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Is Debt Structure Relevant for Financial Performance? Evidence from an Emerging Economy

Abstract

Debt financing is a crucial source of funding for modern businesses, yet its relevance varies for companies depending on economic conditions and government policies, influencing the pros and cons associated with it. This empirical study aims to investigate the impact of debt structures on the financial performance of the listed pharmaceuticals and chemicals industry at the Dhaka Stock Exchange, Bangladesh. This study considers the annual reports of twenty listed companies during the period 2013–2022. To explore the relationship between the types of debt structure and corporate performance, a fixed-effect model has been used. The results demonstrate that short-term financing (F_{ST}), long-term financing (F_{LT}), and foreign financing (F_{FR}) positively affect corporate performance—return on equity—whereas private financing (F_{PR}) and government financing (F_{GV}) have negative relationships with ROE. The study provides practical insights for businesses, lenders, and policymakers on debt structures. The findings suggest that both short- and long-term financing are important in emerging economies. Specifically, foreign financing positively affects corporate performance by creating synergies, whereas private and government financing fail to produce positive outcomes due to bureaucratic complexity, poor governance, and corruption.

Keywords: Debt Financing, Financial Performance, Dhaka Stock Exchange, Bangladesh

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1. INTRODUCTION

Corporate performance serves as a crucial indicator of economic progress globally, influencing both micro- and macroeconomic environments. The capital structure of a company plays a pivotal role in maintaining sustainable corporate performance; its composition significantly affects its sustainability. A business entity may manage its financing from diversified sources like short-term financing, long-term financing, private financing, government financing, foreign financing, etc. The coexistence of these sources is very complex due to their availability, cost, and mutual exclusiveness. Undoubtedly, financial management aims to maximize the value of the company and establish the trust of its stakeholders. The optimal capital structure means the perfect mixture of equity and debt financing (Abbas, Aziz, & Khan, 2020). It is a communal practice for a business to use both equity and debt funds to finance its assets. Debt proves to be a more cost-effective financing option when compared to equity. Furthermore, it has the potential to boost both dividends per share and earnings per share because taxable earnings can counterbalance interest expenses. The top management of any organization makes debt financing decisions reliant on its financial requirements and the nature of its business. Every financial crisis has made organizations more dependent on loans to run their operations and stay solvent (Yazdanfar & Öhman, 2015). Financing decisions regarding its structures play a vital role in optimizing the value of companies by reducing the cost of capital (Nazir et al., 2021). Hayes (2022) argued that the use of optimum debt financing strategies enables companies to enhance their market value while simultaneously decreasing their cost of capital, mostly owing to the tax benefits associated with such financing structures. Green bonds represent a significant advancement in the realm of debt financing, as they play an essential role in fostering sustainable finance and serve as an integral element within the diverse framework of climate governance. Xu, Sun, Li, & Zhou (2020) explored the nexus between environmental management and sustainable financial growth through debt financing and concluded that environmental management initiatives can help

tourist businesses reduce debt financing costs and promote sustainable development.

During the COVID-19 pandemic, businesses, specifically those operating within the chemical and pharmaceutical sectors, had a substantial demand for debt financing. The study aims to assess the influence of debt financing on the financial performance of the listed pharmaceuticals and chemicals industry at the Dhaka Stock Exchange, Bangladesh, and to what extent different types of debt structures affect the financial performance of those companies. Business entities having greater stakeholder involvement tend to secure higher levels of debt finance throughout the COVID-19 crisis (Hossen, Roy, & Masum, 2023). Gopalakrishnan et al. (2022) analyzed debt and bond financing diversity, particularly in the COVID-19 situation, across 61 nations and found that businesses with greater pandemic susceptibility and severe lockdowns had a higher debt tendency. In this study, the relationship between corporate performance and debt structure is examined through agency theory, which aims to mitigate information asymmetry and agency costs. Khanam et al. (2014) suggest agency theory significantly influences debt financing decisions, as debt holders fear investors may worsen their financial condition, leading to higher interest rates. Anh & Thao (2019) also explain the relationship between corporate performance and the debt structure by using the agency theory in the context of Vietnam.

In addition, previous literature shows the diversified impact of debt structure on financial performance (Abuamsha & Shumali, 2022; Yazdanfar & Öhman, 2015; Dang et al., 2019; Mamaro & Legotlo, 2020). Debt structure decisions are crucial for businesses, but their impact on costs of capital and company valuations remains a topic of debate (Jones & Edwin, 2019). Harelimana (2017) suggests that successful projects often utilize substantial debt levels, leading to increased bank profitability and improved financial performance. Abuamsha and Shumali (2022) stated that if short-term debt increases in a business, it will increase its financial performance too, which is statistically significant. However, Mugisha et al. (2020) found that short-term borrowing significantly and negatively impacts the profitability of small and medi-

um-sized enterprises. On the other hand, Aziz and Abbas (2019) argue that internal funding sources are the most reliable and cost-effective option for companies, as debt is considered the most expensive financing method. Yazdanfar & Öhman (2015) have explored the significant negative relationship between the corporate performance and the debt structure. Complementary to the previous studies, Dang et al. (2019) and Mamaro & Legotlo (2020) failed to demonstrate any significant relationship between corporate performance and debt financing. According to the study on debt financing in the non-financial sector in Pakistan by Aziz and Abbas (2019), there is a significant positive association between long-term financing and ROE. By analyzing the impact of debt financing on firm performance in Nigeria, Orji et al. (2021) and Basse et al. (2017) found that long-term debt has a positive and significant association with return on equity. On the other hand, Mamaro and Legotlo (2020) studied South African retail firms and found a significant negative relationship between long-term loans and returns on equity. Huong and Cuong (2019) argued that there is a significant positive connection between the government financing system and profitability in Vietnamese small and medium enterprises, while Jayeola et al. (2022) also claimed a favorable association but did not find it significant in their study. By analyzing foreign debt financing, Gabrijelčič et al. (2016) concluded that it is positively associated with firm performance, which is statistically significant. According to the research conducted by Giannetti and Ongena (2012), enterprises that maintain debt financing from foreign financial institutions have a positive impact on the economy of the country. There is a significant positive correlation between borrowing from international sources, like microfinance institutions, and the financial performance of enterprises (Mersland & Urgeghe, 2013). These inconclusive findings of the association between corporate performance and debt structure imply the research gaps in the field of capital structure, which is further addressed by this empirical study. We conduct this study to explore the most significant and typically dominant source of financing that ensures sustainable corporate performance. The remainder of the paper is structured as follows: Section 2 outlines the literature review and de-

velopment of hypotheses. Section 3 represents the research methodology of the study. Section 4 elaborates the findings and discussions of this paper for its diverse user base. Finally, Section 5 discusses the study's overall conclusion, implications, limitations, and future recommendations.

2. LITERATURE REVIEW

Debt financing is a significant factor in economic crises in both emerging and advanced economies (Broner et al., 2013). Lenders may offer short-term debt to mitigate ethical and agency issues in financing to minimize potential risks (Martinez Peria and Schmukler, 2017). Short-term financing is often viewed as cost-effective due to its timeliness and elasticity; even lenders often avoid interest until the credit limit is exceeded (Kahl et al., 2015; Shah & Shah, 2017). Baum et al. (2007) conducted a comprehensive study in Germany and found that business organizations exhibit a greater dependence on short-term debts, which are expected to provide greater earnings. In a study conducted by Shikumo et al. (2020), it was shown that there exists a positive and significant relationship between short-term loan financing and an increase in earnings per share. Based on Nigerian listed companies, Orji et al. (2021) found that short-term debt financing is positively associated with return on equity. Aziz and Abbas (2019) also explore the positive and significant impact of short-term debt financing on firm performance in Pakistan's non-financial sector. Abuamsha and Shumali (2022) stated that if short-term debt increases in a business, it will increase its financial performance too. However, Mugisha et al. (2020) found that short-term borrowing significantly and negatively impacts the profitability of small and medium-sized enterprises. Hayati et al. (2022) stated that the short-term loan ratio doesn't significantly affect the return on assets and net profit margin. Moreover, the agency theory also entails that the managers are the agents of the owners and responsible for optimization of the investment of the owners (Fama, 1980). Therefore, the managers are constantly looking for a favorable outcome from the investment. Based on these inconclusive findings across the different economies, the first hypothesis of this

empirical study has been assumed and needs to be tested in the context of an emerging economy—Bangladesh.

Long-term loans are used for significant investments that are crucial for business expansion (Martinez Peria & Schmukler, 2017). Ifurueze et al. (2022) explored that Nigerian listed corporations could benefit from reducing their long-term debt-to-asset ratio as a strategic choice. It is recommended that enterprises consider increasing their use of long-term borrowing in their financial structure (Ajibola et al., 2018). Moreover, the use of long-term loans may effectively mitigate tax obligations and provide favorable outcomes for economic development (Van Binsbergen et al. 2010). By analyzing the Nigerian firms, Umobong and Ayebanengiyefa (2019) found that there is a significant positive correlation between long-term borrowings and corporate performance. In addition, Abuamsha and Shumali (2022) investigated the relationship between debt structure and financial performance within the context of the Palestinian stock market and found long-term debt influences corporate performance. In contrast, Mamaro and Legotlo (2020) studied South African retail firms and found a significant negative relationship between long-term loans and returns on equity. Moreover, Dang et al. (2019) revealed that long-term financing negatively impacts return on assets in Vietnam's capital structure. Moreover, the agency theory also entails that the managers are the agents of the owners and responsible for optimization of the investment of the owners (Fama, 1980). Therefore, the managers are always looking for a favorable outcome from the investment.

Private debt financing has been superior to leveraged financing and bond markets for two decades all over the world (Munday et al., 2018; Block et al., 2023; Mafrolla and D'Amico, 2017). Private borrowing is a favorable financing alternative for the majority of businesses these days because it generates greater earnings compared to the other forms (Chernenko et al., 2019; Cumming et al., 2019). Block et al. (2023) stated that private debt investors in the United States and Europe were found to have fewer numbers due to attractive financing and direct lenders to corporate entities. Mafrolla and D'Amico (2017) stat-

ed that business entities can enhance borrowing capacity in the private loan market by optimizing their financial performance. Mudaliar et al. (2018) found consistent financial performance due to the use of private funds. However, by analyzing the several components of private debt and its impact, Giuzio et al. (2018) found a significant negative correlation between private debt and corporate performance. Examining the cost associated with corporate loans due to institutional demand pressure, Ivashina and Sun (2011) revealed that there is a significant inverse correlation between personal loans and the performance of the company.

Government often offers financial assistance to business organizations for sustainable performance and contributing to the economy (Jayeola et al., 2022). Huong and Cuong (2019) argued that there is a significant positive connection between the government financing system and profitability in Vietnamese small and medium enterprises. On the other hand, Wang et al. (2021) observed that financial assistance from government institutions negatively affects corporate performance. Koroleva et al. (2021) also found that lending through state-owned commercial banks has a negative impact on the financial performance in China. Considering the scenario of Vietnam, Nguyen Trong et al. (2017) explored that government financing has a negative effect on the profitability of the business. They argued that good governance is a key issue that ensures the efficient utilization of government financing. Business entities that utilize foreign financing have substantial control over productivity and financial performance compared to those relying solely on local financing (Bose et al., 2020). The influence of foreign debt on financial decisions is significant since its expansion has a greater tendency to diminish savings in comparison to its impact on investments (Gabrijelčič et al., 2016). Foreign-owned banks in local markets enhance the new financing options as well as introduce new innovative products to the market to attract customers (Gormley, 2010). Based on the empirical study conducted by Gabrijelčič et al. (2016), it is found that foreign debt financing is positively associated with firm performance. Moreover, enterprises that manage debt financing from foreign financial institutions have a positive impact on

Table 1. Measurement of Variables

Variable Type	Name of The Variable	Symbol	Measurement	Source
Dependent	Return on Equity	ROE	Net profit after tax divided by total equity.	Wahba (2013)
Independent	Short-Term Financing	F_ST	Short-term debt is divided by total assets.	Hayati et al. (2022)
	Long-Term Financing	F_LT	Long-term debt is divided by total assets.	Nazir et al. (2021)
	Private Financing	F_PR	Debt from all sorts of private sources except government institutions is divided by total assets.	Chernenko et al. (2019)
	Government Financing	F_GV	If debt is taken from government financial institutions, then the score is 1; otherwise, the score is 0.	Nguyen Trong et al. (2017)
	Foreign Financing	F_FR	If debt is taken from foreign financial institutions, then the score is 1; otherwise, the score is 0.	Mersland & Urgeghe (2013)
Control	Company Size	C_SIZE	Log of total assets.	Ali and Shaik (2022)
	Company Age	C_AGE	Total number of listing years at Dhaka Stock Exchange (DSE).	Wahba (2013)

both the company and the economy of the country (Giannetti and Ongena, 2012). Acheampong (2013) also explored that the entrance of foreign banks has a significant impact on the financial performance in Ghana. Nevertheless, Wibowo et al. (2023) discovered a significant negative impact on borrowing from foreign institutions and corporate performance. Gabrijelčič et al. (2016) found that foreign financing during the pre-crisis had a negative impact on private enterprises. Based on the above inconclusive findings, it is necessary to further examine the following hypothesis:

H1: Short-term financing has a significant positive relationship with ROE.

H2: Long-term financing has a significant positive relationship with ROE.

H3: Private financing has a significant negative relationship with ROE.

H4: Government financing has a significant negative relationship with ROE.

H5: Foreign financing has a significant positive relationship with ROE.

3. RESEARCH METHODOLOGY

The study explores the pharmaceuticals and chemicals sector among the 22 industries at the Dhaka Stock Exchange (DSE) in Bangladesh, focusing on their significant involvement in debt financing in the past few years. This research is designed to evaluate the debt structures of the pharmaceuticals and chemicals industry over the last 10 years, starting from 2013 to 2022. The pharmaceuticals and chemicals industry has been selected for the study, as this sector accelerated its operations in the last decades and has operations in both local and international markets (Masum, Latiff, & Osman, 2020). Of the 34 firms registered in the pharmaceuticals and chemicals industry at DSE, the study included

Table 2. Descriptive Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
ROE	200	21.280	34.069	-140.006	190.695
F_ST	200	35.741	23.100	1.321	88.124
F_LT	200	8.554	9.427	0	51.059
F_PR	200	11.945	14.126	0	53.845
F_GV	200	0.490	0.501	0	1
F_FR	200	0.425	0.496	0	1
C_SIZE	200	9.595	0.675	8.183	10.989
C_AGE	200	21.065	13.527	1	48

20 companies with 10 years of appropriate data, after excluding 7 companies for lacking 10 years of listing history at DSE and excluding 7 firms due to a lack of proper information. Therefore, a final sample of 200 observations has been used in this empirical study to achieve the research objectives of the study. The study assessed financial performance using a dependent variable, return on equity, and five independent variables for debt structures: short-term financing, long-term financing, private financing, government financing, and foreign financing. In this empirical study, return on equity is used as the proxy of financial performance, as it is directly related to the capital structures and represents the resource requirements of an entity. Lastly, the size and age of the company are employed as control variables, as the size of the company and the experienced company might have influenced the debt structure of a company. The variables and their respective measurements are presented in Table 1. The annual report contains all the necessary information that we need to analyze our primary variables, and it provides comprehensive and reliable information for its diversified users. This research utilized the annual report as the primary data source for evaluating our dependent and independent variables, as well as one control variable (C_Size). The remaining control variable, (C_Age), is collected from the official website of the Dhaka Stock Exchange (DSE).

Table 2 presents a comprehensive statistical analysis of the variables in the study, featuring

200 observations for each. The return on equity (ROE) indicates an average after-tax profit of 21.280%, although there is significant variability, reflected in a standard deviation of 34.069. A minimum and maximum ROE of -140% and 190%, respectively, demonstrate this fluctuation. Short-term financing averages 35.741% of total assets, ranging from a minimum debt of 1.321% to a maximum of 88.124%, showing a standard deviation of 23.1, implying heavy reliance on short-term financing by certain firms. The analysis also reveals that long-term financing (F_LT) and private financing (F_PR) have minimum values of zero, indicating some companies do not utilize these financing sources. The maximum values for both the F_LT and F_PR approaches are 50% of total assets, with standard deviations of 9.4% and 14%, respectively, and mean values around 8.5% and 12%, which suggest a limited role of these sources in overall financing structures. Government financing (F_GV) and foreign financing (F_FR) are quantified using dummy variables, with minimum and maximum values of 0 and 1. Their mean values are 0.490 and 0.425, respectively, and both exhibit a standard deviation of 0.50, indicating a relatively balanced presence of these financing types across companies. Company size, measured as the logarithm of total assets, displays a minimum of approximately 8.1 and a maximum of 10.9, with an average around 9.5 and a standard deviation of 0.675, suggesting variability in company sizes correlated with asset volumes. Additionally, company age (C_AGE) averages

Table 3. Correlation Analysis

Variable	ROE	F_ST	F_LT	F_PR	F_GV	F_FR	C_SIZE	C_AGE
ROE	1.000							
F_ST	0.408*	1.000						
F_LT	-0.158**	-0.113	1.000					
F_PR	-0.190*	0.365*	0.045	1.000				
F_GV	-0.313*	-0.169**	0.468*	-0.240*	1.000			
F_FR	-0.069	-0.096	-0.023	0.512*	-0.276*	1.000		
C_SIZE	-0.065	-0.335*	0.140**	0.196*	0.092	0.406*	1.000	
C_AGE	0.106	0.359*	-0.074	0.200*	-0.202*	0.195*	0.024	1.000

Note: * Significant at 1% level, ** Significant at 5% level, and *** Significant at 10% level.

about 21 years, with a standard deviation of 13.5 years, indicating that while some companies are newly listed (minimum age of 1 year), others have been operational for up to 48 years, reflecting a diverse landscape of company maturity within the study.

This empirical study uses a fixed-effect model to explain the impact of various debt structures on financial performance. Moreover, the fixed effect model has been used for various reasons. Firstly, the fixed effect model is recommended to investigate the degree of relationship among the variables that vary over time. In practice, all the proxy variables of debt financing have different slopes and intercepts, and their values vary across time. Therefore, the fixed effect model is recommended. Secondly, the fixed effect model can overcome the time-invariant features of the data set. Finally, the Breusch and Pagan LM test was used to determine the appropriateness of the pooled OLS model. The result shows that the pooled OLS model is not appropriate for the study where the value was less than 0.01. As the LM test was significant, the Hausman test was further executed to determine the appropriateness of the random effect model or the fixed effect model. The Hausman test implied that the fixed-effect model was more appropriate for the study, with a p-value less than 0.01. This empirical study did not have any indication of serial correlation, as the p-value of the Wooldridge

test was 0.2898. However, the empirical study exhibits an outlier issue with 10 out of 200 observations. The Modified Wald test for group-wise heteroskedasticity revealed that there was heteroskedasticity in the fixed-effect model. Finally, outliers and heteroskedasticity issues are being solved with the simultaneous use of Cook's distance test and robust fixed effect regression. Therefore, the following model has been used:

$$ROE_{it} = \alpha + \beta_1 F_ST_{it} + \beta_2 F_LT_{it} + \beta_3 F_PR_{it} + \beta_4 F_GV_{it} + \beta_5 F_FR_{it} + \beta_6 C_SIZE_{it} + \beta_7 C_AGE_{it} + \varepsilon_{it}$$

Table 3 entails a moderate positive correlation (0.408) between the dependent variable and short-term financing, which is statistically significant at a p-value less than 1%. Long-term financing and private financing have significant (p-value < 5% and < 1%, respectively) but negligible negative associations with ROE, with R-values of -0.158 and -0.190, respectively. Government financing has a significant (p-value < 1%) and low negative association with ROE at an r-value of -0.313, while foreign financing, company size, and company age have insignificant and negligible associations with the dependent variable of the study. According to Hinkle et al. (2003), the magnitude of the correlation coefficients as expressed above is in line with the generally accepted interpretation standard.

4. RESULTS AND DISCUSSIONS

The objective of this empirical study is to explore the relationship between corporate performance and debt structure in the context of the emerging economy, Bangladesh. To achieve the objective of the study, diagnostic tests for the appropriateness of the regression model have been evaluated. Table 4 exhibits the variance inflation factor (VIF) and tolerance values of the variables, which indicate the presence or absence of a multicollinearity issue. According to the findings of Nazir et al. (2021), when the variance inflation factor of variables is below 5, it provides evidence of the absence of multicollinearity among the variables. In our study, it is observed that all the VIF values are less than 2, which means there is no multicollinearity issue.

Table 4. Collinearity Test

Variable	VIF	Tolerance
F_ST	1.80	0.56
F_LT	1.34	0.74
F_PR	1.91	0.52
F_GV	1.52	0.66
F_FR	1.84	0.54
C_SIZE	1.45	0.69
C_AGE	1.26	0.80

The regression coefficients of the investigation are shown in Table 5. The study examined the impact of debt structures on the pharmaceuticals and chemicals industry’s corporate performance at DSE. The research’s coefficient of determination (R^2) indicates that 21.51% of the variation in return on equity can be explained due to variations in short-term financing, long-term financing, private financing, government financing, and foreign financing. This empirical study explored that short-term and long-term financing have a significant positive association with financial performance. Therefore, the first hypothesis of the study, having a regression coefficient of 0.670 at $p < 0.05$, is accepted.

This empirical finding portrays the significance of short-term debt financing in corporate performance in an emerging economy context. Although short-term financing is a big challenge in the emerging economy due to bureaucratic complexity and corruption (Bhuiyan & Masum, 2010), the adequacy of such financing has a positive impact on corporate performance in the context of Bangladesh. This empirical result recommends that the regulatory body of the emerging country should adopt proper policy to overcome the bureaucratic complexity and corruption that are inherited in it. Orji et al. (2021) also conducted an empirical study and found that short-term financing significantly influences corporate performance. The first hypothesis of the study is also consistent with the findings of Shikumo, Oluoch, & Wepukhulu (2020), where the significant relationship between short-term financing and corporate performance is also explored based on the Nairobi Stock Exchange. The second hypothesis of this empirical study is also accepted with a regression coefficient of 0.239 at $p < 0.5$. It entails that long-term financing significantly influences corporate performance in an emerging economy. In the context of Bangladesh, where lack of good governance is sharply visible (Bhuiyan & Masum, 2010), it is quite difficult to ensure the smooth handling of long-term financing. Due to political instability and corruption, most of the commercial banks are burdened with loan defaulters (Masum, Banik, Hasan et al., 2024). But interestingly, this empirical study suggested that long-term financing enhances corporate performance, as it is less costly. Aziz and Abbas (2019) also explored the same significant relationship between long-term financing and corporate performance in the context of Pakistan.

On the other hand, private financing and government financing are negatively associated with return on equity, with coefficients of -0.293 and -6.374, respectively. These results support the previous studies by Loumioti (2019) and Koroleva et al. (2021). Conversely, only government financing showed statistical significance in this study, which implies that hypothesis H3 is rejected but hypothesis H4 is accepted at $p < 0.10$. The inverse relationship between government financing and corporate performance is theoretically unexpected, but

Table 5. Regression Coefficients

Variables	Pooled OLS	Random Effect	Fixed Effect	After Rectifying the Heteroskedasticity Issue	After Rectifying the Outlier and Heteroskedasticity Issues
Constant	-124.725* (-4.21)	-62.180 (-1.29)	2.832 (0.03)	2.832 (0.02)	-47.221 (-0.57)
F_ST	1.118* (11.12)	0.860* (6.67)	0.727* (4.78)	0.727*** (1.82)	0.670** (2.47)
F_LT	0.372*** (1.75)	0.325 (1.57)	0.227 (1.07)	0.227 (1.45)	0.239** (2.53)
F_PR	-1.627* (-9.62)	-0.705* (-3.42)	-0.209 (-0.89)	-0.209 (-0.85)	-0.293 (-1.20)
F_GV	-27.768* (-6.53)	-15.273* (-2.87)	-7.631 (-1.23)	-7.631 (-1.61)	-6.374*** (-1.84)
F_FR	10.329** (2.18)	5.963 (1.26)	5.417 (1.11)	5.417*** (1.84)	3.439 (1.03)
C_SIZE	0.329* (1.18)	0.963** (2.21)	0.217** (1.71)	0.413* (1.78)	0.235* (2.04)
C_AGE	5.129* (2.28)	2.263 (3.26)	3.417* (2.11)	3.217*** (2.89)	4.146** (2.03)
R ²	0.5051	0.4279	0.2407	0.2407	0.2151
Observations	200	200	200	200	190

Note: * Significant at 1% level, ** Significant at 5% level, and *** Significant at 10% level.

Table 6. Summary of Hypotheses

Hypothesis	Nature of Association	Significance	Decision
H1	Positive	Significant	Hypothesis Accepted
H2	Positive	Significant	Hypothesis Accepted
H3	Negative	Insignificant	Hypothesis Rejected
H4	Negative	Significant	Hypothesis Accepted
H5	Positive	Insignificant	Hypothesis Rejected

the role of government financing on corporate performance overwhelmingly depends on some other factors like the level of good governance practices, the degree of accountability in the government fund provider, the extent of

the corruption level inside the fund-providing authority, etc. (Bhuiyan & Masum, 2010). The operational mechanisms of government differ significantly among developing, developed, and underdeveloped countries (Masum et al., 2020).

Especially in an emerging economy like Bangladesh, generally the government fund providers lack competent governance, which results in extra risk and bureaucratic complication in employing the government fund; even some sunk cost—speed money—might be encountered in acquiring and consuming the government fund. The last hypothesis (H5) of the study assumes a positive relationship between foreign financing and corporate performance, which is consistent with the findings of Giannetti and Ongena (2012). However, the observed phenomenon is statistically insignificant in our study, rejecting the hypothesis. Table 6 presents an abridged outcome of this empirical study.

5. CONCLUSION

The study explores debt structures, external sources of funds, and their impact on the corporate performance of pharmaceutical and chemical companies listed on the Dhaka Stock Exchange between 2013 and 2022. The findings revealed that in an emerging economy like Bangladesh, short-term financing and long-term financing significantly influence corporate financial performance, whereas government financing has an inverse relationship with corporate financial performance. These empirical findings entail that efficient utilization of short- and long-term financing brings a positive impact on corporate financial performance. The inverse relationship between government financing and corporate performance is also consistent with the findings of Graham, Leary, & Roberts (2014). However, Graham, Leary, & Roberts (2014) also discovered a positive correlation between government debt and the entity's liquidity. Consequently, this empirical finding also recommends that business entities should use fewer debt funds from the government. Especially in the developing country context, most of the government fund providers lack good governance, thus bringing extra unsystematic risk and bureaucratic complexity in utilizing the government fund (Habitat, 2015; Masum, Latiff, & Osman, 2020). Obtaining and utilizing the government fund may incur some sunk cost, in the form of speed money. Debt structures are crucial for businesses to secure funding from different sources and generate sustainable profits. The

positive associations among the debt structures and return on equity are an indication that more debt from these sources will generate greater financial performance, which supports the agency cost theory. The negative correlation between two debt structures and return on equity supports the concept of the pecking order theory. Managing debt financing according to the business's needs is a crucial choice for any business, as an optimal debt financing structure can positively impact a firm's growth, wealth accumulation, and market reputation.

This empirical study will assist business entities in pursuing debt financing, which enhances sustainability in corporate performance. The study offers valuable insights into future decision-making and the development of new ideas on debt financing issues. This empirical study has several limitations, such as considerations of pharmaceutical industries, absence of multi-economies, selections of one financial performance indicator, considerations of secondary data, etc. Future researchers can explore the impact of debt financing on multifaceted performance measurements as a proxy for financial performance. Moreover, the impact of green financing and Islamic financing on corporate performance based on emerging economies can be explored further. Researchers can also broaden the study's scope by including additional industries and examining ownership structures in conjunction with debt structures.

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Je li struktura duga relevantna za financijsku uspješnost? Dokazi iz gospodarstva u nastajanju

Sažetak

Dužničko financiranje predstavlja ključan izvor financiranja za suvremena poduzeća, no njegova se važnost razlikuje među kompanijama ovisno o gospodarskim uvjetima i državnim politikama, što utječe na prednosti i nedostatke povezane s tim oblikom financiranja. Ovo empirijsko istraživanje ima za cilj ispitati utjecaj strukture duga na financijsku uspješnost poduzeća u farmaceutskoj i kemijskoj industriji uvrštenih na Dhaka Stock Exchange u Bangladešu. U istraživanju su korištena godišnja izvješća dvadeset uvrštenih poduzeća u razdoblju od 2013. do 2022. godine. Kako bi se ispitaio odnos između različitih oblika strukture duga i korporativne uspješnosti, primijenjen je model fiksnih učinaka. Rezultati pokazuju da kratkoročno financiranje (F_{ST}), dugoročno financiranje (F_{LT}) i inozemno financiranje (F_{FR}) pozitivno utječu na korporativnu uspješnost mjerenu povratom na kapital (ROE), dok privatno financiranje (F_{PR}) i državno financiranje (F_{GV}) imaju negativan odnos s ROE -om. Istraživanje pruža praktične uvide za poduzeća, kreditore i donositelje politika u pogledu strukture duga. Nalazi upućuju na to da su i kratkoročno i dugoročno financiranje važni u gospodarstvima u nastajanju. Konkretno, inozemno financiranje pozitivno utječe na korporativno financiranje stvaranjem sinergijskih učinaka, dok privatno i državno financiranje ne dovode do pozitivnih ishoda zbog birokratske složenosti, lošeg upravljanja i korupcije.

Ključne riječi: dužničko financiranje, financijska uspješnost, Dhaka Stock Exchange, Bangladeš.