International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Unlocking Export Potential: Financial Access and Its Impact on SME Export Performance in Afghanistan

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Abstract

This research explores how access to financial resources affects the export performance of Small and Medium-sized Enterprises (SMEs) in Afghanistan, a country characterized by weak institutions, financial exclusion, and geopolitical instability. By analyzing data from 410 businesses in five key cities, the study investigates the effects of internal, external, and overall financing on the likelihood of exporting, while accounting for various firm attributes, including size, age, management experience, and research and development activities. The results of the probit regression indicate that access to external financing significantly boosts the chances of exporting, underscoring its critical role in helping small and medium-sized enterprises (SMEs) manage the considerable fixed and variable costs tied to entering international markets. Conversely, the effects of internal and total financing are positive but not statistically significant within the overall sample. The analysis also uncovers notable regional differences: in Herat, internal financing is linked to reduced export participation, while external financing has a stronger positive effect. Research and development (R&D) spending presents mixed outcomes, showing negative results in the pooled models but a strong positive impact in Kabul, indicating varying ways that innovation efforts affect export results. This study highlights the necessity for tailored financing approaches and specific managerial training programs to facilitate SME internationalization. The findings lead to important policy recommendations and suggest directions for future research.

Keywords: Access to finance, SME, Export performance, Afghanistan, Logistic regression

1. Introduction

Small and Medium-sized Enterprises (SMEs) are widely acknowledged as the cornerstone of many economies, serving as the main drivers of economic growth, innovation, and job creation. Around the world, these businesses make up approximately 90% of all companies and account for over half of global employment (World Bank, 2025). In developing nations, the significance of SMEs is even greater, as they play a vital role in economic diversification, improving productivity, and reducing poverty in a sustainable manner (Safari & Saleh, 2020). For countries facing high unemployment, where millions of new workers encounter challenges finding jobs, fostering SMEs—particularly those run by women and youth—is essential for promoting inclusive and sustainable development (World Bank, 2025).

For a developing country to achieve sustained and substantial economic growth, engaging in international trade through exports is essential. Export activities play a vital role in attracting foreign exchange,

facilitating technology absorption and transfer, and enabling domestic companies to take advantage of economies of scale, which ultimately boosts national competitiveness (Kohn et al., 2022).

Consistent access to timely and appropriate financing is highlighted as a key factor for small and medium-sized enterprises (SMEs) that seek to expand internationally. Without adequate financial resources, SMEs struggle to obtain or incorporate new technologies, limit their ability to compete globally, and find it challenging to establish necessary business connections (UNCTAD, 2003). A thorough systematic review of the literature on SME internationalization indicates that financial resources, technical capabilities (such as IT), and networking connections are significant indicators of a firm's international growth trajectory (Anwar et al., 2023). The World Bank underscores the importance of enhancing access to finance as a means to encourage private investment, enhance productivity growth, and develop stronger local economies, thereby creating vital opportunities for entrepreneurs (World Bank, 2025).

Research clearly demonstrates a strong relationship between access to finance and the performance and growth of SMEs in various developing countries (Ain et al., 2020; Kuteesa et al., 2024). Although the significance of access to finance is generally acknowledged across emerging markets, the situation in Afghanistan presents unique challenges due to its extreme institutional instability and ongoing political turmoil, resulting in serious macroeconomic issues (UNCDF, 2025). Additionally, studies conducted in Afghanistan suggest that the adoption of technology can enhance efficiency and performance in financial sectors, and that SMEs play a vital role in recovery after conflict (Wasiq, 2025). However, there is a notable gap in research specifically examining how access to finance impacts the export performance of SMEs in Afghanistan's distinct and challenging economic context. While there is an established link between overall SME performance and financial access, the specific aspects of financing international trade, managing foreign exchange risks, navigating international logistics, and addressing unique obstacles in a post-conflict environment like Afghanistan need focused investigation (Ahmad & Kaur, 2025).

In light of the significant issues surrounding financial exclusion and the adverse effects of unstable institutions on trade routes, this research seeks to fill this void by offering empirical insights into the relationship between financial accessibility and the internationalization of Afghan SMEs. This, in turn, aims to aid the country in achieving its economic recovery and development objectives. The main question guiding this research is: What impact does access to finance, evaluated by its various sources (such as internal, external, or informal capital), have on the export propensity and intensity of SMEs operating in Afghanistan's challenging institutional and geopolitical landscape?

The structure of this study is as follows: Section 2 presents the review literature. Section 3 outlines the methodology and empirical approach. Section 4 presents the empirical findings and discusses their implications, and Section 5 concludes the study.

2. Literature Review

2.1. The resource-based view (RBV) and financial capability

The Resource-Based View (RBV) is a key theoretical framework for understanding how firms can achieve sustained competitive advantage in global markets (Ramon-Jeronimo et al., 2019). According to this perspective, a firm's distinct, valuable, and difficult-to-replicate resources and capabilities are the primary contributors to its superior performance (Safari & Saleh, 2020). This research utilizes contingency theory and adopts both resource-based and market-based perspectives to deliver a comprehensive understanding of the factors influencing exports in emerging markets (Pascucci et al., 2022).

Within the Resource-Based View (RBV) framework, financial resources are viewed as a crucial

organizational capability rather than just passive inputs. Research shows that when firms allocate more financial resources to their exporting activities, they tend to achieve better export performance (Ramon-Jeronimo et al., 2019). Furthermore, developing competitive capabilities, such as effective learning and entrepreneurial strategies, requires significant financial investment to excel in the international market. Government assistance in the form of financial support can also help companies strategically enhance their export results (Mata et al., 2021).

2.2. The role of small and medium-sized enterprises (SMEs)

SMEs play a vital role in global economic development, serving as key drivers of job creation, innovation, and economic diversification (Mohamed et al., 2022; Sultana et al., 2022; Yerrabati, 2024). They are essential for fostering inclusive growth by providing equitable and productive opportunities to all segments of society, including groups that are often marginalized (Bhatt et al., 2024). Studies consistently show that when SMEs have access to services like credit, insurance, and savings, they are better positioned to invest in their growth, innovation, and operational efficiency, which ultimately leads to improved revenue generation, cash flow management, and overall profitability (Ain et al., 2020).

Research on women-led SMEs indicates that factors such as education, access to financing, and family obligations significantly affect their success. This highlights the crucial role that financial access plays in business performance (Andriamahery & Qamruzzaman, 2022; Simba et al., 2023). In Nigeria, for example, women entrepreneurs encounter various obstacles, particularly limited financial resources, which impede their business growth. Addressing these financial challenges is essential for their expansion (Adetiloye et al., 2020). Furthermore, advancements in digital finance have been shown to enhance businesses by offering financial assistance, minimizing non-compliance, and boosting environmental, social, and governance (ESG) performance, all of which contribute to their sustainable development (Ren et al., 2023; Xue et al., 2023). In post-conflict environments such as Afghanistan, SMEs play a critical role in generating jobs, alleviating poverty, and fostering social stability, making their development vital for economic recovery (Wasiq, 2025).

2.3. Measuring export performance

Export performance is an important and complex topic within international business research. Scholars often define it using a range of metrics, which encompass export propensity (the yes-or-no decision regarding a firm's export activities), export intensity (the ratio of export revenue to overall sales), and various success metrics specific to different markets. A thorough examination of the factors influencing exports necessitates the analysis of numerous variables. Researchers have identified more than 79 primary determinants, 36 additional determinants, and as many as 65 specific metrics for measuring export performance, highlighting the intricacy of defining this concept (Calheiros-Lobo et al., 2023). In international trade, Artificial Intelligence (AI) can enhance trade operations, improve trade financing, and broaden market access by refining demand forecasting, optimizing routing, streamlining customs processes, and automating the handling of documents and risk assessments (Ozturk, 2024). These innovations significantly boost the effectiveness and success of export endeavors. Additionally, factors such as improved performance, customer satisfaction, and transparency, as demonstrated in Afghanistan's public administration context, also represent valuable outcomes for exporting businesses.

2.4. Access to finance and export performance

Research conducted in various developing countries consistently shows a positive link between access to external financing and success in international trade. The availability of external financial resources, such as bank credit and loans, significantly aids SMEs in their international trade efforts (Ahmad et al., 2025).

For example, studies focused on SME activities in Zimbabwe indicate a strong positive relationship between access to financing and export activities (Sibanda et al., 2018). Similarly, findings indicate that when small and medium enterprises have access to bank funding, it corresponds to an observable increase in their export volumes (Abor et al., 2014, 2024). Utilizing trade methods such as cash in advance can help ease credit limitations and boost the export potential for small and medium-sized enterprises, especially those facing financial challenges (Doan et al., 2020; Phan et al., 2022). Additionally, financial backing, particularly from government or institutional sources, can strengthen competitive abilities, which are crucial factors influencing outstanding export performance (Mata et al., 2021).

2.5. Financial inclusion and SME growth

Access to financial resources such as credit, insurance, and savings is crucial for SMEs to foster growth, drive innovation, and improve their operational effectiveness (Hasan et al., 2024). This access plays a key role in boosting revenue, enhancing cash flow management, and increasing overall profitability (Persaud & Thaffe, 2023). The adoption of advanced financial technologies (FinTech) is recognized for promoting long-term financial stability and expanding financial inclusion, particularly benefiting SMEs in developing regions (Tanchangya et al., 2025). Furthermore, sustainable finance solutions that align with environmental, social, and governance (ESG) criteria are increasingly valued for their potential to promote the growth and sustainability of SMEs, despite the persistent barriers to accessing these resources (Kuteesa et al., 2024; Novák et al., 2025).

The swift advancement of financial technologies, particularly in the realm of digital inclusive finance, opens up new possibilities for fostering enterprise growth (Chen et al., 2024). Digital finance can be vital in providing essential financial support, enhancing business governance, and promoting the high-quality development of companies by minimizing non-compliance and boosting ESG performance (Chien et al., 2025). Additionally, it contributes to the high-quality advancement of industries like agriculture by enhancing the ecological environment and improving product quality. Innovations in green finance, such as tokenized green bonds, illustrate how technology can improve market efficiency and lower transaction costs, paving the way for broader financial accessibility (Azad & Tulasi Devi, 2025; Namoniuk & Matei, 2025).

2.6. Access to finance impact on enterprise performance

Beyond direct financial support, financial development can have broader impacts. For example, green financial development has been shown to significantly inhibit stock price crash risk, especially in companies with high information asymmetry, by promoting green, low-carbon, and high-quality development (Zhang & Ding, 2023). Furthermore, non-research and development (R&D) subsidies can effectively improve digital enterprise performance, indicating that various forms of financial support are critical for business success. The impact of agriculture finance on the adoption of modern technologies for enhanced productivity in rural households also illustrates the direct link between finance and operational improvements (Liu et al., 2021).

2.7. Challenges in accessing finance

Despite its significance, SMEs, especially those run by women or based in emerging markets, often struggle with restricted access to financing. This limitation poses a major challenge to their growth and development (Jannat, 2025; Kuteesa et al., 2024; Vasilescu, 2014). Economic factors like resource availability and project financing are essential for the financial stability and performance of organizations. In countries such as Bangladesh, SMEs experience "crowdfunding dilemmas" due to the absence of regulatory frameworks and a lack of awareness regarding financing options, underscoring the frequent

obstacles faced in the financial environments of emerging economies (Jannat, 2025).

2.8. The context of Afghanistan

Understanding the unique operational landscape in Afghanistan is essential for this study. Although research on Afghanistan is limited in terms of SME export performance, it provides valuable insights into how technology, governance, and the broader post-conflict setting influence performance within the nation.

In the post-conflict context of Afghanistan, SMEs are recognized as vital for economic rehabilitation and sustainable advancement. Significant growth opportunities for these businesses include utilizing untapped natural resources, enhancing agricultural value chains, and leveraging the capabilities of digital and e-commerce platforms (Wasiq, 2025). Nevertheless, these opportunities face considerable challenges that can limit their potential.

An analysis of Community Development Councils in Afghanistan focused on their effectiveness in terms of local governance. Although it doesn't specifically address small and medium-sized enterprises (SMEs) or financial issues, it underscores the significance of strong governance structures in impacting performance outcomes in the country (Asif & Rahmani, 2020). Additionally, geopolitical dynamics and the relationship between religion and governance in Afghanistan have influenced the nation's framework, shaping both foreign policy and economic relations (Paryani & Rahmany, 2024). These wider contextual factors inevitably affect the operating conditions for SMEs and their ability to access financial resources.

3. Research Methodology

In accordance with the objectives of the present study, both descriptive and explanatory research designs are employed. This study measured the effect of explanatory variables on the export performance of SMEs in Afghanistan using probit regression models. The analysis is done using Stata software. The source of our data is the World Bank Enterprise Survey for Afghanistan, which was conducted between May 2013 and July 2013 in Afghanistan.

The probit regression model is generally specified as follows:

$$Yi = \beta 1\ export + \beta 2\ Size + \beta 3\ age + \beta 4 FeO + \beta 5 GO + \beta 6 R\&D + \beta 7\ Exp \ldots\ldots \text{I}$$

Where Yi is the outcome variable which is access to finance sources, the dependent variable in each regression model is access to internal finance, access to external finance, access to total finance, access to internal finance in different five cities, like Kabul, Herat, Mazar-e-Sharif, Jalalabad and Kandahar cities, access to external finance in different five cities, like Kabul, Herat, Mazar-e-Sharif, Jalalabad and Kandahar cities, access to total finance in different five cities, like Kabul, Herat, Mazar-e-Sharif, Jalalabad and Kandahar cities. Export if the firm export it is 1 otherwise zero, Size is the total number of employees, FeO is female ownership if the firm owner is female it is 1 otherwise 0, GO government ownership if the firm owner is government it is 1 otherwise 0, R&D is research and development expenditure, if the firm had R&D expenditure it 1 otherwise 0, Exp is top manager experience and it the experience of firms manger in terms of year. Earlier studies served as the basis for selecting the variables (Ahmad & Kaur, 2025; Kaur & Molla, 2024; Kaur & Mulugeta, 2024; Molla & Kaur, 2025).

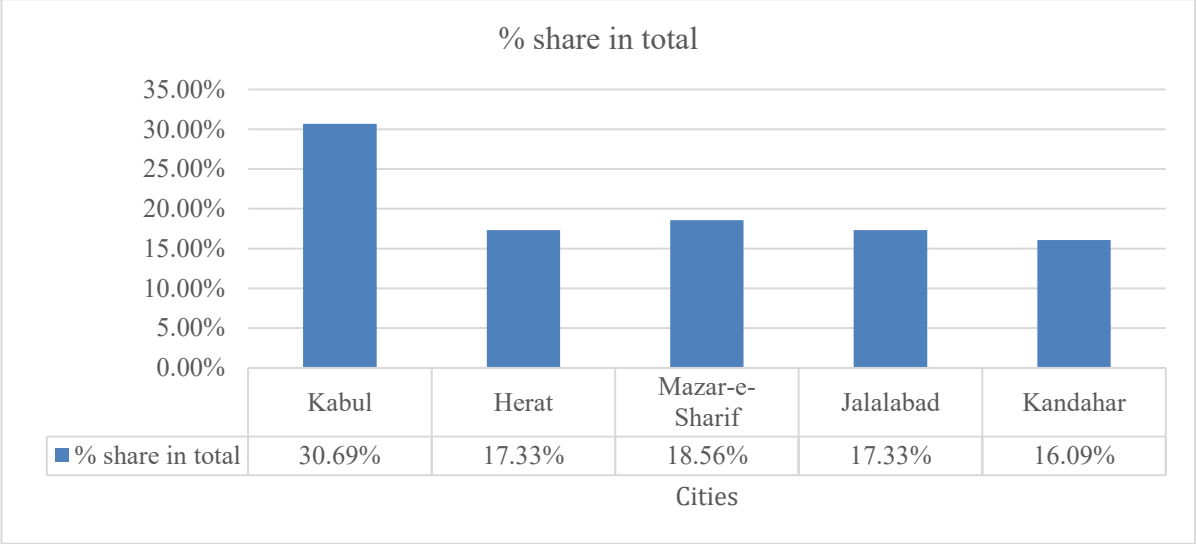

Figure 1. Percentage Share of Total Firms In 5 Cities (Authors' Compilation).

Figure 1 presents the percentage distribution of the 410 surveyed firms across five major Afghan cities: Kabul, Herat, Mazar-e-Sharif, Jalalabad, and Kandahar. Kabul accounts for the largest share of firms (30.69%), while the remaining four cities each represent between 16% and 19% of the sample. This distribution reflects the geographic concentration of SMEs included in the study.

Table 1 Descriptive Statistics of Dependent, Explanatory, and Control Variables (Authors' Compilation)

Variable	Obs	Mean	Std. Dev.	Min	Max
Export	410	.256	.626	0	2
Internal finance	410	.432	.496	0	1
External finance	410	.244	.43	0	1
Total finance	410	.598	.491	0	1
Size	410	14.232	49.554	0	900
Gov. Ownership	410	0	0	0	0
Female ownership	410	.027	.162	0	1
Firm age	410	9.459	6.884	0	62
R&D expenditure	410	-.176	1.88	0	1
Top Manager Exp	410	12.617	9.229	0	52
city	410	2.69	1.465	1	5

Table 1 provides descriptive statistics for the study's dependent, explanatory, and control variables based on survey data from 410 firms. The variables summarized include export participation, internal and external finance, firm size, age, ownership structure, R&D expenditure, and managerial experience. About 25.6% of firms report exporting; 43.2% report use of internal finance, and 24.4% use external finance; combined (total finance) usage is 59.8%. The mean firm size is 14 employees, the mean firm age ≈ is approximately 9.5 years, and only 2.7% of firms have female ownership, indicating that female-owned firms are a very small subgroup in the sample.

4. Results and discussion

Table 2 presents the results of the pooled probit regressions, where export participation is regressed on different measures of access to finance along with several firm-level controls. The findings indicate that external finance has a positive and statistically significant effect on the likelihood of exporting (coefficient = 0.400, SE = 0.174, $p < 0.05$), suggesting that firms with access to external funding are more likely to engage in export activities after accounting for other characteristics. In contrast, internal finance (coef = 0.186, SE = 0.159) and total finance (coef = 0.204, SE = 0.164) exhibit positive but statistically insignificant coefficients, implying that these forms of financing do not show a clear association with export participation in the pooled sample. The results further show that R&D expenditure has a negative and highly significant coefficient across all model specifications (approximately −0.112, SE = 0.034, $p < 0.01$), while top manager experience is positively and significantly related to exporting (around 0.020, SE = 0.010, $p < 0.05$). Firm size and firm age display small and inconsistent effects across models. The overall fit of the model is average, showing a pseudo-R^2 of approximately 0.085, which is common for cross-sectional probit analyses. Nonetheless, the chi-square statistics indicate that the model possesses explanatory power as a whole.

Dependent Variable

Export

Table 2 Coefficients For Internal, External, and Total Finance (Authors' Compilation)

Variables	Internal finance	External finance	Total finance
Internal-finance	0.186 (0.159)		
External-finance		0.400 (0.174) **	
Total-finance			0.204 (0.164)
Firm size	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Firm age	0.018 (0.012)	0.018 (0.012)	0.018 (0.012)
Female ownership	-0.347 (0.530)	-0.347 (0.530)	-0.347 (0.530)
R&D expenditure	-0.112 (0.034) ***	-0.112 (0.034) ***	-0.112 (0.034) ***
Top manager experience	0.020 (0.010) **	0.020 (0.010) **	0.020 (0.010) **
Constant	-1.619 (0.163) ***	-1.619 (0.163) ***	-1.619 (0.163) ***
No Observations	410	410	410
Pseudo R^2	0.085	0.085	0.085
Chi-square	30.260***	30.260***	30.260***

Table 3 presents the city-level probit results, highlighting significant differences among the five Afghan cities. A key observation comes from Herat, where reliance on internal finance demonstrates a strong, negative, and statistically significant relationship with exporting (coef = −2.223, SE = 0.689). This suggests that firms dependent on internal funds are much less inclined to engage in exporting. Conversely, in Herat, external finance has a positive and significant impact (coef = 1.508, SE = 0.708), indicating that access to external funding is crucial for firms to enter export markets. In other cities, including Kabul, the influence of both internal and external finance is comparatively weaker and generally not statistically significant. Additional variables also exhibit location-specific patterns: R&D expenditure is strongly positive and significant in Kabul, whereas in Herat it appears negative in some specifications. Firm size

tends to have a small positive effect in Kabul, but in Herat it becomes negative and occasionally significant. Overall, the results indicate that the relationship between financing sources and export participation varies considerably across cities, underscoring the importance of regional context when assessing SME export performance.

Dependent Variable
Export

Table 3 City-Wise Results For Internal Finance (Authors' Compilation)

Variables	Kabul city	Herat city	Mazar-e-Sharif city	Jalalabad city	Kandahar city
Internal finance	0.141 (0.348)	-2.223 (0.689) ***	0.435 (0.969)	-	-
Size	0.003 (0.002) *	-0.018 (0.010) *	-0.010 (0.055)	0.009 (0.008)	-0.002 (0.036)
Firm age	-0.020 (0.035)	0.015 (0.040)	0.014 (0.059)	-0.018 (0.045)	0.025 (0.055)
Female ownership	0.372 (0.698)	-	-	-	-
R&D expenditure	0.951 (0.342) ***	-0.164 (0.061) ***	0.000 (0.262)	1.780 (1.245)	0.025 (0.287)
Top manager experience	0.015 (0.019)	0.097 (0.039) **	0.035 (0.045)	-0.101 (0.143)	0.037 (0.044)
Constant	-1.956 (0.445) ***	0.544 (0.679)	-2.784 (0.719) ***	-4.157 (2.056) **	-2.889 (0.746) ***
Observations	129	68	70	47	65
Pseudo R^2	0.169	0.387	0.209	0.457	0.204
Chi-square	13.503	36.107	3.805	7.561	3.64

4.1. External finance encourages exporting

The pooled result that external finance is positively and significantly associated with export participation fits the theoretical expectation that external capital relaxes liquidity or investment constraints needed to meet foreign demand (certifications, larger production runs, transport costs). Practically, firms able to obtain bank loans, trade credit, or other external finance are more likely to take the (costly) steps necessary to export. This is consistent with prior empirical findings that bank/credit access is a facilitator of export activity for SMEs.

4.2. Internal finance has weaker/heterogeneous effects

Internal finance shows a positive but insignificant coefficient in the pooled regressions, meaning retained earnings or owner contributions alone do not clearly raise export probability once controls are accounted for. However, the strong negative internal-finance coefficient in Herat suggests a distinct local mechanism: in Herat, firms relying on internal funds are much less likely to export.

- In Herat, internal-finance users may be very small, low-productivity firms that lack scale for export.

- Internal funding may indicate risk aversion and preference for local sales rather than expending resources on export activities.
- Measurement or selection: Firms that expect to remain domestic may choose internal finance, producing a negative association. This heterogeneity suggests that policy should not assume financial sources are interchangeable across regions.

4.3. R&D findings

The pooled negative and significant coefficient on R&D expenditure (−0.112, ***) is counterintuitive because R&D is often thought to help firms innovate and reach export markets. Two possible interpretations:

- **Measurement/coding**: The R&D variable may capture a small set of firms that classify some outlays as R&D but are not export-oriented (or coding issues/outliers).
- **Timing / reverse causality**: R&D spending may not yet have yielded export outcomes at survey time; firms that invest in R&D may be early-stage and not yet exporting.

City-level results show positive and significant R&D in Kabul, consistent with Kabul firms using R&D more productively toward exports. Thus, a pooled negative effect likely reflects heterogeneity. In some cities (Kabul), R&D supports exporting, while in others it does not.

4.4. Manager experience matters

Top manager experience is positively and significantly associated with export participation in pooled models and in some city regressions. This supports the idea that managerial human capital helps firms navigate complex export requirements (foreign market knowledge, networking, compliance).

4.5. Firm size & age

Firm size shows only small, sometimes statistically weak effects; in some cities (Kabul), size is marginally positive, while in Herat it is negative. Age is generally insignificant. These mixed results indicate that access to finance and managerial quality are more decisive than size or age in this dataset, though small sample sizes by city limit precision.

4.6. Female ownership

Female ownership is rare (≈2.7%) and not statistically significant in these models. This low prevalence limits inference about gender effects on export likelihood.

The pooled positive effect of external finance supports the view that credit and other external funding relieve constraints that otherwise prevent SMEs from covering upfront export costs (production scale, certifications, logistics). The weak pooled effect for internal finance and the negative internal-finance effect in Herat imply that internal funds do not substitute for the particular financing needs associated with exporting in many Afghan contexts; in some cities, internal financiers may be smaller or less export-oriented firms. The positive role of managerial experience underscores the importance of human capital for export market entry. The mixed R&D results are negative in pooled models but strongly positive in Kabul, likely reflecting heterogeneity in how R&D is conducted and commercialized across locations and firm types. Overall, the results suggest regionally targeted finance and capacity-building policies are more appropriate than blanket measures.

Dependent Variable
Export

Table 4 City-Wise Results For External Finance (Authors' Compilation)

Variables	Kabul city	Herat city	Mazar-e-Sharif city	Jalalabad city	Kandahar city
External Finance	0.460 (0.374)	1.508** (0.708)		-	0.033 (0.463)
Size	0.003** (0.002)	-0.031*** (0.012)	0.004(0.022)	0.004 (0.022)	-
Age of firm	-0.019 (0.035)	0.022 (0.037)	0.01(0.078)	0.100 (0.078)	-0.013 (0.048)
Female ownership	0.259 (0.725)	-	-	-	-
R&D	0.814** (0.362)	-0.125** (0.058)	1.654* (1.000)	-	-
Top Manager Exp.	0.016 (0.019)	0.066** (0.031)	0.016 (0.062)	-	0.014 (0.042)
Constant	-2.008*** (0.405)	-0.936** (0.447)	-3.673** (1.607)	-2.078*** (0.691)	-1.109** (0.493)
Observations	129	68	64	55	58
Pseudo R^2	0.186	0.285	0.313	0.328	0.028
Chi-square	14.825	26.591	5.576	24.839	1.484

Dependent Variable
Export

Table 5 City-Wise Results For Total Finance (Authors' Compilation)

Variables	Kabul city	Herat city	Mazar-e-Sharif city	Jalalabad city	Kandahar city
Total Finance	0.115 (0.379)		0.326 (0.893)		-0.040 (0.458)
Size	0.003* (0.002)	-0.013(0.01)	-0.008 (0.051)	-0.003(0.038)	0.009 (0.008)
Age of firm	-0.020 (0.036)	0.033(0.05)	0.016 (0.058)	0.0291(0.021)	-0.013 (0.048)
Female ownership	0.361 (0.696)			-	-
R&D	0.934*** (0.348)	-0.183(0.063	0.004 (0.265)	1.849(1.237)	-
Top Manager Exp.	0.014 (0.019)	-0.105(0.42)	0.036 (0.045)	-0.0104(0.0149)	0.012 (0.041)

Constant	-1.949*** (0.468)	-	-2.824*** (0.706)	-4.278(2.056)	-1.070** (0.485)
Observations	129	55	70	51	58
Pseudo R^2	0.168	0.328	0.206	0.464	0.028
Chi-square	13.431	24.839	3.743	7.834	1.487

4.7. Policy implications and future research directions

Based on the results of this research, several directions for future investigation arise. Firstly, upcoming studies could analyze the causal link between access to finance and export performance by utilizing panel data or employing instrumental variable techniques to mitigate potential endogeneity issues. Secondly, in light of the significant regional differences, additional research could focus on specific local aspects, such as the quality of governance, financial infrastructure, or industry makeup, that contribute to the disparities between cities like Herat and Kabul. Thirdly, the surprising fluctuations in the effects of R&D spending indicate a need for a closer examination of how innovation activities are measured, executed, and related to export results across various regions. Lastly, future research could consider other firm characteristics, such as supply chain integration, digital transformation, or involvement in business networks, to offer a more holistic view of how SMEs in Afghanistan engage with export markets.

Encouraging external financing is essential since the combined findings—especially the significant impact observed in Herat—indicate that access to external credit enhances the chances of SMEs engaging in exports. By increasing targeted credit and export-finance programs, particularly in Herat and Kabul, businesses can overcome financial obstacles related to exporting.

Considering the distinct regional variations, it is important to customize policies for each city instead of applying a one-size-fits-all approach. The adverse effect of internal financing in Herat and the differing impacts of R&D and firm size in various locations underscore the necessity for interventions tailored to specific regions.

Enhancing managerial skills can play a significant role in boosting export performance, as there is a consistent connection between managerial experience and success in exporting. Training initiatives that focus on export competencies, market understanding, and business strategy can empower small and medium-sized enterprises (SMEs) to compete more effectively on an international level.

Additionally, it is essential to enhance the effects of research and development (R&D) activities outside of Kabul. Since most of the exporting benefits from R&D are concentrated in the capital, companies in other regions could gain from programs aimed at transforming their innovative efforts into market-ready products through support in commercialization and market intelligence.

Lastly, policymakers should be cautious about encouraging internal financing. In certain cities, particularly Herat, reliance on internal funds has been linked to reduced export participation, meaning that promoting it without supplementary export assistance may not yield positive outcomes.

5. Conclusion

This research provides clear evidence that access to external funding is a crucial factor driving the export involvement of SMEs in Afghanistan, while internal funding has a more limited and situational impact. The significant regional disparities, especially the differing effects seen in Herat and Kabul, indicate that financial and innovation-related challenges are influenced more by local circumstances than by national trends. Research and Development (R&D) only positively influences exports in certain settings,

highlighting the uneven nature of innovation ecosystems in different cities. Overall, the results stress the need for customized financial assistance, enhanced managerial skills, and improved R&D investment effectiveness to promote the international growth of SMEs. By tackling these challenges with targeted, locally tailored policies, Afghanistan can better assist its SMEs in tapping into international markets and advancing overall economic recovery and development objectives.

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