

# The Impact of Bank Finance on SME Export Activities: Updated Empirical Insights

Original Article

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## Abstract

External capital is a vital resource for businesses seeking to enter international trade, with smaller firms being particularly dependent on it. Yet financial obstacles frequently prevent many SMEs from successfully breaking into export activities. This study investigates the impact of bank finance on SMEs' export participation using firm-level data and empirical econometric analysis. The analysis employs descriptive statistics, correlation analysis, and regression estimation to assess the relationship between bank financing and export activities while controlling for firm-specific characteristics such as firm age, output, profitability, firm size, and human capital. The empirical results indicate a positive and statistically significant effect of bank finance on SMEs' export participation. Firms with greater access to bank financing are better equipped to overcome financial barriers related to export activities, including production expansion, compliance with international standards, and logistics costs. Furthermore, firm output and firm size are found to positively influence export engagement, suggesting that productive capacity and scale are significant determinants of international market entry. These findings underscore the critical role of financial institutions in supporting SME internationalization. The study contributes to the literature on finance and international trade by addressing empirical evidence on how improved access to finance can facilitate international market entry for SMEs. Bank finance can enhance SMEs' export performance and competitiveness in global markets.

**Keywords:** Bank Finance, Export Participation, Financial Constraints, International Trade, SME Exports.

## 1. Introduction

Across both advanced and emerging economies, small and medium sized enterprises are broadly acknowledged as vital engines for economic expansion, technological progress, and job creation. Within Indonesia, micro, small, and medium enterprises form the backbone of the economic landscape, making substantial contributions to workforce absorption and household earnings. They consequently act as a core foundation for the nation's economic stability (Nursini, 2020; Rusliana et al., 2023). Despite this dominance in the domestic economy, SME participation in international trade remains limited, with SME exports accounting for only approximately 14 to 15% of Indonesia's total export value (Shandy et al., 2025), indicating that the export potential of this sector remains largely underutilized.

Despite their significance, SMEs often encounter substantial obstacles that hinder their growth and international expansion. One of the most prominent challenges is restricted access to external finance. Financial constraints can impede firms' ability to invest, expand production capacity, adopt novel technologies, and engage in international trade activities (Rahardjo, 2023). Empirical studies consistently identify financing constraints as one of the most critical impediments to SME development, particularly in developing economies where



financial markets remain imperfect and information asymmetry between lenders and borrowers is prevalent (Casey & O'Toole, 2014; Wang, 2016).

Access to finance is particularly crucial for firms seeking to enter export markets (Amiti & Weinstein, 2011). Exporting requires firms to incur substantial sunk costs, including market research, compliance with international standards, product adaptation, logistics arrangements, and international marketing efforts (Yuliza et al., 2025). These costs are often prohibitive for SMEs with limited financial resources. Consequently, firms with better access to external financing, particularly bank finance, are more likely to overcome these barriers and participate in international markets (Pramesti et al., 2025). Previous empirical evidence demonstrates that SMEs with greater access to bank financing have a higher probability of engaging in export activities because financial resources enable them to cover the fixed costs associated with export market entry (Abor et al., 2014).

However, despite Indonesia's overall export growth, reaching approximately USD 264.7 billion in 2024 (BPS, 2025), empirical evidence on how bank financing specifically affects SME export participation in this context remains limited. In the Indonesian context, the issue of SME financing remains a persistent policy concern. Although the government has implemented various initiatives to promote financial inclusion, such as credit guarantee schemes, subsidized lending programs, and SME development policies, many SMEs still face difficulties in obtaining formal bank credit (Moenardy et al., 2025). Limited collateral, lack of financial records, and information asymmetry between financial institutions and SME borrowers often restrict access to conventional bank financing. As a result, the share of SME lending in total bank credit remains relatively low compared to the government's target, indicating the presence of structural financing gaps in the SME sector (Saifurrahman & Kassim, 2024).

In light of these circumstances, the current research focuses on a specific question: after adjusting for establishment level attributes such as years in operation, total output, net earnings, staff numbers, and worker qualifications, does bank lending still show a notable effect on SME participation in exporting from Indonesia? Exploring this linkage between financial resource access and cross border trade involvement allows the study to extend prior work on both SME outward expansion and monetary system maturation in the developing world. The projected findings should prove useful for authorities, commercial banks, and enterprise promotion entities as they design practical approaches to strengthen funding availability and accelerate export based economic momentum.

## 2. Literature Review

### 2.1. SMEs and Economic Development

The importance of SMEs as a key driver of economic advancement is well established in both industrialized and industrializing countries. Many emerging market economies rely heavily on these enterprises for generating employment, stimulating inventive activity, and spurring regional prosperity. Turning to Indonesia, SMEs dominate the business landscape and are instrumental in preserving macroeconomic balance and advancing inclusive progress. National statistics indicate that these firms account for upwards of 99% of total commercial units and provide substantial contributions to labor markets as well as overall GDP (Tambunan, 2021). Their widespread presence across different sectors, including manufacturing, agriculture, trade, and services, enables SMEs to act as a key driver of economic resilience, particularly during periods of economic crisis.

The importance of SMEs in Indonesia has become increasingly evident over the past two decades, particularly in the aftermath of the Asian financial crisis and the COVID-19 pandemic. During these periods, SMEs demonstrated greater flexibility and adaptability compared to large corporations, allowing them to maintain economic activities and sustain employment levels. Studies have shown that SMEs contribute significantly to the stability of the national economy because they are less dependent on external capital markets and are often more responsive to local market demand (Tambunan, 2021). As a result, strengthening SME development has become a priority in Indonesia's economic policy agenda.

Although they contribute greatly to the economy at home, the output per worker and competitive standing of Indonesian SMEs remain below the levels recorded by their larger counterparts. Several structural challenges continue to hinder SME growth, including limited technological capability, weak managerial capacity, restricted access to international markets, and inadequate access to financial resources. These challenges often diminish the ability of SMEs to expand production capacity, enhance product quality, and compete in global markets. As evidenced by several empirical studies, SMEs in Indonesia frequently encounter barriers related to limited capital accumulation and financial access, which significantly impact their overall performance and sustainability (Rusliana et al., 2023).

Furthermore, SMEs often operate within informal or semi-formal business structures, which further complicates their ability to access formal financial services. Many small firms lack adequate financial records, credit history, and collateral requirements that are typically required by banks when evaluating loan applications. Consequently, SMEs frequently rely on internal funds, informal financing sources, or family capital to support their business operations. Such financial limitations can constrain their ability to scale up production, invest in technology, and explore export opportunities in international markets. Given these challenges, strengthening SME competitiveness necessitates not only improving entrepreneurial capabilities but also enhancing the financial ecosystem that supports SME development. Access to financial resources, particularly bank financing, is therefore considered a key determinant of SME growth and expansion. A well-functioning financial system can facilitate SME investment, enhance productivity, and encourage business expansion into international markets.

## 2.2. Financial Constraints and Access to Bank Finance

Obtaining sufficient funding has consistently ranked among the foremost difficulties confronting small and medium enterprises across the globe. Limited financial resources frequently curtail a firm's capacity to purchase income generating equipment, embrace innovative processes, and broaden its operational scope. In comparison with larger corporations, SMEs face steeper hurdles in securing outside capital, a situation driven by elevated risk perceptions, unequal access to information between borrowers and lenders, and insufficient asset pledges. These obstacles prove especially pronounced in the developing world, where capital markets tend to be less mature and financial institutions commonly adhere to cautious credit policies (World Bank, 2019).

In the Indonesian context, limited access to financial resources remains a persistent obstacle for SME development. Although the banking sector plays a dominant role in providing credit to the private sector, the share of bank financing allocated to SMEs remains relatively low compared to their economic contribution. According to financial sector reports, SME loans account for only around 20% of total bank credit, which remains below the government's target of 30% of total lending (Bank Indonesia, 2023; Saifurrahman & Kassim, 2024). This gap indicates that many SMEs continue to experience difficulties in obtaining formal financial support from banking institutions.

Several factors contribute to the limited access of SMEs to bank financing. One of the most commonly cited barriers is the issue of collateral requirements imposed by banks. Lenders frequently demand that applicants pledge adequate security as a safeguard against potential default. Yet a large number of small and medium enterprises do not hold registered assets or clear property titles that could serve this purpose, which complicates their efforts to satisfy bank lending standards. Compounding this issue, many SME proprietors possess only modest financial knowledge and employ rudimentary bookkeeping methods, which undermines their capacity to produce the dependable accounting records that creditors typically request.

The gap in knowledge separating business owners from financial institutions represents another key determinant of financing outcomes for SMEs. Lenders find it difficult to gauge credit risk in these cases, largely because many smaller enterprises operate with poor transparency and substandard accounting practices. Consequently, financial institutions may perceive SMEs as high-risk borrowers and impose stricter lending conditions or higher interest rates. These constraints can deter SMEs from seeking formal loans and instead rely on informal financing sources, which are often more expensive and less sustainable.

Empirical studies on SME financing in Indonesia also underscore the significance of financial accessibility in determining business performance. Research on the link between funding channels and enterprise development offers one clear example. According to Rusliana et al. (2023), firms with wider financial market connections generally outperform their capital constrained peers in terms of revenue growth and overall performance. Along similar lines, investigations into Indonesian SME credit deficits highlight that deepening financial inclusion and widening loan availability are vital for strengthening productivity and competitive edge (Yunus & Ernawati, 2025).

In response to these challenges, the Indonesian government has implemented various policies aimed at enhancing SME access to financing. These initiatives encompass subsidized credit programs such as the People's Business Credit (KUR), credit guarantee schemes, and financial inclusion programs designed to expand banking services to underserved business sectors. Furthermore, financial technology (FinTech) innovations have emerged as increasingly significant in providing alternative financing channels for SMEs, particularly through peer-to-peer lending platforms and digital financial services. Recent research indicates that improved financial literacy and the adoption of financial technologies can enhance SME access to financing and ultimately improve business performance and sustainability (Saifurrahman & Kassim, 2024).

### **2.3. Finance and SME Export Activities**

The relationship between financial access and export participation has garnered significant attention within the international business and development economics literature. Exporting necessitates firms to incur substantial fixed and sunk costs, encompassing market research, product adaptation, certification standards, transportation logistics, and international marketing. Smaller companies tend to feel the weight of these costs more heavily, given that they usually have scant capital reserves and must navigate greater unpredictability in overseas environments.

Theoretical and empirical studies indicate that firms with enhanced access to external financing are more inclined to engage in export activities. Access to bank loans empowers firms to invest in production capacity, adopt elevated quality standards, and mitigate the initial costs associated with entering international markets. Conversely, financially constrained firms may be unable to finance the investments requisite for exporting, thereby restricting their participation in global trade. Evidence from international empirical research

suggests that financial constraints significantly impact both the likelihood of exporting and the intensity of export activities among SMEs. Firms with access to bank loans or overdraft facilities are more likely to participate in export markets and achieve higher export sales compared to firms facing financial constraints (Manova, 2012; Minetti & Zhu, 2011). These findings imply that financial development plays a pivotal role in facilitating firm internationalization and expanding trade participation.

In Indonesia, the role of finance in supporting Small and Medium Enterprises (SMEs) in their export activities has become increasingly critical as the country endeavors to diversify its export structure and promote value-added industries. Despite Indonesia's substantial growth in overall export performance, SME participation in export markets remains relatively low. Several structural barriers continue to impede SME export participation, including limited production capacity, a lack of international market knowledge, logistical challenges, and financial constraints.

Access to financing is particularly crucial for small and medium-sized enterprises (SMEs) seeking to expand into international markets. Export activities necessitate substantial upfront investment, and firms must invest in product quality enhancement, international certification standards, packaging, branding, and distribution networks to effectively compete in global markets. Without adequate financial resources, many SMEs are unable to meet these requirements, ultimately limiting their capacity to engage in export activities.

To address these challenges, the Indonesian government has implemented several export financing programs to support SME internationalization. One notable example is the export financing program administered by the Indonesian Export Financing Agency (LPEI). This program provides financing facilities, credit guarantees, and export insurance to support export-oriented SMEs. These programs are designed to mitigate financial barriers and incentivize SMEs to participate in international trade by enhancing their access to financial resources and risk management instruments.

In summary, the existing literature emphasizes the significance of financial access as a key determinant of SME performance and internationalization. However, empirical evidence specifically focusing on the relationship between bank financing and SME export participation in Indonesia remains limited. Most previous studies have concentrated on general SME financing constraints or domestic business performance rather than explicitly examining the role of bank finance in facilitating export activities. Therefore, further empirical investigation is essential to gain a deeper understanding of how access to bank finance influences SME export participation in Indonesia.

### 3. Methods

This study utilizes firm-level data sourced from the World Bank Enterprise Survey (WBES) for Indonesia. The WBES provides comprehensive information on business characteristics, financial access, and export activities of firms operating within the country (World Bank, 2020). The Enterprise Survey is extensively employed in empirical studies investigating firm performance, access to finance, and internationalization behavior in developing nations (Beck, Demirgüç-Kunt, & Maksimovic, 2008). The Indonesian survey encompasses extensive data on firms operating in both manufacturing and service sectors and has been conducted in multiple rounds to ensure regional and industry representativeness.

The dataset utilized in this study comprises a cross-section of Indonesian firms collected during the most recent survey rounds between 2015 and 2020. This data includes information on firm characteristics such as employment, output, access to financial institutions, ownership structure, and export participation. The survey sample is stratified by industry, geographic

location, and firm size to ensure national representativeness. Similar to previous studies employing enterprise survey data, firms are categorized into three size categories based on the number of employees: micro firms (1-5 employees), small firms (6-29 employees), and medium firms (30-99 employees) (Beck, Demirgüç-Kunt, & Martinez Peria, 2008).

The composition of the sample utilized in this study is presented in Table 1. In terms of sectoral distribution, the food and beverage manufacturing sub-sector accounts for the largest share of firms in the sample (23.40%), followed by the textile and garment industry (20.10%) and the wood and furniture industry (18.35%). Other sectors, such as fabricated metals, chemicals, and machinery, represent smaller shares of the sample.

Regarding geographical distribution, the majority of firms in the sample are situated in Java, comprising approximately 61.8% of the total sample. This is followed by Sumatra (18.6%), Kalimantan (9.4%), Sulawesi (6.2%), and Bali and Nusa Tenggara (4.0%). This distribution reflects the concentration of industrial activities in Indonesia's primary economic regions, particularly on the island of Java, which hosts the largest share of manufacturing firms in the country. In terms of firm size, medium-sized firms represent the largest proportion of the sample (65.7%), followed by small firms (26.8%), while micro firms account for approximately 7.5% of the total sample. This distribution aligns with the structure of enterprise surveys, which tend to include a larger share of formal sector firms compared to microenterprises operating in the informal economy.

**Table 1. The Sample's Composition**

Variable	Freq	%	Cum
<b>Sub-sector</b>			
Food & Beverage	412	23.40	23.40
Textile & Garment	354	20.10	43.50
Wood & Furniture	323	18.35	61.85
Fabricated Metal	276	15.67	77.52
Chemical	198	11.24	88.76
Machinery	112	6.36	95.12
Additional Manufacturing	86	4.88	100.00
Total	1761	100.00	
<b>Location</b>			
Java	1089	61.80	61.80
Sumatra	327	18.56	80.36
Kalimantan	165	9.37	89.73
Sulawesi	109	6.19	95.92
Bali & Nusa Tenggara	71	4.08	100.00
Total	1761	100.00	
<b>Firm size</b>			
Micro (1-5)	132	7.50	7.50
Small (6-29)	472	26.80	34.30
Medium (30-99)	1157	65.70	100.00
Total	1761	100.00	

This study utilizes a probit estimation technique to explore the connection between bank funding availability and whether an SME participates in exporting. Given that the response variable is binary, the probit formulation is appropriate for the analysis. The dependent indicator takes a value of one for firms that export a share of their goods and a value of zero for those that do not. Empirical literature on foreign market entry and international business behavior provides ample precedent for employing this methodology (Manova, 2012; Minetti & Zhu, 2011).

The model can be expressed as  $\text{Probability}(\text{Export}_i=1)=\Phi(X_i\beta)$ . In the context of the regression model,  $\beta$  represents the vector of estimated coefficients, while  $X$  denotes the vector of explanatory variables included in the model. The vector  $X$  encompasses the following firm-level characteristics including bank finance, firm age, output, profitability, firm size, education level of workers, industry sector, and geographic location.

### 3.1. Variable Operationalization

Export status serves as the binary dependent variable in this analysis. Firms that reported shipping some of their goods to foreign buyers during the reference period receive a code of 1, whereas those that operated solely within domestic channels receive a code of 0. This coding scheme aligns with the standard procedure found in empirical work that draws on business survey data to study export participation (Manova, 2013; Minetti & Zhu, 2011).

Bank finance is operationalized as a continuous variable measured on a 0 to 100 percentage scale, representing the proportion of a firm's working capital and fixed asset investment financed through borrowing from formal banking institutions, as self-reported by survey respondents. This measure is the standard WBES indicator of bank financing reliance and is constructed directly from firm respondents' reported financing structure rather than from a multi-item scale, since it reflects an objective financial proportion rather than a latent attitudinal construct. A value of 0 indicates a firm relies entirely on non-bank sources, such as internal funds, family capital, or informal lending, while a value of 100 indicates total reliance on bank credit. This variable captures the extent to which firms rely on bank credit to finance their operations, distinguishing it from broader measures of access to finance that may include non-bank formal institutions or informal credit sources.

The age of a firm is calculated by taking the difference between the survey year and its year of inception, thereby indicating how many years of business history it possesses. For output, the natural log of total sales in local currency units is employed, and for size, the natural log of total staff numbers is used. Both variables undergo logarithmic conversion to reduce positive skewness in their distributions and to facilitate interpretation of the estimated parameters as approximate proportional effects.

Profitability is measured as the firm's reported profit rate, expressed as a percentage of sales or revenue. Education is operationalized as the weighted average number of years of formal schooling completed by the firm's employees, where the weights correspond to the share of the workforce within each education category reported in the survey (for example, primary, secondary, and tertiary education). This produces a continuous, firm-level measure expressed in years of schooling, rather than a categorical or ordinal scale.

The variable "education" represents the average level of education among employees in the firm, which may influence productivity and export capability. As with bank finance, this measure is drawn directly from survey-reported categorical data on employee educational attainment rather than constructed from a psychometric instrument, and its construct validity rests on the assumption that years of schooling is an adequate proxy for the human capital relevant to export-related tasks such as quality control, international communication, and compliance with foreign standards. This assumption is consistent with its use as a human capital proxy in prior firm-level trade studies (Tambunan, 2021).

## 4. Results and Discussion

### 4.1. Descriptive Analysis

**Table 2. Descriptive Statistics Results**

Variable	Mean	Std. dev.	Min	Max	Obs.
Exports	0.1924	0.39	0	1	1761
Bank finance	15.8732	34.28	0	100	1761
Firm age	16.4821	11.74	0	65	1761
Output	16.9053	2.41	9.8421	23.6745	1761
Profitability	7.1185	76.94	-12.2381	2518.472	1761
Firm size	3.4872	1.29	0	7.1034	1761
Education	10.2345	2.41	0	19.4521	1761

Table 2 provides descriptive figures for the full set of regression variables. Mean export participation among sampled enterprises stands at about 19.2 percent, revealing that only a limited fraction of Indonesian SMEs venture beyond domestic borders. Such a result corresponds with existing literature, which finds that small and medium firms in less developed economies often face financial and structural hurdles that curtail their foreign market involvement (Manova, 2013; Minetti & Zhu, 2011). The mean value of bank finance is approximately 15.87%, suggesting that bank borrowing constitutes a relatively small share of total financing for SMEs. This result reflects the persistent challenges faced by SMEs in accessing formal financial institutions, which have been extensively documented in the literature on SME financing in developing countries (Beck et al., 2008). The average firm age is approximately 16 years, indicating that many firms in the sample have accumulated substantial operational experience. Turning to firm size, the mean of its logarithmic employment measure is 3.48. Such a value implies that most observations in the sample are concentrated within the SME segment rather than among large corporations.

### 4.2. Correlation Analysis

To assess the extent of multicollinearity among the independent variables, a correlation matrix is presented in Table 3.

**Table 3. Correlation Matrix**

	Exports	Bank finance	Firm age	Output	Profitability	Firm size	Education
Exports	1.0000						
Bank finance	0.2984*	1.0000					
Firm age	0.0842*	0.1217*	1.0000				
Output	0.3926*	0.2473*	0.2689*	1.0000			
Profitability	-0.0184	0.0316	-0.0091	0.0145	1.0000		
Firm size	0.4215*	0.2568*	0.2512*	0.8037*	-0.0594*	1.0000	
Education	0.1186*	0.1734*	0.0157	0.2628*	-0.0287	0.2874*	1.0000

\* Significant at least the 10% level of significance.

Bank finance is the bank borrowing as a proportion of total financing; Firm age is the number of years in business; Firm size is defined as the log of employment size; Output is the logarithm of the firm's output; Profitability is the firm's profit rate; Education is the weighted average of education of workers in the firm.

The findings indicate a positive correlation between bank finance and exports, suggesting that firms with enhanced access to bank credit are more inclined to engage in

export markets. Additionally, firm age exhibits a positive relationship with both exports and bank finance, implying that older firms may possess stronger financial connections and greater market experience.

A positive relationship emerges between output and several other variables, namely export status, bank financing, and firm age, which points to the conclusion that higher producing firms tend to secure more capital and engage more frequently in foreign sales. Employment based size also correlates positively with exports, credit access, age, and sales volume, though its correlation with profitability runs in the opposite direction. This may suggest that larger firms encounter higher operating costs that may diminish their profit margins.

The results also reveal positive associations between education and exports, bank finance, output, and firm size, underscoring the potential role of human capital in enhancing firms' capacity to participate in international trade. Firm size and output exhibit a high degree of correlation, reflecting the close relationship between employment size and production scale. Consequently, to mitigate potential multicollinearity issues, both variables are not included simultaneously in the same regression model.

### 4.3. Regression Results

Table 4 reports the estimation outcomes, displaying how bank credit influences SME export behavior. Because firm size and output are strongly correlated, they are entered into separate regressions rather than together. The table accordingly presents two distinct model specifications.

**Table 4. Effect of Bank Finance on Exports**

Variable	(1)	(2)
Constant	-9.8124 (-4.62)***	-5.2143 (-4.41)***
Bank finance	0.0135 (2.51)**	0.0132 (2.44)**
Firm age	0.0307 (2.09)**	0.0249 (1.72)*
Output	0.3876 (4.05)***	
Profitability	-0.0215 (-0.48)	0.0019 (0.10)
Firm size		0.6714 (4.18)***
Education	0.0683 (0.96)	0.0597 (0.84)
Location:		
Jakarta	0.6421 (1.39)	0.5178 (1.18)
Surabaya	-0.4183 (-0.76)	-0.7021 (-1.27)
Medan	-0.6934 (-0.45)	-0.8126 (-0.61)
Sector		
Food processing	1.8842 (2.47)**	1.9015 (2.49)**
Textile	-0.3987 (-0.63)	-0.6184 (-0.91)
Metal	0.2481 (0.41)	0.5417 (0.85)
Chemical	0.3726 (0.52)	0.7742 (1.11)
LR chi <sup>2</sup>	114.62	117.83
Prob > chi <sup>2</sup>	0.0000	0.0000
Pseudo R <sup>2</sup>	0.5032	0.5176
Log likelihood	-57.1184	-55.4097

Notes: All regressions include a constant term. Z-values are presented in parentheses.

\* The mean is statistically significant at the 10% level of significance.

\*\* The mean is statistically significant at the 5% level of significance.

\*\*\* The mean is statistically significant at the 1% level of significance.

The results indicate a significantly positive relationship between bank finance and exports, suggesting that SMEs with better access to bank financing are more likely to export

their products. Entering international markets typically requires substantial capital investments for activities such as product certification, market research, transportation, and distribution networks, and firms with higher levels of external financing are better able to overcome these entry barriers. In addition to the direct provision of credit, financial institutions also offer supplementary services that are indispensable for international trade operations, including trade financing instruments such as letters of credit, export guarantees, foreign exchange hedging facilities, and international payment services, all of which facilitate firms' participation in cross-border trade. These findings support the sunk cost hypothesis, which posits that firms necessitate substantial upfront investment before entering export markets, and access to bank financing can assist SMEs in overcoming these sunk costs and enhancing their likelihood of exporting.

This positive finance-export relationship is consistent with Manova (2012) as well as Minetti and Zhu (2011), both of which find that financially constrained firms are less likely to enter export markets across a range of country contexts. The present study extends this line of evidence to the Indonesian SME sector specifically, an area where, as noted in the literature review, prior empirical work has concentrated on general financing constraints or domestic performance outcomes rather than export behavior. Compared with cross-country evidence such as Manova (2012), however, the estimated bank finance coefficient here (0.0135 in Model 1 and 0.0132 in Model 2) is modest relative to the coefficients on output and firm size, suggesting that in the Indonesian context, scale and productive capacity may weigh more heavily in export decisions than the share of financing obtained specifically from banks. This pattern differs somewhat from studies that identify financial access as the dominant constraint on export participation, and instead points to a setting in which financing and productive capacity operate as joint but unequally weighted determinants.

According to the estimates, a longer operational track record corresponds with a higher probability of export involvement, and this relationship is statistically reliable. More mature firms appear to gain an edge through decades of accumulated insight, refined decision making skills, and enduring partnerships along their supply and distribution chains as well as with lending institutions. These cumulative strengths help older businesses develop the kind of organizational capacity required for competing internationally. In addition, output exhibits a strong positive relationship with exports, suggesting that firms with larger production capacity are more inclined to engage in international trade. In essence, more productive firms possess a greater capacity to absorb the fixed costs associated with exporting, thereby increasing their likelihood of entering export markets, an observation that aligns with the heterogeneous firm trade theory, which posits that only the most productive firms can successfully compete in international markets.

This result corroborates the productivity-based sorting mechanism central to Melitz (2003) and is consistent with firm-level evidence reported by Manova (2012), reinforcing that productivity remains a robust predictor of export status even within a sample restricted to SMEs rather than the full firm-size distribution typically examined in cross-country trade studies. Similarly, Firm size, captured through the natural log of total staff, emerges as an important predictor of international market entry. Greater employee counts bring economies of scale, more sophisticated operational systems, and readier availability of funding and technical tools. Such assets allow larger companies to shoulder the initial outlays required for exporting, covering areas like consumer research, product modification for foreign clients, packaging upgrades, and advertising campaigns. At the same time, cross border trade carries added perils from fluctuating exchange rates, mismatched regulations, and volatile foreign buyer demand. Because they hold more capital and managerial talent, bigger firms tend to be

in a stronger position to absorb these shocks. Consequently, larger firms are more likely to participate in international trade compared to smaller firms.

The non-significant profitability result stands in some contrast to studies that treat internally generated funds as a substitute for external financing in overcoming export entry costs; the absence of such a substitution effect here suggests that, for Indonesian SMEs, bank credit access functions as a distinct constraint rather than one that profitable firms can simply finance around. Similarly, the weak education effect departs from studies such as Wagner (2012), which report human capital as a more consistent predictor of export participation, a divergence that may reflect differences in how education is measured, as an average across the workforce rather than among managerial staff specifically, or may reflect structural differences between the Indonesian SME sector and the firm populations examined in that broader literature.

Regarding sectoral effects, the results suggest that firms operating in export-oriented manufacturing sectors are more likely to engage in export activities compared to firms operating in non-tradable sectors. This may be attributed to variations in product characteristics, international demand conditions, and the availability of global value chain linkages across industries. Overall, the empirical findings underscore the critical role of financial access in facilitating SME internationalization. Enhanced access to bank financing can augment firms' capacity to expand beyond domestic markets, thereby contributing to increased export diversification and improved economic competitiveness.

## 5. Conclusion

Securing funding from banks remains a persistent difficulty for SMEs across much of the developing world, with Indonesia being no exception. This research drew on firm specific data and a probit estimation strategy to analyze the link between credit availability and export status within the Indonesian SME sector. Our evidence clearly indicates that better access to bank lending raises export probabilities. Furthermore, businesses with longer histories, greater production volumes, and larger staff sizes display stronger participation rates in international markets.

These findings extend the existing literature in two key respects. First, whereas prior Indonesian studies on SME financing have largely focused on domestic business performance, this study provides empirical evidence specifically on bank finance and export participation, addressing a gap identified in the literature review. Second, the finding that bank finance significantly predicts export participation while profitability does not suggest that the financing barrier facing Indonesian SMEs operates through constrained access to external bank credit rather than a general shortage of internal funds, indicating that financial constraints and productive capacity act as distinct barriers to export entry.

Exporting requires firms to incur substantial fixed costs related to international marketing, regulatory compliance, logistics, and distribution, and access to bank credit is pivotal in helping SMEs overcome these obstacles. Financial institutions also offer trade-related services that facilitate cross-border transactions and mitigate associated risks.

These findings carry several policy implications. First, enhancing SME access to bank financing should be a priority, through expanded credit programs, export financing schemes, and credit guarantee mechanisms. Because financing access matters independently of productivity, such programs are likely to benefit moderately productive firms that might otherwise be excluded from export markets due to financing constraints alone. Second, strengthening credit information systems, collateral frameworks, and lending processes can

improve financial intermediation efficiency for SMEs. Third, policies supporting productivity and competitiveness, including technology adoption, workforce skills development, and integration into global value chains, remain equally important.

Finally, continued government support for export promotion, international market training, and trade exhibition participation can further SME internationalization. This study's reliance on cross-sectional data limits its ability to capture dynamic changes over time; future research using panel data could address this. Overall, improving SME access to finance can meaningfully support export diversification, economic growth, and the competitiveness of the Indonesian economy.

## 6. References

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