loss (ECL) model outlined in IFRS 9. International organizations, including the IMF, have expressed concerns over loan classification practices in Bangladesh's banking sector, cited their tendency to understate Non-Performing Loan (NPL) ratios. In response, Bangladesh Bank issued a roadmap for the implementation of ECL-based loan classification and provisioning under IFRS 9, as outlined in BRPD Circular No. 03 dated January 23, 2025. This framework will replace the existing incurred-loss model for loan classification and provisioning by December 2027, with the goal of improving credit risk assessment and the accuracy of financial reporting. This article explores the current loan classification and provisioning practices, highlights their shortcomings, outlines the fundamentals of the Expected Credit Loss (ECL) approach for loan classification and provisioning, discusses potential challenges in implementing ECL-based practices in the Bangladesh banking sector, and suggests possible solutions moving forward.

Loan Classification and Provisioning Practices in the Bangladesh Banking Sector

In Bangladesh, loan classification and provisioning are regulated by Bangladesh Bank (BB) through its circulars, which categorize loans as “Standard”, “Special Mention Account”, "Sub-standard," "Doubtful," and "Bad/Loss" based on the duration of overdue payments, each with specific provisioning requirements. As per BRPD circulars, Standard and Special Mention Account (SMA) loans are categorized as "Unclassified Loans," requiring banks to maintain general provisions ranging from 0.25% to 2% of the outstanding loan amount, depending on the customer and product categories (e.g., corporate, retail segments, housing finance, and SME). Sub-standard, Doubtful, and Bad/Loss loans are categorized as "Classified Loans," requiring banks to maintain provisions of (5%-20%), (5%-50%), and 100% of the outstanding loan amount, respectively. In addition to these objective criteria, Bangladesh Bank, through BRPD Circular No. 14 dated 23 September 2012, instructed scheduled

banks to classify loans and maintain provisions based on qualitative judgments.

Shortcomings of current loan classifications and provisioning practice

- Compared to international financial reporting standards for loan classification and provisioning, the banking system of Bangladesh follows the incurred loss model rather than the expected credit loss model to determine the status of a classified loan.

- Under IFRS 9, a loan overdue by 30 days is considered to have significantly increased credit risk and is transferred to Stage 2. However, in Bangladesh, the same 30 days overdue period is used to classify a loan as "Unclassified."

- Further, Bangladesh Bank has increased overdue time to define classified loans and show percentage of NPL at lower level in previous regime.

- The current loan classification and provisioning approach does not take forward-looking information into account.

Due to the aforementioned reasons, scheduled banks failed to accurately classify loans and maintain appropriate provisions for disbursed loans. Consequently, the reported percentages of Non-Performing Loans (NPLs) were misleading, prompting the International Monetary Fund (IMF) to challenge Bangladesh's existing loan classification and provisioning methods. When approving the ongoing $4.7 billion loan package for Bangladesh in January of last year, the International Monetary Fund (IMF) established several targets, including the implementation of Expected Credit Loss (ECL) based loan classification and provisioning in accordance with IFRS 9.

To meet the IMF's conditions and prepare the banking industry of Bangladesh for the implementation of Expected Credit Loss (ECL)-based loan classification and provisioning, Bangladesh Bank has moved to strengthen loan classification rules. This includes reducing the overdue period for loan classification and provisioning, as outlined in BRPD Circular #15, issued on 27 November 2024. Please note that this circular will take effect from 01 April 2025.

Implementation of ECL-based Loan Classification and Provisioning under IFRS 9

Bangladesh Bank has recently issued roadmap to implement expected credit loss-based loan classification and provisioning under IFRS 9 through BRPD Circular Letter No. 03 dated 23 January 2025. As per this circular, all scheduled banks of Bangladesh are required to begin implementation from March 2025 of expected credit loss-based loan classification and provisions measurement and complete by 2027.

Table 1: Roadmap of Implementation of IFRS 9; Source: BRPD Circular Letter No. 03 dated 23 January 2025.

Phases	SN.	Particulars	Timeline of Implementation within	Timeline of Report Submission to BRPD
PHASE-I	1	a) Formation of the 'IFRS 9 Implementation Team' led by the Managing Director (MD)/CEO b) Preparation of the 'Time Bound Action Plan to Implement ECL-based loan classification and provisioning under IFRS 9'duly approved by the Board of Directors (BODs)	Mar-25	Within 15 April 2025
	2	Develop a database preserving required data (e.g. sector wise, borrower wise and loan-nature wise classification percentages, default percentages, loan loss recovery rates, various macroeconomic factors etc.) of borrowers on a monthly basis from January 2022 onwards to calculate ECL.	Jun-25	Within 15 July 2025
	3	Prepare a pre-assessment report on implementation of ECL-based loan classification and provisioning and submit the same to Banking Regulation and Policy Department (BRPD). The report shall include detailed plan for transition from existing rule-based model to ECL model, probable challenges and required actions to implement IFRS 9.	Sep-25	Within 15 October 2025
	4	Conducting training and capacity building programs on ECL-based loan classification and provisioning for all the relevant employees.	Dec-25	Within 15 January 2026
PHASE-II	5	BB will issue guidelines on ECL-based loan classification and provisioning model following BCBS documents and IFRS 9.	January 2026 (by BB)	---
	6	Finalization of automated ECL-based loan classification and provisioning model by banks following the BB guidelines.	Jun-26	Within 15 July 2026
	7	Implement IFRS 9 on a pilot basis in the branches that collectively cover at least 25% of the total loan portfolio of the bank.	Sep-26	Within 15 October 2026
	8	Implement IFRS 9 on a pilot basis in the branches that cover at least 50% of the total loan portfolio of the bank.	Dec-26	Within 15 January 2027
	9	Parallel preparation of financial statements (provisional) on a half yearly basis under IFRS 9 and existing policy.	December 2026 and onwards	Within 15 days of reference date
PHASE-III	10	Implement IFRS 9 on a pilot basis in branches which cover at least 75% of the total loan portfolio of the bank.	Jun-27	Within 15 July 2027
	11	Full Implementation of ECL-based loan classification and provisioning under IFRS 9 on pilot basis	Dec-27	Within 15 January 2028

Expected Credit Losses and Different Approaches for Measurement of Expected Credit Losses

The weighted average of credit losses with the respective risks of a default occurring as the weights as defined in Appendix A of IFRS 9. So, ECL represents a probability-weighted estimate of the difference between the present value of contractual cashflow and present value of cashflows the entity expects to receive over the remaining life of the financial instrument.

Paragraph 5.5 of IFRS 9 allows two approaches for the measurement of expected credit losses.

- General Measurement Approach (Three Stages Approach);
- Simplified Measurement Approach

General approach is usually used for measurement of loss allowances for loans, advances, and commitments following three stages since their initial recognition. For measurement of loss allowances on trade and lease receivables, which do not have an IFRS 15 financing element, a simplified approach is usually used. This article will primarily emphasize the general measurement approach (three-stage approach) as relevant to loan classification and measurement of impairment loss on loans within the banking sector of Bangladesh.

Expected Credit Losses under General Measurement Approach

Under this measurement approach, banks and financial institutions are required to assess the stage of the loans and advances and measure expected credit loss accordingly for the next 12-month or lifetime.

As the recognition and measurement of expected credit loss (ECL) will affect the financial statements of banks including profitability, and capital adequacy, it is important to know about key components of ECL. ECL is a principle-based approach and does not recommend any rule-based method for calculation of ECL. So, banks and financial institutions have the option to use different methods e.g. discounted cash flow methods, loss rate methods, probability of defaults methods for computation of impairment loss on loans. However, most banks in other countries use the probability of default (PD) method to calculate expected credit loss on loans and other similar financial assets. Under the probability of default method, expected credit loss (ECL) has been calculated using the following formulas:

For on balance sheet items:

$$ECL = \sum PD \times \sum EAD \times \sum LGD$$

For off balance sheet items:

$$ECL = \sum PD \times \sum EAD \times \sum LGD \times \sum CCF$$

Where;

Probability of Default (PD)

It is the estimation of likelihood that the borrower will default on its obligations when they come due over a given period. The bank can determine PD rate based on the credit loss experienced in the past. The historical PD rate may be affected by the different macro-economic factors like GDP growth rate and unemployment rate. In this regard, the bank should adjust the historical PD rate with consideration of fluctuation in relevant macro-economic factors. For example, an increase in unemployment rate may reduce the income of the salaried person which may increase PD rate for retail loan.

Different methods are available for computations of PD (e.g. Gross Flow Rate Method, New Flow Rate Method, Credit Index Method), however banks should choose methodology based on loan portfolio, and data availability. Banks and financial institutions can consider the following factors during computations of PD:

- Using data for the entire business cycle (at least five years);
- Using high quality data (avoid outliers and incorrect data);
- Implementation of a single system to record and preserve data to ensure smooth integration of borrower data.

Apart from the above factors, banks are recommended to conduct comprehensive data assessments to ensure high quality and complete data which are required to calculate of PD.

Exposure at Default (EAD)

It means the maximum amount the borrower can default. Generally, it includes principal outstanding, accrued interest, and future interest that bank is expected to receive under the contract. Practically, EAD is determined based on payment terms, tenures of exposures (Loans / advances), and the point of time at which default of borrower is expected. For defaulted borrowers, outstanding amount (principal amount + accrued interest) at point of time is considered as Exposure at Default (EAD). Exposure at Default (EAD) should be determined for performing borrowers with consideration of the following elements:

- Projected cashflow till the estimated defaulted point;
- Time horizon over which EAD needs to be determined;
- Residual Maturity;
- Macro-economic factors.

Loss Given Default (LGD)

The maximum loss that a bank can suffer in the case of non-repayment of the loans. LGD is calculated as, 1 minus the post default recovery rate which is the percentage of amount recovered out of the total outstanding. Post default recovery can be made using any cash collateral, sale of security pledged or mortgaged with the bank. Like PD and EAD, forward looking information should be considered during calculation of LGD. The following factors should be taken into account when calculating the Loss Given Default (LGD):

- Estimation of future collateral value including sales discount;
- Time of actual realization of collateral;
- Allocation of collateral across all outstanding exposures, where same borrowers have more exposure with the banks;
- Any other cost related to realization of collateral.

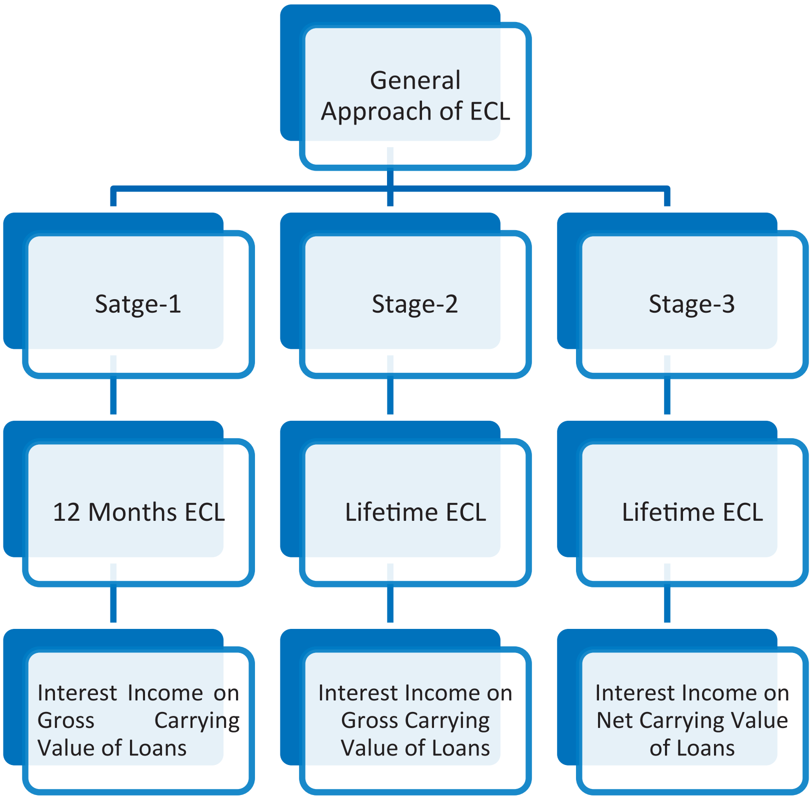
Credit Conversion Factor (CCF)

The only difference in the calculation of ECL for the on-balance sheet and off-balance sheet items is the CCF factor. It is a chance of commitment to getting converted into the actual credit. For example, 50% chance that loan commitment may result in the actual disbursement of loans.

12-month ECL and Lifetime ECL

12-month ECL calculation involves the probability of default (PD) occurring in the next 12 months. Lifetime ECL calculation involves the PD occurring in the remaining tenure of the financial asset. 12 months ECL is calculated when the asset is identified in stage 1 and lifetime ECL is calculated when the is identified in stage 2 & 3.

Figure 1: Three Stages Approach of ECL; Source: Author's Developed



Stage-1

Financial assets (Loans and Advances) which have low credit risk are considered as stage-1. 12 Months ECL has been calculated, and interest income is calculated on gross carrying amount of loans in stage-1.

Let's consider an example – Suppose ABC Bank has a 3-year loan receivable from the customer with principal outstanding of BDT 100 million and interest rate of 10% p.a. The current market value of collateral/security pledged is BDT 95 million.

At a reporting date, ABC Bank has assessed that there has been no significant increase in credit risk since the initial recognition. The loan is therefore classified in terms of credit risk under Stage 1. The PD within 12 months has been calculated based on historical data at 2% and LGD is also calculated 5% (1- 95/100) Therefore, the calculation of ECL would be:

ECL = ∑ PD × ∑ EAD × ∑ LGD

= 2% × 100 × 5%

= BDT 0.10 million

Here, interest income will be calculated based on gross outstanding loan amount i.e. 10 million (BDT 100 million ×10%).

Stage-2

When a substantial increase in credit risk is identified, the Bank recognizes a lifetime expected credit loss (ECL). For example, if a borrower's external credit rating declines from AAA to A+, the company should assess the need to provision for lifetime ECL. Other examples of a significant increase in credit risk may include a decline in the market value of collateral, unfavorable changes in external market or economic conditions, among others. At this stage interest income will still be recognized based on the gross carrying amount of the asset.

At the end of the first year of loan disbursement, ABC Bank identified a significant increase in credit risk since initial recognition. As a result, the loan is classified under Stage 2 for credit risk assessment due to credit rating declines from AAA to A+. Consequently, ABC Bank must calculate the lifetime Expected Credit Loss (ECL). Based on historical data and available forward-looking information, the Probability of Default (PD) is 20%, and the Loss Given Default (LGD) is 5.56% (1 - 85/90). The ECL calculation is as follows:

ECL = ∑ PD × ∑ EAD × ∑ LGD

= 20% × 90 × 5.56%

= BDT 1 million

Here, interest income will be calculated based on gross outstanding loan amount i.e. 9 million (BDT 90 million ×10%).

Stage-3

This is the stage at which the loan's credit risk escalates to a level where it is classified as credit-impaired, necessitating the recognition of lifetime expected credit losses (ECL). Additionally, interest income is calculated based on the loan's net carrying amount, which is determined by deducting the loss allowance from the gross carrying amount. A loan is considered credit-impaired when there is an actual default on the due date or when the debtor experiences significant financial distress.

Continuing with the previous example, at the subsequent reporting date, ABC Bank has identified a significant increase in credit risk, evidenced by observed non-repayment behavior. Additionally, the market value of the collateral has declined to BDT 50 million, while the total loan (principal + interest) outstanding is BDT 80 million. In this context, the recognition of lifetime Expected Credit Loss (ECL) becomes necessary. Moreover, the probability of default (PD) over the remaining life of the asset has been estimated at 40%. This PD indicates a 40% likelihood that the loan will default within the remaining tenure of 2 years (originally 3 years, less 1 year elapsed). Consequently, the calculation of the ECL would be as follows:

$$ECL = \sum PD \times \sum EAD \times \sum LGD$$

$$= 40\% \times 80 \times (1\text{-}50/80\ )\%$$

$$= 40\% \times 80 \times 37.50\%$$

= BDT 12 millionThe interest revenue will be recognized based on the net carrying amount of the loan receivable, which is BDT 68 million (BDT 80 million minus the BDT 12 million ECL provision). Consequently, the interest income will be calculated as BDT 68 million multiplied by 10%, resulting in BDT 6.8 million.

Benefits of Implementation of Expected Credit Loss-based loan Classification and Provisioning under IFRS 9

While the implementation of loan classification and provisioning based on expected credit losses under IFRS 9 is complex and sophisticated, this approach provides several advantages for banks, investors, regulators, and other stakeholders. The key benefits are outlined below:

Timely Recognition of Impairment Loss on Loans and Advances

ECL-based provisioning requires earlier recognition of impairment loss on loans and advances rather than waiting for an actual default. Moreover, as IFRS 9 requires incorporating forward looking information (macro-economic factors) during calculation of Expected Credit Loss, ECL accounting ensures more alignment with economic reality. This approach provides a more accurate and comprehensive assessment of credit losses and financial asset values, requiring banks to increase provisions compared to the current method, thereby reducing the net asset value of loan portfolios.

Ensure Transparency

Under the loss-incurred model, banks may delay recognizing loan impairments, increasing the risk of window dressing and reducing transparency in loan provisioning. The Expected Credit Loss (ECL) model addresses this by ensuring timely recognition through continuous adjustments based on borrower data and forward-looking information.

Improve Comparability

Since most scheduled banks in Bangladesh, except MNC-based banks, follow Bangladesh Bank's guidelines for loan classification and provisioning instead of IFRS 9, their financial statements lack global comparability. Implementing IFRS 9 would enhance the global comparability and acceptability of these banks' financial statements. Enhanced comparability will boost stakeholder confidence, including investors, in financial decision-making.

Key Challenges in Implementation of Expected Credit Loss-based loan Classification and Provisioning under IFRS 9 in the Bangladesh Banking Sector

Although Bangladesh Bank has issued roadmaps to implement expected credit loss-based loan classification and provision under the IFRS 9, the implementation of the same has several challenges. These challenges are outlined below:

Data Availability and Quality

The Expected Credit Loss (ECL) model requires historical data on customer defaults, past dues, loan segmentation, and creditworthiness. To address this, Bangladesh Bank instructed scheduled banks to compile borrower data monthly from January 2022 onward. However, some scheduled banks in Bangladesh may lack the necessary historical data for effective ECL implementation.

Regulatory and Supervisory Challenges

Bangladesh Bank has outlined a roadmap for implementing Expected Credit Loss (ECL)-based loan classification and provisioning; however, detailed guidelines have not yet been issued. Without detailed guidance, the commercial banks may face confusion during reviewing internal systems and procedures, technical aspects, and existing capacity which requires for implementation of ECL.

Model Development and Validation

Calculation of Expected Credit Loss under IFRS 9 requires development of advance model (PD, EAD, LGD), which requires statistical skilled professionals. Due to lack of skilled statistical professionals and risk analytics professionals, some banks may face difficulties developing ECL. Moreover, banks may face challenges during the test of reliability and dependency of the model.

Macroeconomic Information Forecasting Challenges

Reliable and authentic forward looking macroeconomic information (e.g. inflation rate, unemployment rate, GDP growth rate, sector wise export growth rate) are scarce in Bangladesh. As result, scheduled banks of Bangladesh may not consider forward looking information during calculation of ECL without undue cost and effort.

IT Infrastructure and System Readiness

Most of the banks in Bangladesh currently uses spreadsheet to calculate provision on loans. It will be difficult to calculate ECL with manual system as ECL requires development of complex statistical models. Further, banks may face challenges during integration of core banking systems and financial reporting systems. Additionally, existing core banking systems (such as Infosys and Oracle) may need to be modified through change requests to vendors, resulting in additional costs.

Way Forward to Overcome Challenges in Implementation of Expected Credit Loss-based Loan Classification and Provisioning under IFRS 9 in the Bangladesh Banking Sector

Following strategic initiatives can be taken by the banks, regulators, and other stakeholders to ensure successful implementation of expected credit loss-based loan classification and provisioning under IFRS 9 in the Bangladesh Banking Sector by 2027:

Develop Centralized Credit Database and Ensure Automation

Bangladesh Bank can take initiatives through collaboration with schedule banks to develop centralized database where customer credit worthiness,

historic loss rates, default pattern, and macroeconomics linkage will be available. Scheduled banks of Bangladesh should improve their internal credit risk database ensuring consistency and completeness.

Strengthen Model Development and Validation

Bank should develop robust credit risk modeling techniques to ensure accurate derivation of Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD). With response to strengthening model development and validation, credit risk management team should be trained on statistical modeling, stress testing and scenario analysis. After development of ECL model, the bank should take initiative to validate the model by independent expert.

Improve Macroeconomic Forecasting

Bangladesh Bank and commercial banks should work together to develop reliable forward-looking macroeconomic information. In this regard, a sophisticated system should be developed where real time information will be available to conduct stress testing and scenario analysis. Apart from this, scheduled banks should be ready for conducting scenario (optimistic, baseline, and worst) based forecasting.

Upgrade IT Infrastructure and System Readiness

Banks need to invest huge amounts of money to upgrade core banking systems which will support integration of ECL calculation engine. Apart from this commercial bank should improve cybersecurity to protect sensitive information of the customers as well as countries.

Regulatory and Supervisory Enhancements

Bangladesh Bank should issue detained guidelines on implementation of ECL based loan classification and provisioning with consideration of BASEL III requirements. Bangladesh Bank should take arrange regular dialogue with different stakeholders like SEC, banks, auditors, public accountants, financial analyst to address emerging implementation challenges.

Training, Awareness, and Change Management

Commercial Banks should arrange a regular training session on expected credit loss approach under IFRS 9 for its officials. Apart from this, cross functional collaboration is required between the Finance, Credit Risk Management, IT, Internal Control and Compliance Team. Bangladesh Bank should improve its on-site and off-site supervision team by arranging necessary training on IFRS 9. Further, professional accounting bodies like ICAB and ICMAB should arrange effective CPD seminars, training, and dialogue to improve professional competence of their members.

Conclusion

The implementation of Expected Credit Loss (ECL)-based loan classification and provisioning under IFRS 9 represents a significant shift in the banking sector of Bangladesh, aligning it with global best practices. While this transition offers numerous benefits, such as timely recognition of impairment losses, enhanced transparency, and improved investor confidence, it also presents several challenges. These include data availability and quality, the need for skilled professionals in model development, and limitations in macroeconomic forecasting. However, by adopting strategic measures like developing a centralized credit database, strengthening model validation, improving macroeconomic forecasting, and upgrading IT infrastructure, these challenges can be mitigated. The proactive engagement of all stakeholders, including regulators, banks, and professional bodies, will be essential for the successful implementation of IFRS 9 by 2027. This shift not only ensures better alignment with economic realities but also enhances the robustness of the banking sector's credit risk management framework.

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Failure of Prescriptive Models by International Development Partners for Ensuring Accountability and Transparency in Bangladesh

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Abstract

This article examines the shortcomings of prescriptive models used by International Development Partners and Multilateral Donor Agencies in promoting accountability and transparency-related reforms within governmental and institutional frameworks. It argues that the reliance on a rigid "should be" approach—rather than a flexible "could be" perspective—hinders effective implementation by failing to account for the unique contextual realities of the institutions involved. Issues such as rigidity, contextual disconnect, and lack of synchronization among organizational units further exacerbate the challenges of reform efforts. Ultimately, this paper advocates for a more adaptive, collaborative, and context-sensitive approach to enhance the effectiveness of accountability and transparency initiatives in international development.

Introduction

International Development Partners and Multilateral Donor Agencies have long advocated—and often imposed as a precondition for development assistance (through aid, project/program credit, or budgetary support)—reforms aimed at strengthening accountability and transparency in governance and institutional structures worldwide. While these reforms are theoretically sound, their implementation often faces substantial challenges, particularly in countries like Bangladesh.

A key reason for this disconnect is the prescriptive nature of these recommendations. Instead of considering what is realistically achievable given the unique contexts and capacities of the institutions involved; development partners tend to prescribe what should be done. This 'should be' approach frequently overlooks the practical realities of governance and institutional reform, making implementation either ineffective or unsustainable.

This paper explores the challenges posed by prescriptive models, particularly in promoting accountability and transparency. It highlights the disconnect between theoretical recommendations and ground realities, the influence of oligarchs and vested interests, and the lack of synchronization among different organizational units during restructuring efforts.

The Prescriptive Approach: A Theoretical Framework

The prescriptive approach consists of rigid guidelines and standardized recommendations that outline ideal institutional actions to achieve accountability and transparency. For example, international development partners may mandate strict financial management controls, anti-corruption penalties, and

procurement transparency measures as prerequisites for funding. While these guidelines are well-intentioned, they often fail to account for the local governance context and institutional limitations.

This lack of flexibility creates major obstacles during implementation. Many institutions lack the resources, infrastructure, or political will to fully comply with these stringent requirements. Without a contextualized framework, these prescriptions risk becoming unrealistic, unimplementable demands, leading to frustration, superficial compliance, or outright failure.

Contextual Disconnect: The Challenge of the "Should Be" Model

One of the primary criticisms of the prescriptive "should be" model is its failure to consider the socio-political and institutional realities of different countries. Key factors—such as historical governance structures, public trust, and cultural norms—play a critical role in determining the success of reforms.

For instance, a country like Bangladesh, with a history of authoritarian governance may face strong resistance to sudden transparency measures, whereas a more democratic society might adopt such reforms with greater ease. Additionally, prescribed reforms often clash with entrenched bureaucratic practices, creating resistance from within the organizations themselves. Staff and leadership may fear job losses, reduced influence, or increased scrutiny, leading to passive or active resistance to change.

By overlooking these complex behavioral and institutional dynamics, the "should be" model fails to facilitate meaningful, sustainable reforms.

The Impracticality of the "Should Be" Model in Bangladesh

In Bangladesh, prescriptive reforms have often lacked practical feasibility. The emphasis on immediate compliance with international standards ignores the need for gradual adaptation and capacity-building. Institutions require time, training, and phased implementation to meet new accountability and transparency standards—yet the rigid "should be" model rarely accommodates these realities.

For example, the BASEL III implementation for banks and financial institutions in Bangladesh, as well as the introduction of the Financial Reporting Council (FRC) through the Financial Reporting Act 2015, serve as key cases where prescriptive reforms failed to deliver their intended outcomes; even could not be implemented entirely. Instead of fostering long-term institutional strengthening, these initiatives struggled due to limited preparedness, resource constraints, and resistance from key stakeholders.

For example, the Basel III implementation for banks and financial institutions in Bangladesh, and the introduction of the Financial Reporting Council (FRC) through the Financial Reporting Act 2015, serve as significant cases where prescriptive, externally driven reforms failed to fully materialize or deliver their intended outcomes. Despite being ambitious in scope, these reforms were hindered by several systemic and contextual challenges that limited their effectiveness and, in many cases, prevented full implementation.

A particularly critical component of Basel III—the adoption of IFRS 9 and its associated Expected Credit Loss (ECL) framework—faced major obstacles in the Bangladeshi context. IFRS 9 introduced a forward-looking approach to credit risk assessment, requiring banks to estimate potential credit losses over the lifetime of financial assets. This shift from the traditional incurred loss model demanded not only a significant upgrade in risk management practices but also robust data infrastructure, skilled personnel, and institutional readiness. Unfortunately, most financial institutions in Bangladesh were ill-prepared for this transition. Banks generally lacked historical and sectoral data sets of sufficient quality and depth to effectively model credit risk under ECL. Moreover, there was a severe shortage of technical expertise and trained professionals capable of designing and maintaining ECL models tailored to local realities. Smaller banks and non-bank financial institutions were particularly vulnerable, as they did not possess the resources to invest in the necessary IT systems or recruit specialized staff. The absence of standardized regulatory guidance, coupled with limited coordination among supervisory authorities, further contributed to confusion and inconsistency in implementation practices across the sector. Many institutions perceived the ECL model as overly complex and costly, especially given the initial increase in loan-loss provisions it often entails in country context as this financial burden was viewed as a threat

to short-term profitability, leading to push-back from management and reluctance to comply fully. Regulatory oversight also remained inconsistent, with limited enforcement capacity and competing priorities undermining the urgency of reform adoption.

As a result, rather than fostering long-term institutional strengthening and resilience, the Basel III reforms—including IFRS 9 and ECL—remained partially implemented, largely superficial, and failed to deliver the expected transformation in financial reporting and risk management practices in Bangladesh. These efforts highlight the challenges of applying globally standardized frameworks in a context that lacks the foundational infrastructure, capacity, and consensus needed for successful localization and execution.

Without a practical, phased approach, reforms risk becoming symbolic gestures rather than substantive changes that improve accountability and transparency.

Resistance from the Business Community, Particularly Oligarchs

The business community—especially oligarchs—often opposes accountability and transparency reforms, and the "should be" model frequently fails to account for this resistance.

Influential quarters exert significant economic and political influence, allowing them to shape policies in their favor and weaken enforcement mechanisms. Some key challenges include:

- Regulatory capture, where powerful business elites manipulate institutions to protect their interests.
- Lack of political will, as governments influenced by elite lobbying dilute or delay reforms.
- Corruption and crony capitalism, which hinder transparency efforts by preserving monopolies and unfair advantages.
- Legal loopholes and weak enforcement, allowing elites to evade accountability measures.
- Media control, limiting public awareness and reducing resistance to oligarchic influence.
- Economic dependence on oligarch-owned enterprises, discouraging strict enforcement of transparency measures due to fear of economic instability.

The "should be" model rarely considers these entrenched power dynamics, making reform efforts unrealistic and ineffective. Addressing these challenges require stronger regulatory bodies, independent oversight mechanisms, and sustained public pressure to enforce meaningful reforms.

Synchronization Challenges During Restructuring/Reform Initiatives

Another critical reason for the failure of prescriptive accountability and transparency reforms is the lack of synchronization among various organizational units and stakeholders. Many organizations undergoing restructuring struggle with misalignment of priorities,

competing agendas, and conflicting implementation timelines.

This issue is exacerbated when multiple international development partners impose different reform conditions, expectations, and deadlines. Departments may implement reforms in isolation, leading to fragmentation and lack of coherence. For example, if a finance department enforces new financial controls but the procurement and HR departments fail to adopt corresponding changes, the overall accountability framework remains weak.

Additionally, power struggles between departments often emerge, further obstructing reform efforts. Without a coordinated, organization-wide approach, the effectiveness of transparency and accountability measures remains limited.

Moving Towards a More Effective Framework

To improve the effectiveness of accountability and transparency reforms, international development partners must move away from rigid, prescriptive models and adopt a more adaptive, context-sensitive approach. Key recommendations include:

- The appropriateness of the reform, the readiness of the implementing agencies and the environment in which this measure to operate need to check prior pushing these reform
- Engaging local stakeholders in the reform design process to ensure feasibility and buy-in in true sense rather than show-casing stakeholders' engagement.
- Adopting a phased implementation strategy that accounts for institutional capacity and local realities.
- Ensuring alignment and synchronization across different organizational units to promote cohesive reform efforts.
- Recognizing and addressing power dynamics, including resistance from influential business elites.
- Providing technical assistance and capacity-building support rather than imposing rigid, one-size-fits-all mandates.

Without these adjustments, the "should be" model will continue to drain public funds without yielding meaningful improvements, as has been repeatedly observed in Bangladesh over the past few decades.

Enhancing Financial Reporting for SMEs
The Role and Impact of IFRS for SMEs in Bangladesh

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Introduction

In Bangladesh, Small and Medium Enterprises (SMEs) play a crucial role in employment, export revenue, and import substitution. However, there are no internationally recognized financial reporting standards tailored for SMEs in the country. As a result, entities that are technically SMEs may be classified as Public Interest Entities (PIEs), thus requiring adherence to International Financial Reporting Standards (IFRSs) due to legal and regulatory mandates. Additionally, other SMEs, even if not classified as PIEs, may still be compelled to comply with IFRSs because of existing laws and regulations.

In some cases, SMEs may not be legally obliged to comply with IFRSs but might still be required to produce General Purpose Financial Statements (GPFS) based on a Fair Presentation Framework due to demands from stakeholders such as lenders or customers. In the absence of an internationally recognized SME-specific financial reporting standard, these SMEs are forced to adopt the resource-intensive IFRSs. This misalignment with SME-specific needs strains their limited human, financial, technological, and intellectual resources, highlighting the critical need for a tailored financial reporting framework.

IFRS for SMEs (the "Standard") offers a globally recognized solution for SMEs, easing the compliance burden associated with the more complex and resource intensive full IFRSs. As of now, the Standard is mandated or permitted in 84 countries, with Bangladesh among the 11 countries considering its adoption as per IFRS Foundation website.

The Financial Reporting Council of Bangladesh (FRC), under Section 40(4) of the Financial Reporting Act, 2015, (the "FRA 2025") has the authority to issue distinct and simplified financial reporting standards for SMEs, aligning with international best practices. The author notes that, as of 14 December 2017, which is prior to the FRA 2025 regime, the Council of the Institute of Chartered Accountants of Bangladesh (ICAB), decided to adopt the IFRS for SMEs standard effective for annual periods beginning on or after 1 January 2028. FRC has also made the full set of the Standard available for use both in paper copy and in its website. Adopting the IFRS for SMEs can markedly enhance the quality of financial reporting for SMEs, freeing them from the demanding requirements of full IFRSs. This enables SMEs to allocate resources more efficiently toward core business activities and ensures their financial statements adhere to internationally recognized standards, thereby increasing their credibility with regulators, investors, lenders and other stakeholders.

Background and Brief Overview

The International Accounting Standards Board (IASB) issued IFRS for SMEs on 9 July 2009 to simplify the requirements of full IFRSs. This has since been updated by the 2025 IFRS for SMEs Standard. The fewer than 330-page standard, developed over years with global SME consultation, includes implementation guidance, illustrative financial statements, and a presentation and disclosure checklist. The Standard also caters to the needs of users of SMEs' GPFS. The Standard is an independent framework based on IFRS principles, specifically designed to meet the needs of SMEs, considering cost-benefit aspects.

Major Changes to the 2025 Edition of IFRS for SMEs

The 2025 Edition of the Standard accompanied by the Basis for Conclusion and Illustrative Financial Statements was issued on 27 February 2025. This Edition becomes effective for financial reporting periods beginning on or after 1 January 2027. Entities are granted the discretion to either adopt the updated edition early or to continue adhering to the preceding 2015 edition until the effective date. Key revisions introduced in the 2025 Edition are as follows:

Major changes to the 2025 Edition of the Standard include:

- **Section 2:** Concepts and Pervasive Principles has been updated to facilitate SMEs in formulating accounting policies for scenarios where the Standard lacks specific guidance.
- **Section 9:** Consolidated and Separate Financial Statements incorporates a unified approach to assessing control.
- **Section 11:** Financial Instruments provides information about SMEs' credit risk, liquidity risk, and expected cash flows.
- **Section 12:** Fair Value Measurement consolidates all provisions related to fair value measurement into a single section.
- **Section 19:** Business Combinations and Goodwill introduces the acquisition method for accounting purposes.
- **Section 23:** Revenue from Contracts with Customers establishes a comprehensive and unified framework for recognizing and measuring revenue.

Meaning of SME and Public Accountability in IFRS for SMEs

The term SME is unrelated to the scope of IFRS for SMEs, as there are no size criteria for applying the Standard. The Standard applies to entities that (1) do not have public accountability and (2) publish general purpose financial statements for external users. Consequently, a large entity without public accountability may fall within

the scope of the Standard, while a small, listed entity would be excluded.

An entity is deemed to have public accountability if:

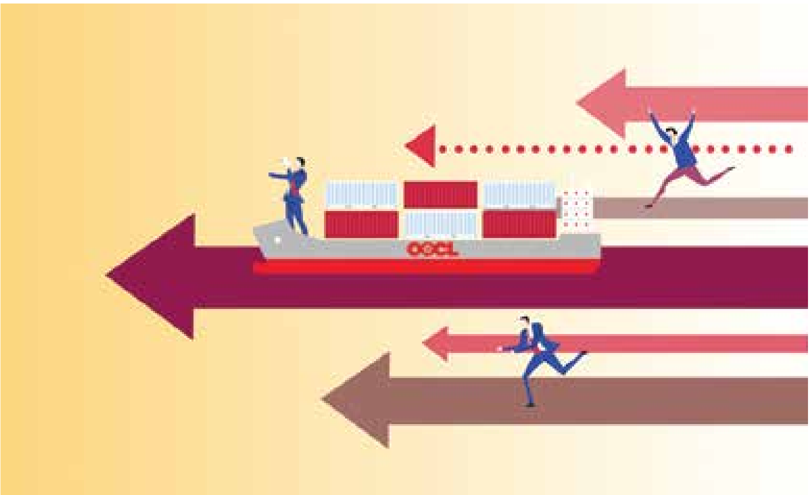
- Its debt or equity instruments are traded in a public market or are in the process of being listed or issued for trading in a public market. This includes domestic or foreign stock exchanges and over-the-counter markets, including local and regional markets, or
- It holds assets in a fiduciary capacity for a broad group of outsiders as a primary business function. This criterion typically applies to banks, credit unions, insurance companies, securities brokers or dealers, mutual funds, and investment banks. Entities involved in managing financial resources entrusted to them by clients, customers, or members who are not involved in the management of the entity are generally considered to hold assets in a fiduciary capacity.

However, if an entity holds financial resources for reasons incidental to its primary business, this does not make it publicly accountable. In Bangladesh SMEs may seek funding from public market and may get listed with the Small Capital Platform of the Stock Exchanges. Such SMEs are outside the scope of IFRS for SMEs due to their public accountability profile.

Regulatory Financial Reporting Framework in Bangladesh

Financial Reporting Act, 2015 (FRA 2015)

According to Section 40 of the FRA 2015, the FRC is mandated to adopt financial reporting standards in Bangladesh.



Nevertheless, various other laws and regulations, such as the Bank Company Act, 1991, the Financial Institution Act, 1993, the Companies Act, 1994, the Insurance Act, 2010, and the Microcredit Regulatory Authority Act, 2006 stipulate accounting methods for entities under their jurisdiction.

Consequently, Section 46 of the FRA 2025, mandates that all Public Interest Entities (PIEs) in Bangladesh adhere to the IFRSs adopted by the FRC through Gazette Notification No. 146 dated 2 November 2020. The IFRSs are adopted following an agreement between the IFRS Foundation and the FRC.

The definition of a PIE is provided in Section 2(8) of the FRA 2015, with additional criteria specified by the FRC through four Notifications. Based on these definitions and notifications, PIEs in Bangladesh can be broadly categorized into three types:

1. **Core PIE:** This category includes banks, financial institutions, insurers, issuers of securities, and microfinance institutions under their respective industry specific laws and regulations. These entities have public accountability because their debt or equity instruments are traded in public markets, or they hold assets in a fiduciary capacity for a broad group of outsiders as a primary business function.

2. **Threshold-based PIE:** This category includes entities surpassing certain thresholds, such as annual revenue exceeding Tk500 million or fulfilling either of the two conditions of employing more than 50 individuals, total assets exceeding Tk300 million, or total liabilities surpassing Tk100 million.

3. **Other PIE:** This category includes state-owned entities, commercial entities, statutory authorities, voluntary NGOs in the private sector, or any similar organizations that meet the criteria for Core PIE or Threshold-based PIE.

Under the FRA 2015, all PIEs are required to prepare their GPFS in accordance with the IFRSs. All the Threshold-based PIEs may not necessarily hold assets in a fiduciary capacity for a broad group of outsiders as a primary business function. However they are technically PIEs hence due to technical public accountability profile, they are required to prepare GPFS based on IFRSs.

Income Tax Act, 2023 (ITA 2023)

Another significant regulation influencing the method of accounting is the ITA 2023. Based on Section 72 and Section 73 of the ITA 2023, the following individuals are required to prepare financial statements as per IFRSs:

- A company.
- Firms, associations of persons, and funds with a turnover exceeding Taka30 million in an income year.
- Any individual with income from long-term contracts in an income year.

According to Section 2(69) of ITA 2023, an "individual" includes a natural person, firm,

association of persons, Hindu Undivided Family, trust, fund, and company.

Based on Section 72 of ITA 2023, the National Board of Revenue is empowered to determine the accounting methods and standards for any business, profession, or other sources of income. It also allows for changes in accounting methods to accurately reflect an individual's taxable income.

Based on the above, an entity may not be a PIE as per FRA 2015, however may still be required to comply with full IFRSs. For example, if a firm's or company's turnover exceeds Taka 30 million but remains below Tk 500 million, it may need to follow full IFRSs.

Challenges Faced by SMEs in Financial Reporting

Adhering to full IFRSs imposes additional burdens on SMEs that lack public accountability. These entities must allocate their limited resources to a more robust financial reporting system, which includes ERPs compatible with full IFRSs, more skilled financial reporting professionals, and intellectual resources such as comprehensive IFRS-compatible accounting policy manuals and extensive training programs. Given that the financial reporting needs of these entities are relatively straightforward, the demand for full IFRS compliance diverts their resources, energy, and focus away from core business operations.

Aligning Financial Reporting for SMEs Under Industrial Policy of Bangladesh

In Bangladesh, the definition of SMEs is provided by the Industrial Policy 2022 (the "Policy") based on threshold of investment and number of workers employed. Investment includes the replacement cost of value of fixed assets excluding land and factory buildings.

Small industry is defined as one where:

- the investment ranges from Taka7.5 million to Taka 150 million or employs 26 to 120 workers (for manufacturing sector).
- investment ranges from Taka1 million to Taka 20 million or employs 16 to 50 workers (for service sector).

Medium Industry is defined as one where:

- the investment ranges from Taka150 million to Taka500 million or employs 121 to 300 workers. In labor-intensive or readymade garment (RMG) industries, the number of workers can be as high as 1,000 (for manufacturing sector).
- investment ranges from Taka20 million to Taka300 million or employs 51 to 120 workers (for service sector).

Many entities classified as SMEs under the Policy may also be categorized as Threshold-based PIEs related to the number of employees and the total value of assets. Since the Policy excludes the value of land and factory buildings, more SMEs will be classified as threshold-based PIEs under the FRA, 2015. This number may further increase when considering the combination of employee numbers and total liabilities. Consequently, more entities that are technically SMEs according to the Policy may fall under the threshold-based PIE category. If an SME's annual revenue surpasses Tk500 million, the number of PIEs that are SMEs will increase even further.

The essence of an SME as defined in the Policy may not always align with the threshold-based definition of PIEs. Some adjustments may be necessary to ensure proper alignment so that all SMEs as per the Policy that are not listed on the SME Exchange can apply IFRS for SMEs.

Benefits and Challenges of IFRS for SMEs

Comparison Based on Volume and Size

The following size comparison illustrates the differences between full IFRSs and IFRS for SMEs. This is not an exhaustive list rather overview of few key areas. While comparing the number of pages and paragraphs alone may not fully capture the complexities inherent in the full IFRSs

Areas	Full IFRS Accounting Standards	IFRS for SMEs
Nature of the Standard	Provided the foundational framework for the development of IFRSs for SMEs	Self-contained and tailored for entities without public accountability preparing general purpose financial statements.
Change	Exhibits a high Frequency of amendments, updates, and changes.	Does not automatically incorporate new requirement emerging from the full IFRSs.
Number of Standards/Sections	Encompasses a total of 116 Standards including 19 IFRSs, 36 IASs, 23 IFRIC, 33 SICs, 5 Other pronouncements.	Consists of 35 Sections in the current version (2025).
Standard on Revenue	IFRS 15 *Revenue from Contracts with Customers* encompasses 228 paragraphs and extends over more than 350 pages, inclusive of examples and basis for conclusions.	Section 23 *Revenue from Contracts with Customers* encapsulated within fifteen pages for the main standard and an additional six pages for appendix (example).
Standard on Inventories	IAS 2 *Inventories* includes 65 paragraphs including basis for conclusions and spans over 20 pages.	Section 13 *Inventories* encapsulated within five pages.
Standard of property, plant and equipment	IAS 16 *Property, Plant and Equipment* includes 83 paragraphs and 117 bases for conclusions extending over 80 pages.	Section 17 *Property, Plant and Equipment* spans approximately eight pages.
Standard on Financial Instruments	Comprises three standards collectively exceeding one thousand pages.	Section 11: *Financial Instrument (FI) within* 24 pages.

compared to IFRS for SMEs, this comparison provides a high-level overview. It demonstrates how the comprehensive nature of full IFRSs can be particularly overwhelming for SMEs as well as other entities without public accountability.

Benefit of GPFS Based on IFRS for SMEs

General purpose financial statements are essential for analyzing and comparing financial performance across various jurisdictions, industries, and companies. Banks and financial institutions use this information to make lending decisions and set terms. Venture capital firms rely on it to fund SMEs, while credit-rating agencies develop ratios based on this data. Vendors assess buyers' financial health before extending credit, and customers evaluate their suppliers. All these entities benefit from high-quality financial information for informed decision-making, as per IFRS for SMEs.

Users often compare cash flows, liquidity, and solvency. However, differing reporting standards hinder comparability and may lack crucial disclosures, complicating the assessment of accounting differences. IFRS for SMEs provides standardized guidelines, fitting the size and nature of SMEs, ensuring comparability and clarity in financial reporting.

Benefits to Local Startups

Startups in Bangladesh that does not have public accountability can benefit significantly from IFRS for SMEs by enhancing the quality and comparability of their financial reporting. This framework can alleviate the financial reporting burden, as startups will not need to comply with the more complex and resource intensive full IFRSs, which are often not practical for their size and

nature. Additionally, adopting IFRS for SMEs can improve access to international lenders and further enhance the quality and comparability of financial reporting.

Benefits for Small Scale and Less Complex Multinationals Entities

Many multinational companies in Bangladesh are smaller and less complex, with no public accountability. Most shares in these entities are controlled by their immediate parent companies under the ultimate parent company's jurisdiction, with a few minority shareholders also under common control. IFRS for SMEs is ideally suited for these companies. Currently, these entities are required to prepare GPFS as per full IFRSs, which is burdensome. Permitting these companies to adopt IFRS for SMEs would positively impact their business and compliance costs, improve resource efficiency, and potentially attract more foreign direct investment.

Easier Tax Assessment

The reduced complexity of IFRS for SMEs makes it easier for the assessing officers to understand and interpret financial statements prepared under the Standard.

Challenges and Solutions for Adopting IFRS for SMEs in Bangladesh

Adopting IFRS for SMEs presents several challenges. Many SMEs not legally required to preparing GPFS per IFRSs may resist change due to perceived complexity or lack of immediate benefits. Similarly, entities without public accountability that are required to prepare GPFS (such as Threshold-based PIEs) may prefer maintaining the status quo and resist transitioning to IFRS for SMEs. Nevertheless, these entities could be given the option to continue following full IFRSs.

There is also a shortage of trained professionals and auditors, as full IFRSs have been the predominant framework locally. However, in addition to professionally qualified accountants, second-tier accounting professionals from the Institute of Chartered Accountants of Bangladesh can be easily trained on IFRS for SMEs due to their familiarity with full IFRSs. The learning curve is expected to be manageable for both existing qualified accountants and the growing pool of second-tier professionals due to experience and familiarity with the full IFRSs.

Public and private universities in Bangladesh can play a role in training and capacity-building programs. Digitalizing the financial reporting system based on IFRS for SMEs is another critical step, though many SMEs may struggle to afford compatible ERP systems. The government could support this by engaging local software developers through the SME Foundation to develop and maintain ERPs for SMEs.

Additionally, transitioning to IFRS for SMEs may pose challenges for some SMEs. A phased adoption approach can help, with the option for entities to fully adopt IFRS for SMEs voluntarily. Willing Threshold-based PIEs may be given an option to fully

transition to IFRS for SMEs, as they are already compliant with full IFRSs.

Conclusion

Given the definition of PIEs, particularly those based on thresholds, many entities classified as SMEs may be considered PIEs. Additionally, many threshold-based PIEs may lack public accountability. These entities could be permitted to prepare their GPFS in accordance with IFRS for SMEs. To facilitate this, the definition of PIE may need to be revisited. Alternatively, regulators could clarify that Threshold-based PIEs without public accountability can prepare their GPFS using IFRS for SMEs. However, it is uncommon for PIEs to use IFRS for SMEs for their financial statements. It should also be specified that SMEs listed on SME Exchanges must comply with full IFRSs due to their public accountability profile. Similarly conforming clarification may be provided by the National Board of Revenue or amendments made to the relevant provision in the ITA 2023 that IFRS for SMEs can be applied by SMEs without public accountability.

Despite the variances in the definitions of SMEs and the technical delineation of PIEs based on thresholds, SMEs and entities lacking public accountability should not be deterred from preparing their general-purpose financial statements in accordance with IFRS for SMEs. It is imperative for relevant regulators and stakeholders to collaborate and establish a comprehensive roadmap for the adoption of IFRS for SMEs in Bangladesh.

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The Rise of Intelligent Accounting
AI Tools Revolutionizing the Industry

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Abstract

The integration of artificial intelligence (AI) into accounting is redefining the industry, transforming traditional practices into intelligent, automated processes. This article explores the evolution of accounting technology, highlighting the key areas where AI is making a significant impact, including task automation, enhanced accuracy, fraud detection, predictive analytics, natural language processing and data visualization. The benefits of AI adoption, such as increased efficiency, cost savings, and improved decision-making, are juxtaposed with challenges like data privacy, implementation costs, and ethical concerns. As AI continues to advance, accountants are transitioning from routine roles to strategic advisory positions, emphasizing the importance of upskilling and ethical oversight. The future of accounting promises innovations like AI-powered audits, blockchain integration, and personalized financial solutions, positioning AI as an indispensable tool for modern accountants.

Introduction

The accounting profession has long been considered a cornerstone of business operations, ensuring accuracy, compliance, and financial health. However, the rapid advancements in technology, particularly artificial intelligence (AI), are fundamentally transforming the way accountants work and businesses operate. The integration of AI into accounting practices is not just enhancing efficiency but also redefining the profession itself. This article explores the rise of intelligent accounting and how AI tools are revolutionizing the industry.

Credit: www.forbes.com

The article was reviewed by ***K. Atique-e-Rabbani*** *FCA*

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The Evolution of Accounting Technology

The history of accounting spans millennia, reflecting human innovation in tracking possessions and wealth. It highlights the evolution of commerce and the discipline itself. From its ancient origins to today's rapid advancements, accounting has continually transformed, with automation and machine learning now revolutionizing the industry. Exploring this journey provides insight into the progression of accounting tools and practices from their inception to the cutting-edge technologies shaping the future.

Accounting has always been closely tied to technology. From the introduction of the abacus to the advent of spreadsheets and enterprise resource planning (ERP) systems, technological advancements have consistently reshaped the profession. However, the emergence of AI represents a paradigm shift far beyond incremental improvements.

AI leverages machine learning, natural language processing, and data analytics to automate and enhance various accounting processes. Unlike traditional software that follows predefined rules, AI systems learn and adapt over time, enabling them to handle complex tasks, identify patterns, and make predictions with unprecedented accuracy.

Key Areas Where AI is Making an Impact

Automation of Routine Tasks

One of the most immediate benefits of AI in accounting is the automation of repetitive and time-consuming tasks. Activities such as data entry, invoice processing, and bank reconciliations can now be handled by AI-powered tools. This not only saves time but also reduces the likelihood of human error.

For example, tools like Xero and QuickBooks use AI to automatically categorize transactions, match invoices to payments, and reconcile accounts. This allows accountants to focus on more strategic activities such as financial planning and advisory services. (Xero, 2023)

Enhanced Accuracy and Compliance

Accuracy is critical in accounting, and even small errors can have significant consequences. AI systems excel at processing large volumes of data with precision, minimizing errors in financial reporting and compliance.

Furthermore, AI tools are equipped to monitor regulatory changes in real time and ensure that organizations remain compliant. For instance, platforms like Thomson Reuters' ONESOURCE leverage AI to manage tax compliance, reducing the risk of penalties and audits.

Fraud Detection and Risk Management

Fraud detection is a challenging area for traditional accounting systems, which rely heavily on rule-based methods. AI, on the other hand, uses machine learning to identify unusual patterns and flag potentially fraudulent activities.

Tools like SAP's Concur and

IBM's Watson can analyze transactions, detect anomalies, and assess risks with remarkable speed and accuracy. This proactive approach to risk management helps organizations safeguard their financial integrity. (PR Newswire, 2023)

Predictive Analytics and Financial Forecasting

AI-driven predictive analytics is transforming financial planning and decision-making. By analyzing historical data and market trends, AI systems can generate accurate forecasts and provide actionable insights.

For instance, platforms like Planful and Adaptive Insights enable businesses to create dynamic financial models that account for various scenarios. This empowers organizations to make informed decisions and stay ahead of market fluctuations.

Natural Language Processing (NLP) in Reporting

NLP, a subset of AI, is revolutionizing the way financial reports are generated and interpreted. Tools like Microsoft's Power BI and Tableau use NLP to convert raw data into comprehensive reports that are easy to understand.

Additionally, AI chatbots equipped with NLP can answer financial queries, explain reports, and assist with troubleshooting, making financial data more accessible to non-experts. (Matellio, 2024)

Data Visualization: The Role of Data Visualization in Accounting

Data visualization is transforming the accounting industry by making complex financial data more accessible, actionable, and visually appealing. Tools like Power BI and Tableau play a pivotal role in helping accountants, analysts, and decision-makers extract insights from data and communicate them effectively.

Data visualization transforms complex datasets into easily interpretable visual formats, such as charts, graphs, and dashboards. This approach allows accountants to identify trends, patterns, and anomalies quickly, enhancing financial analysis and strategic planning. By enabling real-time data interpretation, businesses can make more informed decisions and maintain a competitive edge.

Power BI: A Game-Changer for Accountants

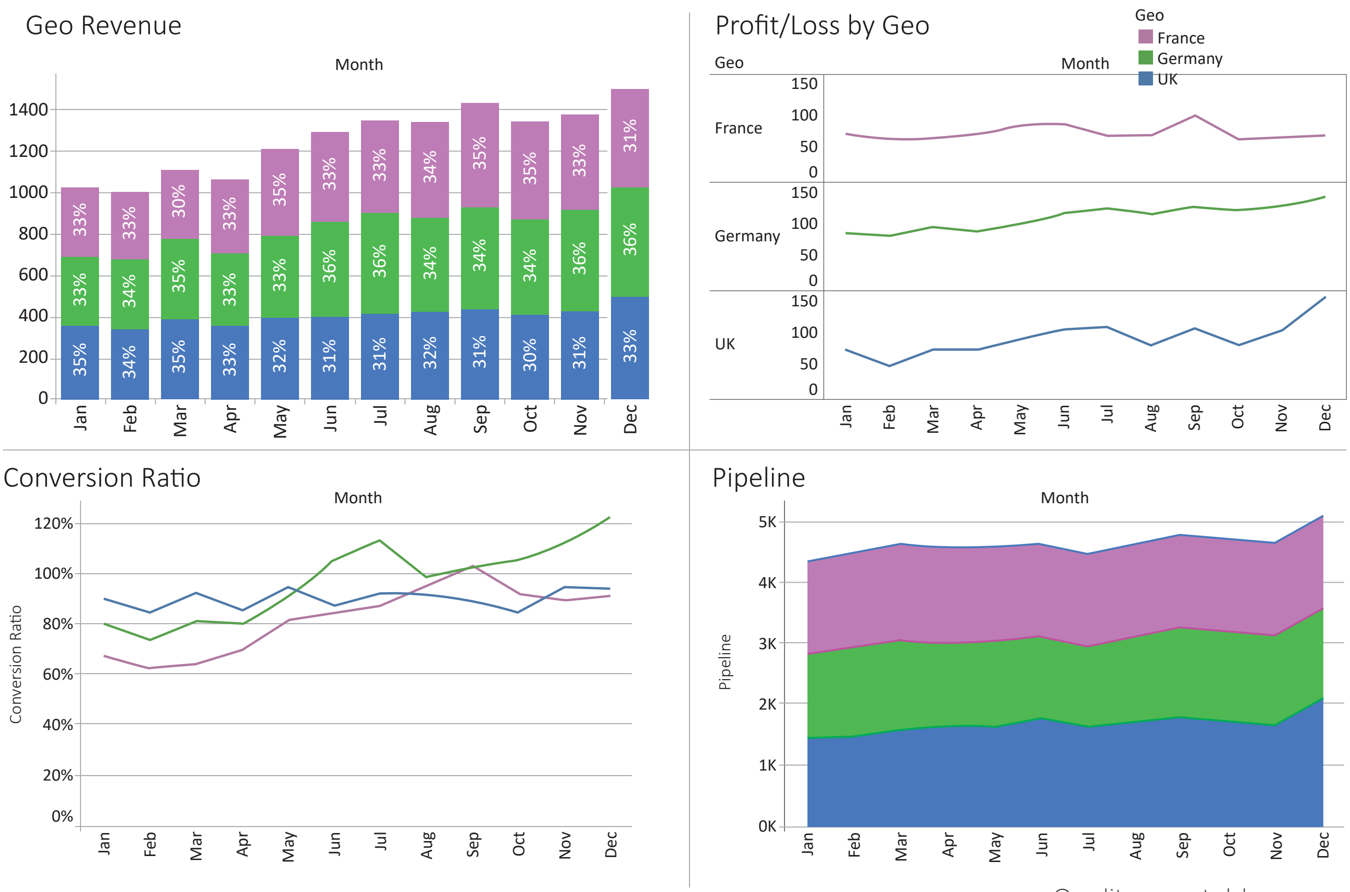
Microsoft Power BI is a powerful tool for data visualization, offering robust features tailored to accounting needs. With its integration capabilities, Power BI connects seamlessly to various accounting systems, consolidating data from multiple sources. Accountants can create interactive dashboards that provide real-time insights into key financial metrics such as revenue, expenses, and cash flow. (Etani, 2019)

Additionally, Power BI's predictive analytics feature enables accountants to forecast financial performance, aiding in budgeting and strategic planning. Its user-friendly interface ensures that even those without a technical background can generate and share compelling reports.

Credit: www.plainconcepts.com

Tableau: Bringing Financial Data to Life

Tableau is another leading data visualization platform widely adopted in the accounting industry. Known for its intuitive drag-and-drop functionality, Tableau enables accountants to create customized visualizations with minimal effort. Its advanced analytics capabilities allow for in-depth exploration of financial data, uncovering insights that might otherwise go unnoticed.



Credit: www.tableau.com

Tableau's versatility extends to scenario analysis, helping accountants' model various financial outcomes and develop proactive strategies. Its compatibility with cloud-based systems ensures accessibility and collaboration across teams. (Tableau, n.d.)

Benefits of AI in Accounting

The adoption of AI in accounting offers numerous benefits, including:

- Increased Efficiency: Automation reduces the time required for routine tasks, enabling accountants to focus on higher-value activities.
- Cost Savings: By streamlining operations, AI reduces operational costs and improves profitability.
- Improved Decision-Making: AI provides real-time insights and forecasts, supporting strategic planning.
- Scalability: AI systems can handle large volumes of data, making them ideal for growing businesses.
- Enhanced Client Services: With AI taking care of routine tasks, accountants can dedicate more time to personalized client services.

Challenges and Ethical Considerations

While the benefits of AI in accounting are undeniable, the transition is not without challenges. These include:

- Data Privacy and Security: AI systems require access to sensitive financial data, raising concerns about data breaches and privacy.
- Implementation Costs: Adopting AI tools can be expensive, particularly for small and medium-sized enterprises (SMEs).
- Job Displacement: Automation may lead to job displacement, necessitating reskilling and upskilling initiatives.
- Ethical Concerns: The use of AI in decision-making raises ethical questions about accountability and transparency.

The Role of Accountants in an AI-Driven World

The rise of AI does not signal the end of the accounting profession; rather, it marks a transformation. Accountants are shifting from traditional roles to becoming strategic advisors and data analysts. Here are some ways accountants can adapt:

Embracing Technology

Accountants must familiarize themselves with AI tools and understand their capabilities.

Upskilling

Continuous learning in areas such as data analytics, programming, and AI will be crucial.

Focusing on Advisory Services

With AI handling routine tasks, accountants can focus on providing value-added services such as financial planning and strategic consulting.

Ethical Oversight

Accountants will play a key role in ensuring that AI systems are used ethically and comply with regulations.

The Future of Intelligent Accounting

The integration of AI into accounting is still in its early stages, but its potential is immense. As AI technologies continue to evolve, we can expect the following trends:

- Integration with Blockchain: Combining AI with blockchain technology could enhance transparency and security in financial transactions.
- AI-Powered Audits: Real-time audits powered by AI could become the norm, reducing the time and cost associated with traditional audits.
- Personalized Financial Solutions: AI could enable hyper - personalized financial planning and advisory services tailored to individual clients.
- Global Adoption: As AI tools become more accessible and affordable, their adoption will increase across industries and geographies.

Conclusion

The rise of intelligent accounting marks a new era for the profession. AI tools are not only revolutionizing traditional practices but also unlocking new opportunities for growth and innovation. While challenges remain, the benefits far outweigh the risks, making AI an indispensable asset for the future of accounting.

As accountants adapt to this technological revolution, they will find themselves at the forefront of strategic decision-making and business transformation. By embracing AI, the accounting profession can continue to thrive in an increasingly complex and dynamic world.

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Country Needs More Beneficial Savings at Individual Level to Boost up Investments

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Introductory Words

Leakage of savings from the investment channel is a major concern for many emerging economies in the world. Although savings is thought to be the main stimulant for investment, but more savings does not necessarily bring about more investment. Besides savings, the degree of investment in an economy depends on a number of micro and macro-economic factors. If these factors do not exist in the economy, savings alone may not induce investment. On the other hand, wealth cannot grow without proper investment. Hence, from a macroeconomic viewpoint, the part of savings that does not yield investment and remains idle in the economy becomes less beneficial and less profitable.

Today we shall discover the practical impediments between savings and investment in the context of Bangladesh economy. If we can identify the impediments appropriately, we can also mechanize the remedies or solutions automatically and successfully. This is the main theme of this article.

Some topics of this article may resemble to our daily life casual discussions, to the extent that how we are affected by these impediments as an individual person or economic member. Unfortunately we overlook the impacts of these impediments on the economy at macro level. This write up would emphasize on those macroeconomic significances more than the microeconomic consequences.

Definition of Less Beneficial Savings

We know, Savings = Income – Expense. So, in very simple sense, less beneficial or less profitable savings should increase in the economy whenever there remains any uncertainty in the constancy or consistency of income and expenses. That means, income and expenses fluctuate so much that people do not know for sure what may be their minimum income and maximum expense at any particular point in time. So they are unwilling to deploy their savings for any long-term investment, since they feel they may need the money on demand at any moment. Thus their savings becomes less beneficial and less productive for the economy, due to a low trend in investment.

Today let us dig deep into the factors that affect the constancy or consistency of the income and expenditure of our people. We do well understand that, by the term inconstancy or inconsistency in income and expenditure, we refer to the following facts:

- Insufficiency of income level to expenditure level. We do not mean that income is consistently lower than expenditure. We mean that income is sometimes higher and sometimes lower than expenditure. Hence, people

make savings at the time of income surplus with a view to tackling the moments of expenditure surplus.

- Threat of sudden decrease in the income level.
- Threat of sudden but continuous and regular increase in the expenditure level.

In these situations, people make savings, but the savings does not come into use for economically beneficial purposes (i.e. investment). Keeping this in mind, we can move to our next discussion.

Origin of Less Beneficial Savings in the Economy

People or businesses hold cash due to the timing difference between cash inflow and cash outflow. As per financial management theory, there are 3 distinct and peculiar reasons for holding cash:

- Transaction motive (i.e. meeting day-to-day expenses);
- Precautionary motive (i.e. meeting unforeseen emergencies or unpredictable obligations); and
- Speculative motive (i.e. utilizing a profitable but time-bound opportunity).

We may consider cash holding in financial theory as equivalent to savings described in economics. Then we can also find clear similarity between the purposes of holding cash and the purposes of savings. People are supposed to split the cause of their savings between meeting foreseeable needs i.e. transaction motive, meeting unforeseen emergencies i.e. precautionary motive and capitalizing speculative investment opportunities i.e. speculative motive. There is no yardstick for defining the amount of savings for each specific purpose. But none of the purposes is less significant or less important than the other. Transactional and precautionary savings are important for subsistence, whereas speculative savings facilitates existing wealth to grow. Therefore, people are supposed to maintain at least an abstract or perceptual balance between the amount of savings for each purpose.

Unfortunately, due to many practical reasons, people are forced to overlap between the purposes of their savings frequently. Naturally and logically people have to prioritize savings for foreseeable needs (i.e. transactional savings) and unforeseen emergencies (i.e. precautionary savings). Savings for speculative investment purpose (i.e. speculative

savings) is always a residual choice – people do it only after being able to save enough for foreseeable and unforeseeable emergencies.

On the contrary, from the Economics viewpoint, speculative savings may be considered as more important and more beneficial than transactional and precautionary savings. The reason for this is that speculative savings helps existing wealth to grow through investment, what transactional and precautionary savings cannot do.

Now, what are the reasons for stimulating transactional or precautionary savings and destabilizing speculative savings? Are those factors avoidable or unavoidable, controllable or uncontrollable? If controllable and avoidable, are those properly controlled and avoided? These are a few questions to ask for assessing the effectiveness of the total savings made in the economy. More precisely, if speculative savings is decayed by some redundant, avoidable or controllable rise in transactional and precautionary savings, then we cannot rate the overall savings as economically effective.

We know, investment is the lifeblood of an economy. Investment creates employment, production, and finally wealth. Investment needs speculative savings. When more savings does not bring more investment, then the savings as a whole becomes less beneficial and less profitable. As it is evident from above discussion, more saving cannot bring more investment when more and more savings is required for transactional and precautionary purposes. Now, let us look at the factors existing in our socio-economic context that affect the constancy or consistency of our income and expense, and thereby damage the intention of our people to turn savings into investment.

Factors Affecting the Constancy or Consistency of Income and Expenditure

This discussion should be made from a socio-economic aspect

rather than from purely economic perspective. Furthermore, these factors may have multifarious impacts; but we shall only cover the impacts as long as producing economically less beneficial savings.

Job Insecurity

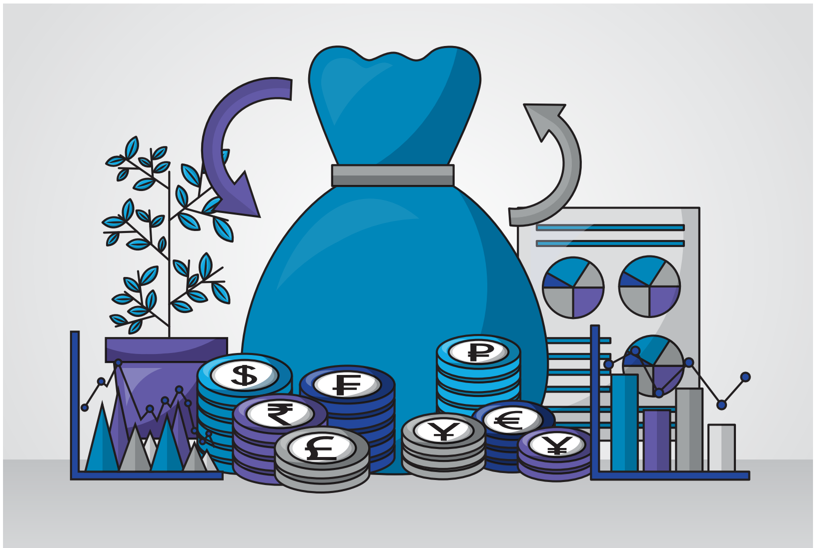
The fact of job insecurity is quite conspicuous in our society, and it arises from a number of factors. One of the main reasons is the lack of formalization or the deficit of formal job opportunities. Due to the higher degree of informality, workers are deprived of their basic employment rights including job security and fair payment. Another reason of job insecurity is lack of skillset, for which people cannot pick up and keep up a suitable formal job or other livelihood. Job insecurity happens from economic volatility too. When businesses cannot make the desired profit due to economic instability or other cause, they commonly go for retrenching workers and employees as an easy attempt for cutting costs and boosting up profit. Whatsoever the reason may be, the consequence of job insecurity is that people will desperately try to make savings from their limited income, by dint of cutting their living costs anyhow. On one hand, this may lead to further economic contraction or depression. On the other hand, at the point of such uncertainty, people cannot inject their savings into any long-term investment. Thus the savings becomes less beneficial and less useful for the economy.

Lack of Skillset

For being successful in any particular occupation, one has to own or gain the relevant skillset. In the absence of necessary skillset, he cannot secure long-term success in the occupation and he always worries about losing his job or business to someone more skilled. In our society, the lack of skillset among people can be attributed to the lower education rate (i.e. something more than merely literacy rate) as well as the inadequate facility for vocational and practical training. As the result of skillset deficit, people cannot find the confidence in making any investment at all. They feel idle savings is safer than an investment. This is the direct form of less beneficial and less productive savings. But the other facet of skillset deficit is even more grievous. If an unskilled person undertakes any venture but finally ends up in failure and wastes his savings, he becomes an example to demotivate and retreat many other potential investors. Hence the lack of skillset is a big threat to savings and investment.

Corruption and System Failure

Bangladesh is ranked 168 out of 190 countries in the Ease of Doing Business Index of the World Bank (DB rank: 168 out of 190, DB score: 45 out of 100). This one statistic is self-explanatory about how much our economic environment is conducive to the investors and entrepreneurs. Even after 53 years of our blooded independence, Bangladesh could not create an investor-friendly atmosphere where an entrepreneur can start and run his business in a



hassle-free way. Abysmal corruption and severe system failure in the way of registration or incorporation of business entity, licensing, taxation etc. do not let the investors feel comfortable and confident. The consequence is that potential investors become disheartened and diffident before or soon after undertaking any new venture. If this is the prevalent situation, then how can country hope for its savings to liberally turn into economically beneficial, profitable and productive?

Abrupt and Unstructured Inflation

It is an issue of long debate if inflation is good or bad for the economy. According to economists, inflation does not impede economic growth as long as it can be anticipated from and backed by some sensible reasons; such as: demand-supply interaction in the market, increase in the price of raw materials, seasonal fluctuation, currency devaluation, expansionary monetary policy of the central bank etc. Also, structured inflation remains within the tolerable limit and consonant with the purchasing power of people. Inflation in a structured manner can facilitate economic dynamics through increase in revenue, increase in productivity, increase in money velocity, increase in investment etc. i.e. an overall decrease in economic stagnation. Now, if we ask: what is the reason for the unbridled inflation in Bangladesh? The most common response may be the manipulation by the commodity market syndicates. Is this a good answer? If inflation occurs in spite of the stability in demand-supply interaction or materials price, it is unstructured and unacceptable. Inflation in our country is abrupt and weird because it often does not contain any reasonability. An absurd and speculative inflation necessarily undercuts the real purchasing power of people and also harms the fair distribution of wealth. Resultantly, people worry about making savings only for meeting the extra expenditure instead of making any investment. So the uncontrolled inflation distorts the genuine purpose or motive of savings.

Lack of Trust among People

As to doing business, the question of honesty and faithfulness / trustworthiness molds the shape of multiple business relationships; e.g. relationship between employers and employees, relationship among employees themselves, relationship with clients and other stakeholders, relationship among business partners, relationship among competing businesses (to ensure fair competition and to avoid unfair means like price dumping) etc. These relationships must remain fair and functional for the sake of smooth business operation. Any adulteration of these relationships is sure to deteriorate the business atmosphere. Now, frankly speaking, what is the level of mutual respect, honesty and fidelity in our concurrent society? The answer is: these values are decreasing at an increasing rate! In fact it is one of the reasons why doing business is becoming gradually tougher day by day in our country. There are many small

investors who cannot start a business only for the rarity of loyal team members and reliable partners. Again, some bad investors are waiting only for a chance of speculation or gambling in lieu of doing business religiously. Moreover the appearance of some mushroom associations (e.g. MLM companies as commonly called) from time to time has violently threatened the trust of common people in the way of gathering up their scattered capitals for investment in a bigger scale. Therefore, the lack of honesty and faithfulness in people has been a vital practical challenge to converting saving into investment.

Inadequacy of Social Security Programs

The government has been funding several social security programs within its limited financial capacity (including old age allowance, food for work, widow allowance, physical disability allowance, pension, savings certificate, TCB and VGF card etc.). Still it is openly admitted even by the government itself that the availability of the welfare programs is insufficient as compared to the expected number of beneficiaries and the degree of their financial distress. Moreover, the allocation of such funds is also politically motivated and biased hence it lacks accountability and transparency. The shortage of welfare programs is higher peculiarly for the middle-class people. Hence a mass perception has grown up over decades that we ourselves have to confirm our own financial security unlike developed economies. This is another reason for our temptation at more and more savings but less investment. Hence the saving becomes economically less beneficial.

Money Laundering

The scenario of money laundering is horrible. According to the TIB, more than $3bn is illegally drained out of Bangladesh every year. The Bangladesh Economic Society says that the total amount of the laundered money so far is around Tk 11tn. Sometimes, money laundering has been provoked by few investment opportunities at home, unhealthy business atmosphere, rise in corruption and black money, unstoppable inclination to migration, inconvenient taxation policy etc. A huge part of the population (ranging from the poorest class to the richest class) is trying heart and soul to leave this country, in order to get rid of economic inequality, political injustice, social discrimination and lack of job opportunities in their opinion. They have serious complaints about the country's economic system, academic curriculum and education system, employment system, healthcare system, public administration or governance system etc. Also, the human trafficking gangs entice a group of unconscious people at a so-called fancy lifestyle abroad. As a result of all of these, so many people believe that they need to save money in this country for now for fulfilling the dream of a comfortable and secured life abroad. Hence, their savings is harmful for our economy as the savings demeans their economic expenditure in the short run and finally the savings does not belong to our domestic economy in the long run.

However, the interim government has aimed at the repatriation of the laundered money to the maximum possible extent. Officials of Bangladesh Anti-Corruption Commission (ACC) met with some officials from the FBI and the UNODC (a UN agency) during September-2024 with a view to getting assistance in this respect. Also, Finance Advisor asked for help in the same respect during his meeting with a visiting team of IMF mission in September-2024. Though the matter possesses big international challenge undoubtedly, yet it's not an undoable task if integrated effort is in place.

Increase in Luxury Expenditure

In the name of lifestyle improvement, some groups of people have been gradually raising their spending in the luxury heads. Sometimes people make long-term savings explicitly for meeting planned luxury expenditures in future. At times they break up a big amount of their on-hand savings for meeting some unplanned luxury expenditure. Our concern is that luxury expenditures – if not justifiable in terms of the utility or benefit obtained against the cost or value paid – undermine the intrinsic value of money and reduce the financial capacity of investment in the long run. But it has some psychological effect too, which is more alarming. Lavishness and luxury bring laziness, which destroys morale and stamina for work. When people are obsessed with their wealth and float in lavishness, they lose the determination and drive for further self-actualization. Therefore, increase in luxury expenditure is a crucial reason for corroding the financial as well as psychological capacity of investment. Putting it differently, some people prefer luxury expenditure to investment simply because they do not find good feasibility for investment. Anyways, the consequence is ominous for the economy. The part of the savings made for or spent after luxury and lavishness are less beneficial or less useful for the economy, even if it adds something to our tangible worth, because the utility or benefit obtained is often immaterial against the cost or value paid. One may argue that luxury expenditure is not so unproductive because it increases economic expenses and money velocity at least to some extent. Unfortunately, the said benefit is too small in magnitude to put against the opportunity cost (decrease in investment). In brief, while talking purely about savings and investment, there is hardly any room for ratifying imprudent luxury expenditures.

Increase in Educational Expenses

The phenomenon of increase in educational expense of the children has been an added anxiety of the guardians for many years. The government or public educational institutes in our country have very limited capacity. Besides, many parents do not rely on public institutes in terms of the quality of education. Hence the rush of students towards private institutes is growing day by day. This lets the private educational institutes the chance for raising their fees and charge frequently.

Again, most of the guardians do not find classroom lectures as enough for their kids. So they arrange private tuition for their children by escalating the cost further. Also, there are only a few part-time job opportunities for the students in our country. Thus the burden of their academic expenses remains mostly on the shoulder of their guardians. Moreover, many parents are keen to send their kids abroad for higher studies. On these and many other grounds, parents have to pay a large part of their savings for the academic certificates of their children. This expense is both substantial and regular to distract an average-earner person from making any long-term investment. Well, what happens next to completing the study life of the children? The children as jobseekers toil hard at managing a job. And the salary is often insufficient for maintaining the family. Therefore, parents know well that they have to continue the family maintenance or sustenance expenditures as long as the dependents become financially independent to hold the helm of the family. This is another valid reason for more transactional or precautionary savings and also low or no speculative savings / investment by people. Yet this is not the end of the tale. Many students hope for becoming entrepreneurs at the end of the student life. Some guardians also hope for the same about their descendants due to the uncertainty in the job market. In that case the initial capital must be provided by the guardians. Keeping this in mind, some guardians opt themselves out of making any investment on their own at their effective age. That means the investment is delayed in the economy.

Too High Treatment Expenditure

This is another reason why the lion's share of the country's population is worried about making idle precautionary savings. People have serious complaints about the quality of our healthcare service despite the outrageous cost. Only a few numbers of government hospitals and the level of service therein divert people sometimes toward private clinics and often toward cross-border hospitals. Above all, the physicians are often accused for prescribing too many tests in course of diagnosing the disease, but finally failing to do it rightly. Since healthcare is a fundamental as well as incidental / contingent necessity, and also the cost is assumed to be terribly high, hence a huge amount of money allotted to this purpose becomes an idle reserve or idle precautionary savings at every family.

Usefulness or Effectiveness of Public Savings Made in the Banking Channel

One may argue that savings does not remain idle or unbeneficial as long as the savings is made in the banking channel. On behalf of the depositors, banks invest the money into long-term projects. Thus, although an individual person may not make investment on his own, banks can take up his role. Let us examine this proposition from some critical aspects for checking how long it is valid.

- People prefer keeping money in bank accounts for earning a minimum but secure profit. If this is true, then we admit that keeping money in bank account is not as profitable as an investment.

- Bank is an institutional investor. All institutional investors are subject to strict legal framework and constructive formalities before making any investment. Therefore, making an investment is not so easy for a bank or other institutional investor.

- As an institutional investor, banks must seek for higher profit margin. Low-profit projects are not affordable for banks and other institutional investors. Therefore, excessive dependence on banks / NBFIs or institutional investors may cause the small but attractive investment sectors (popularly known as niche segments) to remain unserved or underutilized in the economy.

- If we place the depositors in the supply side and the borrowers in the demand side of a banking value chain, then the whole banking process is nothing but an intermediary function. In theory, an intermediary setup increases the transaction cost. Thus although banks play important roles as intermediaries for materializing a connectivity between the demand side (the borrowers) and the supply side (the depositors), but the cost of providing the banking service (i.e. interests and bank charges) should be kept within the best affordability of the clients. Hence the luxurious physical setup, the lucrative pay structure, the massive promotional campaigns and finally the acute profiteering pressure – everything should be justifiable against the added transaction cost.

- We are aware of the recent anarchical situation at the country's banking sector. As a result of the dreadful level of corruption and loan defaults sponsored by the influential political leaders of last fallen regime, a number of banks neared to bankruptcy. At least 9 private banks were grappling with severe liquidity crisis, with a total deficit more than Tk 180bn in Sep-24, according to the Bangladesh Bank. Many banks were explicitly defaulting in paying money back to the depositors. Situation worsened so much that the Bangladesh Bank could not but declare a sort of bailout scheme at the end of Sep-24, in order to keep the weak banks operational. 6 financially troubled banks were granted Tk 45bn as liquidity support from stronger banks (i.e. banks having excess liquidity) under the interbank borrowing system and under special borrowing guarantee of the central bank. (The Business Standard, 23-10-2024) According to bankers, this support helped to restore client confidence and to reduce the rush to withdraw deposits from the banks.

But some senior officials questioned the rationale behind helping these failing banks, citing past mismanagement and huge amount of money syphoned off by the former boards. Anyways, at the point of this unrest, people are about to lose their trust in the banks and other NBFIs. Many are already arguing that keeping money outside the banking channel is safer and cheaper than keeping in the banking channel! Such a stress on the banking cum financial sector may result in a further upsurge in less beneficial savings.

Mapping Solutions or Remedies to Less Beneficial Savings

According to Charles Kettering (research head at General Motors from 1920 to 1947), a problem well-defined is a problem half-solved. After a prolonged discussion and meticulous emphasis on the multifarious problems behind less speculative savings and investment in our economy, now we are in a position to decipher the needful things for resolving these issues. The problems are complex but the recommendations are concise and straightforward.

Enhance job security and skillset development of people for reducing precautionary savings:

1. The labor laws and regulations should be enriched with more critical provisions for safeguarding the workers /employees and also for enlarging the scope of termination benefits. Besides, the informal job sectors should be brought under minimum legal compliance for ensuring fair payment to and job security of the workers therein.

2. For boosting up formal job creations, the government has to strengthen and widen the scope of formal or industrial investments. The government may restrict certain sectors only for formal investment by legislations. However, in the way of doing this, the government must expedite and simplify the formalization process for businesses.

3. Increasing the vocational and practical training facility is a must for magnifying the workers' output and job security / occupational excellence thereby.

Pull up the degree of corruption for increasing speculative savings and investment:

4. The government has to formulate and implement an effective business government system.

5. The government should ease up the procedures of registration or incorporation, licensing, tax processing and taxation etc.

6. The government should devise proactive action plan for ensuring corruption-free public services.

Structuralize commodity market inflation for reducing transactional savings:

7. The government must take a hardline against market syndicates, monopolies and oligopolies.

8. There should be more public and private initiatives for establishing direct connectivity between manufacturers and final consumers.

9. The government should ensure transportation and infrastructural facilities at lower costs.

Improve the level of public trust for increasing speculative savings and investment:

10. The government should enact and implement coercive action plans for preventing the mushroom associations from misappropriating large-scale public savings.

11. The government may schematize the state-owned investments to turn into profit-sharing based investment opportunities on Public-Private Partnership (PPP) basis peculiarly for capturing the idle savings of the middleclass people. Besides increasing speculative savings and investment in the country, this will also unburden the government from the huge pressure of foreign loans.

Prevent money laundering for increasing speculative savings and investment inside the country:

12. Preventing corruption is essential for preventing the generation and trafficking of black money.

13. An investment-friendly domestic environment will decrease money laundering spontaneously.

14. Aiming at reducing migration and resultant drainage of money, the government has to protect the constitutional rights of the citizens, upgrade the

civic amenities countrywide beyond the city areas, stop political injustice and establish socio-economic indiscrimination.

Discourage imprudent luxury expenditures for increasing speculative savings and investment:

15. Direct and indirect taxation at high rates is one of the common disincentives to luxury expenses.

16. A contractionary monetary policy by the Bangladesh Bank may also work well from time to time.

Reduce educational expenditure for reducing transactional savings by parents or guardians:

17. Our educational curriculum should be refurbished for increasing the coverage of technical or work-oriented education than merely bookish lessons.

18. Private educational institutes should be ethically and legislatively restrained from charging too high fees from the pupils.

19. Engagement of students in traffic controlling in recent past is an admirable decision of the government. They may be employed in other public services too on part-time basis. This will relieve the parents or guardians at least to some extent and also reduce the cost of providing public services.

Decrease treatment expenditure for decreasing precautionary savings:

20. The government may set ceilings for the diagnosis fees charged by private healthcare institutes. As we remember, during the outbreak of Covid-19, the government fixed up the corona test fee.

21. The government hospital authorities should be held strictly accountable for the quality of their service (including treatment, environment cleanliness, free medicines, staff behavior etc.).

22. The brilliance of our doctors and physicians should be utilized and nurtured through regular professional training, sponsored researches and chartered international associations.

Endings Rmarks

Economic progress is not a random success; it is a continuous process through incessant endeavor. We must identify and resolve any issues in the course of economic sustainability. Since economists believe investment as the lifeblood of economy and savings as the nutrition for investment, so any bottleneck to speculative savings and investment should be handled with due care.

Navigating Balanced Professional Skepticism in Auditing

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Abstract

The requirement of maintaining and exercising professional skepticism, which requires auditors to maintain a questioning mindset and attitude, be alert to potential misstatements, and assess audit evidence critically throughout the audit process, is referredin various international auditing standards (ISAs) to ensure high quality audits. However, the concept and necessity of exercising balanced professional skepticism are still not incorporated in any ISA and are not well understood by majority of audit practitioners. Itis essential to ensure necessary attentions, inquiries, and challenges are conducted made by auditors without compromising the relationship with clients. This study aims to explore the concept of balanced professional skepticism and suggests strategies in exercising balanced processional skepticism that enhance the audit quality. By exploring its concept and providing recommendations to it in auditing, this study is expected to contribute a lot to the development of the auditing profession.

Introduction

Professional skepticism represents an auditor's questioning mindset, critical assessment, and alertness to circumstances that may indicate potential misstatement due to errors or frauds. It is fundamental to auditing; without it, what are done by auditors, have little value (Ciołek, January, 2017). The necessity and requirement of professional skepticism have been referred to in various international standards of auditing. During the time of application of this, auditors should keep this in mind that it can act as a double-edged sword. Unbalanced professional skepticism may result in inefficient audits with severe adverse consequences. Even auditing standards do not mention the issue of balanced professional skepticism explicitly; understanding and exercising a balanced professional skepticism is necessary to perform audits efficiently. The objective of this study is to explore the concept of balanced professional skepticism and suggest strategies in adopting balanced processional skepticism that enhance audit quality.

Understanding Professional Skepticism

Professional skepticism is an attitude characterized by a questioning mindset regarding the validity of information and critical assessment of evidence (Ciołek, 2017). IAASB's Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements defines itas an attitude that involves a questioning mind, being alert to conditions that may indicate possible misstatement due to error or fraud, and a critical assessment of evidence.

Three Cores of Professional Skepticism

- A questioning mindset and attitude: Auditors need to have a natural inclination for questioning information, assumptions, and representations provided by management instead of blindly trusting.
- Alertness to potential misstatements: Auditors need to be alert and aware of red flags and potential misstatements caused by frauds or errors.
- A critical evaluation and assessment of audit evidence: Auditors need to be proactive to evaluate and assess information and evidence critically.

An audit conducted without a mindset of professional skepticism is unlikely to achieve a high standard of quality (Hong Kong Institute of Certified Public Accountants, 2017). At its essence, the practice of professional skepticism is vital for ensuring that auditors do not overlook unusual situations, simplify the findings from audit procedures excessively, or rely on inappropriate assumptions when determining the necessary audit responses to address identified risks (Dang & Do, 2024). Such diligence is instrumental in improving the quality of the audit.

Factors Influencing Professional Skepticism in Auditing

Many factors affect the professional skepticism applied by auditors during audits. These factors can be categorized into individual, organizational, and environmental/contextual factors. Key factors influencing this are discussed below:

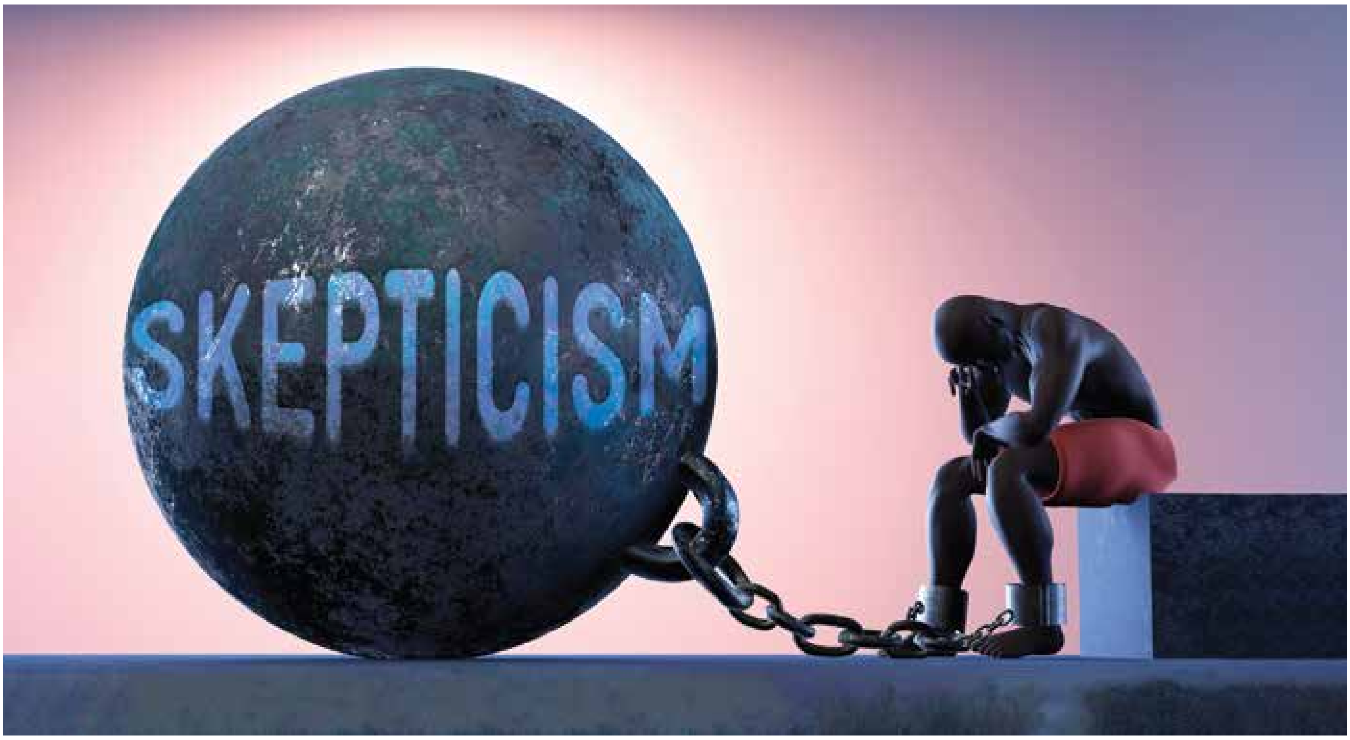
Individual Factors

- Auditor experience and expertise: The experience and expertise of auditors positively influence the application of professional skepticism. Experienced and expert auditors tend to have a deeper understanding and knowledge of the business operations, industry practices, and potential risks (business risks and audit risks) (Dang & Do, January, 2024). Deeper understanding and knowledge of the business operations, industry practices, and potential risks facilitates critical evaluation of information and exercising of professional skepticism.

- Auditor independence and objectivity: Professional skepticism applied by the auditors is closely tied to their independence and objectivity (Chiang, April, 2016). Independence allows auditors to remain unbiased, adopt a questioning mindset, and evaluate information and evidence critically.

- Audit team dynamics: Audit team dynamics affect professional skepticism by influencing the way of interaction, communication, and decision making within the audit team. Good audit team dynamics, characterized by open communication, diversity of thought, strong leadership and accountability can enhance professional skepticism level whereas weak audit team dynamics, characterized by poor communication, groupthink, hierarchical pressures and unclear responsibilities can reduce professional skepticism level.

- Cognitive biases: Cognitive biases i.e., confirmation bias, overconfidence bias, hindsight bias, availability bias, recency bias, representativeness bias, illusion of control bias, anchoring bias, self-serving bias, etc. can negatively affect independence and professional skepticism in auditing (Diolas, 2022). Cognitive biases can undermine or distort auditors' ability of questioning mindset, alertness to potential misstatements, and critical evaluation of evidence.



Organizational Factors

- Audit firm culture: Audit firm culture significantly affects the professional skepticism applied by the auditors in their work. Audit firm's culture sets the tone of how auditors approach to their responsibilities, interact with clients, and handle inherent pressures. Professional skepticism is fostered when independence, objectivity, and critical thinking are prioritized within the audit firm culture.

- Training and professional development programs: Training and professional development programs, arranged by the audit firms, positively affect the auditors' ability to apply professional skepticism. Training and professional development programs enhance auditors' knowledge and skills to identify risks, question assumptions, and maintain a critical mindset throughout the audit.

- Time constraints and workloads: Undermining constraints and heavy workloads can negatively impact the application of professional skepticism due to the prioritization of timeliness over thoroughness. Time constraints combined with high-volume workloads can lead to reduced alertness to potential misstatements, questioning to management assertions, superficial testing and red flag investigations. Sufficient time and manageable workloads allow auditors to exercise adequate professional skepticism.

Environmental / Contextual Factors

- Client relationship dynamics: Client relationship dynamics play a significant role in shaping professional skepticism applied by the auditors during engagement.

Although a positive relationship can facilitate cooperation, excessive or too much trust, familiarity, or pressure can hinder auditors' ability to remain unbiased and sceptical.

- Regulatory environment: The regulatory environment affects professional skepticism applied by the auditors through established frameworks and oversight mechanisms. Regulatory standards, scrutinies and expectations surrounding independence and audit quality affect auditors' willingness of questioning mindset, alertness to potential misstatements, and critical evaluation of evidence. Auditors are more likely to maintain high professional skepticism in their work when regulatory frameworks and oversight mechanisms are stringent.

- Nature of the industry: The nature of the industry in which the audit client operates influences the professional skepticism level to be applied by the auditors. Different industries exhibit varying levels of inherent risks, complexity of operations, cyclicality and regulatory requirements. High-risk, complex, and heavily regulated industries demand exercising higher professional skepticism whereas low-risk, less complex, and lightly regulated industries demand exercising lower professional skepticism.

- Complexity of financial transactions: The complexity of financial transactions influences the degree of alertness and scrutiny required. Complicated transactions with high uncertainty, judgments, or unconventional accounting methods necessitate more questioning mindset, alertness to potential misstatements, and critical evaluation of evidence due to greater potential misstatement.

The Spectrum of Professional Skepticism

Auditors may exhibit varying degrees of professional skepticism. The spectrum of professional skepticism includes from being overly trusting to being excessively cautious when evaluating information, assumptions, assertions, and evidence. A generalized scale that depicts the spectrum of professional skepticism is shown below:

Spectrum of Professional Skepticism

Least — Low — Moderate — High — Excessive

Level	Characteristics
Least professional skepticism	• Limited doubt or questioning of information. • Reliance on trust without thorough verification. • Potential acceptance of information at face value.
Low professional skepticism	• Basic questioning of information without deep probing. • Seeking few evidence without cautious. • General trust with less caution.
Moderate professional skepticism	• Some questioning of information. • Seeking additional evidence but not overly cautious. • Balancing trust with a reasonable level of caution.
High professional skepticism	• Intense doubt and thorough scrutiny of information. • Rigorous examination and verification processes. • Minimizing reliance on trust and preferring concrete evidence.
Excessive professional skepticism	• Unwarranted suspicion and extreme doubt. • Overly critical approach. • Least collaboration.

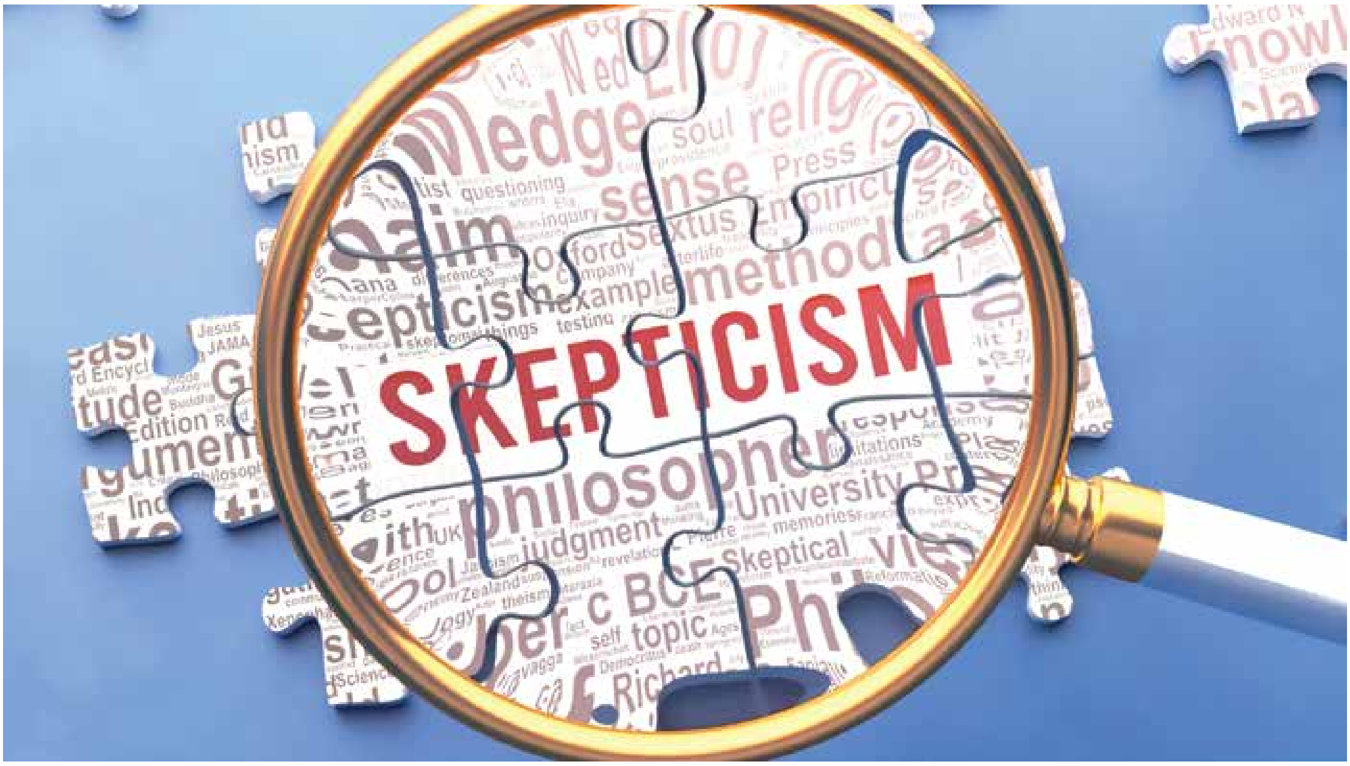
Balanced Professional Skepticism

Professional skepticism can act as a double-edged sword with having both positive and negative consequences depending on how it is applied (Sun, Jia, & Liu, August, 2019). When applied appropriately, it plays a vital role in maintaining audit quality. However, if applied in extremes, either too little or too much can lead to adverse consequences. Thus, auditors should attempt to strike a balanced professional skepticism during their audits. The term "balanced professional skepticism" is not explicitly mentioned in any auditing standards. Merely, the professional skepticism is interlaced throughout various ISAs to ensure high-quality audits. No guidance is made regarding necessity and way of exercising this.

A balanced professional skepticism can be defined as a well-calibrated professional skepticism level based on unique circumstances and risk assessment outcomes of an audit. It involves neither too trusting nor excessively doubtful, but rather exercising a thoughtful and objective approach to evaluate management assertions, judgments, and evidence provided. Key elements of it are as follows:

(i) Calculated risk awareness: Being aware to risk factors, especially those related to fraud, error, or bias, however, avoid the mindset that management is dishonest or already made error without concrete indications.

(ii) Objective evaluation: Objectively assess all available information without letting preconceived notions or biases influence judgments to ensure that evidences are neither dismissed



prematurely nor accepted without proper scrutiny.

(iii) Judgment calibration: Apply scepticism in proportion to the level of risk.

(iv) Professional dialogue: Communicate concerns without appearing confrontational or assumptive. Maintain an open and constructive dialogue with clients.

A balanced professional skepticism ensures that attentions, inquiries, and challenges made by auditors are risk assessment and evidence driven. It ensures that auditors make a careful evaluation of evidence and assumptions, applying critical thinking without jumping to conclusions, and consider both the reliability of the client and the risks of potential misstatements. It enables auditors to be sufficiently vigilant and questioning, but also collaborative and open to reasonable explanations, for maintaining objective judgements and high-quality audits. The following discussion explores how balanced professional skepticism can provide a positive edge, while low or excessive professional skepticism can provide a negative edge:

Strategies for Maintaining Balanced Professional Skepticism

Exercising balanced professional skepticism is essential to maintaining desired audit quality while fostering a positive client relationship (Sun, Jia, & Liu, 2019). A balanced professional skepticism enables auditors to meticulously assess risks, uncover potential or actual material misstatements, and make informed judgments without overburdening the audit process or damaging trust. Below are recommended strategies to enable auditors in exercising a balanced professional skepticism:

Aspect	Positive Edge	Negative Edge
Audit quality	Balanced professional skepticism leads to a high-quality audit as risks are properly identified and addressed.	Low professional skepticism leads to insufficient audit procedures and compromising audit quality. Excess professional skepticism leads to excessive audit procedures and wasting resources on low-risk areas.
Client relationship	Balanced professional skepticism fosters professional but cooperative relationships with clients.	Lack of professional skepticism can create unusually close relationship with clients that leads to over-reliance on client assertions. Excessive professional skepticism strains client relationships and leads to mistrust and potential conflict resulting in inaccurate and skewed audit
Audit efficiency	Balanced professional skepticism ensures that audit resources and efforts are focused on high risk areas and lead to an efficient audit.	Low professional skepticism leads to rushed audits with overlooking significant areas and insufficient testing. Excessive professional skepticism inflates audit scopes and results in wasting audit resources and efforts to insignificant issues. This makes the audit costly and time-consuming.
Fraud detection	Balanced professional skepticism enables auditors to remain vigilant to red flags and proactive to detect frauds or irregularities.	Low professional skepticism leads to over reliance on management assumptions and assertions and increase risk of fraud going undetected. Excessive professional skepticism leads to too much focus on searching for fraud where there is none and wasting resources and time on unfounded concerns.
Professional judgement	Balanced professional skepticism encourages sound judgment and necessary critical evaluation of evidence without over questioning every assertions and decisions.	Too little professional skepticism results in superficial judgments without sufficient evidence and incomplete evaluations. Excessive professional skepticism results in decision paralysis, over analysis, and excessive judgements.
Team dynamics	Balanced professional skepticism fosters trust, collaboration, and effective teamwork.	Too little professional skepticism can result in complacency within the audit team, reduce accountability, and hamper overall audit quality. Excessive professional skepticism can create friction, pressure, and a strained relationship within the audit team.
Legal consequence and reputation	Balanced professional skepticism helps to ensure compliance with auditing standards and reduce the risk of audit failure and reputational damage.	Less professional skepticism may expose audit firms to legal liabilities if material misstatements remain unidentified and found post-audit. Overly professional skepticism while leading to a less likely possibility of lawsuits but can result in missed deadlines and reputational damage.

Audit Firm

- Audit firms should promote a culture that embeds and prioritizes professional skepticism in their internal policies and procedures. Such a culture helps auditors to remain objective and exercise an appropriate level of professional skepticism based on a given situation.

- Audit firms should arrange continuous professional development programs and trainings for upgrading the auditors' knowledge on auditing standards, best practices, accounting judgments, industry-specific risks, and cognitive biases. Ongoing professional development can ensure that auditors are up-to-date with the latest tools and techniques and capable to adjust their professional skepticism at the right level based on the unique circumstances of each audit.

- Audit firms should incorporate advanced technologies and data analytic tools into the audit to facilitate analyzing large volumes of data, identifying trends, and detecting anomalies that may indicate possible misstatements. Leveraging technologies and data analytics enhances auditors' ability in applying skepticism, especially under critical situations and time constraints.

- Audit firms should arrange regular debriefing sessions and peer reviews to discuss about making judgments, evaluating evidence, and applying professional skepticism. This collaborative approach fosters a culture of shared skepticism.

Audit Team

- Audit team members should exercise professional skepticism by following a risk-based audit approach to ensure that appropriate judgments and evaluations are in place based on the sensitivity of financial information. Auditors should allocate more time and scrutiny to higher risk areas and allocate less time and scrutiny to lower risk areas. In this regard, adequate time should be devoted during understanding of the client business processes and internal controls to properly trace out the high risk and low risk areas.

- Audit team members should exercise professional skepticism by considering unique circumstances and audit risk assessment outcomes. Choosing and finding a balanced professional skepticism should be subject to profound thinking of implications and considerations associated with its different levels. The following table highlights implications and considerations associated with different levels of professional skepticism.

- Audit team should maintain balanced and constructive

Level	Implications	Considerations
Least professional skepticism	• Increased risk of accepting inaccurate information. • Potential failure to detect fraud or irregularities.	• Appropriate for well-established and reliable processes. • Caution needed in situations where risks may be underestimated.
Low professional skepticism	• Increased risk of accepting inaccurate information. Potential failure to detect fraud or irregularities.	• Effective for maintaining efficiency while minimizing the risk of errors. • Suitable for tasks with a moderate impact on overall objectives.
Moderate professional skepticism	• Improved accuracy in decision-making. • Reduced risk of overlooking important details.	• Ideal for complex tasks with varying degrees of risk. Enhance the ability to identify and address risks proactively.
High professional skepticism	• Increased likelihood of detecting fraud or irregularities. • Enhanced confidence in decision-making due to thorough analysis.	• Necessary for maintaining integrity in auditing, investigations, or crisis management. • Ensures a thorough examination of information for reliable decision-making.
Excessive professional skepticism	• Reduced efficiency due to unnecessary scrutiny. • Strained relationships with clients.	• Counterproductive in routine tasks or low-risk environments. • Requires recalibration to avoid unnecessary roadblocks and mistrust.

discussions with the clients. Open and transparent communication throughout the audit helps to avoid misunderstandings with clients. When auditors provide reasoning behind their questions and procedures, clients are more likely to understand that professional skepticism is an essential part of the audit and it is not performed due to mistrust. An open and collaborative communication approach ensures professional skepticism is applied effectively without compromising client relationships.

- Audit team should involve internal or external specialists to complex issues and areas i.e. tax, valuation, etc. that require high level of judgments. Internal or external specialists provide expert reviews and evaluations. Involving experts in critical areas and issues reduce the risk of under or over skepticism due to any expertise gap.

- Audit team should set realistic audit deadlines and manage its workload efficiently to minimize the risk of rushed judgments and evaluations by team members. Effective time management and a balanced workload will enable audit team members to think and apply an appropriate level of professional skepticism.

Conclusion

Auditors need to apply professional skepticism throughout the audit engagement. The spectrum of this ranges from least level to excessive level. Each level of this spectrum entails distinct practices, implications, and considerations. During the time of deciding the level of professional skepticism to be applied to an auditor, auditors should keep in mind that it can act as a double-edged sword. A balanced professional skepticism can lead to desired audit quality, whereas too little or too much professional skepticism can lead to adverse consequences. Adopting balanced professional skepticism enables auditors to ensure desired audit quality while maintaining a positive client relationship. Recommended strategies for audit firms include promote a culture embedding and prioritizing professional skepticism in internal policies and procedures, arrange continuous professional developments and trainings, adopt advanced technologies and data analytic tools, and arrange regular debriefing sessions and peer reviews on making judgments, evaluating evidences, and applying balanced professional skepticism. Besides audit firms, auditor teams need to be proactive as they involve in the front level and actively works in clients. Recommended strategies for them include exercise balance professional skepticism by following a risk-based audit approach, maintain balanced professional skepticism by considering unique circumstances and risk assessment outcomes, maintain balanced and constructive discussions with the clients, involve internal or external specialists to complex issues and areas i.e. tax, valuation, etc., and set realistic audit deadline and workloads. By applying balanced professional skepticism, auditors can better serve clients, uphold public trust, and contribute to the overall stability of financial markets.

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Women Entrepreneurs and Access to Finance in Bangladesh

Innovative Strategies to Bridge the Gender Funding Gap

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Executive Summary

Women entrepreneurs are critical to Bangladesh's economic development, helping to drive prosperity, reduce poverty, and promote gender equality. Despite their growing presence in sectors such as handicrafts, textiles, and services, women entrepreneurs face significant barriers to financing, including low financial literacy, gender biases in financial institutions, socio-cultural constraints, and insufficient access to credit and capital. The Bangladesh government, via initiatives coordinated by the Bangladesh Bank, SME Foundation, and Women Entrepreneur Association of Bangladesh (WEAB), has implemented legislation to promote financial access and assistance for women-owned enterprises. Simplifying loan procedures, reserving credit for women, and providing financial literacy programs are among the initiatives. Furthermore, microfinance institutions (MFIs), non - governmental organizations (NGOs), private-sector banks, and foreign organizations play critical roles in providing financial services, training, and mentorship to female entrepreneurs.

To close the gender financing gap, innovative techniques must be developed, such as gender-sensitive financial products, improved digital financial services, women-focused investment funds, and gender-sensitive credit scoring algorithms. Other measures include pushing legislation reforms to improve gender equality in finance, establishing women's entrepreneur networks, and boosting corporate social responsibility (CSR) efforts. Policy proposals are centered on removing legal and regulatory impediments, creating awareness and lobbying for gender-inclusive financing, and utilizing CSR initiatives to assist female entrepreneurs.

The complete framework provided emphasizes the need of simplifying company registration processes, preserving equal property rights, and fighting for laws that address women's financial needs. To deliver equitable financial solutions, the government and financial institutions must collaborate, with private enterprises contributing through mentorship, investment, and training opportunities. By applying these measures, Bangladesh may further empower women entrepreneurs, supporting long-term growth and expanding their roles as essential agents of economic and social tran sformation.

Introduction

Overview and Importance of Women Entrepreneurs in Bangladesh

Women entrepreneurs play an important part in Bangladesh's

economic development, making major contributions to growth, poverty reduction, and socioeconomic advancement. Women own about 10% of all SMEs, primarily in handicrafts, textiles, agro-processing, and services. This increasing engagement in economic activities has led to direct employment creation, enhanced community development, and more gender equality. The Bangladesh Bank has developed a number of initiatives to help women entrepreneurs, including providing low-cost financing at preferential rates and reserving at least 15% of refinancing opportunities for women. These policies seek to improve access to financing, capacity building, and skill development (Bangladesh Bank, n.d.

The central bank's policies include collateral-free loans of up to BDT 25 lac, which are intended to boost women entrepreneurs, including those who are home-based or marginalized. Furthermore, the bank allows group financing up to BDT 50,000 to help collective firms and offers simpler loan applications in Bengali to decrease documentation requirements. To develop diversity, financial institutions are expected to seek out women interested in becoming entrepreneurs, as well as to provide training and loans to at least one woman in their catchment region.

Furthermore, banks and non-bank financial institutions must set up specific desks to assist women entrepreneurs with everything from loan requests to marketing. Head offices are also expected to establish Women Entrepreneur Development Units (WEDUs) to manage and monitor the progress of female businesses. To help new and expanding enterprises, the bank has issued a circular establishing a loan grace period of three months for one-year term loans and up to six months for medium and long-term loans (Bangladesh Bank, n.d.).

While women entrepreneurs play an increasingly important role, they continue to encounter obstacles such as limited access to funding, a lack of mentorship, and societal restraints. Policy support from the government and financial institutions is helping to close these disparities. Bangladesh's initiatives to promote financial inclusion, skill development, and company growth contribute not just to economic development, but also to gender equality and long-term progress. Women entrepreneurs are becoming important drivers of social change, promoting better livelihoods and increasing decision-making power in homes and communities.

Current Scenario of Access to Finance for Women Entrepreneurs

Women entrepreneurs in Bangladesh confront several barriers to financing, restricting their business growth and potential. Socio-cultural norms, gender prejudices, financial illiteracy, poor credit access, and inadequate digital services are all contributing aspects to the problem. These barriers prohibit women entrepreneurs from fully engaging in the market and limiting their ability to scale their firms efficiently.

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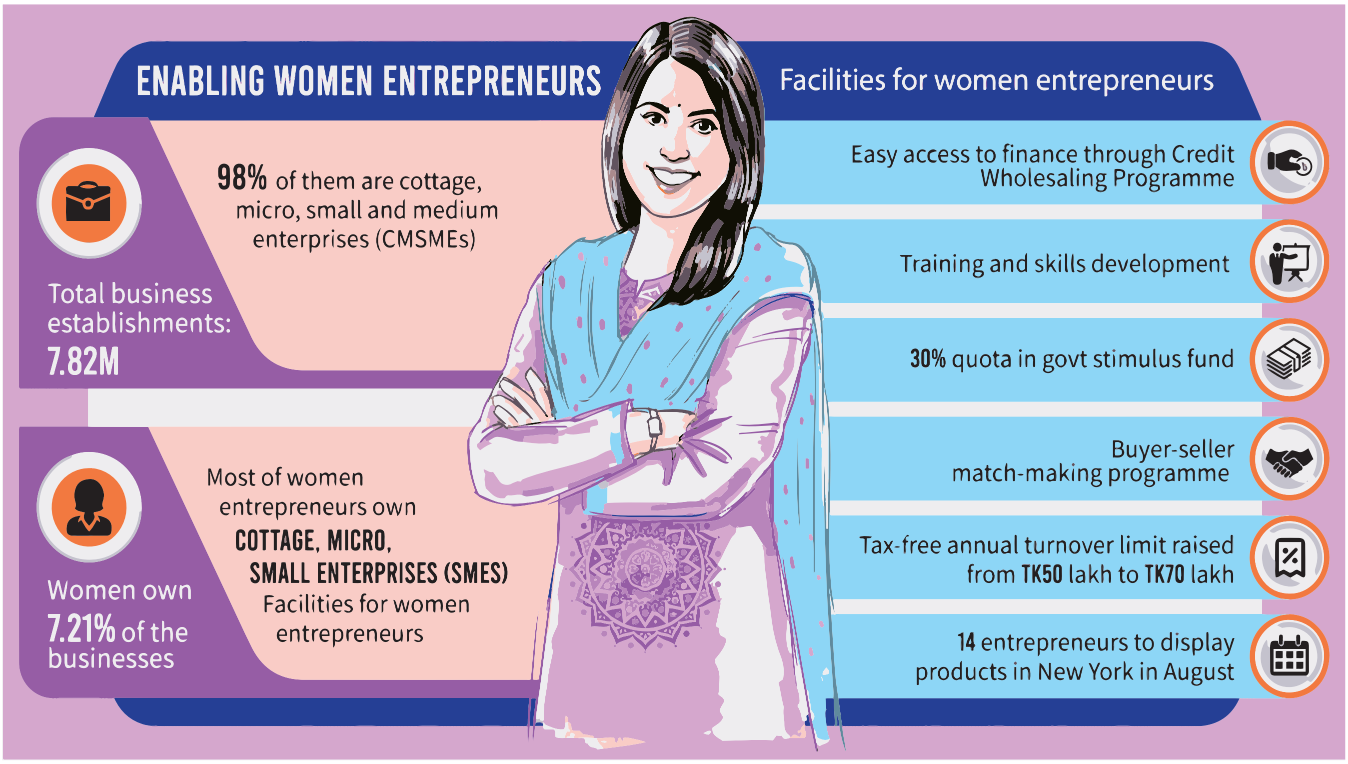


Understanding these issues is critical for finding solutions to better support women's entrepreneurial pursuits.

Financial Literacy

A significant barrier for female entrepreneurs in Bangladesh is a lack of financial literacy, which impairs their capacity to efficiently handle funds and understand financial products. Financial literacy is not just learning how to obtain financial goods, but also effectively applying them to support corporate operations. According to Akhter and Sumi (2014), women entrepreneurs frequently lack the skills required to navigate complicated financial institutions, preventing them from obtaining formal funding and managing their business cash flows. The Bangladesh Bank (2022) emphasizes the importance of financial literacy programs for women in order to equip them to confidently use financial services.

Socio-Cultural Norms and Gender Roles

Sociocultural norms in Bangladesh have a considerable impact on women's ability to participate in economic activity. Traditional gender norms frequently require women to focus on domestic tasks and caregiving, which limits their ability to engage in economic initiatives or financial transactions (Amin & Rahman, 2019). These standards also limit women's mobility and independence, both of which are required for good company operations. According to the Women's Financial Inclusion Data (WFID) Dashboard (n.d.), these socio-cultural barriers not only limit women's financial access but also have an impact on their confidence and capacity to grow enterprises.

Gender Bias in Financial Institutions

Women entrepreneurs confront gender bias in financial institutions, which frequently

leads to tougher lending requirements and more unfavorable loan terms. Women may be perceived as riskier clients by financial institutions, resulting in higher borrowing rates, shorter repayment periods, and increased collateral requirements (Das, 2021). According to the WFID Dashboard (n.d.), gender bias is a significant barrier for women seeking funding to expand their businesses. Such biases also result in a dearth of specific financial products for women, further limiting their alternatives for financial assistance.

Access to Credit, and Capital Constraints for Female Entrepreneurs

Access to finance and financing quite difficult for female entrepreneurs in Bangladesh. Due to traditional property laws and cultural standards, women rarely own land or assets, which are frequently required as collateral for loans. As a result, they struggle to meet the formal credit eligibility requirements, limiting their ability to fund business expansion or purchase critical inventory (Begum, 2017). The Bangladesh Bank (2022) also observes that, while policies exist to help women acquire loans, a lack of collateral remains a significant hurdle.

Limited Use of Digital Financial Services

With the proliferation of digital financial services such as mobile banking and online payment systems, there is an increasing opportunity to increase financial inclusion. However, women entrepreneurs frequently experience difficulties in obtaining and utilizing these digital services successfully. Many women lack digital literacy and mobile device access, limiting their ability to take advantage of modern technologies (Rahman et al., 2020). According to the WFID Dashboard (n.d.), women entrepreneurs' limited usage of digital services is due to a lack of training and assistance, preventing them from fully utilizing these technologies to manage their finances properly.

Inadequate Financial Products Tailored to Women's Needs

The financial products now available on the market are frequently not adapted to the specific demands of female entrepreneurs. Financial institutions typically design their products with male entrepreneurs in mind, overlooking the special demands of women-led firms. According to Khatun and Rashid (2016), these financial products fail to take into account women entrepreneurs' unique capital requirements, industry preferences, and payback capabilities. As a result, women are unable to discover financial solutions that meet their company needs, limiting their capacity to receive suitable financial assistance.

Policy and Regulatory Barriers

Although there are government rules in place to encourage women entrepreneurs in Bangladesh, their implementation is inadequate. Financial institutions frequently lack awareness of these policies or the training required to effectively execute them. Furthermore, regulatory hurdles, such as stringent documentation requirements and lengthy loan approval processes, impede women's access to credit (Hasan and Mahmud, 2019). The Bangladesh Bank (2022) advises that

streamlining regulatory procedures and raising policy knowledge among financial institutions are critical measures toward assisting women entrepreneurs.

Lack of Mentorship and Networking Opportunities

Mentorship and networking are essential for business development because they give women entrepreneurs the direction, information, and social capital they need to succeed. Many Bangladeshi women, however, do not have access to mentorship programs or business networks, particularly those who live in rural areas or work in male-dominated industries. According to Kibria and Miah (2018), women must have access to these networks in order to learn from peers, gain market access, and locate prospective financial resources. According to the WFID Dashboard (n.d.), women's business growth and financial inclusion are hampered by a lack of access to mentors and networking opportunities.

Limited Financial Services in Rural Areas

Women entrepreneurs in rural locations face extra barriers to getting financial services because official financial institutions are typically concentrated in urban areas. Because banks and financial institutions are few in rural areas, women must rely on informal lending, which is usually more expensive and less reliable (Hossain & Akter, 2020). Furthermore, rural women frequently lack awareness about official finance choices and face significant socio-cultural barriers, limiting their capacity to obtain critical financial assistance (WFID Dashboard, n.d.).

Complex Loan Application Processes

The application process for a loan is sometimes cumbersome and time-consuming, preventing women entrepreneurs from obtaining formal financial assistance. Many women lack experience creating necessary documents, such as thorough business strategies and financial statements (Bashir & Chowdhury, 2015). Furthermore,

women face additional hurdles due to a lack of transparency in loan application processes and lengthy approval times. According to the WFID Dashboard (n.d.), streamlining the loan application procedure and offering support to women entrepreneurs is critical to improving their access to finance.

Existing Governmental Financial Support and Initiatives for Women Entrepreneurs in Bangladesh

Bangladesh's government has implemented policies and programs to support women entrepreneurs, with a focus on removing financial barriers and boosting economic inclusion.

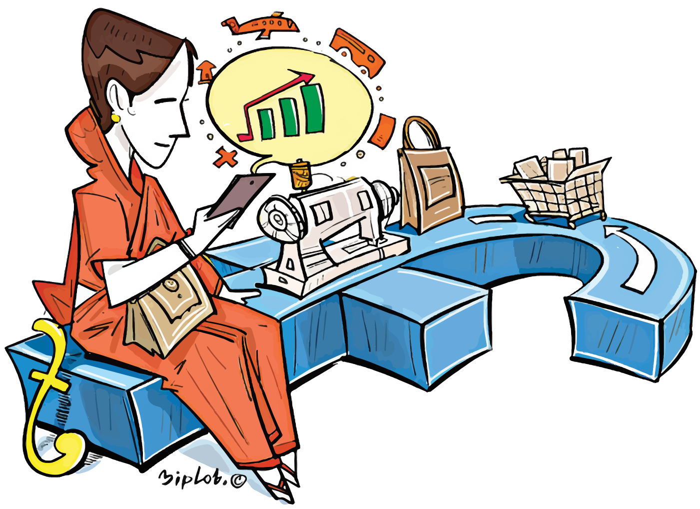
The Bangladesh Bank, as the country's central bank, has played an important role in creating financial programs to meet the requirements of female entrepreneurs. The refinance scheme is an important effort that provides inexpensive credit to women-led SMEs. The plan promotes commercial banks to provide loans to female entrepreneurs at reduced interest rates and better terms (Bangladesh Bank, 2019). This program aims to foster women's entrepreneurship and close the finance gap that limits their business growth.

Another important institution is the SME Foundation, which provides training programs, financial resources, and policy advocacy to women-led businesses. It collaborates with financial institutions and government agencies to create an ecosystem that encourages business and assists women in overcoming barriers to financial access (SME Foundation, 2018). Such collaborations and coordinated efforts are critical for offering comprehensive support to female entrepreneurs.

The Women Entrepreneur Association of Bangladesh (WEAB) is also involved in government activities, focusing on capacity building, advocacy, and policy support for women in business. It campaigns for the unique issues that women confront, offering a platform to raise awareness and suggest policy reforms (WEAB, 2019).

In addition, the government has created capacity-building and skill development programs to help women improve their entrepreneurial capabilities. The Skills for Employment Investment Program (SEIP) is one such effort that trains women entrepreneurs in several industries. This initiative collaborates with business associations, financial institutions, and other stakeholders to provide women with the required skills to start and grow their enterprises (SEIP, 2017).

The Bangladesh government's comprehensive approach includes policy improvements to ensure fair financial access. These laws eliminate



discriminatory lending practices while also encouraging financial institutions to actively support women entrepreneurs. The government intends to establish an enabling environment for women in business by implementing legal changes and giving a portion of SME loans to women-led firms (Hasan & Mahmud, 2019).

Existing Non-Governmental Financial Support and Initiatives for Women Entrepreneurs in Bangladesh

Microfinance institutions (MFIs), non- governmental organizations (NGOs), and private-sector banks all provide non-governmental help to women entrepreneurs in Bangladesh. These organizations have acknowledged women entrepreneurs' concerns and are adopting new financing solutions.

Microfinance institutions like as Grameen Bank and BRAC are well-known for providing microloans, particularly in rural and underprivileged communities. They have empowered thousands of women by providing finance, financial literacy training, and support services, allowing them to start or grow small companies (Yunus & Jolis, 2003; BRAC, 2018). Microfinance lending methods sometimes do not demand traditional collateral, making it easier for women to obtain financing. This method has been critical in boosting financial inclusion and assisting women in overcoming traditional banking hurdles (Khandker & Samad, 2018).

NGOs supplement the work of MFIs by offering training, capacity-building, and financial literacy programmes. They provide services that go beyond financial assistance, such as mentoring, business skill development, and access to support networks (Zaman, 2014). NGOs help women improve their financial literacy and entrepreneurship skills by demystifying financial systems and providing guidance. These programs have a substantial impact on women's capacity to successfully handle the financial hurdles of beginning and managing a business.

Commercial banks have also noticed the potential of female entrepreneurs and are offering more specific solutions to meet their needs. Several Bangladeshi banks, including Eastern Bank Limited (EBL), have created specialized loan products with lower interest rates, flexible payback durations, and simpler application processes (EBL 2019). These financial products are specifically developed to solve the barriers women encounter in obtaining traditional loans. Some banks have set up specific women's banking desks to provide focused assistance and guidance.

The private sector's role goes beyond financial products. Many banks collaborate with women's business networks and advocacy organizations to provide tailored training and tools. For example, workshops on financial management, marketing tactics, and business planning are held to provide women entrepreneurs with the knowledge and skills they need to sustain and grow their enterprises (Karim & Miah, 2018).

International agencies such as the World Bank, International Finance Corporation (IFC), and Asian Development Bank (ADB) all play important roles in improving women's financial inclusion. The IFC's Women Entrepreneurs Finance Initiative (We-Fi) provides technical support, capacity building, and capital to women entrepreneurs in Bangladesh (World Bank, 2018). Collaborations between international and local groups strengthen the effect of local projects by bringing together global expertise and resources.

Innovative Strategies to Bridge the Gender Funding Gap

The numerous solutions are discussed below to address the obstacles faced by female entrepreneurs:

Development of Gender-Sensitive Financial Products

Banks and financial organizations should offer gender-sensitive products that address women's specific financial requirements. This includes developing financial solutions with flexible collateral requirements, reduced interest rates, and repayment schedules that accommodate women's business cycles. By providing individualized financial solutions, women entrepreneurs can gain easier access to finance and manage repayments based on their business success (World Bank, 2019).

Digital Financial Solutions and Mobile Banking

Digital financial services, such as mobile banking and digital payment systems, can significantly improve women entrepreneurs' access to financial resources. These platforms enable women to obtain credit, savings, and other financial products without having to go to a traditional bank, lowering transaction costs and increasing transparency. Digital financial literacy initiatives can help women better use these services (Suri & Jack, 2016).

Women-Focused Investment Funds

Creating women-focused investment funds is an effective strategy to improve access to funding for female entrepreneurs. These funds can provide grants, loans, or equity investments to women-led businesses and SMEs, in order to bridge the financial gap and create a conducive atmosphere for growth. They can also offer mentorship, technical assistance, and networking opportunities to help businesses grow sustainably (IFC, 2017).

Financial Literacy and Business Development Programs

Providing financial literacy training and company development assistance is crucial to increasing women's access to credit. Training programs in financial management, budgeting, credit conditions, and business planning can help women gain confidence in accessing and using financial services efficiently (OECD, 2018).

Gender-Sensitive Credit Scoring Models

To address traditional credit scoring biases, financial organizations might create gender-sensitive credit scoring models that take into account alternative data, such as rental,

utility, and mobile money payment histories. This strategy results in more equitable credit assessments and allows more women to qualify for loans, even if they lack traditional collateral (Global Partnership for Financial Inclusion, 2020).

Peer-to-Peer Lending Platforms

Peer-to-peer (P2P) financing platforms allow women entrepreneurs to get capital by linking them directly with individual investors. These platforms might provide beneficial conditions while bypassing traditional lending institutions. Mentorship and support groups for female entrepreneurs can potentially supplement peer-to-peer lending (Zhang et al., 2016).

Policy Reforms to Promote Gender Equality in Finance

Government policy adjustments are critical to ensuring fair financial access. Reforms aimed at eliminating discriminatory lending practices, supporting equal property rights, and requiring women entrepreneurs to get a certain amount of SME loans can all help to increase financial inclusion. Such regulations ensure that financial resources are distributed fairly and efficiently to women in need (Asian Development Bank, 2019).

Establishment of Women Entrepreneur Networks and Support Groups

Women's networks and support organizations are critical for offering mentorship, peer support, and market access. These networks enable female entrepreneurs to share their experiences, learn from others, and access financial options. Furthermore, they function as advocacy forums, raising awareness about the unique needs of women in banking and business (WEConnect International, 2020).

Leveraging Microfinance Institutions (MFIs) for Gender-Focused Lending

MFIs are especially positioned to help female entrepreneurs, particularly those in rural areas. MFIs empower women by providing small, collateral-free loans to launch and grow their enterprises. Innovative strategies, such as group lending, in which women organize collectives to obtain credit together, can improve access to finance and foster a sense of community among borrowers (Yunus and Jolis, 2003).

Corporate Social Responsibility (CSR) Initiatives and Partnerships

Corporations can assist close the gender funding gap by implementing CSR activities that benefit female entrepreneurs. Companies can provide financial support, mentorship, and training opportunities by collaborating with financial institutions, non-governmental organizations (NGOs), and women's networks. These collaborations promote sustainable business practices and women's economic empowerment (UN Women, 2017).

Policy Recommendations and Framework for Improving Access to Finance for Women Entrepreneurs

Improving access to finance for women entrepreneurs necessitates comprehensive policy interventions that address the legal and regulatory environment, raise awareness and advocacy for gender-inclusive finance, and utilize corporate social responsibility (CSR) efforts. These initiatives should attempt to foster a conducive environment for women's financial inclusion, entrepreneurship, and economic empowerment.

Addressing Legal and Regulatory Barriers

Reforming legal and regulatory frameworks is crucial to create a supportive environment for female entrepreneurs. Complex registration processes and unequal property rights can limit women's access to finance.

Simplifying Business Registration and Licensing Streamlining business registration, licensing, and documentation procedures is a good strategy to help female entrepreneurs. Women in many developing countries encounter additional bureaucratic hurdles when launching legal enterprises due to complex administrative processes (World Bank, 2020). Simplified procedures that lower the cost and time required to register a business can help women launch and operate formal firms. Such simplification will encourage more women to work in the formal economy, gain access to financial services, and expand their enterprises.

Ensuring Equal Property Rights Providing equal property rights to women is another critical step toward boosting access to finance. Many nations prohibit women from owning or inheriting land, limiting their ability to utilize it as collateral for loans (OECD, 2019). Revising legal frameworks to grant women equal property rights improves their ability to obtain collateral-based loans and increases their financial liberty. Property rights reform not only empowers women economically, but it also has a favorable impact on general economic growth.

Promoting Awareness and Advocacy for Gender-Inclusive Finance

Raising awareness and advocating for inclusive funding are critical steps toward gender equality in entrepreneurship. This includes shifting attitudes toward women's roles in business and fighting for regulations that address women's financial needs.

Awareness Campaigns to Change Perceptions Societal standards and assumptions of gender roles frequently impede women's engagement in entrepreneurship. Raising awareness through initiatives that promote positive images of female entrepreneurs can assist to change social norms and inspire more women to explore business possibilities (UN Women, 2021). Educating communities about the importance of women's economic engagement and addressing misconceptions is critical to motivating women to seek financial resources and start businesses.

Advocacy for Gender-Sensitive Policies Advocacy is essential in fostering financial inclusion for female businesses. Working with regulatory agencies, financial institutions, and policymakers to develop and implement gender-sensitive policies ensures that women's financial needs are adequately met (Global Partnership for Financial Inclusion, 2020). For example, policies that offer customized financial products, flexible collateral requirements, and personalized credit scoring for women-led firms can greatly boost women entrepreneurs' access to finance. Advocacy initiatives also aid in tracking the implementation and efficacy of policies.

Encouraging Corporate Social Responsibility (CSR) Initiatives to Support Women Entrepreneurs

Corporate Social Responsibility (CSR) programs can be leveraged to support women entrepreneurs by providing financial and non-financial resources to facilitate business development.

Mentorship, Funding, and Skill Development Private enterprises can help promote women's entrepreneurship by providing mentorship, finance, and skill development opportunities. Private enterprises can help women entrepreneurs handle business problems by providing mentorship and guidance on finance, business planning, and market prospects (OECD, 2018). Furthermore, CSR financing can be channeled toward grants, loans, and investment possibilities for women-owned businesses. Providing skill development opportunities can also help women gain the knowledge and competence required to manage successful businesses.

CSR Programs for Women's Empowerment CSR programs tailored exclusively for women entrepreneurs can have a substantial impact on financial access and business success. Companies can collaborate with financial institutions, non-governmental organizations (NGOs), and women's business networks to conduct CSR projects centered on financial inclusion, business training, and market access. For example, CSR programs that offer financial literacy training can equip women with the knowledge and skills they need to efficiently manage their finances and understand financial products. These programs help to create a supportive ecosystem for female entrepreneurs, increasing their ability to access resources and succeed in their businesses.

Conclusion

Women entrepreneurs in Bangladesh have made major contributions to economic development, poverty alleviation, and social improvement. However, their full potential remains untapped due to limitations to finance access, such as low financial knowledge, gender biases, and regulatory hurdles. Existing governmental and non-governmental initiatives lay the groundwork for assisting female entrepreneurs, but more targeted tactics are required to effectively close the gender funding gap. Bangladesh may increase the inclusion of women in finance by developing gender-sensitive financial products, improving digital access, providing investment money, and using gender-sensitive credit scoring algorithms. Furthermore, policy reforms, mentorship, and CSR programs are critical in creating a conducive climate that promotes women's entrepreneurship. By fostering financial inclusion and supporting women entrepreneurs' growth, Bangladesh not only promotes gender equality but also strengthens its economic resilience and drives sustainable development.

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Social Media
A Dynamic Tool for Promoting Tourism Destination of Bangladesh

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Abstract

Tourism is the golden goose of an economy as it holds the key to prosperity. In this beautiful Bangladesh, sizeable economic benefits accrue to its economy from tourism. The domestic tourism industry serves as the foundation for this study. The purpose of this study is to determine how social media affects the promising tourism industry here. It aims to bridge the gap between theoretical comprehension and application in practice. The key objective of this study is to acquaint oneself with today's marketing techniques and trends, wherein certain dynamic tools and elements are responsible for advertising Bangladesh as an ideal travel destination. According to the demographic profile, out of 100 respondents polled, 53% were men and 47% women. Again, 71% of the respondents earn less than Tk 10,000, 78% are students, 80% are singles and a vast majority is aged between 22 and 24.

With 91 degrees of freedom, the approximate Chi-Square value is 1048.982, which is significant at the 0.05 level. Additionally, the KMO statistic value (0.780) is greater than 0.5, indicating that factor analysis is suitable for this investigation. Furthermore, the initial Eigenvalue result (Table 4.7), which shows that the first three components together account for 70.445 percent of the total variance, is excellent. The results make it abundantly evident that social media is a very practical and effective tool that is helping to advance Bangladesh's travel and tourism industry. Furthermore, it may be said that social media offers sightseers, travellers, tourists and tourism organisations good marketing, social and personal advantages.

Introduction

One of the most magical global communication tools is social media. The use of social media in the virtual world has risen dramatically over the past 10 years. Since the advent of social media at the turn of the twenty-first century, the travel and hospitality sector has also experienced phenomenal growth. Since then, the sector has grown and changed tremendously due to the increasing prevalence of social media platforms, which have opened up new avenues for advancement and client attraction through convenient communication tools.

With so much to offer, social media can only be viewed as a good thing for the travel and hospitality sector. It continues to grow and offer a means of boosting earnings. However, one of the most significant issues that service providers have faced is how to use social media marketing and how to determine whether or not it is lucrative for their companies.

Consequently, some of the most difficult elements are how to measure these outcomes, how to calculate the business value of social media, how to

understand the significance of social media for any organisation, how to use social media for a business to gain community acceptance while building brand recognition and also how to assess the worth of the efforts that have been made (Sterne, 2010). Ultimately, "The relationship is apparent and significant: Socially engaged companies are in fact more financially successful" (Sterne, 2010), even though financial components are unavoidable.

Objectives of the Study

The purpose of this study is to determine how social media affects Bangladesh's tourism industry. What is more, several aims of this investigation are to —

a. determine the effectiveness of social media as a marketing communication tool in the tourism industry.

b. identify the factors that influence individuals to use social media.

c. compare either the number of tours has been affected by social media or not.

d. examine the extent to which social media can influence the final decision for a tourist.

Literature Review

Nowadays, tourism organisations promote their activities on social media platforms such as blogs, YouTube and Facebook. As a result, consumers can easily respond and provide feedback. Social media has provided the tourism industry with numerous modern tools that allow for effective and two-way communication. In today's technology-driven world, social networking sites have emerged as a means for retailers to spread marketing promotions to a wide range of consumers. According to Chi (2011, 46), social media marketing serves as a "connection between brands and consumers, while also providing a personal channel and currency for user-centred networking and social interaction." Levinson and Gibson (2010) define social media from a marketer point of view as "a collection of tools that are free or almost free that allow marketers and the community to produce content and meaningful engagement online". Levinson and Gibson (2010) include many forms of social media, including blogs, photo-sharing sites, video-sharing sites, social networks, audio podcasts and internet radio as well as mobile communication tools. Sterne (2010) defines social media as a platform "that allows anybody to communicate with everybody [...] consumer-generated content distributed through easy-to-access online tools". Virtual Brand Communities (VBC) are a major area of study in social media marketing. According to Muniz and O'Guinn, as mentioned in Georgi and Mink 2012, "VBC can be described as aggregations of consumers that occur on the internet because of their interest in some brand or product." Given that customers are increasingly producing

brand-related information, something that was previously exclusively under the authority of businesses, merchants and marketers must be cognizant of the elements that influence consumer attitudes and motivations (Heinonen 2011). Therefore, recent studies have looked at how social media sites influence the attitudes and motivations of consumers. Chu (2011) investigated the relationship between advertising reactions, Facebook brand-related group membership, and the psychological aspects of attitudes and self-disclosure among Facebook group members and non-members. "Technology-related developments such as the rise of powerful search engines, advanced mobile devices and interfaces, peer-to-peer communication vehicles, and online social networks have extended marketers' ability to reach shoppers through new touch points" (Shankar et al. 2011, 30).

Methodology of the Study

Research Design

The primary goal of this study is to determine how social media affects Bangladesh's potential tourism sector, specifically with regard to St Martin's Island. Consequently, a descriptive study design is used in this instance. A scientific approach for describing circumstances is the descriptive research technique. Survey techniques, case-study methods and observational methods are the three primary categories of descriptive methods. For this study, the "Survey Method" was employed. Participants in the survey method research respond to a questionnaire. For this investigation, an easy survey questionnaire was created for their better understanding. About 15 to 20 items made up the survey questionnaire. Additionally, the survey questionnaire was created using closed-ended questions.

Sampling

People of all genders, ages (about 18 to 28), social standings, career backgrounds, etc. are nearly equally represented in the chosen sampling frame. Therefore, for the aim of the investigation, the Simple Random Sampling approach was adopted. Simple random sampling is also chosen because it is inexpensive, requires little in the way of resources, and yields accurate and trustworthy results. The sampling frame for this study consisted of college and university students, real travellers and tourists. Even though there were fewer persons in the sampling frame than in the target population, it was still a sizeable population. For the purpose of gathering pertinent data, a sample of around 100 respondents was included in this study.

Data Collection and Procedure

This study makes use of both primary and secondary data.

Using a pre-made questionnaire, members of the "target population" were chosen for interviews in order to collect primary data. For this aim, a sample of 10 to 15 respondents was chosen at random and questioned. Additionally, information was gathered from Facebook friend lists via a "Google form". Social media platforms such as Facebook, YouTube and the well-known Facebook community "Travellers of Bangladesh (ToB)" are among the sources of secondary data and information. In addition, several journals, magazines, textbooks, newspapers and other relevant sources were consulted for the literature study and other theoretical analyses. Data processing is the process of transforming unprocessed data into a format that can be used. To get useful information for this study, the SPSS application was used to process the data that was gathered from the respondents. This tool has been used to do several statistical analyses, including factor analysis, frequency analysis and descriptive analysis.

Analysis of the Results

Analysis of the Respondents' Socio-demographic Profile

The information from the respondents is shown in the following tables. Out of a total of 100 respondents listed for analysis, 53 (53%) were male and 47 (47%) were female. Information was gathered from various age groups. The majority of responders (50%) were aged between 22 and 24. Next in the line were those aged between 19 and 21 (7%), between 25 and 27 (38%), and above 28 (5%). Twenty (20%) of them were married and the remaining 80 (80%) unmarried. Remarkably, 34% of respondents finished their undergraduate studies, 58% finished their post-graduation studies, and the remaining 8% finished their SSC and HSC. Furthermore, at the time of the study, 78% of the participants were students, 13% were employed, 4% were company owners and the remaining 5% were householders or in other occupations. Again, 71% of respondents reported making less than Tk 10,000, 8% between Tk 10,000 and 20,000, 5% between Tk 21,000 and 30,000, 14% between Tk 31,000 and 40,000, and 2% over Tk 40,000.

Table 1: Respondents' Socio-demographic Profile (Source: SPSS Primary Data)

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	53	53.0	53.0	53.0
	Female	47	47.0	47.0	100.0
	Total	100	100.0	100.0	

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19-21	7	7.0	7.0	7.0
	22-24	50	50.0	50.0	57.0
	25-27	38	38.0	38.0	95.0
	28 or above	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Marital Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	80	80.0	80.0	80.0
	Married	20	20.0	20.0	100.0
	Total	100	100.0	100.0	

Profession					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	78	78.0	78.0	78.0
	Service-holder	13	13.0	13.0	91.0
	Businessman	4	4.0	4.0	95.0
	Others	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

Educational Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SSC	2	2.0	2.0	2.0
	HSC	6	6.0	6.0	8.0
	Graduation	34	34.0	34.0	42.0
	Post-graduation	58	58.0	58.0	100.0
	Total	100	100.0	100.0	

Monthly Average Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 10,000	71	71.0	71.0	71.0
	11,000-20,000	8	8.0	8.0	79.0
	21,000-30,000	5	5.0	5.0	84.0
	31,000-40,000	14	14.0	14.0	98.0
	Over 40,000	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

Table 2: Respondents' Socio-demographic Descriptive Statistics (Source: SPSS Primary Data)

Descriptive Statistics					
	N	Range	Mean	Std. Deviation	Variance
Gender	100	1	1.47	.502	.252
Age	100	3	3.41	.698	.487
Marital Status	100	1	1.20	.402	.162
Educational Level	100	3	3.48	.703	.495
Profession	100	5	1.46	1.158	1.342
Monthly Average Income	100	4	1.68	1.188	1.412
Valid N (list-wise)	100				

Analysis of the Respondents' Attitudes on Social Media

Formulating the Problem

To demonstrate factor analysis, we wish to identify the underlying advantages of "Social Media: A Dynamic Tool for Promoting Bangladesh's Tourism Destinations". A sample of 100 respondents was chosen to complete the questionnaire using a 'Google form'. Respondents were asked to rate their level of agreement with the following assertions using a 5-point scale (1 = least, 5 = most) for the first seven variables and a Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) for the other seven variables:

V1: Facebook
V2: Instagram
V3: LinkedIn
V4: Twitter
V5: Online forums/communities/blogs
V6: YouTube
V7: Meetup
V8: Searching for information about a tourist site is simpler on social media than on mass media.
V9: Advertising on social media is an efficient approach to persuade you to visit a new tourism site.
V10: Social media has given more effective venues for travelling to new tourist destinations than traditional media channels.
V11: Marketing using social media is more acceptable than traditional media.
V12: Reviews, comments and posts on social media influence your shopping decisions.
V13: Social media provides a useful and strong platform for customers to connect with one another and with businesses.
V14: Social media is a dynamic tool for marketing Bangladesh's tourism destinations.

Constructing the Correlation Matrix

Table 4.3 shows the descriptive statistics, which include the mean, standard deviation and sample size for the analysis. For this purpose, a sample size of 100 is often regarded enough for the study of Bangladesh's tourism destination.

The Correlation Matrix, created from the data collected to better understand the effects of social media, is displayed in the table. It is clear that all 14 elements are completely connected with 14 others. There are significant relationships between V03, V04, V08, V09, V10 and V11. It indicates a positive and strong association between them. On the other side, V07 (Meetup) is the sole variable that is negatively linked with V08, V11, V12, V13 and V14.

Determining the Method of Factor

Table 4.5 presents the findings of the main components analysis. Bartlett's sphericity test rejects the null hypothesis. The approximate Chi-Square statistic is 1048.982 with 91 degrees of freedom, indicating significance at the 0.05 level. The KMO (Kaiser-Meyer-Olkin) statistic (0.780) is likewise large (more than 0.5). Thus, factor analysis may be regarded as a suitable approach for assessing the correlation matrix (Table 3.4).

Table 3: Descriptive Statistics (Source: SPSS Primary Data)

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
V01	4.44	1.104	100
V02	2.40	1.333	100
V03	1.62	1.117	100
V04	1.60	1.025	100
V05	2.66	1.297	100
V06	3.78	1.338	100
V07	1.78	1.177	100
V08	4.34	1.130	100
V09	4.20	1.137	100
V10	4.24	1.147	100
V11	4.14	1.119	100
V12	4.10	1.068	100
V13	4.02	1.092	100
V14	4.58	.535	100

Table 4: Results of principal components (Source: SPSS Primary Data)

KMO and Bartlett's Test		
Kaiser -Meyer -Olkin Measure of Sampling Adequacy		.780
Bartlett's Test of Sphericity	Approx. Chi -Square	1048.982
	Df	91
	Sig.	.000

Tables 6 and 7 demonstrate the use of the principal component analysis. The 'Communalities', the 'starting column' shows that the Communality for each variable, V1 to V14, is 1.0 since unities were added in the correlation matrix's diagonal.

Table 6: Communalities (Source: SPSS Primary Data)

Communalities		
	Initial	Extraction
V01	1.000	.630
V02	1.000	.518
V03	1.000	.819
V04	1.000	.864
V05	1.000	.430
V06	1.000	.756
V07	1.000	.580
V08	1.000	.846
V09	1.000	.822
V10	1.000	.768
V11	1.000	.814
V12	1.000	.719
V13	1.000	.830
V14	1.000	.468
Extraction Method: Principal Component Analysis		

Tables 6 and 7 demonstrate the use of the principal component analysis. As can be seen in the 'Communalities', the 'beginning column' shows that the Communality for each variable, V1 to V14, is 1.0 since unities were added in the correlation matrix's diagonal.

Table 7: Explanation of Total Variance (Source: SPSS Primary Data)

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.782	41.300	41.300	5.782	41.300	41.300	5.331	38.079	38.079
2	2.870	20.501	61.801	2.870	20.501	61.801	2.486	17.761	55.839
3	1.210	8.644	70.445	1.210	8.644	70.445	2.045	14.606	70.445
4	.975	6.966	77.411						
5	.838	5.983	83.395						
6	.570	4.073	87.467						
7	.478	3.413	90.880						
8	.338	2.418	93.298						
9	.277	1.976	95.274						
10	.193	1.380	96.654						
11	.167	1.191	97.845						
12	.114	.812	98.658						
13	.103	.736	99.394						
14	.085	.606	100.000						
Extraction Method: Principal Component Analysis									

Tables 6 and 7 demonstrate the use of main components' analysis. The Communality for each variable, V1 to V14, is 1.0, as seen in the 'starting column' of the 'Communalities' since unities were put in the correlation matrix's diagonal.

Table 8: Rotated Component Matrix (Source: SPSS)

Component Matrix[a] (01)			
	Component/Factor		
	1	2	3
V01	.684	.148	-.374
V02	.185	.656	-.230
V03	.056	.838	.338
V04	.131	.889	.237
V05	.136	.514	-.384
V06	.524	.388	-.575
V07	-.249	.653	.304
V08	.900	-.093	.164
V09	.869	-.136	.222
V10	.875	.015	.048
V11	.900	-.029	.058
V12	.805	-.194	.182
V13	.857	-.055	.303
V14	.618	-.126	-.264
Extraction Method: Principal Component Analysis			
a. 3 components extracted			

After sorted by size and suppressed small coefficients with absolute value below 0.3

Component Matrix[a] (02)			
	Component/Factor		
	1	2	3
V08	.900		
V11	.900		
V10	.875		
V09	.869		
V13	.857		.303
V12	.805		
V01	.684		-.374
V14	.618		
V04		.889	
V03		.838	.338
V02		.656	
V07		.653	.304
V05		.514	-.384
V06	.524	.388	-.575
Extraction Method: Principal Component Analysis			
a. 3 components extracted			

Tables 4.6 and 4.7 depict the use of the principal component analysis. Under the 'Communalities', the 'initial column' shows that the Communality for each variable, V1 to V14, is 1.0 since unities were put in the correlation matrix's diagonal.

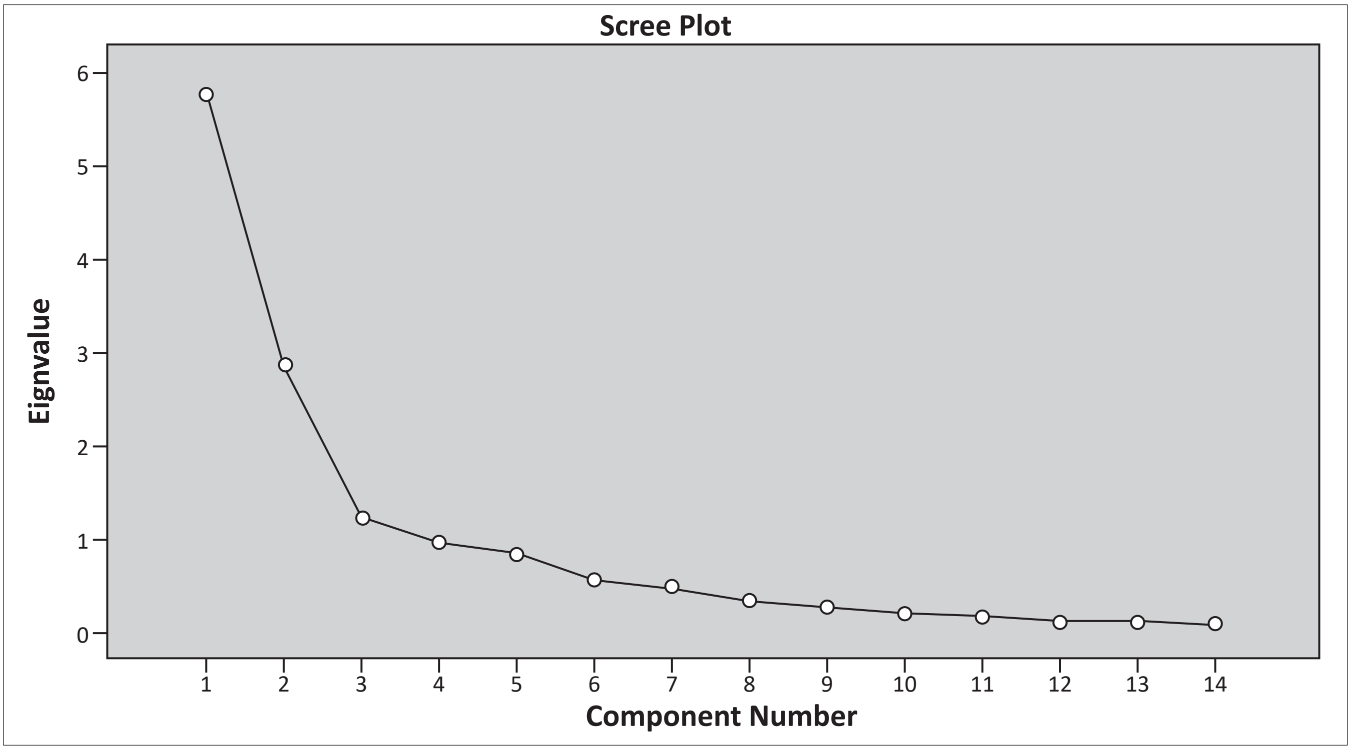
Table 4.9: Rotated Component Matrix (Source: SPSS)

Rotated Component Matrix[a] (01)			
	Component/Factor		
	1	2	3
V01	.517	-.071	.598
V02	.020	.459	.554
V03	.042	.895	.129
V04	.077	.889	.260
V05	-.053	.261	.599
V06	.274	.047	.824
V07	-.231	.725	-.028
V08	.912	-.029	.112
V09	.905	-.037	.034
V10	.840	.011	.249
V11	.872	-.023	.229
V12	.841	-.106	.019
V13	.908	.073	.001
V14	.523	-.255	.359
Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalisation			
a. Rotation converged in 5 iterations			

After sorted by size and suppressed small coefficients with absolute value below 0.3

Rotated Component Matrix[a] (02)			
	Component/Factor		
	1	2	3
V08	.912		
V13	.908		
V09	.905		
V11	.872		
V12	.841		
V10	.840		
V14	.523		.359
V03		.895	
V04		.889	
V07		.725	
V06			.824
V05			.599
V01	.517		.598
V02		.459	.554
Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalisation			
a. Rotation converged in 5 iterations			

Figure 1: Scree Plot (Source: SPSS)



The component matrix, often known as the component pattern matrix, is an essential factor analysis result. The component matrix comprises the coefficients that are used to represent the standardised variables in terms of the factor. These coefficients reflect the correlations between the factors and variables. A coefficient with a high absolute value suggests that the factor and variable are strongly connected (Malhotra & Dash, 2011). The component matrices are provided in Table 3.8, where component matrix (01) is replaced by component matrix (02). As a result, it is simple to discover the components that are strongly associated to the other variables.

Limitations of the Study and Further Research

The main drawback of the study was the design of the questionnaire used to collect primary data. The pattern of the questionnaire may be improved. Due to time and pecuniary constraints, it was unable to provide adequate time. Finally, research has shown that businesses may enhance brand recognition by engaging customers creatively on social networking platforms. "As more shoppers are using social media (e.g., Twitter, Facebook, MySpace and LinkedIn) and rely on them for marketing shopping decisions, promotion through these media has become important" (Shankar et al., 2011, p. 31). According to Curran et al. (2011), social networking sites such as Facebook outperform traditional advertising outlets because they maintain information on all of their users, guaranteeing marketing reaches a retailer's precise target market. Social media sites are an excellent platform for retailers to develop experiences, and retailers may utilise information kept on social media sites to improve the customer experience with their brand.

Conclusion and Recommendations

According to the conclusions of this survey, hotels and marketing destination groups would be remiss if they did not have a social media presence. Social branding has also enabled sectors to engage with their customers and staff in a rapid and effective manner. Some recommendations are as follows: First and foremost, the Bangladesh Tourist Board (BTB) and the Bangladesh Parjatan Corporation (BPC) should play an important role in boosting Bangladesh's tourism sector. They should take this issue seriously, as tourism is the fastest-growing business. Second, BTB and BPC should develop a plan that would allow them to better serve their users. Third, creative professionals should be assigned to the marketing departments of BTB and BPC as well as destination management organisations. Fourth, there must be some appealing websites where domestic and foreign tourists can obtain information on the destination area, transportation system, lodging system, food and beverage facilities, tourist guides, security system, local culture and language, and so on. Fifth, creative content writers and storytellers may greatly benefit Bangladesh's tourism business. This will be beneficial since people today rely heavily on social media. Sixth, the private and public sectors should collaborate, and the private sector should be supported by the BPC, BTB and the government authorities.

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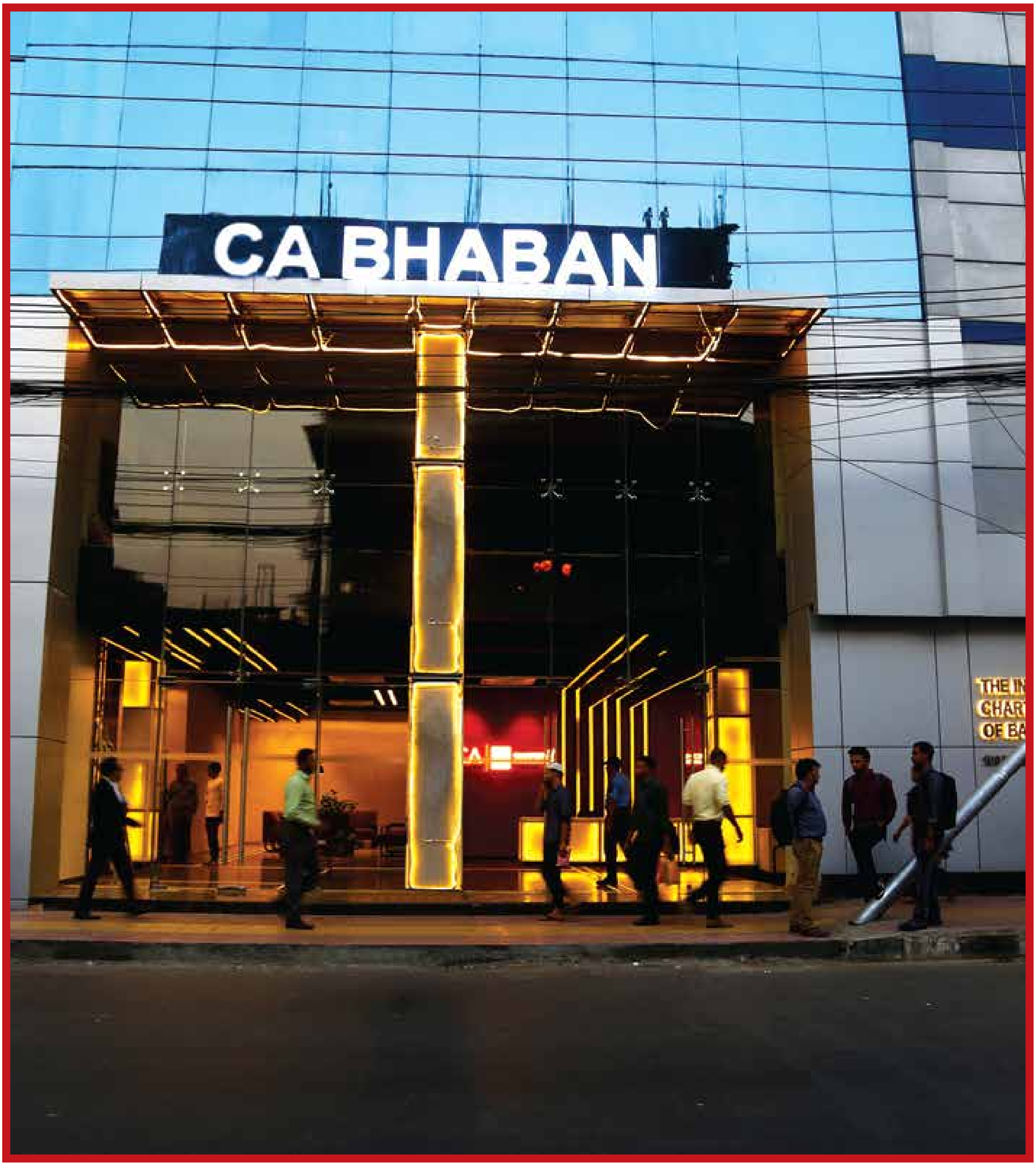

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GLOBAL RECOGNITION OF ICAB

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Recognition of ICAB membership by ICAEW

Membership Scheme of The Institute of Chartered Accountants of England and Wales (ICAEW) allows the members of ICAB to apply for ICAEW membership based on their experiences.

Eligibility criteria of this membership scheme are a series of questions which assess ICAB Member's experience, achievements, skills and expertise. Each application must be supported by an eligible sponsor. Applicants need to complete an Examination of Experience.

Details of ICAEW Membership Scheme is available at http://www.icaew.com/membership/becoming-a-member/members-of-other-bodies/campaigns/pathways-to-membership.

ICAB signed it's first Memorandum of Understanding (MoU) with the Institute of Chartered Accountants in England and Wales (ICAEW) in 2009. Since them, ICAB has been working with ICAEW as the learning and professional development partner, and also recognized as an approved tuition provider of ICAEW.

As per MoU, ICAB Members can be the members of ICAEW after successful completion of 04 papers out of 15. These members have the opportunity to apply for UK Practicing Certificate (PC) subject to meeting the standard ICAEW PC requirement.

Recognition of ICAB Membership by CIPFA, UK

Members of the Institute of Chartered Accountants of Bangladesh (ICAB) are eligible to apply for membership of the Chartered Institute of Public Finance and Accountancy (CIPFA), a globally recognised membership body for the public sector.

An MoU between ICAB and CIPFA, UK was signed on 28 January 2017. Under this MoU, an ICAB member can also become a members of CIPFA subject to fulfillment of certain criteria.

An ICAB Member with good standing having five or more years post-qualification public sector experience are eligible for Full Membership of CIPFA as Chartered Public Finance Accountant (CIPFA) and the members having fewer than five years post-qualification public sector experience are eligible as Affiliate member of CIPFA (CIPFA Affiliat).

ICAB members having CIPFA Affiliate membership, or having no working experience in public sector can gain CIPFA status with the successful completion of exams of only two papers i.e. Public Sector Financial Reporting and Strategic Public Finance.

Membership through Chartered Accountants Australia & New Zealand (CA ANZ) International Pathway Program (IPP)

The Institute of Chartered Accountants of Bangladesh (ICAB) signed an MoU with the Chartered Accountants Australia & New Zealand (CA ANZ). Under this, ICAB members living in Australia or New Zealand having five years post qualification experience at anywhere will be eligible to be member of CA ANZ after successful completion of CA ANZ International Pathway Program (IPP).

There will be no requirement of passing CA ANZ general route examinations by eligible ICAB members as their International Pathway Program (IPP) workshop through case studies would examine the contemporary Australasian business, accounting and finance environment relevant for members of ICAB. On the other hand, CA ANZ members can also be members of ICAB subject to having Bangladeshi citizenship and other requirements as prescribed by ICAB Bye-laws.

Membership of the International Valuation Standards Council (IVSC)

Efforts are underway for ICAB to Become a member of the International Valuation Standards Council (IVSC). This would create an opportunity for the members of ICAB to involve in the valuation process of local and foreign investment in Bangladesh.

This would allow Chartered Accountants to put up their highly essential services and play positive roles in attracting foreign investment. With regard to this, ICAB has already conducted a Members Conference. More so, a virtual meeting with the CEO of IVSC was held on 8 June 2021 where the IVSC proposed ICAB to become member of IVSC on pro-rata basis.

Other Memberships

ICAB is an active member of International Federation of Accountants (IFAC), Confederation of Asian and Pacific Accountants(CAPA) and South Asian Federation of Accountants (SAFA). ICAB is also an associate member of Chartered Accountants Worldwide (CAW).