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Factors Influencing Firm Sales Growth: An Instrumental Variable Analysis

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Abstract

Although several studies have been done on sales growth, the mistake was that firm growth and sales growth were understood as the same thing, using the same perspective and variables for both growth studies. This study takes different perspectives focusing merely on factors influencing sales growth using micro-level data from the World Bank Enterprises Survey (WBES) datasets to examine whether sales growth in sub-Sahara Africa has different stories to tell employing the OLS and 2SLS analyses. Unlike other studies, the results indicated that top management gender diversity has no correlation to sales growth, but temporary employees do. The results also reveal that the key drivers of a firm's sales growth are skilled labour, labour productivity, and fixed assets, which are statistically significant and have a positive relationship with annual sales growth.

Keywords: sales growth, skilled labour, productivity, fixed assets

1. Introduction

Sales growth studies have been an area of research interest for researchers. There is also a vast literature that talks about sales growth and firm growth alike. Similarly, many researchers have examined the growth of companies using sales growth. Firm growth can come from new financing, such as debt and equity. Firm growth is broader than just sales growth. Using the same variable is a mistake made by the researchers. The growth of the company and sales growth are two different things. Firm growth measures increased assets, sales, equity, and liability. The source of firm growth can be internally funded or externally funded. On the hand, sales growth takes place when the firm's sales increase from time to time. This research focuses on the determinants of sales growth.

Sales growth has been attributed to the industry-level characteristics of the firm (Fávero et al., 2018). A firm in a higher economic growth market has higher annual sales growth (Fávero et al., 2018). Top Management gender diversity influences a firm's performance, particularly during economic crises (Sieweke et al., 2023). This argument implies that a company under women's leadership and management is better in economic downturns. The sales growth of firms is typically attributed to multidimensional factors investigated in this paper that help the managers and shareholders of the company and contribute to policy implications for economic growth in sub-Saharan Africa.

The study investigates the significant factors that influence a firm's sales growth to improve our understanding of which factors impact sales growth in sub-Sahara Africa, where employment procedures in the private and public sectors are naturally unconventional because of the widespread nepotism culture and environmental factors in Africa. In the context of the sub-Sahara, culture constrains females to hold the top position. Therefore, with these cultural phenomena, the study analyzed the factors influencing firm sales growth in sub-Saharan countries. The study will employ firm-level data from the World Bank Enterprises Survey (WBES) datasets.

2. Literature

The firm's sales growth influences overall profitability and enhances economic growth. A firm's sales growth is defined as an increase in sales from time to time (Hansen & Mowen, 2012). In general, the determinants of a firm sales growth are internal and external factors, where internal factors are firm level, and external factors are macro level (general economic condition). Some factors influencing the firm's sales growth remain unidentified, while others are exogenous. This study focuses on the firm-level factors that affect the firm's sales growth in Sub-Sahara Africa. There are overwhelming literature views about factors influencing the firm's sales growth, as

explained in the following section.

The firm's sales growth is essential to the firm's profitability, job creation, and local economic growth. The sales growth of a firm is random and is unrelated to the firm's size (Gibrat, 1931). This reality implies that the factors determining sales growth are unknown or unobservable. On the other hand, researchers argued that sales growth's main determinants include the firm's age, size, economic growth, access to finance (Wang, 2016; Margaretha & Supartika, 2016), and human capital (Kim & Ployhart, 2013). The access to sources of funds enables the firms to improve sales growth through innovative works and enhanced production capacity. Conversely, (Mansfield, 1962; Kumar, 1985) found negative correlations between the sales growth rate and the firm's size.

The importance of fixed assets for a firm's sales growth is acknowledged among sales growth studies. The firm's fixed assets, such as land, physical buildings, and equipment, directly and indirectly correlate with sales growth (Lee, 2010). The capital intensity mitigates the risk of variable costs because the high capital intensity firms allot the resources in advance (Lubatkin & Chatterjee, 1994). This idea is good, especially during an economic downturn, because it is easy for the firm to reduce its fixed costs. On the contrary, Shapiro and Titman (1986) argued that the high capital intensive may incur a risk of high fixed cost while a firm's profitability fluctuates up and down. When the firm's profitability deviates from time to time, the cost of fixed assets remains unchanged due to the high capital intensity of the firms (Brealey & Myers, 1984). The salary of permanent workers is a fixed cost and is sustained each month regardless of the fluctuation of revenues. In contrast, temporary workers are employed only briefly for temporary tasks (high sale season).

The sales growth firms in sub-Sahara Africa may not have different stories about sales growth but may have different economic conditions. Further, capital intensive increases the effectiveness of the firm's productivity and sustains the production standard because it reduces or eliminates sick leave, delay, and human error. The crucial factors influencing the firm's sales growth also include human capital. The skill levels and providing training to the staff before putting them in a position and their management improve the overall firm's performance and productivity, impacting sales growth (Kim & Ployhart, 2014; Ployhart & Moliterno, 2011). Skilled labour and trained workforces increase the firm's efficiency and effectiveness through how-know and advanced managerial techniques. Suitable staffing and training enhance the firm's operational performance and revenue growth (Ployhart & Schneider, 2006; Combs et al., 2011; Ployhart & Moliterno, 2011; Huselid, 1995; Richard et al., 2009).

Sales growth is sometimes known as revenue growth, and both terms have interchangeable meanings in business, specifically in accounting and finance. Human capital (workers' knowledge) and intangible assets are essential to a firm's sales growth, including the top manager's experience in the industry, management, and public image in the community it serves. However, McPherson (1996) argues that gender is one factor that determines the sales growth of the firm. Women in Africa are more peaceful and prosper-loving than males, making women better managers for growth.

Besides, the women's proportion of employees (including top managers) is smaller than the male proportion in sub-Saharan Africa. Study finds that gender's effects on firm performance depend on the firm's strategy, culture, and organizational context (Williams & O'Reilly, 1998; Dwyer et al., 2003). The gender gap at the top management level is dramatically shrinking after women increasingly move to managerial positions (Elsass & Graves, 1997). Even though genders influence the top management level of the firm, the key person in the decision-making process and implementation is the middle-rank managers (Finkelstein & Hambrick, 1996; Burgelman, 1994; Floyd & Wooldridge, 1992; Kanter, 1982). In the dominant male environments like sub-Saharan Africa, top female managers may somehow be challenging, and it is a profound fact that females are better analytical people in Africa. Women are progressively moving from household stuff to politics, business environments, and managerial positions.

The firm's labour productivity heavily relies on labour skills and capital. The longer the firm's employees, the higher productivity (Naoki, 2011). Employees stay in the firm for a long time and become more productive than temporary or newly employed ones because they are better experienced and have good how-know skills. The implication is that the permanent workers are more productive, improving the marketing and selling that will increase sales. Nevertheless, unidentified factors and unobservable firm-specific factors remain responsible for sales growth and performance in sub-Saharan Africa. In Africa, more factors would affect sales growth due to economic and cultural factors which do not respect the appropriateness of female roles in managerial jobs.

2.1 Hypothesis Development

The paper attempts to answer the research question what are the determinants of a firm's Sales Growth in

sub-Sahara countries? Here, Africa represents sub-Saharan African countries, which is the scope of this study. The hypothesized determinants of sales growth are as follows—firm's fixed assets. The firm's fixed assets are important to a firm's sales growth because having land, equipment, and building, for instance, can reduce a firm's fixed expenses, so the firm could spend more on R&D, which contributes significant growth to sales. Managing physical capital is important for a firm's performance because good capital equipment will increase productivity. In contrast, the capital expenditure alone sides the sales will reduce that net profit—annual labour productivity growth (%). Labour productivity growth comes from the increase in a firm's productivity capacity through improving the skills of workers and equipment.

Firm's top gender manager. Top female managers of exclusively male own firms, the higher average lobar productivity (Martınez-Zarzoso, 2023). In Africa, in general, the ownership of companies is male-dominated, and a female can be selected as a top manager only when she is better competent than her male opponent. Sales is an activity that relates to marketing, and women may perform better than men. Even though firms produce various products, women might be good at marketing compared to men based on the product type. The proportion of permanent workers. Having enough permanent workers is key to a firm's sales. It is less costly because they are always ready for the firm's production activity, particularly when receiving new orders from customers and fulfilling customers' expected standards and specifications. The top manager's years of working experience in the firm's sector. Having relevant experience is good for all offices. Thus, a top manager's experience in a firm's industrial sector is essential to not only sales growth but the overall success of the firm. The proportion of skilled workers (%). Recently, the firms moved to knowledge-based activity where workers' skills are crucial to a firm's efficiency and effectiveness in productivity and overall performance. Regarding the proportion of temporary workers, firms must hire temporary staff to perform temporary activities. Here, the study uses a temporary employee to show the effects of temporary staff on sales growth compared to permanent employees.

2.2 Empirical Estimation

This paper investigates the factors that affect the firm's annual sales growth in sub-Saharan Africa, applying the OLS method for the baseline model. The baseline result is a full sample to be used as a benchmark for the entire work. The study also addresses potential reverse causality from the annual sales and labour productivity growth. As shown in Table 2, sales and annual productivity growth are two closely related variables. Suppose the firm faces a high demand for its products and services; it must increase productivity by increasing the inputs for increasing the output and production capacity to satisfy the market demand. This means that sales growth has reverse effects on productivity growth, and this is where the endogeneity problem originates. When the firm wants to improve its sales, it might increase its productivity. For simplicity, increased market demand of annual sales becomes independent that determines annual lobar productivity growth while annual lobar productivity becomes a dependent variable.

A good instrumental variable should directly relate to the explanatory variable and indirectly to the explained variable (Silwal, 2016). The years of top managers' working experience in the industry have a direct relationship with productivity level but indirect correction with sales growth. Sales growth relates to sales, the skills of people, economic conditions, and market dynamics. The study employs the Two Stage Least Squared (2SLS) technique to treat potential endogeneity using the years of top managers' working experiences in the firm's sector as an instrumental variable (IV). This study will apply firm-level data from the World Bank Enterprises Survey (WBES) datasets.

3. Data Analysis

This study applies firm-level survey data from World Bank's Enterprise Survey datasets. The data are cross-sectional data collected from Sub-Saharan African countries from 2006 to 2018. Enterprise Surveys use standard survey instruments to collect firm-level data on the business environment from business owners, top managers, accountants, and human resource managers. The areas that the survey covers include performance measures, gender, employment, and management. The enterprises with 100 per cent state ownership are ineligible for this survey. The survey focuses on formally registered firms with more than five employees. The survey data used in the study were collected in 2006, 2007, 2009, 2010, 2011, 2013, 2014, 2015, 2016, 2017, and 2018. The data also provides basic information about the firms, including ownership, skilled labour percentage, and the percentage of permanent and temporary workers. The surveyed sample countries are forty-three Sub-Saharan African countries [1].

[1] Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Congo, Dem. Rep., Congo, Rep., Côte d'Ivoire, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana,

Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

Table 1 summarizes descriptive statistics providing insightful information about the dependent, independent, and instrumental variables applied in the study. The summary statistics explain the data patterns and their quality of representativeness. All variables in Table 1 have high standard deviations implying that the mean of the data is weakly representative. In other words, the data was contaminated by outliers that created large standard deviation values. Whenever the value of the standard deviation is huge, the mean of the data becomes a poor representative of the reality on the ground and vice versa. This data is manipulated annual percentage of many firms in size and sector, which destroy the data quality. Therefore, the results of this study would be just a relative estimation.

Table 1. Summary statistics

VARIABLE	N	MEAN	SD	MAX	MIN
Outcome variable					
Real annual sales growth (%)	505	3.183	16.86	78.1	-58.7
Independent variables					
% Of firms buying fixed assets	505	42.06	14.78	82.7	5.5
Annual labor productivity growth (%)	505	-2.48	16.38	67.1	-66.2
% Of firms with a female top manager	495	28.81	35.02	100	0
Proportion of permanent workers	479	93.67	4.43	100	56.7
Proportion of skilled workers (%)	479	71.49	14.3	99.7	29.7
Proportion of temporary workers	479	6.33	4.43	43.3	0
Instrumental variable					
Years of the top manager's experiences	479	14.11	3.79	26.2	4.9
Control Variables					
Country FE	511	23.33	12.18	43	1
Ownership FE	511	73.3	56.14	168	1
Time FE	√	√	√	√	√

Note. All variables are annual per hundred percentage.

Table 2 indicates the correlations between variables revealing that the outcome (sales growth) and real annual labor productivity growth are closely correlated (96% level). These high correlations between these two terms need further investigation, so the study used the instrumental variable (IV) to cut or mitigate this high correlation. The second variable with a high correlation to outcome is fixed assets relative to other variables (17.5% correlation level). The fixed assets include physical capital used in production, and managers increase or upgrade that equipment to increase their productivity. Technologically advanced plant assets have recently been key drivers of economic growth and have become viable competitive advantages in this borderless and globalized world market. Since productivity per hour and standardization of product and services matters, companies that want to stay sustainable in competition indicate a high tendency to be more capital-intensive than labor-intensive. Therefore, fixed assets contribute much to productivity to sales growth.

Table 2. Correlation (Pearson's Coefficient)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)
1. Sales Growth	1							
2. Fixed Asset	0.1747	1						
3. Productivity	0.9592	0.0832	1					
4. Female	0.0453	0.0144	0.0522	1				
5. Skilled Labor	0.042	-0.0111	0.0221	0.0812	1			
6. Top Manager Exp	0.141	0.012	0.1664	0.0773	0.0785	1		
7. Temporar Worker	-0.1318	0.0574	-0.1166	0.0049	0.0594	0.1203	1	
8. Perma Worker	0.1318	-0.0574	0.1166	-0.0049	-0.0594	-0.1203	-1	1

Note. All variables are in percentage and the measuring unit is per hundred.

On the other hand, among independent variables, productivity growth and years of top manager's experience in the firm's sector are the highest correlated variables relative to others at a level of 16 per cent. Compared to others, the close correlation between the top manager's years of experience and productivity is an important implication that reveals the top manager's years of experience matter in the firm's productivity and success in the market. Note that temporary labor percentage and permanent labor percentage have inverse proportionality. Such variables can have different mean, minima, and maxima but have the same standard deviations (see Table 1). Therefore, decreases in temporary labor percentage is an increase of another and vice versa. Since these numbers are in percentage, if 60% of total workers are permanent, it is obvious that the temporary labor is 40%.

4. Model Specification

$$y_{ikt} = \beta_0 + \beta_1 x_{it} + \beta_2 x_{it} + \beta_3 x_{it} + \beta_4 x_{it} + \beta_5 x_{it} + \beta_6 x_{it} + \sum \beta_7 \gamma_{it} + \sum \beta_8 \delta_{it} + \beta_9 yr_{it} + \mu_{it} \quad (1)$$

Where y_{it} is an outcome and stands for real annual sales growth (%) of firm i invests in country k at time t. x_{it} devotes to skilled labor ratio of total labor of the firm i time t. $\beta_2 x_{it}$represents the firm's Real annual labor productivity growth (%) and is applied as a proxy for input. $\beta_2 x_{it}$ is the percentage of firms buying fixed assets. $\beta_4 x_{it}$ are years of the top manager's experience working in the firm's sector. $\beta_5 x_{it}$ is Percent of firms with a female top manager. $\beta_6 x_{it}$ stands for the proportion of production workers (out of all permanent workers. γ_{it} is a dummy that represents a firm's ownership (10% or more foreign ownership and domestic). δ_{it} is a dummy variable for location (destination) and yr_{it} is time dummy. Lastly, β_0 and μ_{it} are constant and error unobservable terms, respectively.

5. Empirical Results

This section presents the study's regression results, which reveal essential information. As mentioned earlier, temporary, and permanent lobar have inverse proportions, so we cannot combine them in the regression. For instance, since these numbers are in percentage if 60% of total workers are permanent, it is obvious that the temporary labor is 40%; and a 1 per cent increase of one is a 1 per cent decrease in another. Therefore, we can use them interchangeably, and the result of either gives us the other side of the coin. The temporary labor percentage will be used throughout the rest of the paper. Table 3 shows the basic results of the study, and the variables of interest are temporary labor and top female management.

Table 3. Basic I Estimation Results of Firm's Annual Sales Growth (%)

Variables	(1)	(2)	(3)	(4)
Skilled Labor %	0.0442**	0.0357**	0.0374**	0.0513***
	(0.0204)	(0.0163)	(0.0171)	(0.0196)
Fixed Assets	0.0900***	0.0686***	0.114***	0.0901***
	(0.0195)	(0.0161)	(0.0175)	(0.0191)
Productivity	0.994***	0.989***	0.971***	0.993***
	(0.017)	(0.0146)	(0.0153)	(0.0165)
Experience	0.119	-0.0296	0.00302	0.0171
	(0.112)	(0.0735)	(0.0723)	(0.0855)
Temporary	0.163*	-0.042	0.0811	0.137*
	(0.092)	(0.0544)	(0.0751)	(0.0808)
Top Female	0.000193	0.00286	0.00572	0.000245
	(0.00627)	(0.0053)	(0.00653)	(0.00614)
Constant	-2.261	1.95	-1.823	-2.279
	(2.585)	(1.993)	(1.838)	(2.436)
Observations	463	463	463	463
R-squared	0.975	0.958	0.966	0.975
Ownership	x		x	x
Country	x	x		x
Time	x	x	x	

Note. Significance Level, *** p < 0.01, ** p < 0.05, * p < 0.1.

Before further interpreting the outcomes, it is essential to remind that the study uses data in percentages. This hint helps readers to understand the interpretation of the coefficient. If the annual skilled labour increases by 1%, the annual sales increase by 0.442%. One percentage increase in skilled labour contributes a 0.442 per cent increase in sales growth. From column 1 to column 4, the technical manipulation shows that skilled labour has a

slightly changing coefficient. Column 1 is a total sample; the fixed effects of ownership were in column 2, revealing a slight decrease implying ownership matter. The ownership means if a company holds 10% or more foreign ownership (if foreigners have 10% or more percentage ownership of the company). In column 3, country/location was dropped, showing tiny decreases implying that the market in which the firm operates matters. Conversely, the time-fixed effects have unfavourable impacts on annual sales growth. When times exclude the regression, the result increases from 0.442% to 0.513%, indicating that time adversely affects annual sales growth in sub-Sahara Africa.

Fixed assets (plant assets) or technology is a crucial part of production methods that help firms to achieve economies of scale. According to the results, a 1% increase in fixed assets results in a 0.9% increase in annual sales growth. When we dropped ownership in column 2, the coefficient of fixed assets slid down, implying ownership positively impacted the fixed assets' contribution to sales growth. This case can be valid if the owners from high technology or industrialized countries bring their production methods, new knowledge, and modern technology. On the other hand, annual productivity growth comes from combining all efforts (tangible and intangible assets) and technology. Annual labour productivity is the most sales growth contributing variable since labour productivity level depends on the skills, experience, technology, and plant assets available for use. If the annual labour productivity increases by 1%, the annual sales increase by 0.994%. This one per cent increase in labour productivity contributes a 0.994 per cent increase to sales growth. The control variables which influence the effects of annual labour productivity on annual sales growth are ownership and location of the company. From column 1 to column 4, this result is positive, statistically significant and consistent at the three-star level significance.

As the above table indicates, the gender of top management has no meaningful relationship with sales growth. This result does not support the controversy surrounding the top management gender diversity impacts on firm performance, showing that statistically insignificant relationship between them. Temporary labour has some statistically significant and positive relationships with sales growth. However, this is inconsistent and negligible because temporary labour is required when there is demand for the high sales season. Surprisingly, the experience of top management in the firm's industry also indicates statistically insignificant, and the reasons could be because sub-Sahara Africa has unconventional employment corporate culture due to nepotism and networking. In Africa, experience does not matter in public institutions where someone who holds a ministerial position or higher with no prior related experience can be seen. Similarly, some private companies are run by relatives and friends of the owners.

To be a good IV, an instrumental variable should have a direct relationship with the explanatory variable and indirect relations to the explained variable (Silwal, 2016). In other words, the IV variable must be an independent variable (years of top manager experience in the firm's industry) that directly relates to other independent variables (annual productivity growth) with simultaneous problems with annual sales growth. On the other hand, among independent variables, productivity growth and years of top manager's experience in the firm's sector are the highest correlated variables relative to others at a level of 16 per cent. Suppose the firm faces a high demand for its products and services; it must increase productivity by increasing the inputs for increasing the output and production capacity to satisfy the market demand. This sales growth has reverse effects on productivity growth, where the endogeneity problem originates. When the firm wants to improve its sales, it might increase its productivity. For simplicity, increased market demand of annual sales becomes independent that determines annual lobar productivity growth while annual lobar productivity becomes a dependent variable. The IV variable helps us to cut the inverse relationship between productivity and sales growth, where each one has a potential impact on another. After using the IV variable, the relationship takes one direction (e.g., productivity growth impacts sales growth).

Table 4 is the first stage of the Two Stage Least squared, which will be used as an instrumental variable. Therefore, the first stage is to assess and qualify the instrumental variable technically. Theoretically, the years of top managers' working experiences in the industry have a direct relationship with annual productivity level but indirect correction with annual sales growth. Sales growth relates to marketing, the skills of salespeople, economic conditions, and market dynamics. The study employs the Two Stage Least Squared (2SLS) technique to solve the endogeneity problem using the years of top managers' working experiences in the firm's sector as an instrumental variable (IV). This study will apply firm-level data from the World Bank Enterprises Survey (WBES) datasets.

Table 4. First stage of 2SLS instrumental variable estimation result

Dependent Variable	Real Annual Labor Productivity Growth (%)				
	(1)	(2)	(3)	(4)	(5)
Years of Experience	0.700***	0.715***	0.774***	0.636***	0.718***
	(0.203)	(0.202)	(0.204)	(0.195)	(0.196)
Constant	440.7	478.1	490.1	-5.436	-12.57***
	(387)	(383.5)	(391)	(3.493)	(2.865)
Year	Yes	Yes	Yes	No	No
Country	Yes	Yes	No	Yes	No
Ownership	Yes	No	Yes	Yes	No
Observations	479	479	479	479	479
R-squared	0.056	0.055	0.033	0.054	0.027
F-statistics	11.91	12.54	14.39	10.62	13.42

Note. Years of Experiences represents the years of top managers' working experiences in the firm's industry.

A suitable IV property must be met first, which Table 4 holds. The IV variable must show statistical significance and strong positive correlations with the outcome variable. The thumbs-up rule also recommends that the F-statistic of the first stage must be above 10. Table 4 shows the results of the first stage of the 2SLS, revealing a statically significant and positive relationship between top manager years of experience and annual productivity growth. The results show strong correlations between productivity and the top manager's years of experience. This result is robust because the throughout columns of Table 4 (1 to 5) are at three stars statistically significant, and changes in the coefficient are minimal.

Additionally, the F-statistics of the first stage are above ten throughout the columns, as recommended. Thus, this is a good IV, theoretically and empirically. The table below explains the outcomes of the second stage of 2SLS by comparing the benchmark result in Table 3 to the second stage in Table 5.

Table 5. Second stage of 2SLS instrumental variable estimation results

Variables	(1)	(2)	(3)	(4)	(5)
Productivity Growth	0.843***	0.829***	0.885***	0.861***	0.891***
	(0.0933)	(0.0926)	(0.0818)	(0.0966)	(0.0842)
Constant	-73.63	-92.29	-72.46	7.158***	5.661***
	(120.3)	(122.2)	(117.3)	(0.71)	(0.307)
Ownership	Yes	X	Yes	Yes	X
Country	Yes	Yes	X	Yes	X
Year	Yes	Yes	Yes	X	X
Observations	479	479	479	479	479
R-squared	0.905	0.902	0.91	0.909	0.91

Note. Significance Level, *** p<0.01, ** p<0.05, * p<0.1.

Table 5 shows the second stage of 2SLS results that we will compare with the benchmark result in Table 3. In Table 3, the result showed that a 1% increase in annual productivity would increase the annual sales growth by 0.994%. Table 5 also shows that a 1 per cent increase in the annual productivity growth will increase the annual sales growth by 0.843 per cent. The discrepancies between the total sample result in Table 3 and the second-stage results are negligible, so we conclude that the second-stage results are robust and consistent with the primary outcomes in Table 3.

6. Conclusion

This research is designed to examine the factors that influence sales growth using quality data from reliable sources. The factors influencing sales growth have been controversial; each researcher has looked at them differently. Using the same variables for firm growth and sales growth studies is a mistake made by researchers because annual firm growth is broader than annual sales growth, which has led to the fact that there still needs to be a consensus on what affects sales growth. We examined whether the gender of the top executives affects sales growth, and we also considered the effect of temporary employees as well as the years of experience of the top management in the firm's industry. This study also accounted for the effects of employee skills, productivity, and fixed assets, while controlling the effects of ownership, location, and time on annual sales growth by applying the firm-level data from the World Bank Enterprises Survey (WBES) datasets and the Ordinary Least

Squared and Two Stage Least Squared techniques.

The results reveal that the three key drivers of a firm's sales growth are skilled labour, annual labour productivity growth, and fixed assets (plant assets). The abovementioned variables are statistically significant and positively related to annual sales growth. Noticeably, productivity has the most significant coefficient because annual labour productivity growth results from all skills, technology, experience, and combined efforts. Thus, the close relationship between productivity and sales growth is standard, as explained in the empirical estimation section. Temporary employment is suitable only for high-demand seasons, but the top management gender has no significant relationship with annual sales growth. The paper recommends that researchers carefully analyze the difference between firm and sales growth when examining influencing factors. Sales growth is influenced by ownership, location, and time. This study encourages the importance of diversity of ownership in the firm (owners from different countries).

Any firm that wants to increase sales growth first must ensure its ability to enhance productivity through skilled labour and fixed assets (technology). Merger and acquisition (ownership diversity) is suitable for small and medium enterprises to achieve high productivity (economies of scale advantages). The firm can only increase sales volume when it can increase productivity. The ability of the firm to be highly productive enables it to export its products and services to other countries, becoming competitive in foreign markets. The location of the business has a significant impact on sales and profitability.

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Appendix A

Table A1. Basic II estimation results of firm's annual sales growth (%)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Skilled lobar	0.0115						
	(0.076)						
Experiences		-0.275					
		(0.417)					
Temporary workers			0.375				
			(0.342)				
Perm worker				-0.375			
				(0.342)			
Fixed Assets					0.236***		
					(0.068)		
Productivity						0.998***	
						(0.018)	
Female manager							-0.006
							(0.022)
Constant	38.30***	41.69***	38.50***	75.97**	31.24***	5.395***	39.06***
	(8.507)	(7.295)	(6.248)	(34.14)	(6.324)	(1.819)	(6.113)
Observations	479	479	479	479	505	505	489
R-squared	0.632	0.633	0.634	0.634	0.669	0.972	0.652
Ownership	x	x	x	x	x	x	x
Country	x	x	x	x	x	x	x
Time	x	x	x	x	x	x	x

Note. Standard errors in parentheses, *** p < 0.01, ** p < 0.05, * p < 0.1.