SELÇUK ÜNİVERSİTESİ
SOSYAL VE TEKNİK ARAŞTIRMALAR
DERGİSİ

Determinants of Turkish Firms' Sales Revenue: An Empirical Analysis

İbrahim Erem ŞAHİN [a], Saeed Hassan MOHAMED [b]

[a] Selcuk University, FEAS, Department of Business Administration, Konya, Türkiye
eremsahin@selcuk.edu.tr, ROR ID: https://ror.org/01v2xem26
[b] Selcuk University, Institute of Social Sciences, Konya, Türkiye
saeedym14@gmail.com, ROR ID: https://ror.org/045hgzm75

Abstract

This study investigates the key determinants of firm-level sales performance in Türkiye, based on data from the 2024 World Bank Enterprise Survey. Employing an ordinary least squares (OLS) regression model on a cross-sectional dataset comprising 1,000 firms, the analysis demonstrates how firm-specific, institutional, and managerial characteristics influence sales outcomes. The empirical findings indicate that firm age and size, as well as the educational attainment of managers and managerial experience, are positively and significantly associated with sales performance. Conversely, the presence of a female top manager is found to be negatively associated with firm sales, highlighting potential structural and institutional barriers that may hinder women in executive leadership positions. Moreover, research and development (R&D) spending, new product innovation, the use of foreign technology, and international certification exert negative or statistically weaker effects on sales performance. These findings underline the prominent role of human capital and organizational attributes in shaping firm productivity and competitiveness, offering meaningful implications for policymakers and business strategists within emerging market contexts.

Keywords

Sales Performance, Firm Characteristics, Research and Development (R&D) Activities, Innovation, World Bank Enterprise Survey (WBES), Türkiye.

Citation

Şahin, İ. E., & Mohamed, S. H. (2025), Determinants of Turkish Firms' Sales Revenue: An Empirical Analysis. *Selcuk University the Journal of Social and Technical Researches, 25*, 47-59.

https://doi.org/10.63673/SosyoTeknik.1730762

Article Type	Research Article
Date of Submission	26.05.2025
Date of Acceptance	20.06.2025
Date of Publication	30.06.2025
Peer-Review	Double anonymized - Two External
Ethical Statement	It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited.
Plagiarism Checks	Yes - iThenticate
Conflicts of Interest	The author(s) has no conflict of interest to declare.
Complaints	sosyoteknik@selcuk.edu.tr
Grant Support	The author(s) acknowledge that they received no external funding in support of this research.
Copyright & License	Authors publishing with the journal retain the copyright to their work licensed under the CC BY-NC 4.0**.**

Türk Firmalarının Satış Gelirlerinin Belirleyicileri: Ampirik Bir Analiz

İbrahim Erem ŞAHİN [a], **Saeed Hassan MOHAMED** [b]

[a] Selçuk Üniversitesi, İİBF, İşletme Bölümü, Konya, Türkiye
eremsahin@selcuk.edu.tr, ROR ID: https://ror.org/045hgzm75
[b] Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya, Türkiye
saeedym14@gmail.com, ROR ID: https://ror.org/045hgzm75

Öz

Bu çalışma, Türkiye'deki firmaların satış performansının belirleyicilerini incelemekte; analizlerde 2024 Dünya Bankası İşletme Anketi verileri kullanılmaktadır. 1.000 firmadan kesitsel bir veri grubu üzerinde (OLS) regresyon modeli uygulanarak, firma özelliklerinin vee yönetsel faktörlerin satış sonuçları üzerindeki etkileri araştırılmıştır. Ampirik bulgular, firma büyüklüğü, yöneticilerin eğitim düzeyi, yöneticilik deneyimi ve firma yaşı gibi faktörlerin satış performansıyla pozitif ve anlamlı bir ilişkiye sahip olduğunu ortaya koymaktadır. Buna karşılık, üst düzey yöneticinin kadın olması, firma satışlarıyla negatif yönde ilişkilendirilmiş olup, bu durum kadınların liderlik pozisyonlarında karşılaştığı yapısal ve kurumsal engellere işaret etmektedir. Ayrıca, Ar-Ge faaliyetleri, ürün inovasyonu, yabancı teknoloji kullanımı ve sertifikasyon gibi değişkenlerin satış performansı üzerinde negatif veya istatistiksel olarak daha zayıf etkiler gösterdiği gözlemlenmiştir. Bu bulgular, beşeri sermaye ve örgütsel özelliklerin firma verimliliği ve rekabet gücü üzerindeki belirleyici rolünü vurgulamakta olup gelişmekte olan piyasa bağlamlarında politika yapıcılar ve iş stratejistleri için önemli çıkarımlar sunmaktadır.

Anahtar Kelimeler

Satış Performans, Firma Özellikleri, Ar-Ge Faaliyetleri, İnovasyon, Dünya Bankası İşletme Anketi (WBES), Türkiye.

Atıf Bilgisi
Şahin, İ. E., & Mohamed, S. H. (2025), Türk Firmalarının Satış Gelirlerinin Belirleyicileri: Ampirik Bir Analiz. S*elçuk Üniversitesi Sosyal ve Teknik Araştırmalar Dergisi*, 25, 47-59.

https://doi.org/10.63673/SosyoTeknik.1730762

Makale Türü	Araştırma Makalesi
Geliş Tarihi	26.05.2025
Kabul Tarihi	20.06.2025
Yayım Tarihi	30.06.2025
Değerlendirme	İki Dış Hakem / Çift Taraflı Körleme
Etik Beyan	Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur.
Benzerlik Taraması	Yapıldı – iThenticate
Etik Bildirim	sosyoteknik@selcuk.edu.tr
Çıkar Çatışması	Çıkar çatışması beyan edilmemiştir.
Finansman	Bu araştırmayı desteklemek için dış fon kullanılmamıştır.

Introduction

In today's competitive economic landscape, generating sales revenue is a critical indicator of a firm's financial health, competitiveness, and growth potential. Understanding the factors that drive sales performance is vital for both strategic planning and policy development. Prior research has revealed that industry-level characteristics significantly influence sales growth (Fávero et al., 2018). Warsame (2023), using the World Bank Enterprise Survey, found that labor productivity and technology positively influence sales in Sub-Saharan African countries. The study also noted that profitability and market position are closely tied to sales revenue, which is shaped by both internal and external dynamics. It is recommended that firms enhance productivity through skilled labor.

In the Turkish context, Dalgıç and Fazlıoğlu (2021) explored the role of innovation in firm performance across manufacturing and service sectors. They found that R&D has a stronger effect on manufacturing firms, whereas service firms benefit more from innovative outputs. Sönmez and Amirzai (2024) explored firm-level sales performance using the World Bank Enterprise Survey and emphasized the role of firm size and age in Turkish manufacturing firms while giving limited attention to managerial and institutional characteristics. Similarly, Sönmez and Amirzai (2023) highlighted the importance of in-house R&D activities and using foreign technology in promoting the innovation activities of Turkish manufacturing firms.

Türkiye's emerging market status, diverse industrial base, and recent economic challenges create an ideal context to explore these dynamics. Utilizing 2024 World Bank Enterprise Survey data, this study addresses the research gap by examining how a broader range of firm-specific factors (e.g., age, size), managerial factors (e.g., experience, gender), and institutional factors (e.g., R&D, New product innovation, Use of foreign technology, international certification) influence sales revenue. This study aims to identify the key firm-specific, managerial, and institutional factors driving sales revenue in Turkish firms. The study offers actionable insights for Turkish firms to enhance performance, for policymakers to design targeted interventions, and for academia to advance knowledge on sales drivers.

This study is organized into five sections, each serving a distinct purpose. The first section is the introduction part, providing background and context. The second section reviews the literature. The third section describes the research methods and data sources. The fourth section presents the empirical analysis and findings on factors influencing sales revenue. The fifth section concludes by summarizing key findings and discussing their implications for Turkish firms.

1. Literature review

Sales growth studies are a popular research area that examines both firm and company growth. Firm growth can arise from new financing sources, such as debt and equity, while sales growth involves increases in assets, sales, equity, and liabilities. This research focuses on the determinants of sales growth. (Warsame, 2023) Growth in sales has been attributed to the company's industry-level attributes. The study reveals that industry-level characteristics account for a significant portion of the variance in real annual sales growth, representing 77.2% of the variance (Fávero et al., 2018).

The industry academic literature confirmed that there is a positive and significant relationship between the firm size and sales revenue growth, supporting the argument that larger firms benefit from economies of scale and enhanced market access (Ibhagui & Olokoyo, 2018; Olawale et al., 2017; Pervan & Višić, 2012). Also, as stated by Lun & Quaddus (2011), the bigger companies often encounter greater sales increases due to economies of scale and larger market accessibility. A study on French new ventures stated that firm size development facilitates the bond between growth purpose and sales growth, representing that as firms grow in magnitude, their sales revenue tends to rise (Cesinger et al., 2018). Their study, Widawati (2023), showed that firm size positively affects financial performance. These studies indicate a positive correlation between firm size and sales revenue, with larger firms often benefiting from economies of scale and greater market penetration. Sönmez and Amirzai (2024) explored firm-level sales performance using the World Bank Enterprise Survey and emphasized the role of firm size and age in Turkish manufacturing firms. However, some research suggests that there is a nonlinear relationship between business age and revenue creation, with younger firms undergoing substantial expansion, accompanied by stability or decline over time (Coad et al., 2013, 2018).

The literature emphasizes the significant impact of managerial expertise, particularly top managers' experience, on firm performance, including sales revenue (Bathula, 2008; Davis et al., 1997; Hamori & Koyuncu, 2015). Navigating risks and uncertainties enables top-experienced managers to make informed decisions (Peni, 2014). Accordingly, Venkat's (2005) study examines Emirates' strategic incorporation of sales, revenue management,

and organized planning; developing management experience; positioning objectives; developing decision-making; and improving sales revenue and effectiveness. Mixed results on managerial experience's impact on firm performance, with a Fortune 500 study suggesting broader managerial skills are crucial for revenue generation (Cedillos et al., 2020). Having a revenue manager on personnel was not sufficient; their qualifications and experience were worthy factors in establishing the accomplishment of revenue management employment (Abad et al., 2019). Peake (2014) is considering his recommendations. Although experience is essential, it is not the single factor of sales revenue, and other aspects must be studied, paving the way to add more variables to study to cover the main determinants of sales revenue of Turkish firms.

The study explores the influence of the educational composition of the staff, specifically the percentage of workers with secondary education qualifications, on firm performance (Warsame, 2023). Skilled labor has been seen as important in firm production (Erden et al., 2014). Also, literature supports the idea that education has a strong influence on firms' revenue generation (Bartolj, 2023a; Bolander et al., 2014; Deli et al., 2024; Kampelmann et al., 2016). There is a strong relationship between educational diversity and firm performance, as studies conclude that education levels and disciplines of education mark the probability of expansion of total sales (Bartolj, 2023b). The paper emphasizes the importance of secondary education in meeting labor needs in organized sectors, driving sales growth, enhancing skills, and improving employment opportunities. (Jain et al., 2018), The importance of quality education, particularly secondary education, lies in fostering sales growth by improving workforce capabilities and market adaptability. (Matthews, 2013), These empirical studies show that education has a direct influence on sales revenue.

There are notable gender differences in firm size, but not always in terms of productivity and sales growth, according to existing data on the performance disparity between male and female businesses across various global areas (Allison et al., 2015; Bardasi et al., 2011). According to Lee et al. (2010), in their study, they stated that female managers reported higher profit growth between 1996 and 1999 despite lower business profits, indicating they perceive businesses as more successful despite smaller sales figures. Also, a study conducted in South Asia examined productivity gaps between female- and male-managed companies globally, revealing higher average labor productivity in firms with female top managers, leading to higher profitability performance (Martínez-Zarzoso, 2023). It suggests that female managers' superior behavior control may enhance sales growth, although specific metrics are not provided for the study (Piercy et al., 2003).

A study made in India using World Bank enterprise data found that 44.9 percent have adopted international quality certification, enhancing business processes. These results show significant differences in sales (Ali & Yusuf, 2021). Literature stated that International certification, like ISO standards, significantly boosts a firm's reputation, productivity, and foreign market access, thereby boosting sales growth. (Aji et al., 2023; Bukhari et al., 2024; Kang & Lee, 2022; Otsuki, 2011; Wayoro, 2024). Some other studies also stated that international certification leads to lower financial risk, and standard administration practices such as ISO 14001 hinder the sales growth of firms (Ye et al., 2020).

Recent research suggests a complex relationship between foreign-licensed technology adoption and sales growth, with some studies showing a positive correlation and others suggesting a non-universal impact. Although it has mixed results, according to Gaspar's (2022) study, in Philippine manufacturing companies' sales do not always rise when foreign-licensed technology is introduced, unless businesses that invest in personnel training perform better, indicating that absorptive capacity is essential for reaping the benefits of having foreign-licensed technology. Businesses that utilize technology licensed from outside benefit from productivity and sales growth. (Rigo, 2021). Nabin et al. (2013) revealed that there is a significant positive correlation between foreign-licensed technology and economic growth in Asian economies, suggesting that licensing can boost production efficiency and sales.

Methodology

This study aims to identify the key firm-specific, managerial, and institutional factors driving sales, using Sales revenue as the dependent variable, as the natural logarithm of total sales, to account for potential skewness and improve interpretability, by employing a linear regression model. To this end, the following empirical model was specified:

Equation of the Model

$$Log(Sales)_i = \beta_0 + \beta_1 \cdot Size\_i + \beta_2 \cdot Age\_i + \beta_3 \cdot Experience\_i + \beta_4 R\&D\_i + \beta_5 \cdot Education\_i + \beta_6 \cdot New\ Product\ Innovation\_i + \beta_7 \cdot Gender\_i + \beta_8 \cdot International\ Certification + \beta_9 \cdot Foreign\ Technology\_i + \varepsilon_i$$

In Equation (1), the dependent variable is the natural logarithm of total sales revenue for firm *i*. The independent variables include the number of full-time employees (size), firm age in years (age), cumulative managerial experience (experience), engagement in research and development activities (R&D), the percentage of employees with at least secondary education (education), gender of top management (gender of the top manager), possession of quality certification (international certification), utilization of foreign technology (foreign technology), and the introduction of new products (new product innovation).

Each coefficient (β) in the model captures the direction and magnitude of the relationship between the respective explanatory variable and sales performance, while the error term (εi) accounts for unobserved factors affecting firm revenue. By analyzing these relationships, the model aims to identify the most influential factors driving firm-level sales outcomes in the Turkish context.

Data

The study's dataset was based on firm-level data from the 2024 World Bank Enterprise Survey (World Bank, 2024). This dataset includes essential information from 1,000 Turkish businesses. A wide range of business-related topics, including financial indicators and innovation goals, are covered in detail by the study's comprehensive data collection methods, which are all expressed in Turkish Lira (TRY). Since the 2024 dataset was the most current and comprehensive source available at the time of our inquiry, it was used. This allowed us to use up-to-date, reliable data to analyze the factors influencing company sales income in the context of Turkish firms.

Table 1: Variable description

Variable	Definition
Size	Number of employees in the firm (firm size).
Education	Average years of education of the firm's manager.
Experience	Years of experience as the firm's manager in the industry.
Gender	Dummy variable: 1 if the firm's top manager is male; 0 if female.
New product Innovation	Dummy variable: 1 if the firm introduced a new product in the Last 3 years, 0 otherwise.
Age	Number of years since the firm was established.
Foreign Technology	Dummy variable: 1 if the firm has foreign technology, 0 otherwise.
International certification	Dummy variable: 1 if the firm has an international certificate 0 otherwise.
R&D	Dummy variable: 1 if the firm invests in research & development 0 otherwise.
Annual Sales	Total annual sales.

Prepared by the author from WBES-2024.

Results and Discussion

Table 2: Descriptive statistics of variables (N = 1,000)

Variable	Obs	Mean	Std. Dev.	Min	Max
International certification	1,000	0.527	0.500	0	1
Foreign Technology	1,000	0.788	0.409	0	1
New Product Innovation	1,000	0.083	0.276	0	1
R&D	1,000	0.041	0.198	0	1
Firm Age	1,000	17.099	11.199	0	76
Geder	1,000	0.065	0.247	0	1
Size	1,000	1.756	0.801	1	3
Education	1,000	57.832	29.951	0	100
Sales	1,000	1.95e+08	6.06e+08	360,000	1.61e+10
Experience	1,000	25.308	11.485	1	70

Table 2 presents the descriptive statistics for the dataset, offering insights into the characteristics of 1,000 Turkish firms. Approximately 52.7% of firms hold international certifications, indicating that just over half meet industry or quality standards. A significant 78.8% use foreign technology, reflecting a strong reliance on external technological advancements. However, only 8.3% have introduced new products in the past three years, and just 4.1% invest in research and development (R&D). These low figures suggest that many firms prioritize operational stability over innovation, possibly due to limited resources.

Firm age averages 17.1 years, ranging from newly established to 76 years old, showing a diverse range of experience levels. Gender diversity is limited, with only 6.5% of firms led by female top managers. Firm size, measured on a scale from 1 (small) to 3 (large), averages 1.76, indicating most firms are small to medium-sized. Education levels vary widely, with an average of 57.8% of managers or employees having formal education, ranging from 0% to 100%.

Sales show significant variation, averaging 195 million Turkish Lira (TRY) but ranging from 360,000 to 16.1 billion TRY, reflecting differences in market reach and firm scale. Managerial experience averages 25.3 years, with a range of 1 to 70 years, suggesting that experienced individuals lead most firms.

Table 3: Variance inflation factor (VIF) for variables

Variable	VIF	1/VIF
Experience	1.45	0.6879
Firm age	1.38	0.7269
Size	1.31	0.7661
International certification	1.26	0.7933
Foreign technology	1.13	0.8826
New product innovation	1.14	0.8755
R&D	1.16	0.8647
Gender	1.06	0.9423
Education	1.06	0.9477
	Mean VIF = 1.22	

Table 3 shows that the Variance Inflation Factor (VIF) values for the independent variables in the regression model are below the threshold, indicating low multicollinearity concerns. The mean VIF of 1.22 confirms the model's stability and reliability, enhancing the robustness and interpretability of the regression estimates.

Table 4: Assumption tests for linear regression model

Assumption	Test	Statistic	p-value	Conclusion
Linearity	Visual check	–	–	Satisfied
Homoskedasticity	Breusch–Pagan	$\chi^2(1) = 2.41$	0.1208	Satisfied
Normality	Shapiro–Wilk	W = 0.9972	0.0771	Satisfied

Table 4 shows the diagnostic tests conducted to evaluate the assumptions of the linear regression model, indicating that the key conditions for valid inference are satisfied. The linearity assumption was verified through visual inspection of residuals, which showed no evidence of nonlinearity between the predictors and the dependent variable. The Breusch–Pagan test for homoskedasticity yielded a chi-square statistic of 2.41 with a p-value of 0.1208, suggesting that the variance of the residuals is constant and there is no *significant heteroskedasticity*. Additionally, the Shapiro–Wilk test for normality of residuals returned a W statistic of 0.9972 and a p-value of 0.0771, indicating that the residuals do not significantly deviate from a normal distribution. Collectively, these results support the appropriateness of the linear regression model assumptions, thereby reinforcing the reliability and validity of the model's estimates.

Table 5: Regression results for sales

Variable	Coefficient.	Std. Error	t-value	p-value
International Certification	-0.6628	0.0836	-7.93	0.000
Foreign Technology	-0.2772	0.0968	-2.86	0.004
New Product Innovation	-0.2929	0.1439	-2.03	0.042
R&D	0.3623	0.2015	1.80	0.073
Firm Age	0.0164	0.0039	4.21	0.000
Gender	-0.4138	0.1553	-2.67	0.008
Size	1.3717	0.0530	25.86	0.000
Education	0.0077	0.0013	6.07	0.000
Experience	0.0101	0.0039	2.58	0.010
Constant	14.7116	0.1788	82.28	0.000

Note: $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$
R-squared = 0.6056
Adj R-squared = 0.6021.

Table 5 summarizes the result of a multiple linear regression model analysis used to explore the determinants of firm sales performance, determined as the natural logarithm of sales (log-sales), using a sample of 1,000 firms. The regression model is highly significant ($F(9, 990) = 168.93$, $p < 0.001$) and explains around 60.2% of the variation in sales performance (adjusted $R^2 = 0.6021$), indicating a strong model fit and explanatory power.

Among the firm-level variables, firm size was the most significant positive predictor with a coefficient of 1.372 ($p < 0.001$), proposing that larger firms benefit from economies of scale or improved market power that significantly increase sales. In line with previous studies (Ibhagui & Olokoyo, 2018; Olawale et al., 2017; Pervan & Višić, 2012). Firm Age also showed a positive and statistically significant effect ($\beta = 0.016$, $p < 0.001$), revealing that more established firms manage to achieve higher sales due to accumulated experience and market reputation.

Managerial-related variables, including education ($\beta = 0.008$, $p < 0.001$) and work experience ($\beta = 0.010$, $p = 0.010$), were positively associated with sales, reinforcing the critical role of skilled and experienced labor in driving firm performance. These findings are consistent with the literature emphasizing the value of knowledge and expertise within organizational settings (Warsame,2023). Inverse to expectations, the gender variable, coded as a dummy for female top managers, was negatively related to sales performance ($\beta = -0.414$, $p = 0.008$). This finding may reflect underlying structural or contextual barriers that female-led firms face in the studied market, warranting further qualitative investigation to understand the socio-economic dynamics at play.

Regarding institutional-related variables, Foreign Technology Adoption ($\beta = -0.277$, $p = 0.004$) and New Product Introduction ($\beta = -0.293$, $p = 0.042$) were both negatively associated with sales. This counterintuitive result may indicate challenges such as excessive costs, market resistance, or implementation inefficiencies that diminish short-term sales outcomes. Additionally, the international certification status variable exhibited the strongest

negative impact on sales ($\beta = -0.663$, $p < 0.001$), potentially reflecting the burden of certification costs or stricter compliance requirements limiting sales capacity in the short run. Also, the effect of research and development (R&D) activities was positive but marginally insignificant at the 5% level ($\beta = 0.362$, $p = 0.073$), suggesting a potential beneficial influence that could be pronounced more with a larger sample or longitudinal data.

Overall, these findings highlight the nuanced relationships between firm size, age, human capital, managerial gender, innovation efforts, and certification on sales performance. The evidence suggests that while traditional firm and human capital characteristics bolster sales, the benefits of innovation and certification may be more complex, incurring short-term costs that offset gains. This underscores the need for supportive policies to facilitate the effective implementation of technology and certification standards, particularly for smaller or female-led firms in emerging economies.

Conclusion

This empirical investigation provides robust evidence on the determinants of firm sales performance within the Turkish business context, utilizing a comprehensive sample of 1,000 firms. The results demonstrate that firm size, educational attainment of employees, work experience, and firm age are statistically significant and positively associated with sales performance, highlighting the critical role of human capital accumulation and organizational longevity in driving firm outcomes. Conversely, variables such as the gender of the top manager, foreign technology adoption, new product introduction, and certification status exhibit either negative or statistically insignificant relationships with sales, indicating potential complexities in how these factors influence firm performance in emerging market settings.

The adjusted R-squared of 0.6021 underscores that the model explains a substantial proportion of variation in sales performance, affirming the overall model's explanatory power. However, the negative coefficient associated with female top management challenges conventional assumptions and suggests the need for further nuanced inquiry into gender dynamics in firm leadership within this regional context.

These findings carry important implications for both policy and managerial practice. Specifically, interventions aimed at enhancing employee education and experience, alongside supporting firm growth and maturity, may yield significant improvements in sales performance. Meanwhile, the ambiguous effects of innovation-related variables and managerial gender highlight areas for future research to unpack underlying mechanisms and contextual influences. In sum, this study contributes to the literature on firm performance by explaining the multifaceted factors that shape sales outcomes in emerging economies, thereby offering a foundation for targeted strategies to bolster firm competitiveness and sustainable growth.

References

Abad, P., De la Fuente-Cabrero, C., González-Serrano, L., & Talón-Ballestero, P. (2019). Determinants of successful revenue management. *Tourism Review*, *74*(3), 666–678.

Aji, G., Pujianto, E., Zaen, A. S., Indriyani, V., & Qolbi, A. U. (2023). International Growth Strategies for Small and Medium Enterprises. *Dinamika: Jurnal Manajemen Sosial Ekonomi*, *3*(1), 31–40.

Ali, J., & Yusuf, N. (2021). International quality certification and business performance of Indian firms: Evidence from enterprise survey data. *Global Business Review*, *22*(6), 1459–1470.

Allison, L., Liu, T., Murtinu, S., & Wei, Z. (2015). Gender and Obstacles to Firm Growth. *Available at SSRN*.

Bardasi, E., Sabarwal, S., & Terrell, K. (2011). How do female entrepreneurs perform? Evidence from three developing regions. *Small Business Economics*, *37*, 417–441.

Bartolj, T. (2023a). Should Firms Strive for the Educational Diversity of the Workforce? Estimation of the Impact of Firms' Educational Structure on Sales Growth and Exports. *SAGE Open*, *13*(1), 21582440231156797.

Bartolj, T. (2023b). Should Firms Strive for the Educational Diversity of the Workforce? Estimation of the Impact of Firms' Educational Structure on Sales Growth and Exports. *SAGE Open*, *13*(1), 21582440231156797.

Bathula, H. (2008). *Board characteristics and firm performance: Evidence from New Zealand*.

Bolander, W., Bonney, L., & Satornino, C. (2014). Sales education efficacy: Examining the relationship between sales education and sales success. *Journal of Marketing Education*, *36*(2), 169–181.

Bukhari, A. A. A., Bukhari, W. A. A., Hayat, N., Troise, C., & Bresciani, S. (2024). The Impact of Voluntary Environmental Standards on Domestic and Foreign Sales Growth: Evidence from Pakistan. *Sustainable Development*.

Cedillos, C., Maellaro, R., & Wysong, S. (2020). To sell or not to sell: The impact of managers' sales experience on organisational financial performance. *International Journal of Revenue Management*, *11*(4), 316–330.

Cesinger, B., Gundolf, K., & Géraudel, M. (2018). Growth intention and sales revenue growth in small businesses: The mediating effect of firm size growth. *International Journal of Technology Management*, *78*(3), 163–181.

Coad, A., Holm, J. R., Krafft, J., & Quatraro, F. (2018). Firm age and performance. *Journal of Evolutionary Economics*, *28*(1), 1–11.

Coad, A., Segarra, A., & Teruel, M. (2013). Like milk or wine: Does firm performance improve with age? *Structural Change and Economic Dynamics*, *24*, 173–189.

Dalgıç, B., & Fazlıoğlu, B. (2021). Innovation and firm growth: Turkish manufacturing and services SMEs. *Eurasian Business Review*, *11*(3), 395–419.

Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, *22*(1), 20–47.

Deli, Y., Delis, M. D., Peydró, J.-L., & Whelan, A. (2024). Education, Credit, and Firm Outcomes. *Available at SSRN 5054596*.

Erden, Z., Klang, D., Sydler, R., & von Krogh, G. (2014). Knowledge-flows and firm performance. *Journal of Business Research*, *67*(1), 2777–2785.

Esen, Ş., & Bozkurt, O. (2012). *The impact of 'distribution capability, business knowledge, service differentiation and experience 'firm behaviors on export performance*.

Fávero, L. P. L., Serra, R. G., dos Santos, M. A., & Brunaldi, E. (2018). Cross-classified multilevel determinants of firm's sales growth in Latin America. *International Journal of Emerging Markets*, *13*(5), 902–924.

Gaspar, R. E. (2022). *Harnessing foreign technology to improve firm performance: Evidence from Philippine manufacturing enterprises*.

Hamori, M., & Koyuncu, B. (2015). Experience matters? The impact of prior CEO experience on firm performance. *Human Resource Management*, *54*(1), 23–44.

Ibhagui, O. W., & Olokoyo, F. O. (2018). North American Journal of Economics and Finance. *North American Journal of Economics and Finance*, *45*, 57–82.

Jain, C., Prasad, N., Jain, C., & Prasad, N. (2018). Secondary Education in India: Growth, Performance, and Linkages. *Quality of Secondary Education in India: Concepts, Indicators, and Measurement*, 79–106.

Kampelmann, S., Mahy, B., Rycx, F., & Vermeylen, G. (2016). *Who is your perfect match? Educational norms, educational mismatch and firm profitability*.

Kang, B.-J., & Lee, Y.-K. (2022). Effect of International Trade and Business for Approval Mediated by Relationship Capabilities on Korea's Export Growth. *Journal of Korea Trade (JKT)*, *26*(6), 61–82.

Lee, Y. G., Jasper, C. R., & Fitzgerald, M. A. (2010). Gender differences in perceived business success and profit growth among family business managers. *Journal of Family and Economic Issues*, *31*, 458–474.

Lun, Y. V., & Quaddus, M. A. (2011). Firm size and performance: A study on the use of electronic commerce by container transport operators in Hong Kong. *Expert Systems with Applications*, *38*(6), 7227–7234.

Martínez-Zarzoso, I. (2023). Female top managers and firm performance. *PLoS One*, *18*(2), e0273976.

Matthews, C. A. (2013). *Quality education counts for skills and growth*. The World Bank.

Nabin, M., Nguyen, X., & Sgro, P. (2013). On the relationship between technology transfer and economic growth in Asian economies. *The World Economy*, *36*(7), 935–946.

Olawale, L. S., Ilo, B. M., & Lawal, F. K. (2017). The effect of firm size on performance of firms in Nigeria. *Aestimatio: The IEB International Journal of Finance*, *15*, 68–87.

Otsuki, T. (2011). *Effect of international standards certification on firm-level exports: An application of the control function approach*. Osaka School of International Public Policy, Osaka University.

Peake, W. O. (2014). Are we asking the right questions about management experience? A meta-analysis. *American Journal of Entrepreneurship*, *7*(1), 40–77.

Peni, E. (2014). CEO and Chairperson characteristics and firm performance. *Journal of Management & Governance*, *18*, 185–205.

Pervan, M., & Višić, J. (2012). Influence of firm size on its business success. *Croatian Operational Research Review*, *3*(1), 213–223.

Piercy, N. F., Cravens, D. W., & Lane, N. (2003). Sales manager behavior control strategy and its consequences: The impact of manager gender differences. *Journal of Personal Selling & Sales Management*, *23*(3), 221–237.

Rigo, D. (2021). Global value chains and technology transfer: New evidence from developing countries. *Review of World Economics*, *157*(2), 271–294.

Sönmez, A., & Amirzai, F. R. (2023). Factors Impacting Product and Process Innovation Capability: An Empirical Analysis on Manufacturing Firms in Turkey. JOEEP: Journal of Emerging Economies and Policy, 8(2), 348–357.

Sönmez, A., & Amirzai, F. R. (2024). Determinants of Turkish Firms' Sales Revenue: An Empirical Analysis in the Turkish Manufacturing Industry. JOEEP: Journal of Emerging Economies and Policy, 9(2), 15–24.

Venkat, R. (2005). Practice Papers: Sales-centric revenue management. *Journal of Revenue and Pricing Management*, *4*(3), 237–245.

Warsame, A. S. (2023). Factors Influencing Firm Sales Growth: An Instrumental Variable Analysis. *International Journal of Marketing Studies*, *15*(2), 51.

Wayoro, D. (2024). International Standards Certification and Firms' Performance: A Study of Three West African Countries. *Journal of African Development*, *25*(2), 237–264.

Widawati, I. A. P. (2023). The Effect of Firm Size and Sales Growth on The Capital Structure and Financial Performance of The Tourism Industry in Indonesia. *E-Journal of Tourism*, *10*(1), 13–21.

World Bank. (2024). *World Bank Enterprise Surveys* (Türkiye 2024 No. WBES; Version 2024). https://www.enterprisesurveys.org/en/enterprisesurveys

Ye, Y., Yeung, A. C., & Huo, B. (2020). Maintaining stability while boosting growth? The long-term impact of environmental accreditations on firms' financial risk and sales growth. *International Journal of Operations & Production Management*, *40*(12), 1829–1856.