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-RESEARCH ARTICLE-

THE IMPACT OF BANK CREDIT AND LENDING RATE ON THE FINANCIAL DEVELOPMENT OF THE LOGISTICS INDUSTRY IN VIETNAM

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—Abstract—

Recent studies and policymakers have focused on debt financing as a crucial element of financial development. Thus, the present study investigates the effect of bank credit and lending rates on Vietnam's logistics industry's financial growth. This study also included business size and sales growth as control variables. This study compiles information from the thirty-five largest trade logistic companies listed on the Ho Chi Minh Stock Exchange and the Hanoi Stock Exchange. This analysis compiles information from 2016 to 2020 from both stock exchanges' official financial accounts and databases. This study included panel data analysis approaches, including the fixed effect model (FEM) and robust standard error. Results reveal that bank credit, sales growth, and business size positively correlate with financial development. However, the loan rate negatively affects financial development in Vietnam's logistics industry. These conclusions have given regulators suggestions for creating policies regarding debt financing and financial growth.

Keywords: Bank credit, Lending rate, Financial development, Logistics industry in Vietnam, Sales growth

1. INTRODUCTION

There are a lot of aspects that are crucial to the country's development. It has been seen during the past two decades that the importance of the logistics business is growing rapidly (Chen, Wang, & Liu, 2020; Herrera-Echeverry, Haar, Velasquez-Gaviria, & Upadhyay, 2020; Mahmood, Qadeer, Saleem, Han, & Ariza-Montes, 2021; Nguyen, 2020; Rahman, Kamal, Aydin, & Haque, 2022). Academics are becoming increasingly interested in this industry. Logistic studies are diversified, comprise multiple facets, and are undertaken under various conditions. Any nation that prioritizes the manufacturing sector must also prioritize the logistics sector, which is integral to nearly all production processes. Vietnam is becoming one of the significant ASEAN manufacturing nations. The nation's goal is to have an export-driven economy. The need for development in the country's logistic business was compelled by the rapid increase in goods movement caused by output. In addition, the rise of the logistic industry by 12 percent in 2018 highlights its significance. The country was ranked 39th out of 139 countries by the World Bank, an increase of 25 places from 2016.

In the first three quarters of 2020, Vietnam's economic revenue was $390 billion. Figure 1 demonstrates that Vietnam's logistic business is evolving as time passes. Within two years, the position in the industry climbed from 53rd to 48th. Although this ranking had a downward trend over the next two years, Vietnam secured the 64th position after a remarkable ascent over the next two years. Vietnam is ranked 39th in this business at the end of 2018, demonstrating its significance.

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Additionally, the logistic business contributes in a variety of ways to the economic growth of Vietnam. There is a combined trend regarding the logistics industry's contribution to the nation's gross domestic product. The total contribution was 2.73 percent in 2015 and 2.68 percent the following year. In 2017, an additional upward trend was noted at 2.70. The industry has contributed 2.78 percent to the nation's gross domestic product. The industry contributes 2.48 percent to the nation's economy despite the pandemic. These tendencies motivate researchers to examine this industry. Figure 1 depicts the transportation industry's contribution to Vietnam's GDP.

Figure 1: Transportation Industry contribution to Vietnam's GDP

Havenga (2018); Hsu, Quang-Thanh, Chien, Li, and Mohsin (2021) studied logistics' significance, rise, and future and described it as a continent filled with unrealized corporate potential. The study was conducted on South Africa's logistical system. A procedure based on a discussion of microbiological equipment. This instrument has two components: 1) a model of freight movement and 2) a model of logistic costs. The study's findings contribute to the growing theory of macro logistics and suggest that macro logistics can help the South African logistic industry overcome its issues. In addition, the evolution of logistics contributes to the nation's economy by reducing freight logistics costs at the national level, increasing the nation's competitiveness. Alavi and Jabbarzadeh (2018) studied the relationship between credit and logistics (supply chain). They concluded that the combination of credit and bank credit is crucial to the growth of the logistics section.

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Although this industry has been extensively studied over the past decade, there are still several unexplored factors, including 1) the infrastructure and human resources of the logistic industry, 2) the relationship between the banking and logistic industries, and 3) the cause of the increasing and decreasing trend in the industry's contribution to Vietnam's GDP. In addition, the present study will contribute to the logistics literature in several ways, including 1) shedding light on the significance of the industry; 2) educating logistic professionals on how the improvement in this section will affect the overall performance of their firm; 3) providing a better understanding of the relationship between banking (products) and the logistic industry, and 4) defining how bank credit affects the logistic section.

The second portion is the literature review, which discusses the perspectives of previous researchers regarding the bank credit and logistic business in many nations and at various stages. The third section of the paper is the methodology, which describes the method of data collecting and the analysis of the gathered data's validity. In the fourth section, the study's findings are presented. The results of this investigation are supported by previous research.

2. LITERATURE REVIEW

The banking system is a significant monetary phenomenon for domestic demand and the financial requirements of institutions. For improved returns, every institution and domestic need is linked to the banking system (Asmantaite, Dapkus, Karadzic, Korneeva, & Ghauri, 2021; Dimian, Apostu, Vasilescu, Aceleanu, & Jablonsky, 2021; Hye, Miraz, Mg, & Sharif, 2019). The development of Vietnam's logistics industry necessitates establishing various banking services that facilitate lending and deposits. Along with the DSGE model, Ramanauskas and Karmelavicius (2018) explored money creation and bank lending with an emphasis on a small open economy. From 2004 to 2018, data on several nations' small, open economies are compiled by distinguishing between bank credit financing and savings-based financing. The study assisted small open economies with savers and borrowers, nominal prices, and the Lithuanian banking sector. The banking sector contributes significantly to the growth and profitability of industries. In Vietnam, the lending rate is regarded as a significant factor that facilitates the development of the logistic business through various simple means. Other banks are regulated based on the policies established by the national banks. Nampewo (2021) evaluated the significance of lending interest rates and asymmetrical adjustments in Uganda by offering data for 2009-2017 from various institutions. Using panel error correction techniques, the importance of lending rates is interpreted to provide insight into policy initiatives for reducing stick and high lending rates. Due to lending rates and bank credit, the participation of logistical sustainability is essential. The lending rate and bank credit have significantly impacted the logistic industry's development efforts recently. This is because the logistic industry has a tremendous return on equity. Lan and Zhong (2018) evaluated the effects of several development and banking-related factors.

For this reason, various 2016 resource data significantly employ the Bayesian approach in this work. Results indicated that bank credit and lending rates contributed positively to the income of the logistics business (Caridade, Pereira, Ferreira, & Silva, 2017; Ehsanullah et al., 2021; Kaiser, Zimmermann, & Metternich, 2020; Mihalca et al., 2021).

The significant phenomena of bank lending have provided logistic businesses and others with vast opportunities to satisfy their advances and pressures. Despite this, bank lending has a crucial role as a monetary function fuel that immediately satisfies inflationary pressures and domestic demand, hence increasing return. Pieloch-Babiarz (2020); Wang, Han, Huang, and Mi (2021) investigated the relationship between bank credit and trade credit and its substitutes due to operational and financial repercussions. For this goal, discussing the SMBs of several EU nations where the operational distress of bank credit has acquired prominence is crucial. This study considered data for the years 2006 to 2015 from 19 countries. The decrease in distress benefits bank loans in the banking sector and is viable for Vietnam's logistic business. Not only is bank credit prominent in the logistics business, but also numerous other industries. Grain production is essential for farmers to meet necessities and earn a living. Therefore, the bank loan significantly impacts the agricultural sector's growth and improvement, thereby enhancing logistic development. With the aid of bank loans, Vietnam's logistical industry has grown considerably.

Huang, Chau, Chien, and Shen (2020); Inekwe (2020) elaborated on the connection between economic development and the development of industries such as the logistics and agriculture sectors. In this study, data for 2005 to 2016 are selected using the co-integration method. Increased credit flows facilitate optimal investment decisions and enhance returns. Bank credit and return on equity facilitate an expansion of finance and cash flow options. Becker (2020); Chien, Sadiq, Nawaz, et al. (2021) created the translation between levered equity and unlevered returns that affects industry growth. The technique of Modigliani and Miller has been applied to data from specific years. With the aid of these data and techniques, bank credit obtains a substantial boost, hence increasing the return (Chien, Sadiq, Kamran, et al., 2021; Dadelo, 2020; Guo, Chen, Si, & Wang, 2021; Hussain et al., 2020; Yan, Zhang, Yuan, Ai, & Lu, 2020).

The problem of bank loans and lending is significant for small and medium-sized enterprises in assessing the lending interest rates. The increased significance of group lending in Vietnam is attributable to the rapid development of the logistic industry. The logistic industry's profits have improved as a result of group loans. Daniel (2021); Shang, Ma, and Wang (2020) emphasized the growing need for bank loans and lending to maximize the earnings of China's small industries. For this reason, data from recent years before 2020 have been chosen. The outcome reveals efficient incentives for increasing the finances, lending, and loans that boost industries and their returns. While utilizing various platforms to improve the logistic sector, loan interest rates in Vietnam have produced superior development-related numbers. Interest rates are influenced by several

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factors, including the status of borrowers. Loans are explicitly related to default loans and graded loans.

Santoso, Trinugroho, and Risfandy (2020) examined the impact of default status and lending rates on the growth of financial technology in Indonesia. For this aim, data from 2014 to 2018 has been selected, implying that an increase in lending rates could negatively impact the financial standing of companies such as the logistics industry. However, with this increase, bank lending rates could considerably increase. While the influence of the loan interest rate spills over, one side enhances the return while the other decreases and raises expenses. Chien, Sadiq, Kamran, et al. (2021); Manopimoke, Prukumpai, and Sethapramote (2018) investigated the relationship between the equities market and other worldwide markets. In this study, which includes 15 nations, data for 1996-2015 have been selected. Co-integration has been utilized to increase the significance of the equities market and its correlation with lending interest rates. Using loan interest rates, foreign equities have shown signs of financial stress.

The size of businesses is a significant determinant in the growth and expansion of industries. Due to the higher return components, firm size plays an essential role in the logistic company (Chienwattanasook, Wattanapongphasuk, Prianto, & Jermsittiparsert, 2019; Lee & Ko, 2021; Marín, 2020; Peng & Huang, 2020). With higher firm sizes, Vietnam's logistic industry has generated more revenue to improve financial performance. (Kallmuenzer & Peters, 2018; Singh & Shaik, 2021) studied the entrepreneurial behavior with company size on family enterprises by gathering data from 198 out of 1456 firms in 2015 based on interviews with managers and their firm size practices. The scale of a business has a positive effect on both innovation and income. Company size's impact on their returns depends on stimulating both small and large enterprises. Due to the factors of capital structure, company size and recovery are interdependent. Vietnam's logistic business is enhanced by its increased size, and returns are enhanced by leveraging factors. Koralun-Bereźnicka (2018) Berenicka's study examined the relationship between leverage and capital structure determinants and the association between loan maturity and business size. For 2000-2013, data from thirteen European nations have been selected. They have revealed a positive association between business size and debt, as well as a growth in the profitability of industries. Short-term and long-term debts positively affect firm size, giving smaller and larger industries financial options. The relationship between revenue growth and company size expansion is evident. In Vietnam, the logistic industry has experienced a substantial expansion in business size and profitability. This return contributed to the growth of the logistics business in numerous ways.

Chamberlain, Rudolph, and Murphy Smith (2018); Chien, Ngo, Hsu, Chau, and Iram (2021) included social media in their examinations of the relationship between revenue growth and company size. For this reason, statistics from approximately 100 of the top CPA companies in 2017 have been collected. Most of this study's objectives relate to

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using social media to expand and dominate the firm's size. This enabled sectors and businesses to increase their pace of revenue growth. Weidman, McFarland, Meric, and Meric (2019) presented the factors of return on equity that are proportional to the firm's size. Using multivariate linear regression to analyze the elasticity of return on equity, data from various industrial companies have been selected. Return on equity is a significant factor directly influenced by a company's size.

Increases in industry returns are stimulated by sales expansion. This could be accomplished through corporate performance methods. The policies are meant to fulfill both domestic and international demands. Vietnam's logistic business has had significant sales growth that has increased its return on equity. Sanyal and Das (2018); Yu, Chiu, and Tung (2019) cited sales growth and GDP growth as significant contributors to return on investment. In addition to various distinct modeling frameworks, the benchmark model was utilized for this purpose. In this investigation, data with a lag of 40 to 50 days were used for the results. The signal sales growth demonstrates significant tendencies for better returns, but expenditures are also anticipated to climb. Every company involves some degree of uncertainty.

Despite this, Vietnam's logistical sector has seen a degree of domestic unpredictability. On the other hand, the contribution of a more significant return in a short period slightly boosts foreign sales growth. Othman, Nordin, and Sadiq (2020); Özer, Kamenković, and Grubišić (2020) analyzed the effect of sale growth uncertainty on the rate of return. Bayesian model averaging was utilized to choose the sales growth data from 1970 to 2017 for the function of sales growth. The results provide a projected upper and lower limit for sales growth income and are essential for the mortgage, personal disposable income, and unemployment rates. The contribution of sales growth to estimating the substantial rise in the return of industries. The logistic industry has improved in Vietnam due to foreign and internal sales growth.

Ito, Deseatnicov, and Fukao (2020); Li et al. (2021) investigated the domestic and international sales chains that influence exports. More than 10,000 employees in the industry from 62 countries and 34 sectors were included in the selection of data for 2012. This study analyzes domestic and international sales using the quadratic programming method. A more precise fragmentation of sales growth yields a substantial volume of return. Sales growth may become more encouraged when there is a place to invest. This motivation increases not only the sales volume but also the sales return. Wu, Sadiq, Chien, Ngo, and Nguyen (2021); Zhang, Cui, and Xie (2020) analyzed the concerns regarding dividends on sales realized for the payment of investors. While applying various models and payout ratios, the increase in sales substantially influences the return on equity.

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3. RESEARCH METHODOLOGY

This article examines the impact of bank credit, lending rate, business size, and sales growth on the financial growth of the Vietnamese logistics industry. This study collected data from the top thirty-five trading logistic companies listed on the Ho Chi Minh Stock Exchange and the Hanoi Stock Exchange between 2016 and 2020 by utilizing the public financial statements and databases of both stock exchanges. This research employed panel data analysis approaches, including FEM and robust standard error. This study has established the following equation using understudy variables:

$$ROE_{it} = \alpha_0 + \beta_1 BC_{it} + \beta_2 LIR_{it} + \beta_3 FS_{it} + \beta_4 SG_{it} + e_{it} \quad \textbf{(1)}$$

Where;

ROE	=	Return on Equity
i	=	Company
t	=	Time Period
BC	=	Bank Credit
LIR	=	Lending Interest Rate
FS	=	Firm Size
SG	=	Sales Growth

The present study has taken financial development as the dependent variable measured as the net income and equity ratio. In addition, the present study has taken two predictors named bank credit, measured as the ratio of bank credit to total credit and the lending interest rate, measured as the rate of interest on bank credit. Finally, the present study has taken the two control variables, firm size, measured as the logarithm of the total assets, and sales growth, measured as the logarithm of the change in the sales from the past year. These measurements are mentioned in Table 1.

Table 1: Measurements of Variables

S#	Variables	Measurements
01	Return on equity	The ratio of net income and equity
02	Bank credit	The ratio of bank credit to total credit
03	Lending interest rate	The rate of interest on bank credit
04	Firm size	Log of total assets of the firm
05	Sales growth	Log of change in the sales from the past year

This study has examined the descriptive statistics that exposed the variables' mean value, minimum and maximum value, and standard deviation. In addition, the current research also investigated the correlation among the constructs using the correlation matrix. Moreover, this article also examined the multicollinearity among the constructs by using the variance inflation factor (VIF), and the equations for the VIF are as follows::

R^2_Y $Y_{it} = \alpha_0 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + e_{it}$ **(2)**

$j = R_Y^2, R_{X1}^2, R_{X2,}^2 R_{X3,}^2 R_{X4,}^2 R_{X5}^2$ **(3)**

$Tolrance = 1 - R_j^2 \quad VIF = \frac{1}{Tolerance}$ **(4)**

In addition, the Hausman test was used to assess the model's suitability among FEM and random effect model (REM). REM is applicable if the probability value of the test is more than 0.05; otherwise, FEM is appropriate. In addition, the FEM was employed in this work to examine the relationship between the constructs. The principal advantage of the FEM is that it permits researchers to account for all time-invariant omitted variables. In addition, FEM is significant in the case of difficult-to-observe constructions. The FEM equation is stated as follows:

$Y_{it} = \beta_{1i} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + u_{it}$ **(5)**

Moreover, the subscript (i) in equation (5) represented the individual logistic company and the different companies concerning their characteristics. However, the critical drawback of FEM is that the researchers have to estimate the number of additional parameters. Conversely, FEM denotes a regression model in which the "group means are fixed." FEM equation with understudy variables as mentioned below:

$ROE_{it} = \beta_{1i} + \beta_2 BC_{it} + \beta_3 LIR_{it} + \beta_4 FS_{it} + \beta_5 SG_{it}\, u_{it}$ **(6)**

Finally, a robust standard error has also been used due to its ability to adjust the heterogeneity issues of the model that generally exist. This study has also used it to examine the nexus among the variables. The robust standard error equation with understudy constructs is mentioned below:

$ROE_{it} = \beta_1 BC_{it} + \beta_2 LIR_{it} + \beta_3 FS_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ **(7)**

4. RESEARCH FINDINGS

This study examined descriptive statistics displaying lowest and maximum values and means and standard deviations. The results suggest that the mean value of ROE is 25.3%, whereas the mean value of bank credit is 0.165.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROE	175	0.253	0.589	0.179	0.437
BC	175	0.165	0.183	0.045	0.756
LIR	175	5.364	0.517	4.756	7.399
FS	175	13.172	19.587	9.380	25.89
SG	175	2.866	1.944	1.418	4.060

Moreover, the mean value of LIR is 5,364, the mean value of FS is 13,172, and the mean value of SG is 2,866. The values are presented in Table 2.

This study also examined the correlation among the variable with the help of a correlation matrix. The results of the correlation matrix indicated that the BC, LIR, FS, and SG have a positive association with ROE. These relations are mentioned in Table 3.

Table 3: Matrix of Correlations

Variables	ROE	BC	LIR	FS	SG
ROE	1.000				
BC	0.289	1.000			
LIR	0.100	-0.384	1.000		
FS	0.552	-0.006	0.468	1.000	
SG	0.485	-0.054	0.526	0.835	1.000

The current research also tests multicollinearity with the help of VIF. The results of VIF indicated no multicollinearity issue among the variables because the values are less than five. These values are mentioned in Table 4.

Table 4: Variance Inflation Factor

	VIF	1/VIF
SG	3.591	0.279
FS	3.357	0.298
LIR	1.695	0.590
BC	1.231	0.813
Mean VIF	2.468	.

The current article also examined the appropriateness of the model and chose the best model among the FEM and random model. The results of the Hausman test indicated that FEM is appropriate because the probability value is less than 0.05. These values are highlighted in Table 5.

Table 5: Hausman Test

	Coef.
Chi-square test value	52.173
P-value	0.000

First, the FEM was utilized to examine the interactions between the structures. Results reveal that bank credit, sales growth, and business size positively correlate with financial development. However, the loan rate negatively affects economic development in Vietnam's logistics industry. In addition, 48.3% of changes in financial growth can be

attributed to the selected variables. The values are presented in Table 6.

In addition, a robust standard error was employed to examine the correlations between the components in this study. The results also reveal that bank credit, sales growth, and business size positively link financial development. In contrast, the loan rate negatively impacts the financial development of Vietnam's logistics industry. The values are presented in Table 7.

Table 6: Fixed Effect Model

ROE	Beta	S.D.	t-value	p-value	L.L.	U.L.	Sig
BC	1.076	0.219	4.92	0.000	0.644	1.508	***
LIR	-0.628	0.093	-6.74	0.000	-0.812	-0.444	***
FS	0.005	0.003	1.66	0.090	0.001	0.011	*
SG	0.089	0.033	2.65	0.009	0.023	0.155	***
Constant	3.625	0.588	6.16	0.000	2.461	4.788	***
R-squared	0.483		Number of obs	175			
F-test	31.826		Prob > F	0.000			
*** p<.01, ** p<.05, * p<.1							

Table 7: Robust Standard Error

ROE	Beta	S.D.	t	P>t	L.L.	U.L.
BC	1.076	0.186	5.800	0.000	0.699	1.453
LIR	-0.628	0.099	-6.320	0.000	-0.830	-0.426
FS	0.005	0.002	2.270	0.030	0.001	0.009
SG	0.089	0.040	2.210	0.034	0.007	0.170
_cons	3.625	0.700	5.170	0.000	2.201	5.048

5. DISCUSSIONS AND IMPLICATIONS

According to the study's findings, bank lending has a clear correlation with return on equity, which influences the financial growth of businesses. Business organizations have access to loans from financial institutions such as banks. They can generate greater earnings, according to the study's findings. The bank credits increase the financial resources of businesses, allowing them to invest in improving their level of productivity and marketing. The firm's expansion boosts the return on equity and the country's financial progress. The findings of this study are consistent with those of Ashraf (2018); Liu et al. (2021), who examined the significance of bank loans to the financial development of commercial firms. This study argues that when banks have a policy of granting easy-to-obtain credit to commercial entities, corporations can create flexibility in their business processes. They may make fast adjustments to corporate strategy and ensure that these modifications are effectively implemented to increase production

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quality and satisfy client needs. The growth in production and marketing of items reduces unit costs and, thus, increases the return on equity. When businesses are more profitable, they can attain superior financial performance. These findings are also supported by the research of Othman et al. (2020); Ruiz (2018), which demonstrates that to meet the current demands of customers for their products and services, business firms must invest in the improvement of their technology, raw materials, production processes, and logistics. Banks' credit facilities increase enterprises' capital and enable them to achieve rapid financial growth. The literary exercise of Anton and Nucu (2020) also validates the investigation's findings. This workout was conducted to analyze the relationship between bank financial policies and the financial development of businesses. The provision of easy-to-obtain credit helps companies respond swiftly to market developments and changes in client preferences for product and service quality; businesses require capital. The rapid response enhances brand image and increases profitability. Thus, bank loans strengthen the financial standing of businesses.

The study's findings indicate that the lending interest rate of banks has a negative correlation with return on equity, which shows rapid financial growth. When enterprises have access to the services of banks with a policy of low-interest lending, they can borrow money in times of need, according to the study. This facility increases the enterprises' financial resources, which they can use to develop their operations by utilizing more technology, resources, excellent products, and high-quality infrastructure. All of these factors result in a rise in productivity and a drop in cost per unit, attracting customers and yielding a higher return on equity. Thus, the company's financial condition is vital. These findings are consistent with the recent research of Ibrahim and Sare (2018) and Sadiq, Hsu, Zhang, and Chien (2021), which demonstrates how a change in the policies of financial institutions influences the return on equity and financial development of the businesses that benefit from these institutions. When banks offer loans at a lower interest rate, businesses can borrow more money than normal to meet their immediate needs and expand their operations by providing new products and service types that could attract new clients and retain the existing ones. This increases profits and boosts the firms' financial situation. These findings are corroborated by a recent study by Nasir, Huynh, and Tram (2019), demonstrating that the interest rate impacts the enterprises' intention and capacity to borrow from banks to meet their demands. The low-interest rate on loans increases the ability and intent of businesses to borrow money from banks. The additional funds enable businesses to purchase eco-friendly materials, resources, and technology, demonstrating excellent environmental performance and enhancing the public's brand perception. This leads to a high return rate on equity and a high level of financial development for the nation.

The findings of this study indicate that business size is positively correlated with return on equity and financial development. According to a previous study by Bist (2018), firm size significantly influences the profitability and financial position of the firms. These

results are consistent with this finding. The study's findings also reveal that the firm's sales growth has a considerable beneficial effect on its equity return and financial development. The previous research of Kumarasamy and Singh (2018); (Sadiq, Nonthapot, et al., 2021) confirms that product and service profitability depends on their marketing. Profits may only be obtained through the sale of goods and services. Companies with a high sales growth rate are more likely to have a high rate of return on equity and financial development.

The present research work contributes significantly to the economics literature and occupies a prominent position in the literary world. The study investigates the effects of four factors, bank credits, lending interest rate, business size, and sales growth, on the organization's return on equity and financial development. The function of bank credits, lending interest rate, company size, and sales growth of the firm in obtaining a high return on equity and financial development of the firm has been addressed by numerous academics in the past literature, albeit in a variety of studies. Our study examines the association between bank credits, lending interest rate, business size, sale growth, and firms' return on equity and financial development, which is a rare occurrence. The elucidation of the relationship between bank credits, lending interest rate, company size, sales growth, return on equity, and financial development in Vietnam's logistics industry is also a significant contribution to the body of knowledge. As it provides guidelines on how to increase return on equity and financial development, the current study is also of major value in rising economies such as Vietnam. It is hypothesized that bank credits, a low bank interest rate, a large firm size, and a high sales growth rate contributed to a rise in return on equity and financial development.

6. CONCLUSION AND LIMITATIONS

Businesses are created to make a profit. The firm's ability to increase return on equity and financial performance enable it to thrive and compete more effectively with rival companies. The study examined the relationship between bank credits, lending interest rate, business size, sales growth, and the firm's return on equity and financial development. To achieve the stated objective, this study examines the effects of bank credits, lending interest rate, company size, and sales growth on return on equity and financial development of logistics firms in the Vietnamese economy. Based on empirical research, the study's findings are established; according to these findings, bank loans increase the enterprises' financial resources, which they can employ to improve their productivity and quality, increasing their profitability and strengthening their financial position. The findings also revealed that the loan interest rate charged by financial institutions has a detrimental impact on return on equity and financial development. According to the study's findings, if the firm's size and sales growth rate are significant, its return on equity and financial development will also be.

Despite its prominence in the literary world and empirical usefulness in rising economies, there are several limits to the subject. Although these limitations represent flaws in the current study, they present an opportunity for future researchers to demonstrate efficacy. This study examines the effects of only two parameters, namely bank credit and lending interest rate, and two control variables, namely firm size and sales growth, on firms' return on equity and financial development. Return on equity and financial development of enterprises can also be accomplished in various ways, which are absent from this study. For a more comprehensive investigation, it is suggested that the number of issues under examination be expanded. In addition, the fact that the quantitative data for the period 2016-2020 was obtained from the logistics business in Vietnam makes the study less exhaustive and reduces the data's reliability. The authors must extend the analytic time for a more exhaustive and reliable investigation.

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