

Internationalization of small and medium-sized enterprises (SMEs): A new assessment*

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Abstract

The contributions of small and medium-sized enterprises (SMEs) to domestic economies are sizeable. The most productive and dynamic ones venture abroad and internationalize by exporting or by investing overseas. For smaller firms, foreign direct investment (FDI) implies the commitment of a high level of resources, potentially increasing the risk of failure. This study empirically assesses the question of whether outward investment is a valuable growth strategy or whether engaging in FDI might hurt performance. The results show that while displaying higher revenue growth rates than their larger counterparts, SMEs experience a bigger shock after their foreign investment: the sales growth of SMEs decreases by about 6 per cent during the first three years after a cross-border greenfield project; it starts recovering only after the fourth year. Larger MNEs show no significant change in growth rate after an investment. The decrease in revenues in SMEs occurs mostly in manufacturing enterprises, and less so in services companies. This is primarily because for services companies a foreign affiliate, which almost by definition is market-seeking, tends to make an immediate contribution to sales and sales growth, whereas many manufacturing affiliates require a start-up period and may engage in activities that contribute less to sales growth, such as supply chain activities.

Keywords: foreign direct investment (FDI), internationalization, multinational enterprises (MNEs), small and medium-sized enterprises (SMEs)

JEL classification codes: C4, F23, L11, L25, G32

* Received: 1 April 2023 – Revised: 6 August 2023 – Accepted: 11 August 2023

The authors are grateful to the Journal's editors and to anonymous referees for useful comments. The views presented herein do not represent those of UNCTAD or Member States of the United Nations. The paper was prepared as background research for the forthcoming UNCTAD policy report on foreign direct investment and small and medium-sized enterprises. Financial support from the Kingdom of the Netherlands for the development of the project on FDI by SMEs is gratefully acknowledged.

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1. Introduction

In 2017, the United Nations designated 27 June as Micro, Small and Medium-sized Enterprises (MSMEs) Day to raise awareness of MSMEs' critical role in economic growth, job creation and the achievement of the Sustainable Development Goals. Despite their contribution to economic development, small and medium-sized enterprises (SMEs) face significant challenges, such as limited access to finance, markets and technology – challenges that are recognized as “the liability of smallness”¹ and severely limit their performance, including their operations abroad. Very few SMEs participate in the global economy using the most prominent avenues of internationalization, namely exporting and investment abroad.

Research on the internationalization of SMEs has mostly focused on exporting, which has been extensively employed by firms as a core growth strategy. Exporting allows a firm to broaden its consumer base and potentially achieve a higher sales volume. In turn, a higher sales volume results in a higher production volume, new investments in technologies and a consequent increase in productivity. Numerous international organizations, including the World Bank, the Organisation for Economic Co-operation and Development, the United States International Trade Commission, the World Trade Organization and UNCTAD, recommend that member States support SME exports as a strategy to strengthen and diversify an economy. Not many have included outward investment promotion by SMEs in their policy advice packages.

In comparison to exports, foreign direct investment (FDI) implies higher sunk costs and risks, potentially adding to the challenges that SMEs already face. Thus, although there is general agreement in the literature that internationalization by exports benefits the performance of SMEs, the relationship is less clear-cut for FDI. This is mainly due to the additional strains that FDI can put on the internal resources of SMEs.

In the context of SMEs, the concept of the liability of smallness highlights their higher risk of failure and comparatively poorer performance relative to larger firms. When SMEs engage in international investment, they introduce additional complexity to both their internal and their external processes, primarily owing to the unfamiliarity of foreign markets (Cho and Lee, 2018; Lee et al., 2012; Rhee, 2008). Fulfilling the additional demand for resources to invest abroad, for instance logistics, labour or information processing, may hurt SME performance (Schwens et al., 2018). An overseas investment that does not quickly increase returns can disrupt the vulnerable business balance of an SME and potentially lead to failure.

¹ In the literature, the liability of smallness manifests in a lack of resources such as finance, technology, human resources and detailed information on target foreign markets (Buckley, 1989; OECD, 2021).

Similarly to exports, FDI broadens a firm's customer base through entrance into new markets, enabling the firm to achieve a larger volume of production and to grow. FDI is unique in the way it is associated with exploitation of proprietary assets and exploration or acquisition of new knowledge, which leads to sustainable growth of the firm (Lu and Beamish, 2006). FDI involves companies bringing proprietary assets such as technology, patents and trademarks to foreign markets, giving companies a competitive edge. By leveraging these assets, companies can strengthen their market position, expand their market share and boost profits. Moreover, FDI enables firms to gain new knowledge through exposure to foreign markets, technologies and practices. This knowledge leads to innovation, improved processes and enhanced competitiveness for growth. The former is usually the effect of investments from developed to developing economies, whereas the latter is usually the reverse. Competitive advantages such as brand equity, trademarks or patents are necessary for internationalizing firms to succeed in foreign markets. The subsidiary presence of the internationalizing firm in the foreign market, without any trade intermediaries, can minimize transaction-related risks and increase the value of proprietary assets (Roberts and Muralidharan, 2022; Li et al., 2018).

Empirical evidence for the impact of SMEs' internationalization on their performance is contradictory, in part owing to the use of confounding measures for internationalization and performance. Most of the literature considers internationalization only through exports,² not through FDI. Moreover, performance is mostly measured by profitability and less often by sales growth. This study focuses on the impact of FDI on sales growth. This is because many SMEs in the early stages of their evolution place a strong emphasis on sales growth, and an analytical focus on profitability might understate the true performance achieved by these firms (Pangarkar, 2008; Lu and Beamish, 2006).³

Focusing on sales and sales growth rates obviously has some disadvantages. For one, sales is one of the criteria that determines SME status, and investing abroad and subsequent sales growth may push a firm out of that status. Furthermore, whereas profitability is a ratio that is not affected by the number of affiliates, sales are affected by the addition of a company unit. In this study, the issue is addressed empirically by employing the appropriate panel data technique – i.e. a difference-in-difference (DID) estimator – and by controlling for the size of the firms over time.

Among the studies considering the impact of FDI by SMEs on their performance, a few found a positive relationship between FDI and firms' growth (Lu and Beamish, 2006; Li et al., 2018). However, the growth path is not linear, which means SMEs'

² For a review of the research on the relationship between degree of internationalization (by exports) and SME performance, see Schwens et al. (2018).

³ We also run regressions using profitability without obtaining significant results.

performance starts to improve only after an initial deterioration at the beginning of the internationalization effort. The initial decline could be due to the shock of foreignness and resource constraints. Shin et al. (2017) confirmed the same type of U-shaped relationship between FDI and performance for SMEs in capital-intensive services, whereas they find an inverted U-shaped relationship for those in knowledge-intensive services. This is related to the special characteristics of knowledge- and technology-intensive firms that are often global at their inception, i.e. “born global” (Singh, 2017).

The study of firms born global falls within a strand of international entrepreneurship literature that focuses on the speed of internationalization and the related learning and knowledge acquisition. These theories posit that when a firm internationalizes earlier, it is less constrained by the past and therefore can learn more effectively from its foreign activities, be truly innovative and improve its performance. Yet, rapid internationalization could have negative effects owing to foreign commitments (Mohr and Batsakis, 2017; Hilmersson and Johanson, 2016). However, most of the studies on the speed of internationalization (including on born globals) consider only exporting companies. For multinationalism, the evidence is scarce. For example, the study by Lu and Beamish (2006) shows that engaging in FDI has a greater impact on firms’ growth performance among those that did so in their early years.

Moreover, the literature on internationalization does not lend much consideration to SMEs from the services sector, tending to focus more on those in the manufacturing sector. Rapid advancements in information and communication technology, as well as the implementation of international services trade agreements (such as the General Agreement on Trade in Services, in force since 1995), have contributed to the gradual servicification of the economy and facilitated the internationalization of services SMEs (UNCTAD, 2020). In fact, many services companies have lower capital needs than manufacturing firms and thus benefit from lower entry barriers into foreign markets in terms of financial constraints – establishing an office, for example, is much cheaper than setting up a manufacturing plant (Lejpras, 2009; Roberts and Muralidharan, 2022; Shin et al., 2017). As a consequence, the majority of multinational SMEs are active in the services sector.

This study contributes to two strands of the literature on multinationalism and performance by comparing the performance of SMEs and larger enterprises, hence adding a comparative perspective on both size and sector. To the best of our knowledge, virtually no empirical studies have simultaneously examined such a link in a single sample of large firms and SMEs.⁴ This gap in the literature is somewhat

⁴ Benito-Osorio et al. (2016) and Fisch (2012) consider size effects on the relationship of internationalization and performance, measuring the degree of internationalization as the ratio of foreign sales to total sales, thus mostly capturing exports.

striking given that SMEs' resources, organization and management radically differ from those of larger firms (Orser et al., 2000). The study also verifies whether this relationship varies by sector, considering that services-based SMEs might benefit from facing fewer constraints on resources.

The study provides an innovative empirical analysis of the growth performance of SMEs when they internationalize through outward investment. We find that after cross-border greenfield investment SMEs experience an initial drop in their growth rate, which starts to recover only from year 4 after the investment, whereas their larger counterparts do not experience a significant change. The negative shock in the growth rate of SMEs is largely found in small manufacturing enterprises, for which establishing a foreign subsidiary requires a sizeable and long-lasting commitment of resources. This could be explained by two concurring factors: First, manufacturing plants take time to set up and may engage in activities that contribute less to sales growth, such as supply chain activities. Second, for very small businesses, a foreign investment may divert key resources – in terms of organizational and managerial capacity – from the home market, temporarily slowing down their growth rate. In contrast, services affiliates, almost by definition market-seeking, tend to make an immediate contribution to sales and sales growth. In accordance with these results, this research note suggests that interventions should focus on reducing the costs of venturing abroad – especially information and transaction costs – by creating occasions to liaise and establish networking contacts with foreign counterparts. Also, securing access to adequate financing is critical for the implementation and success of FDI (confirming previous findings; e.g. De Maeseneire and Claeys, 2012).

The rest of the note is structured as follows: section 2 presents the data and methodology, section 3 discusses the results and policy implications, and section 4 concludes.

2. Data and methodology

This study focuses on greenfield investments by all companies with annual turnover of less than US\$100 million using data collected from the fDi Markets database of The Financial Times. The data set includes announced greenfield investments from 2015 to 2022. Investors with higher turnover are excluded, since such companies are typically multinational enterprises that have numerous investment projects over the period of study.

The sample initially consisted of 11,127 projects, from which we selected only the ones conducted by independent companies (not affiliated to a larger group) that invested only one time during the period considered. Excluding projects by companies that announced multiple greenfield projects over the period of analysis

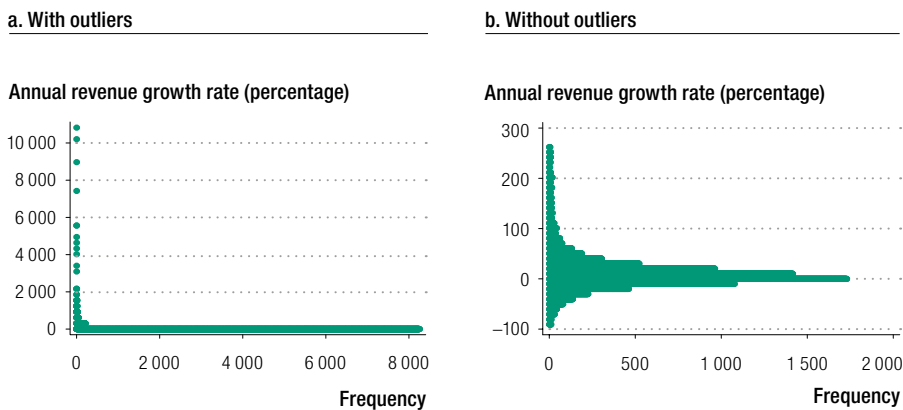
allows us to compare growth rates before and after an investment more accurately. Using this selection procedure, our sample consists of smaller companies than the full sample of investor companies obtained from the fDi Markets database. After applying these filters, the data set was reduced to 4,441 projects, providing a more focused and relevant sample for our analysis of the activities of smaller companies from 2015 to 2022.

The investment data were matched with financial data from the Bureau van Dijk business database (Orbis) to obtain revenue information for the years prior to and following the investment. The process of matching the fDi Markets and Orbis data sets involved three steps. First, the 4,441 companies investing in the projects obtained from fDi Markets were manually searched for by name in Orbis. For the companies whose name did not precisely match in the two databases, Orbis automatically identifies the closest name to the searched company, with a success rate of over 95 per cent. Total annual revenue of all companies from 2010 to 2022 was obtained from Orbis for the years that financial data were available. Then, the initial company names obtained from fDi Markets and Orbis were rematched to build the data set, which includes both greenfield investment data (from fDi Markets) and financial data (from Orbis).

The discrepancies between the names in the two data sets made the last step complicated. Choosing only exact matches between the databases resulted in the loss of over 80 per cent of the companies. To overcome this issue, a fuzzy matching of the names of companies was performed using the PolyFuzz package in Python,⁵ implementing the Levenshtein algorithm. This algorithm measures the minimum number of single-character edits (insertions, deletions or substitutions) required to transform one string into another and provides a score between 0 and 1, with higher scores indicating greater similarity. A threshold score of 0.88 was set to determine whether two company names were considered a match. Fuzzy matching produced a sample of 1,354 investing companies and 8,554 observations with valid revenue data. The distance between the host and home countries of the investments were added to the data set, using data obtained from Mayer and Zignago (2011).

Figure 1.a shows the distribution of annual growth of all investing companies, which is markedly right skewed (with a skewness of 25). To eliminate the effect of outliers, investing companies with at least one annual growth rate in the top 2 per cent of the distribution were dropped. Figure 1.b shows the distribution after removing the outliers. The final sample consisted of 7,717 observations for 1,203 investing companies.

⁵ Maarten Grootendorst, "Polyfuzz: fuzzy string matching, grouping, and evaluation", Zenodo, 25 January 2021, <https://zenodo.org/record/4461050>.

Figure 1. Annual revenue growth: sample distribution with and without outliers

Source: Authors' elaboration, based on data from The Financial Times, fDi Markets database.

Because information on the number of employees, which is one of the criteria for defining SMEs, is mostly missing, companies in the sample were classified as SMEs if their revenue in the year of investment was less than US\$15 million, and as larger enterprises otherwise – which is consistent with definitions in the literature (UNCTAD, forthcoming).⁶ The sample consists of companies with annual turnover of less than US\$100 million. Of those, larger enterprises are defined as those with turnover of US\$15–100 million. Across the limited number of companies in the data set with data available on employee numbers, the data show that on average, the SMEs have only 66 employees while the larger enterprises have more than 1,200. Table 1 presents the descriptive statistics for the sample by SMEs and larger enterprises as categorized in our sample, which indicate that, in general, SMEs experience higher rates of annual revenue growth than larger enterprises. However, the decline in annual growth rates after a greenfield investment is more

⁶ The definition of what constitutes an SME varies significantly across national and international sources. Some definitions are exclusively based on the number of employees of a firm or its annual turnover, capital and/or fixed assets or all of these characteristics. The number of employees is the most common criterion, yet the maximum thresholds vary across countries or regions, in some cases also across industries within the same country. For instance, in the World Bank Enterprise Surveys, SMEs are defined as enterprises with fewer than 100 employees. The European Union and the United Kingdom define an SME as an enterprise that employs fewer than 250 persons and has an annual turnover not exceeding €50 million, and/or a balance sheet total not exceeding €43 million. In the United States, the threshold is 500 employees and US\$1 billion of revenues, and the Republic of Korea uses the threshold of about US\$110 million (UNCTAD, forthcoming).

pronounced for SMEs than for larger enterprises. More than half of SMEs are in the services sector, and their investments are closer to their home country than those of larger enterprises. Most of the investments are in software and information technology services, business services and industrial equipment. There is no significant difference in the top three sectors between SMEs and larger enterprises, as shown in the matching similarity index (see table 1).

Table 1. Summary statistics: final sample

Variable	SMEs	Larger enterprises
Annual growth before investment (%)	15.30 (1.05)	9.91 (0.62)
Annual growth after investment (%)	11.87 (1.01)	7.70 (0.68)
Revenue before investment (US\$1,000)	7 128.60 (19 033.86)	44 838.21 (55 684.99)
Revenue after investment (US\$1,000)	7 745.70 (14 640.22)	49 347.33 (54 452.83)
Services sector (%)	0.56 (0.02)	0.34 (0.02)
Matching similarity index	0.95 (0.002)	0.95 (0.002)
Distance (km)	2 105.69 (72.51)	2 964.46 (56.45)
Number of investment projects	518	685
Number of observations	3 184	4 533
Average number of years	6.15	6.62

Source: Authors' elaboration, based on data from The Financial Times, fDi Markets database.

Note: Standard errors are in parentheses.

Table 2 presents data on the number of investments and the distance between the home country and host country, categorized by six source regions: Africa, Asia, Europe, Latin America and the Caribbean, North America and Oceania. The data reveal that Europe received the highest number of investments overall, followed by Asia, while Oceania received the lowest number. The distance of the host economy from the home economy differed widely by region given their geographical positions.

Oceania had the highest average distance for investments, whereas both Africa and Latin America and the Caribbean had relatively shorter distances, suggesting investments made closer to home. SMEs tend to invest in countries closer to the home country in all source regions except for North America, where SMEs prefer to invest in Europe rather than in neighbouring Latin America.

Table 2. Number of investments and distance between home and host country, by source region

Source region	Number of investments		Distance (km)	
	SMEs	Larger enterprises	SMEs	Larger enterprises
Africa	3	2	4 030	8 658
Asia	36	122	4 377	5 536
Europe	362	424	1 558	2 028
Latin America and the Caribbean	4	4	1 223	5 900
North America	46	73	6 047	5 456
Oceania	18	15	11 120	11 652

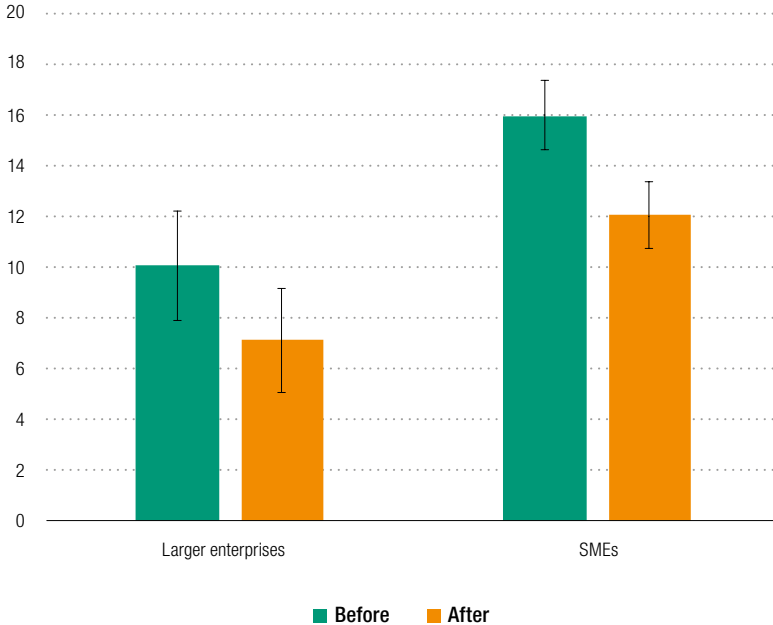
Source: Authors' elaboration, based on data from The Financial Times, fDi Markets database.

Simple descriptive statistics of the average growth before and after investment for SMEs and larger enterprises are illustrated in figure 2. It shows that although both SMEs and larger enterprises experience declines in growth rate after foreign investment, the decline is more prominent for SMEs.

For the empirical analysis, we employed a DID approach with staggered treatment timing and two-way fixed effects for time and company. In this approach, all investing companies (both SMEs and larger ones) are categorized in the treatment group in the year after they invest abroad, while all companies that have not invested abroad yet or already invested abroad before the year of observation constitute the control group. Although all companies eventually enter the treatment group within the research time frame, their staggered introduction across different periods enables meaningful comparisons between new treatment group companies and others. This facilitates the evaluation of the impact of investment.

The regression analysis focuses on a maximum of four years before and after the investment. Because of the staggered nature of the DID design, the availability of data differs across investors. On average, there are 3.5 years of data before the investment and 3.16 years of data after the investment.

Figure 2. Average annual revenue growth before and after investment
(Percentage)



Source: Authors' elaboration, based on data from The Financial Times, fDi Markets database.

Note: Error bars represent the 95 per cent confidence interval.

Our baseline regression model is as follows:

$$Y_{it} = \beta_0 + \beta_1 D_{it} + u_i + v_t + w_{it} \quad (1)$$

in which Y_{it} is the log of revenue or the annual revenue growth of company i in year t ; D_{it} is the treatment (post-investment) dummy, which is equal to 1 if the year t is greater than the investment year of company i , and zero otherwise; and u_i and v_t represent the company and year fixed effects, respectively.

To investigate the impact of investment on revenue growth at different periods after the investment, we introduce a normalized year variable denoted as G_{it} . It is calculated as $T_{it} - I_i$, where T_{it} represents the year of observation and I_i represents the year of investment for company i . That is, G_{it} represents the number of years before or after the investment when the revenue growth occurred. Then we replace the dummy of G_{it} with the treatment dummy, D_{it} .

This method allows us to verify a critical assumption in the DID method known as the “parallel trend assumption”: in the absence of foreign investment the revenue growth trend of internationalizing companies (the treatment group) would have the same trend as that of other companies (the control group). When the parallel trend assumption is met, there should be no significant difference between the treatment and control groups before the foreign investment takes place. The model with the normalized year dummy is represented as follows:

$$Y_{it} = \beta_0 + \beta_{1t}G_{it} + u_i + v_t + w_{it} \quad (2)$$

To examine the impact of greenfield investment on revenue growth for SMEs, an interaction between the treatment dummy and the SME indicator variable is included. Moreover, to explore any heterogeneity of the effect on the services and manufacturing sectors, a dummy variable for the services sector was added to the model.

3. Results

Table 3 presents the findings of the baseline regression, which examines the impact of FDI on annual revenue growth. In this analysis, we use both the actual annual revenue growth and its logarithmic transformation as outcome variables.

The first column of table 3 shows a significant decline of 3.3 percentage points in annual revenue growth for internationalizing companies. The regression analysis using the logarithmic transformation as the dependent variable reveals a comparable decrease in the growth rate, with a similar level of statistical significance and effect size.

These results allow us to compare the annual revenue growth rates of internationalizing companies before and after their investment. The inclusion of the logarithmic transformation regression is intended to reinforce the consistency observed in the revenue growth results. All other models in this study utilize the annual revenue growth as the outcome variable.

Table 4 presents the results of replacing the treatment dummy with the normalized year dummy variable, and figure 3 displays the coefficients of the year dummy, which represents the marginal change in annual revenue growth in each year compared with the growth rate in the year of investment. The dummy of the investment year is the omitted year dummy, so each coefficient represents the difference between each year and the investment year. The findings suggest that the declining trend of the post-investment growth rate persists for three years after the investment. In the fourth year post-investment, the annual growth rate does not differ significantly from that of the investment year, which could be a sign of bouncing back to the year of investment value. This finding is in line with the U-shaped performance that Shin et al. (2017) found for capital-intensive service SMEs.

Table 3. Annual revenue growth after investment

	Dependent variable	
	Annual revenue growth	Revenue (log)
	(1)	(2)
Post-investment	-3.313** (1.486)	-0.031** (0.013)
Company fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	7 717	7 717
R ²	0.259	0.974
Adjusted R ²	0.121	0.969

Source: Authors' estimations.

Note: Standard errors are in parentheses. ** significant at 5 per cent.

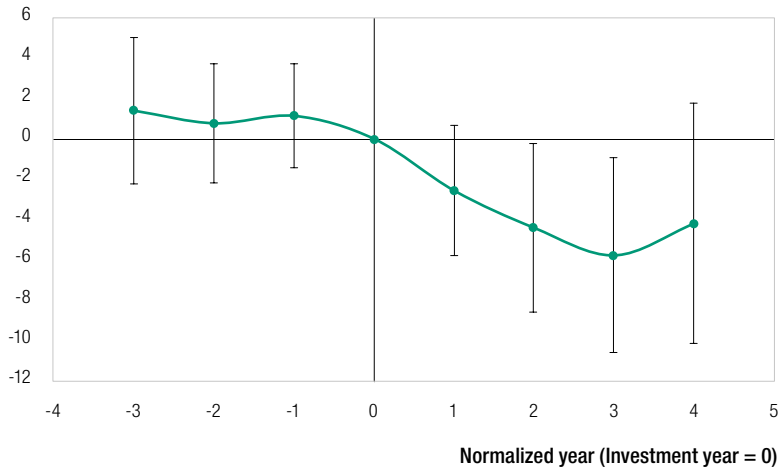
Table 4. Revenue growth relative to the year of investment

	Dependent variable
	Annual revenue growth
Year (-3)	1.395 (1.852)
Year (-2)	0.775 (1.507)
Year (-1)	1.139 (1.313)
Year (1)	-2.554 (1.653)
Year (2)	-4.390** (2.130)
Year (3)	-5.745** (2.466)
Year (4)	-4.172 (3.033)
Company fixed effects	Yes
Year fixed effects	Yes
Observations	7 717
R ²	0.259
Adjusted R ²	0.12

Source: Authors' estimations.

Note: Standard errors are in parentheses. ** significant at 5 per cent.

Figure 3. Average annual revenue growth before and after investment
(Percentage)



Source: Authors' estimations.

Note: Error bars represent the 95 per cent confidence interval.

To compare the effect of investment on the performance of firms of different size, we added the interaction between the SME dummy variable and the treatment variable to the baseline regression (equation 2). The results show that the decline in annual revenue growth rate is not statistically significant for larger enterprises, whereas SMEs face a statistically significant 6 percentage point decline after investment (table 5). This initial decline could be explained by the shock of foreignness – that is, the difficulties foreign firms have in accessing relevant information regarding markets, culture and institutional environment in the host country. These problems are more pronounced when internationalizing by FDI, rather than by exporting. Even though the liability of foreignness may in principle affect both large MNEs and SMEs, SMEs are more restricted by it than larger firms because of their limited resources.

Definitions of SMEs use different thresholds of total revenue; we considered companies with annual revenue of less than US\$15 million as SMEs, as discussed earlier. To ensure that our findings are not sensitive to the revenue threshold, the SME indicator was replaced with a continuous variable representing the revenue of the investing company in the year of investment. The results indicate that regardless of the threshold of SME definition, smaller companies experience a more pronounced decline in revenue growth after an investment (table 6). Specifically, the analysis shows that for every US\$1 million increase in revenue, the decline in growth rate is 0.3 percentage points lower on average.

Table 5. Effect of investment on SMEs relative to large firms

	Dependent variable
	Annual revenue growth
Post-investment	-1.371 (1.562)
Post-investment x SME	-4.614** (1.967)
Company fixed effects	Yes
Year fixed effects	Yes
Observations	7 717
R ²	0.260
Adjusted R ²	0.121

Source: Authors' estimations.

Note: Standard errors are in parentheses. ** significant at 5 per cent.

Table 6. Post-investment revenue growth, by investment year

Variable	Annual revenue growth
Post-investment	-3.356** (1.489)
Post-investment x Investment year revenue	0.0003** (0.000)
Company fixed effects	Yes
Year fixed effects	Yes
Observations	7 717
R ²	0.259
Adjusted R ²	0.121

Source: Authors' estimations.

Note: Standard errors are in parentheses. ** significant at 5 per cent.

Several factors could explain the results. SMEs in the services and manufacturing sectors could perform differently after making an investment. Services companies are less capital intensive: opening an office in foreign markets is cheaper and faster than setting up a manufacturing plant, and also more likely to generate immediate additional foreign sales. Especially in the high-technology sector, foreign subsidiaries are set up to expand the market for highly innovative products; often the aim is to create partnerships with key clients and possibly create personalized products. These investments, though, may still require a fair amount of management and coordination effort or marketing activity.

For example, an SME from Australia – ActiveVue Technologies – is a highly innovative company producing proprietary technology for solar (energy-generating) glass windows. In 2019 it opened a subsidiary in Singapore to operate the ClearVue business in that country and in Malaysia (sales and marketing support). Although ActiveVue is considered a successful business with very promising chances of becoming a market leader in this special glazing product, the investment did not lead to a major increase in turnover, which instead remained at a relatively constant level. The reason relates mostly to the time needed for homebuilders in the new market to adopt this technology and to adjust to the different technical regulations and standards.

To control for an SME being in the services sector, an interaction term is included in the regression. The regression results suggest that SMEs operating in the services sector experience a smaller decline in annual revenue growth than do SMEs in the manufacturing sector (table 7). The summary of the marginal change after the investment by sector and size appears in figure 4. The findings indicate that SMEs in the manufacturing sector witness a decline of 7.5 percentage points in their growth rate following internationalization. This decline is larger than the decrease experienced by SMEs in the services sector, equivalent to 4.6 percentage points.⁷

Table 7. Effect of investment on revenue growth, by size and sector

	Dependent variable
	Annual revenue growth
Post-investment	-0.031 (1.641)
Post investment x SME	-7.487*** (2.831)
Post-investment x Services	-4.059* (2.146)
Post-investment x SME x Services	6.929* (4.129)
Company fixed effects	Yes
Year fixed effects	Yes
Observations	7 717
R ²	0.26
Adjusted R ²	0.122

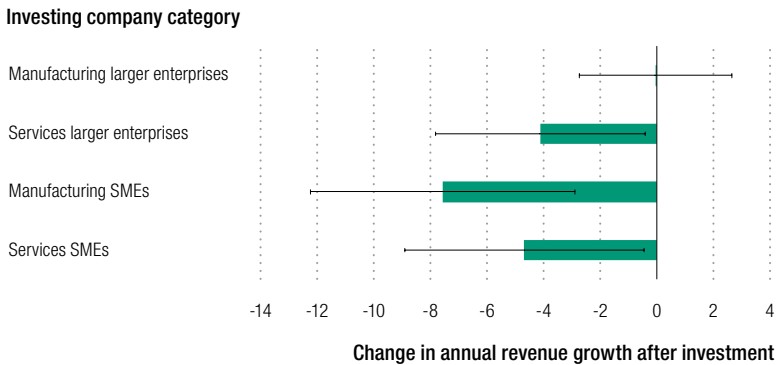
Source: Authors' estimations.

Note: Standard errors are in parentheses. *** significant at 1 per cent, * significant at 10 per cent.

⁷ The marginal change of the revenue growth of SMEs in the services sector after the investment is equal to the sum of all coefficients in table 7, which is $(-0.03) + (-7.49) + (-4.06) + (6.93) = -4.65$.

A potential reason for the sectoral difference is the different resource constraints faced by services SMEs and manufacturing SMEs. For larger enterprises this relationship does not hold; instead, it is reversed, with larger enterprises in the services sector experiencing a statistically significant decline. This may be due to idiosyncratic effects; however, larger enterprises in the manufacturing sector do not show a statistically significant change in their growth rate after internationalization, whereas those in the services sector experience a decline of 4 percentage points, although the estimated coefficient is significant only at 10 per cent.

Figure 4. Annual revenue growth rate after investment, by company type and sector (Percentage point change)



Source: Authors' estimations.

Note: Error bars represent the 90 per cent confidence interval.

4. Conclusions and policy recommendations

This study analyses the impact of investing abroad on enterprises' performance. In particular, it assesses whether outward investment is a significant growth strategy for SMEs compared to larger firms. To address the question empirically, we applied a DID analysis. The empirical results show that internationalizing firms experience a decline in the rate of revenue growth of 3.3 percentage points. The negative effect persists for three years after the investment, and in the fourth year the growth rate recovers. Our findings confirm the U-shaped performance after investment found in the literature (e.g. Shin et al., 2017). The analysis reveals that the negative effect is primarily observed in SMEs, which experience a decline of 6 percentage points in annual revenue growth rate following investment abroad.

The change in growth rate for larger enterprises, though still negative, is not statistically significant. Furthermore, SMEs in the manufacturing sector experience a more significant decline than SMEs in the services sector.

The empirical findings of this study challenge the notion that internationalization through FDI is invariably an advantageous growth strategy. The observed decline in sales growth following internationalization may be attributed to the challenges associated with the foreignness shock, which can be more pronounced when engaging in FDI than in export strategies, which leverage existing trade intermediaries. The foreignness shock means that foreign subsidiaries may need some time before revenues increase significantly, while SMEs' intrinsic deficiencies in resources and capabilities undermine performance in the home market, particularly after investing previous years' revenue in a foreign subsidiary. Lu and Beamish (2006) show that FDI has first a short-term negative impact on profitability. The present study shows that for very small businesses, internationalization can slow down growth in the first years after investment. This is particularly true for small manufacturing businesses that set up a production facility abroad or that try to introduce a new product in markets abroad. In the case of highly technical, specialized products, the adoption of host-country regulations and standards may slow the foreign expansion of dynamic SMEs. It also needs to be noted that in many cases the sample captured the evolution of young SMEs that experienced rapid growth in their first years followed by their first greenfield investment (mostly sales and marketing subsidiaries). This investment led to a temporary slowdown in the growth rate that was related to the difficulties of applying the same product and business model to new markets.

In contrast, small services enterprises are less capital intensive and can be more agile in undertaking foreign investment. Often, for services or highly innovative SMEs, FDI is a necessity to protect their brand and facilitate international sales while delivering for customers that require physical support and interaction or services in their own language and time zone. In other words, provision of knowledge content tends to explain the need to be physically close to key clients. Especially for innovative SMEs, direct contact with customers can be crucial to avoid intellectual property rights issues. Many firms that were born global internationalize by establishing a presence in so-called strategic markets in order to provide customers with a superior service and to work on and develop new products in close cooperation with them. This is particularly evident in software and information technology services, which predominate among service-oriented SMEs.

To support the international expansion of such SMEs, including in the technology sector, policymakers should aim to develop solid digital infrastructure and platforms and set in place strategic investment policy that supports SMEs' digital transition. For Industry 4.0 activities, the regulatory frameworks in both home and host countries of FDI are key factors in enhancing the attractiveness of the investment environment.

For manufacturing SMEs, policymakers should especially focus on lowering the costs of investing abroad, by strengthening national measures to ease access to finance by these SMEs. Also, policy-setters should push investment promotion agencies and other investment stakeholders – e.g. outward investment promotion agencies, export credit agencies, guarantee schemes – to better cater for SMEs by extending facilitation and aftercare investment services, as well as helping them access local networks and partnerships. This involves partnerships between outward investment promotion agencies and investment promotion agencies, as suggested in the UNCTAD Investment Policy Facilitation Framework for Sustainable Development. In addition, as the negative effects appear to be short term, spanning three to four years, policy interventions could prioritize support for SMEs during the initial stages following investment, rather than focusing solely on facilitating internationalization efforts.

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