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Towards a More Robust Financial Market: A Systematic Review of the Need for the Inception of a Derivatives Market in Bangladesh

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Abstract
Derivatives markets have become an integral part of the global financial landscape, enabling investors to manage risk, increase liquidity, and enhance price discovery. However, in Bangladesh, the concept derivatives is still in its nascent stage, and the lack of a well-developed market has hindered the growth of the financial sector. This paper presents a systematic review of the need for the creation of a derivatives market in Bangladesh. It analyzes the existing literature on the benefits of derivatives, their role in risk management, and their impact on market efficiency. It also examines the regulatory framework and the challenges facing the development of a derivatives market in Bangladesh. The paper suggests that the introduction of derivatives in Bangladesh can lead to a more robust and efficient financial market, with substantial benefits for both investors and the broader economy. However, to ensure the successful implementation of a derivatives market, policymakers must address the challenges associated with market infrastructure, investor education, and regulatory oversight. The paper provides insights for policymakers, academics, and practitioners interested in the development of financial markets in emerging economies.

Keywords: Financial Market, Derivatives, Emerging Economies, Systematic Review, Market Efficiency

1. Introduction

Bangladesh is a developing country with a rapidly growing economy (Sakib, 2021). According to the World Bank (2021), with a GDP growth rate of 5.24% in 2020, it is one of the fastest-growing economies in the world. However, its financial market remains largely inefficient and has yet to mature as it is facing several challenges that hinder its growth and stability. These include limited investment opportunities, low liquidity, and a lack of risk management tools (Rahaman, 2022). This makes it difficult to attract both local and foreign investors (Chowdhury, 2022). One potential solution to these recurring problems is the introduction of a derivatives market. It is important to note at this juncture that the derivatives considered in this paper are ‘financial’ derivatives as opposed to ‘economic’ derivatives, a term sometimes used to refer to over-the-counter contracts, where the payout is based on the future value of an economic indicator (Chen, 2020). Since, like other derivatives, they are designed to spread the risk to parties that are willing to take on risks to participate in the rewards, the only major distinguishing feature of economic derivatives is that the triggering event is related to an economic indicator, which for the purpose for this research is irrelevant.

Therefore, the word 'derivatives' will be used to refer to both types of derivatives as they both share the same purposes. A derivatives market is a market where financial instruments, such as futures, options, and swaps, are traded (Shaik, 2014). Derivatives provide investors with a mechanism to manage risks associated with their investments. For instance, investors can use derivatives to hedge against the risks of commodity price fluctuations, exchange rate fluctuations, and interest rate fluctuations. Moreover, financial derivatives can also enhance market efficiency and increase liquidity by allowing investors to take positions on the future value of assets and commodities (Bhatia & Jain, 2014). Despite the potential benefits of a derivatives market, Bangladesh has not yet introduced such a market into its financial system, which begs the questions of why and whether there is a real need for it.

To answer these queries and understand the need for the inception of a derivatives market in the country, it is essential first to analyze the problems Bangladesh's financial market is currently facing. It is important to note first that, as is the case with any financial market in any country, the financial market in Bangladesh consists of two broad segments: a money market segment and a capital market segment (Bangladesh Bank, 2019). The money market, which, by definition, is a short-term market (less than a year) essentially comprises interbank and foreign exchange operations. The capital market, on the contrary a long-term market, consists of the stock market, bond market, and insurance market. In this paper, the term financial market when used in reference to the financial market in Bangladesh includes both the money and capital market.

The purpose of this paper is twofold. First, it aims to provide a systematic review of the problems the financial market in Bangladesh is facing based on earlier studies. Second, it seeks to identify the reasons for the establishment of a derivatives market in Bangladesh. Specifically, it reviews the existing literature on the financial market in Bangladesh, the need for a derivatives market, and the benefits of a derivatives market, most notably the problems of the financial market that can be addressed by the introduction of financial derivatives market. Ultimately, this paper may provide policymakers and investors with a comprehensive review of the potential benefits and challenges related to the introduction of a derivatives market in Bangladesh.

2. Literature Review

- *Derivatives Market*

Derivatives are financial instruments that derive their value from an underlying asset, such as a stock, commodity, or a currency (Jarrow & Chatterjea, 2013). The most common types of derivatives are futures, options, and swaps. Other less common types include- weather derivatives, energy derivatives, credit derivatives, event derivatives and warrants (Shaik, 2014). As noted in the introduction, derivatives provide investors with a mechanism to manage risks associated with their investments. The importance of the derivatives market has been widely recognized in financial literature (Merton, 1992; Kolb, 2003; Baluch & Ariff, 2007). According to Mason (1998), derivatives are helpful tools to allocate risk to market participants as it enables them to bear those risks, make exposure in assets in a cost-effective way, and use market price and inefficiencies by exploiting arbitrage strategies. As such, the efficiency and difficulty of risk allocation have also been considerably increased by the widespread use of derivatives (Dodd, 2008).

Deshmukh, Greenbaum, and Kanatas (1983) determined that an increase in uncertainty related to interest rate encourages depository institutions to reduce their lending activities, which results in interest rate risk, and an increase in fees for services provided to clients. Therefore, if interest rate risk could be controlled using derivatives, then perhaps banks would experience less interest rate uncertainty, which could foster their lending activities and would result in higher returns relative to the return on fees charged for service activities (Deshmukh et al., 1983). Typically, within a financial system, derivatives improve the distribution of risk in two ways. Firstly, by making risk management more effective and flexible. Secondly, by helping to effectively distribute individual risks and reduce the overall economic risk connected to them (Bingham & Rüdiger, 2013; Geyer-Klingeberg, Hang, & Rathgeber, 2018). The introduction of a derivatives market can also have significant implications for the real economy (Sipko, 2011). Lema and Grandes (2021) found a positive correlation between derivatives and economic growth, specifically due to their influence on investment and international trade connections. Moreover, the availability of financial derivatives can reduce the volatility of commodity prices, which can have a positive impact on the agricultural sector. An empirical study by Mukherjee (2011) also evidenced that the futures market has a notable advantage in terms of efficiently spreading information, which results in significant price discovery and effective risk management. These factors contribute to the successful development of the underlying commodity market.

- Bangladesh's Financial Market

The financial market in Bangladesh is an emerging market that has been experiencing significant growth in recent years (Sakib, 2021). With an average annual GDP growth of 6.4% between 2016 and 2021, Bangladesh has outperformed its Asian peers like- India, Indonesia, and Philippines, and has performed significantly better than the global average of 2.9% (Munir, Chakraborty, & Ishtiaque, 2023). However, the market is still facing several challenges that hinder its growth and stability. These are well-documented in the literature (e.g. Akter & Rahman, 2023; Chowdhury, 2019; Hassan et al., 2020). Of great import here, Chowdhury (2022) argues that the lack of diversified financial products and services is a significant problem in the financial market of Bangladesh. The limited availability of financial products and services limits investment opportunities for investors and makes it difficult to attract foreign investors. Other problems identified include a lack of depth and liquidity, weak corporate governance, insider trading, market manipulation, and an inadequate regulatory framework (Akter & Rahman, 2023).

- Bangladesh's Stock Market

One of the key components of the financial market in Bangladesh is the stock market (Bangladesh Bank, 2019). It has been plagued by incidents of insider trading and market manipulation, leading to a loss of investor confidence (Rahaman, 2022). Moreover, its lack of depth and liquidity makes it difficult for companies to raise capital, which hinders their growth. It also makes it difficult for investors to buy and sell securities at a reasonable price. And it limits the effectiveness of a monetary policy (Sultana, Hossain, & Uddin, 2016). Another significant problem is the lack of risk management tools. This limits the ability of investors to manage risks associated with their investments, which may deter them from investing in the market (Rahman & Hasan, 2011). Figures 1 and 2 provide a comprehensive picture of the performance of the stock market in the last 10 years.

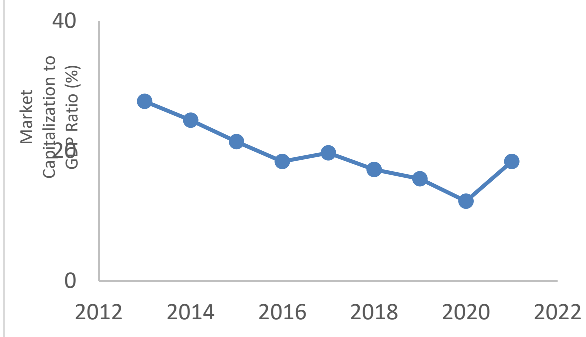	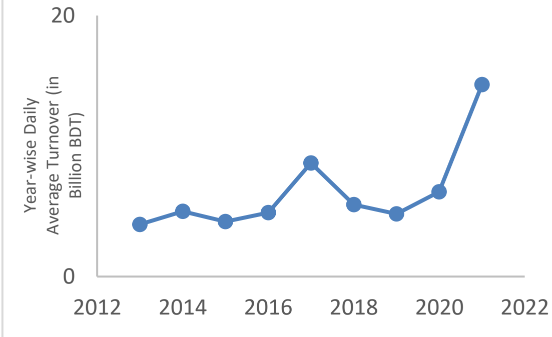
Figure 1: Market Capitalization to GDP Ratio	**Figure 2:** Year-wise Daily Average Turnover

Source: created by authors based on data from the Financial Stability Report 2021 (Bangladesh Bank, 2022a)

Figure 1 represents the DSE Market Capitalization to GDP Ratio (%) and shows the size of the stock market relative to the overall economy. From 2013 to 2016, the ratio declined steadily, indicating a shrinking stock market in relation to the GDP. There was a slight increase in 2017 but a downturn again in 2018 and 2019. The year 2020 saw a significant decrease in the stock market size relative to the GDP due to market uncertainties. However, the ratio rebounded in 2021, indicating increased investor confidence. As can be seen in Figure 2, the daily average turnover rose significantly in 2021 from BDT 6.5 billion (US$ 58 million) in 2020 to BDT 14.7 billion (US$ 133 million), reflecting a significant increase in liquidity into the market.

The Bangladesh Securities and Exchange Commission (BSEC) has introduced various measures to improve the transparency and accountability of the stock market. It has also taken steps to introduce new financial products, such as exchange-traded funds (ETFs), to increase the diversity of investment opportunities (Chowdhury, 2022). While there has been an increase in the number of listed companies, these steps have not been sufficient to address the underlying problems of the stock market.

- *Bangladesh's Bond Market*

The bond market is small and illiquid, with limited participation from institutional investors (Bangladesh Bank, 2019). Moreover, the bond market lacks transparency and a proper regulatory framework, making it difficult for investors to assess risks and opportunities. The lack of a vibrant bond market also hinders the development of the financial sector by limiting the availability of long-term financing options (Hassan et al., 2020).

- *Bangladesh's Foreign Exchange Market*

Foreign exchange risk is another major concern for businesses and investors due to the country's heavy reliance on international trade and remittances (Chowdhury, 2021). The relevant literature indicates that a variety of macroeconomic factors contribute to foreign exchange risk (e.g. Akhter and Faruqui, 2015; Bristy, 2017; Chowdhury & Hossain, 2014; Hasan & Islam, 2023; Uddin, Quaosar, & Nandi, 2013). One is the value of the US dollar, the most used currency for trade and remittances in Bangladesh. It can have a significant impact on the country's exchange rates and overall economic performance, most notably investment, inflation, and trade competitiveness (Chowdhury, 2021). Businesses and investors in Bangladesh are generally under-prepared to deal with foreign exchange risk and may not have adequate hedging strategies in place to protect them against currency fluctuations. This can lead to increased uncertainty and volatility in financial markets, which can in turn discourage foreign investment and hinder economic growth (Chowdhury, 2021).

- *Bangladesh's Banking Sector:*

The banking sector is dominated by a few large banks, resulting in a lack of competition and limited access to banking services for the unbanked population (Abdullah & Hossain, 2020). According to Rahman and Islam (2018), non-performing loans and weak corporate governance are also major issues. Moreover, the regulatory framework for the banking sector remains weak and has been criticized for its inadequacy in preventing fraudulent activities and ensuring the stability of the banking system (Khatun & Saadat, 2019). This is still the case in spite of the steps taken by the government of Bangladesh to improve the financial sector regulatory framework. For instance, various policies to promote financial inclusion and expand access to banking services, such as mobile banking and agent banking, have been introduced. In addition, the Bangladesh Bank (Bangladesh's central bank) has imposed the so-called Single Borrower Exposure (SBE) limit to prevent excessive lending to a single borrower, which can pose a risk to the stability of the banking system (Bangladesh Bank, 2019). There have also been efforts to launch of new financial products, such as mutual funds and exchange-traded funds (Bangladesh Bank, 2022b). Still, there is a need for continued efforts to strengthen the regulatory framework, enhance transparency, and promote competition in the financial sector as these developments have not been sufficient to address the underlying problems of the financial market.

- ***Derivatives Markets in Emerging Economies: Implications for Bangladesh***

The derivatives market has gained significant attention in recent years as an essential tool for risk management in the financial sector as it enables investors to manage risk by hedging against fluctuations in asset prices, exchange rates, and interest rates (e.g. Shaik, 2014; Jarrow & Chatterjea, 2013; Chowdhury, 2022). The growth of derivatives markets has been particularly significant in emerging economies (Aretz & Bartram, 2010). Burger and Warnock (2007) found that they can enhance market efficiency, increase liquidity, and deepen financial markets as they provide investors with new investment opportunities. According to Dodd (2002), derivatives serve a dual function. For one, they are instrumental in hedging and managing risks, playing a crucial role in attracting capital inflows that are essential for the development of developing countries. For another, they facilitate price discovery and establish standardized market prices, thereby reducing uncertainty and enhancing market efficiency and stability.

Derivatives have also played a vital role in facilitating the increasing integration of emerging economies into the global financial system (Burger & Warnock, 2007). But, while derivatives offer economic benefits, they also introduce new risks that have the potential to destabilize developing economies (Schöler-Iordanashvili, 2020). The potential for derivatives to amplify financial risks was evident in the 2008 global financial crisis, where the use of complex derivatives was a contributing factor to the crisis (Aretz & Bartram, 2010). Therefore, policymakers in emerging economies must carefully balance the benefits of derivatives with the potential risks. According to Rahman and Das (2015), the absence of a well-functioning derivatives market in Bangladesh has hindered the development of the country's financial sector as it could enhance market efficiency and increase liquidity by allowing investors to take positions on the future value of assets and commodities. This could lead to increased trading activity, which in turn could lead to higher liquidity in the financial market. Furthermore, the availability of derivatives could also attract foreign investors, who are often more familiar with these instruments and may be more willing to invest in a market where they can manage risks more effectively.

Rahaman (2022) also sheds light on the necessity of introducing a derivatives market in Bangladesh. Given that: (i) the money market is still underdeveloped; (ii) the capital market is highly volatile, lacks investor confidence, and is considered to be one of the most challenging markets globally; and (iii) the bond market has a limited number of bonds traded, the introduction of a financial derivatives market could potentially provide several benefits. For instance, derivative instruments inherently possess risk-shifting mechanisms, which can enhance the distribution function of Bangladesh's financial market and foster the healthy development of commercial banks in the country. Focusing on foreign exchange forward contracts, Chowdhury (2021) highlights their potential benefits for Bangladesh firms seeking to manage their foreign currency exposure. The paper suggests that forward contracts can provide a useful tool for managing currency risk, particularly for firms with significant exposure to foreign currencies. It also claims that by using forward contracts firms can lock in a favorable exchange rate and protect themselves from potential currency fluctuations, thereby reducing their exposure to market risk.

In their study on agricultural commodities, Bhuiya and Chowdhury (2023) found positive producer perceptions when given the opportunity to prefix prices. Most respondents expressed confidence in recovering their production costs, achieving fair pricing, and making more accurate price predictions when fixed prices are available. Using evidence from the Chittagong Stock Exchange (CSE), Chowdhury (2022) explored the potential opportunities hedging with forward contracts. The result reveals a notable distinction between the real market price and the estimated forward price for 94 percent of the companies examined. This suggests that CSE investors could have benefitted from employing forward contracts to hedge their positions, had such a mechanism been in place. Qamruzzaman and Jianguo (2017) argued that it is imperative for the government of Bangladesh to promote financial innovation within the financial system, particularly within financial institutions, to foster inclusive development. Additionally, financial innovation in the capital market will facilitate the mobilization of long-term capital for investment.

However, the introduction of financial derivatives market also poses risks. One of the significant challenges facing policymakers is the lack of market infrastructure, which can impede the development of a derivatives market (Molla, 2018). This includes regulatory oversight and the need for appropriate legal and regulatory frameworks, clearing and settlement systems, and trading platforms. Moreover, derivatives can be complex and may require significant expertise to manage effectively. Investors must also be educated on the use of derivatives and the potential risks associated with their use. In addition, derivatives can amplify risks, particularly when investors take on excessive leverage.

- The Institutional Environment Theory

The institutional environment theory (Meyer & Rowan, 1977) provides valuable insights into the need for the inception of a derivatives market in Bangladesh. The theory, postulates that the institutional framework plays a critical role in shaping the behavior and outcomes of financial markets (Peters, 2022; Willmott, 2015). A well-functioning institutional environment is characterized by strong regulations, transparent practices, and effective governance mechanisms. By embracing the institutional environment theory and recognizing the role of a robust institutional framework in shaping the financial market, Bangladesh could actively address the problems identified in the preceding sub-sections (Peters, 2022). The inception of a financial derivatives market aligns with the goal of enhancing the institutional environment and can pave the way for a more efficient, transparent, and resilient financial market in the country.

3. Methodology

The study uses a systematic approach for reviewing relevant earlier scholarly works related to the role of derivatives market and its inception in the financial market of Bangladesh. A systematic review process involves defining the research question, developing a search strategy, screening studies, assessing study quality, extracting, and analyzing data, and reporting the findings. By following a structured and rigorous approach as prescribed by Xiao & Watson (2017), this methodology ensures a comprehensive analysis of the relevant literature to address the research question effectively. This section presents a detailed description of each step, outlining the methods employed to ensure the validity and reliability of the review.

- Research Question

The primary research question guiding this systematic review can be stated as follows: “Why is the inception of a derivatives market needed to foster a robust financial market in Bangladesh?”

- *Search Strategy*

To identify relevant studies, a comprehensive search of electronic databases including Google Scholar, ScienceDirect, and JSTOR was conducted using relevant keywords such as "financial market," "Bangladesh," "derivatives market," "options," and "futures." The search was limited to studies published in the English language between 1983 and 2023.

- *Screening Strategy*

A systematic screening process was employed to identify eligible studies. Articles were initially screened based on their titles and abstracts in order to determine their potential relevance to the research question. The studies included in this review then had to meet the following criteria: (1) focus on Bangladesh’s financial market, (2) discuss the importance of a derivatives market in relation to Bangladesh, (3) discuss problems relating to Bangladesh’s financial market, and (4) be published in a peer-reviewed journal. Studies that did not meet these criteria were excluded from the review. The full texts of the selected articles from the initial screening were thoroughly reviewed to determine their suitability for inclusion in the systematic review.

- *Quality Assessment*

A quality assessment process was implemented to evaluate the methodological rigor and relevance of the studies included in the literature review. It consisted of a checklist of criteria such as study design, sample size, data collection method, data analysis technique, key findings, and limitations.

- *Data Extraction*

After the initial search, duplicates were removed, and titles and abstracts screened to identify potentially relevant studies. The full texts of the selected studies were then retrieved and reviewed in detail. Data was extracted from the studies and entered into a spreadsheet, including author names, year of publication, study design, sample size, key findings, and conclusions.

- *Data Analysis*

The extracted data was analyzed to identify common themes, patterns, and key findings related to the need for a derivatives market in Bangladesh.

- *Reporting Findings*

The findings of the systematic review were reported in a comprehensive manner. This included a summary of the key findings, their implications for Bangladesh’s financial market, and any identified limitations. Suggestions for future research areas to address gaps in the current literature were also provided. Overall, the search strategy identified 60 relevant studies and 44 of them were included in the final review. The quality assessment revealed that all the studies included were of moderate to high quality. The most important studies and their findings were synthesized and presented in the literature review section of this paper. In addition, reports published by different national and international institutions were reviewed to gain a comprehensive understanding of the current state of the derivatives market, its potential impact on the broader financial landscape, and the experiences and best practices from other countries or regions that have implemented similar market structures.

4. Findings and Discussion

The systematic review conducted in this study identified 44 relevant studies that met the inclusion criteria. The studies were conducted between 1983 and 2023 and published in peer-reviewed journals. They focused on various aspects of the Bangladesh's financial market, including the stock and bond markets, the banking sector, and the overall financial system. Most of them discussed the importance of a derivative market in Bangladesh and its potential benefits. Table 1 provides a summary of these studies.

Table 1: Summary of the Key Articles Reviewed

Author	Type of Research	Topic	Summary of Findings
Abdullah & Hossain (2020)	Literature review	Future challenges and opportunities of the banking industry in Bangladesh	Major challenges include increasing interest rates, poor governance, and globalization. Key opportunities include advanced technology, developed human resources and diversified financial products.
Akter & Rahman (2023)	Literature review	Problems and prospects of the Bangladesh capital market	Problems include high volatility due to inadequate financial depth, product diversity, and lack of uniformity of the supporting regulatory framework.
Aretz & Bartram (2010)	Empirical analysis	Relationship between corporate hedging and shareholder value	There is mixed support for corporate hedging with derivatives as a broader financial strategy for managing financial risk.
Bristy (2017)	Literature review	Factors affecting the determination of exchange rates	Factors leading to the appreciation or depreciation of exchange rates in Bangladesh are identified and classified.
Bhuiya & Chowdhury (2023)	Literature review	Inception of an agri-derivatives market for protecting farmers in Bangladesh	If given an opportunity to prefix prices during cultivation, respondents would be less concerned about price declines, cost recovery, and fair prices, and more about accurate past-harvest price predictions.
Burger & Warnock (2007)	Empirical analysis	Foreign participation in local currency bond market	Bond markets in underdeveloped nations show high variances and a negative skewness in returns. These countries can enhance foreign participation by minimizing macroeconomic instability.
Chowdhury (2021)	Literature review	Necessity of foreign exchange forward contract practice in Bangladesh	There is a notable gap between real market prices and computed forward prices for 94% of the companies in the sample. Investors in the Bangladesh stock market would benefit from hedging their positions through forward contracts if such a mechanism were available.
Chowdhury (2022)	Empirical analysis	Opportunities of hedging with forward contracts using evidence from the Chittagong Stock Exchange	The introduction of foreign exchange forward practices would benefit not only individuals and companies dealing with foreign currency but also the government.
Chowdhury & Bhuiya (2023)	Literature Review	Introducing commodity-derivatives market to overcome the obstacles of the agricultural supply chain in Bangladesh	Since the agricultural supply chain of Bangladesh is dominated by large entities that stand between farmers and final consumers, agri-commodity derivatives may be a solution to the problem.

Deshmukh et al. (1983)	Empirical analysis	Interest rate uncertainty and financial intermediaries' choice of exposure	With an increase in interest rate uncertainty, intermediaries tend to decrease their risk exposure. This, in turn, results in reduced asset transformation and a greater focus on providing brokerage services.
Dodd (2008)	Literature review	Consequences of liberalizing derivatives markets	The growth of derivatives markets in developing countries with deregulated financial systems has both economic benefits and risks and can impact the financial sector stability.
Geyer-Klingeberg et al. (2018)	Meta-regression analysis	Determinants of financial hedging using a meta-regression analysis	Corporate hedging tends to be more common among large, profitable, and diversified firms with specific financial characteristics.
Hassan et al. (2020)	Literature review	Bond market development in Bangladesh, including capacity building, challenges, and policy initiatives	Bangladesh's corporate bond market is small, government bond interest rates repressed, and the yield curve does not accurately represent risk-free rates and macroeconomic conditions, hence the need for regulatory initiatives to encourage investment.
Lema & Grandes (2020)	Literature review	Links between financial derivatives and economic growth	Derivatives have a positive correlation with economic growth, primarily driven by investment and international trade connections, but in developed countries, the relationship between growth and derivatives is nonlinear and concave.
Mason (1998)	Theoretical model	Allocation of risk in the context of financial markets	Risk allocation is a fundamental component of a financial system, providing individuals with opportunities to share and manage risks.
Molla (2018)	Literature review	Potentiality of the derivatives market and its impact on the economic stability of Bangladesh	Derivatives can be a useful tool for mitigating risk, but also that overly speculative activities might have adverse effects on financial markets and economic growth.
Mukherjee (2011)	Empirical analysis	Impact of futures trading on the Indian agricultural commodity market	Findings indicate that the futures market has a comparative advantage in efficiently spreading information, resulting in substantial price discovery and effective risk management.
Qamruzzaman & Jianguo (2017)	Literature review	Relationship between financial innovation and economic growth in Bangladesh	Financial innovation is shown to be one of the contributing factors to the economic growth of Bangladesh, with positive and statistically significant effects observed in both the short and long run.
Rahaman (2022)	Literature review	Need to expedite the derivatives market in Bangladesh	The study argues for establishment of a derivatives market in Bangladesh and highlights its significance and benefits in a global context.
Rahman & Hassan (2011)	Literature review	Potential of the derivatives market in Bangladesh	The study shows how the introduction of derivatives market can strengthen the capital market of Bangladesh
Rahman & Islam (2018)	Empirical analysis	Impact of corporate governance on bank performance	The study explores the significant positive relationship between corporate governance and bank performance
Rahman & Das (2015)	Literature review	Necessity of establishing a derivatives market in Bangladesh	The study provides a theoretical framework to establish a derivative market in Bangladesh for strengthening its capital market and reducing fluctuations in exports and imports.
Schöler-Iordanashvil (2020)	Empirical analysis	Impact of derivatives on the financial stability of emerging markets	The influence of derivatives on financial stability is not unilateral and depends on the characteristics of the financial system of the country.
Sipko (2011)	Literature review	Relationship between derivatives and the real economy	The findings highlight the significant growth of the derivatives market and its contribution to the global financial crisis.

Sultana et al. (2016)	Literature review	Capital market crisis in Bangladesh and recovery strategies	Frequent regulatory changes, liquidity problems, and investor apprehension are key factors contributing to the crisis in the Bangladesh capital market.

Key Themes

Several key themes emerge from this literature review. They offer valuable insights into the current state of the financial market of Bangladesh and its future prospects.

- *The Banking Industry and Capital Markets*: Several of the articles reviewed shed light on the challenges and opportunities within Bangladesh's banking industry and capital markets. Abdullah and Hossain (2020) present a comprehensive overview of the future challenges and opportunities in the banking sector. They highlight the need to address these challenges while leveraging the potential for growth and development. Similarly, Akter and Rahman (2023) focus on the capital market, exploring its prospects and problems. Their analysis provides valuable insights into the current state of the capital market and the potential strategies to overcome the challenges.
- *Corporate Hedging and Derivatives*: The importance of corporate hedging and the potential of derivatives in the financial landscape are highlighted by multiple citations. Aretz and Bartram (2010) examine the relationship between corporate hedging and shareholder value. Their empirical analysis contributes to the understanding of how corporate hedging practices can impact shareholder value. Geyer-Klingeberg et al. (2018) analyze the determinants of financial hedging through a meta-regression analysis. Their findings shed light on the factors that influence corporate hedging decisions. These studies emphasize the relevance of hedging strategies and their potential impact on corporate performance.
- *Derivatives and Economic Growth*: The impact of derivatives on economic growth is another significant area of exploration. Lema and Grandes (2021) discuss the links between financial derivatives and economic growth. Their study investigates how financial derivatives can affect the real economy. Its findings contribute to understanding the potential benefits and risks associated with derivatives in fostering economic growth.
- *Financial Stability and Risk Allocation*: Several citations delve into the stability of financial markets and the allocation of risk. Schöler-Iordanashvili (2020) conducts an empirical analysis of the impact of derivatives on the financial stability of emerging markets. This study provides insights into the potential effects of derivatives on market stability. Mason (1998) focuses on risk allocation within financial markets, offering theoretical insights into the mechanisms and principles of risk allocation. These studies contribute to the understanding of financial stability and risk management practices.
- *Policy Initiatives and Market Development*: The importance of policy initiatives and market development is highlighted in various citations. Bhuiyan and Chowdhury (2023) discuss the inception of an agri-derivatives market to protect farmers from price risks. They highlight the potential benefits of introducing agri-derivatives as a risk management tool for farmers. Additionally, Rahman and Hassan (2011) explore the potential of the derivatives market in Bangladesh. Their study discusses the possibilities and prospects associated with market development.

Problems Identified

Moreover, the studies identified several problems in the Bangladesh financial market that the establishment of a derivatives market can address. They include:

- *Lack of Diversification:* The stock market in Bangladesh is heavily concentrated in a few large companies operating in the banking and telecommunication industries in particular, limiting the options for investors. Introducing a derivatives market can provide investors with more options for portfolio diversification.

- *Limited Liquidity:* The stock market in Bangladesh suffers from low liquidity, which makes it difficult for investors to buy and sell shares. A derivatives market can enhance market efficiency and increase liquidity by allowing investors to take positions on the future value of assets.
- *Inadequate Risk Management:* The lack of a derivatives market in Bangladesh makes it difficult for investors to hedge their risks. Introducing a derivatives market can provide investors with hedging opportunities, which can help manage risk.
- *Weak Regulatory Framework:* The regulatory framework for Bangladesh's financial market has been criticized for its inadequacy in preventing fraudulent activities and ensuring the stability of the banking system. A derivatives market can be regulated more effectively and provide investors with greater protection.

Common Themes and Patterns

The studies identified several common themes and patterns in the literature. They include:

- *The Need for a Derivatives Market:* Most of the studies highlight the importance of introducing a derivatives market in Bangladesh to address the problems in its financial market.
- *Potential Benefits:* The studies identify several potential benefits of a derivatives market, including increased market efficiency, enhanced liquidity, and improved risk management.
- *Challenges:* The studies also identify several challenges introducing a derivatives market, including the need for a regulatory framework, market infrastructure, and investor education.

Interpretation of Results

- *Theoretical Implications*

The findings in this research have important theoretical implications for understanding the challenges and potential benefits of introducing a derivatives market in Bangladesh. They highlight the challenges that existing financial market faces, such as inadequate regulatory frameworks, limited market depth and liquidity, weak corporate governance, and a lack of transparency. These challenges have been hindering the growth and stability of the economy. Introducing a derivatives market can address these issues and provide solutions through financial innovation. Derivatives, such as futures contracts, options, and swaps, offer various benefits to market participants. They enable investors to manage and transfer risks more effectively, enhance market liquidity, and provide opportunities for portfolio diversification. By introducing derivatives, Bangladesh can offer investors new instruments to hedge against risks and manage their investment portfolios more efficiently and attract both domestic and foreign investors. The research implies that introducing a derivatives market can be instrumental in addressing the challenges faced by the financial market in Bangladesh. It can pave the way for institutional change, the development of new regulatory frameworks, enhanced market transparency, and improved risk management practices. By fostering financial innovation, Bangladesh can create a more robust and efficient financial market, ultimately benefiting both market participants and the overall economy.

- *Practical Implications*

The research also provides practical implications for policymakers, government authorities, regulatory bodies, financial institutions, and investors in Bangladesh. First and foremost, it underscores the importance of cooperating among all these stakeholders to address the challenges establishing a financial derivatives market. The study highlights the potential benefits of introducing financial derivatives, such as increased market efficiency, enhanced liquidity, improved risk management, and attracting foreign investment. It emphasizes the role of the government and regulatory bodies in promoting financial innovation, establishing appropriate regulations, and fostering investor confidence. By encouraging the inception of a financial derivatives market, the government can demonstrate its commitment to strengthening the institutional environment, stimulating economic growth, and creating a more robust and efficient financial market in Bangladesh.

Policy Recommendations

The findings in this study highlight the need for a more robust and efficient financial derivatives market in Bangladesh to promote economic growth and financial stability. Based on these findings, we offer the following policy recommendations to address the key challenges and opportunities related to the inception of a derivatives market in Bangladesh:

- *Developing a Regulatory Framework:* A well-defined regulatory framework is essential to ensure the proper functioning of financial markets, particularly when it comes to complex financial instruments like derivatives. The Bangladesh Securities and Exchange Commission (BSEC) should develop and enforce clear regulations for the derivatives market, outlining the rules and standards for trading, clearing, and settlement of derivative products.
- *Enhancing Investor Education:* The lack of knowledge among investors regarding financial market and investment is a significant challenge that must be addressed to ensure the successful introduction of a derivatives market in Bangladesh. The BSEC, in collaboration with market participants, should develop and implement investor education programs to help investors understand the potential risks and benefits of derivatives trading.
- *Encouraging Market Liquidity:* The success of a derivatives market depends on its liquidity. To enhance liquidity, the BSEC should take measures to attract more market participants, such as market makers and arbitrageurs. Additionally, the BSEC should promote transparency and openness in the market to attract more investors, thereby improving market depth and liquidity.
- *Developing an Appropriate Risk Management Mechanisms:* Derivatives trading involves a high degree of risk, and it is essential to have appropriate risk management mechanisms in place to mitigate these risks. The BSEC should require market participants to maintain appropriate risk management policies and procedures, including collateral requirements, margining, and monitoring of market exposures.
- *Promoting Collaboration with International Counterparts:* The BSEC should collaborate with international regulatory bodies to share best practices and learn from the experiences of other countries that have successfully implemented derivatives markets. This will help to ensure that the market operates in a transparent and efficient manner, in line with international standards.

By implementing these policy recommendations, Bangladesh can take important steps towards the development of a robust and efficient derivatives market that can help to drive economic growth and promote financial stability in the country.

5. Conclusion, Limitations, and Recommendations for Future Research

This paper systematically reviewed the need for the inception of a derivatives market in Bangladesh. The findings suggest that a derivatives market can play a significant role in enhancing the efficiency, depth, and liquidity of the financial market in Bangladesh. However, the review also highlights several challenges that must be addressed to ensure the successful introduction of a derivatives market. These include the regulatory framework, investor education, market liquidity, risk management, and collaboration with international counterparts. To overcome these challenges and unlock the potential benefits of a derivatives market, the study recommends that the BSEC takes proactive measures to develop a well-defined regulatory framework, enhance investor education, encourage market liquidity, develop appropriate risk management mechanisms, and promote collaboration with international regulatory bodies. By implementing these recommendations, Bangladesh can create a more robust and efficient financial market that can support economic growth and stability in the country.

It is important to note that the recommendations provided in this study are not exhaustive. Further research is needed to fully explore the implications of a derivatives market in Bangladesh. Nevertheless, the review highlights the potential benefits of a financial derivatives market and also provides a valuable starting point for policymakers, regulators, and market participants who are interested in the development of the Bangladesh's financial market. Therefore, the findings of this study have important implications for investors, both domestic and foreign, who may be interested in investing in Bangladesh financial market. The introduction of derivatives could provide investors with new investment opportunities and the potential for higher returns. However, investors must also be aware of the risks associated with derivatives trading and be equipped with the necessary knowledge and tools to manage these risks effectively.

- *Limitations and Recommendations for Future Research*

Despite highlighting the potential benefits of introducing derivatives in Bangladesh, the present study has some limitations, which leave open areas for future research. One limitation is that it focuses only on the existing literature and does not include any primary data collection. Future research could benefit from including primary data collection to better understand the perspectives of the key stakeholders in the financial market. Another limitation of this study is that it relied on published literature, which may not capture all relevant information on the topic. Future research could benefit from a more comprehensive approach that includes interviews with experts, focus group discussions, and surveys of key stakeholders. Furthermore, despite the comprehensive analysis conducted in this study, it is important to acknowledge the absence of specific research focusing on the institutional environment theory and its significance in the context of the inception of a derivatives market in Bangladesh. Future researchers are encouraged to delve deeper into the institutional environment theory and its implications for Bangladesh's financial market development. By examining the regulatory framework, market infrastructure, governance mechanisms, and other institutional factors, researchers could uncover valuable insights into how a robust institutional environment may facilitate the inception of a derivatives market and contribute to market efficiency, investor confidence, and overall financial system stability.

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