



Green Finance and SME Growth in Morocco: The Mediating Role of Green Investment

Omar Mejji*, Abdelhadi Darkaoui

Multidisciplinary Research Laboratory in Economics and Management (LARPEG), Faculty of Economics and Management Beni Mellal, Sultan Moulay Slimane University, Morocco. *Email: omar.mejji@usms.ac.ma

Received: 22 March 2026

Accepted: 10 July 2026

DOI: <https://doi.org/10.32479/irmm.24167>

ABSTRACT

This study examines the impact of green finance on SME growth by incorporating green investment as a mediating variable within the context of Moroccan SMEs. Drawing on the Resource-Based View (RBV), the study explains how access to environmentally oriented financial resources may stimulate sustainable investment practices and contribute to organizational growth. A quantitative survey approach was employed, and data were collected from 116 Moroccan SMEs through a self-administered questionnaire administered to business owners and managers. The data were analyzed using structural equation modeling with the partial least squares (SEM-PLS) technique under R software. The results indicate that green finance has a positive and significant effect on green investment. In addition, green investment positively and significantly influences SME growth, while the direct effect of green finance on SME growth remains relatively limited. The mediation analysis confirms that green investment partially mediates the relationship between green finance and SME growth. These findings highlight the strategic importance of environmentally sustainable investments as a transmission mechanism through which green finance may contribute to SME development and competitiveness in emerging economies.

Keywords: Green Finance, Green Investment, SME Growth, Sustainable Finance, SEM-PLS, Moroccan SMEs

JEL Classifications: G21, Q56, L25

1. INTRODUCTION

Environmental sustainability and climate change have become central concerns for governments, financial institutions, and businesses worldwide. Increasing environmental degradation, climate risks, and resource scarcity have encouraged both public and private actors to adopt more sustainable economic and financial practices. In this context, green finance has progressively emerged as an important mechanism for supporting environmentally sustainable projects and facilitating the transition toward a greener economy (OECD, 2023), green finance has also been recognized as an essential instrument for achieving sustainable development goals and strengthening energy security worldwide (Sachs et al., 2019).

Green finance generally refers to financial instruments and funding mechanisms dedicated to environmentally responsible

investments and sustainable development initiatives (Zhou et al., 2020). These financial mechanisms include green loans, green bonds, climate finance, and environmentally oriented investment programs designed to support projects with positive environmental impacts (UNEP, 2022). Previous studies suggest that green finance may facilitate sustainable investments, improve firms' environmental performance, and support long-term organizational competitiveness (Taghizadeh-Hesary and Yoshino, 2019). In supportive financial environments, environmentally oriented financing mechanisms may strengthen firms' ability to adopt sustainable operational practices and stimulate organizational growth, recent empirical evidence further indicates that green finance also promotes sustainability reporting, digital transformation, and environmentally responsible business practices among SMEs (Appiah-Kubi et al., 2024).

At the same time, small and medium-sized enterprises represent a fundamental pillar of economic development in both developed and emerging economies. SMEs contribute significantly to employment creation, innovation, regional development, and value generation. In Morocco, SMEs and very small enterprises (VSEs) constitute the vast majority of the national productive fabric and occupy a strategic position within the country's economic structure (Moroccan SMEs Observatory, 2025). Nevertheless, Moroccan SMEs continue to face multiple structural and financial constraints, particularly regarding access to financing, technological modernization, and investment capacity, these challenges are consistent with the World Bank (2022), which highlights access to finance as one of the principal constraints affecting SME development in emerging economies.

One strategic mechanism that has become increasingly important for firms is green investment. Green investment refers to environmentally sustainable investments such as renewable energy systems, energy-efficient technologies, sustainable production processes, and environmentally friendly equipment. Previous studies indicate that green investments may improve operational efficiency, strengthen competitiveness, and enhance firms' sustainability performance (Chen and Chang, 2013; Porter and Linde, 1995). In environmentally competitive markets, sustainable investments may strengthen firms' long-term growth potential and organizational resilience.

However, green investments often require substantial financial resources that many SMEs struggle to access through traditional financing channels. Scholars have highlighted that financial constraints remain one of the principal barriers limiting SME development and sustainable investment capacity, particularly in emerging economies (Beck and Demircuc-Kunt, 2006). Such financial limitations may reduce firms' ability to engage in environmentally sustainable initiatives and weaken their long-term growth opportunities.

Despite the growing interest in green finance and sustainable development, the existing literature presents several limitations regarding the relationship between green finance and SME growth. Most previous studies have primarily focused on large corporations, developed economies, or macroeconomic dimensions of sustainable finance. However, empirical research examining the intermediary role of green investment within the relationship between green finance and SME growth remains relatively limited, particularly in emerging economies such as Morocco.

To address this gap, this study adopts the Resource-Based View (RBV) as the primary theoretical framework. RBV suggests that firms create competitive advantage and long-term growth through the effective mobilization and transformation of strategic resources into productive organizational capabilities (Barney, 1991). Within this perspective, green finance can be considered a strategic financial resource that facilitates environmentally sustainable investments capable of improving organizational competitiveness and growth. Therefore, this study investigates the influence of green finance on SME growth while considering the mediating role of green investment within Moroccan SMEs.

The study provides several important contributions to the existing literature. Empirically, it contributes to the relatively limited body of research addressing green finance within the Moroccan SME context. Conceptually, the study highlights the intermediary role of green investment in explaining how green finance may influence organizational growth. Methodologically, the study employs Partial Least Squares Structural Equation Modeling (PLS-SEM), which is particularly appropriate for exploratory and predictive research involving latent constructs and relatively moderate sample sizes (Hair et al., 2021).

The remainder of the paper is organized as follows. Section 2 reviews the literature and develops the research hypotheses. Section 3 presents the research methodology and data collection procedures. Section 4 discusses the empirical findings obtained through PLS-SEM analysis. Finally, Section 5 concludes the study by highlighting the main contributions, managerial implications, limitations, and future research directions.

2. LITERATURE REVIEW

2.1. Green Finance and Green Investment

Green finance has increasingly attracted scholarly attention because of its potential influence on firms' sustainable investment behavior and long-term competitiveness. Several studies suggest that green finance may positively influence environmentally sustainable investments by improving firms' access to financial resources dedicated to environmental projects and sustainable operational practices. Green financial mechanisms such as green loans, climate finance, and environmentally oriented investment programs may facilitate firms' adoption of cleaner technologies and sustainable production systems (UNEP, 2022).

Empirical evidence further demonstrates that green finance can support firms' environmental transition and investment capacity. Previous studies indicate that sustainable financing mechanisms may encourage firms to engage in renewable energy projects, environmentally friendly technologies, and sustainable operational initiatives, which ultimately improve organizational sustainability and competitiveness (Taghizadeh-Hesary and Yoshino, 2019). In supportive financial environments, access to environmentally oriented financing opportunities may strengthen firms' ability to undertake strategic green investments, evidence from Belt and Road Initiative countries further demonstrates that green finance stimulates green economic growth through environmentally sustainable investments (Zhang et al., 2021).

However, SMEs in emerging economies continue to face important barriers regarding access to sustainable financial mechanisms. Financial institutions often perceive SMEs as high-risk borrowers, which limits their ability to obtain long-term financing and environmentally oriented investment support (Beck and Demircuc-Kunt, 2006). Such financial limitations may reduce firms' capacity to engage in environmentally sustainable initiatives despite the growing importance of environmental transition and sustainability requirements.

From a theoretical perspective, the Resource-Based View (RBV) suggests that firms create competitive advantages through the

effective mobilization and allocation of strategic resources (Barney, 1991). Within this perspective, green finance may represent a strategic financial resource capable of supporting sustainable investments and improving firms' long-term competitiveness.

Accordingly, this study proposes the following hypothesis:

H₁: Green finance positively influences green investment in Moroccan SMEs.

2.2. Green Investment and SME Growth

Green investment has become increasingly important for firms seeking to improve both environmental sustainability and long-term organizational growth. Green investment generally refers to environmentally sustainable investments such as renewable energy systems, energy-efficient technologies, sustainable production processes, and environmentally friendly operational practices.

Previous studies suggest that green investments may positively influence organizational growth through several mechanisms. Environmentally sustainable investments may improve operational efficiency, reduce production costs, strengthen corporate reputation, and facilitate market competitiveness (Chen and Chang, 2013). In environmentally competitive markets, firms adopting sustainable investments may enhance their resilience and long-term growth potential.

Empirical evidence also indicates that sustainable operational practices and environmental investments may contribute positively to firms' performance and competitiveness (Fernandes et al., 2023). Firms engaging in green investments are more likely to improve their organizational capabilities and adapt to evolving environmental regulations and stakeholder expectations (Porter and Linde, 1995).

Despite these potential benefits, implementing environmentally sustainable investments often requires substantial financial and organizational resources. SMEs may therefore face difficulties in maintaining long-term sustainable investment strategies because of limited investment capacity and financial constraints.

Accordingly, this study proposes the following hypothesis:

H₂: Green investment positively influences SME growth in Moroccan SMEs.

2.3. Green Finance and SME Growth

Access to finance has long been recognized as one of the principal determinants of SME growth and organizational development. Previous studies indicate that financial accessibility may improve firms' investment capacity, innovation potential, and competitiveness, thereby contributing to long-term growth.

In recent years, green finance has emerged as an important financing mechanism capable of supporting sustainable organizational development. Environmentally oriented financing mechanisms may encourage firms to adopt sustainable operational practices and environmentally responsible business models. In this context, green finance may contribute to SME growth by facilitating sustainable investments and improving firms' ability

to respond to environmental and market challenges, recent OECD-based evidence also confirms that green finance and ESG-oriented investments support SME development and sustainable economic recovery (Jin, 2025).

However, the relationship between green finance and organizational growth may not always be straightforward. Financial resources alone may not necessarily generate growth unless they are transformed into productive and environmentally sustainable investments. Previous studies have reported mixed findings regarding the direct effect of sustainable finance on organizational performance, suggesting the existence of intermediary mechanisms linking financial resources and firm growth.

Despite the growing interest in sustainable finance, empirical research examining the relationship between green finance and SME growth within emerging economies remains relatively limited, particularly in the Moroccan context.

Accordingly, this study proposes the following hypothesis:

H₃: Green finance positively influences SME growth in Moroccan SMEs.

2.4. The Mediating Role of Green Investment

While green finance may facilitate firms' access to environmentally oriented financial resources, green investment may represent the principal mechanism through which these financial resources contribute to organizational growth. Previous studies suggest that sustainable investments may improve firms' competitiveness, operational efficiency, and long-term organizational performance.

In the SME context, financial resources may only generate strategic value when they are effectively transformed into productive and environmentally sustainable investments. Thus, green investment may function as an intermediary mechanism linking green finance and organizational growth.

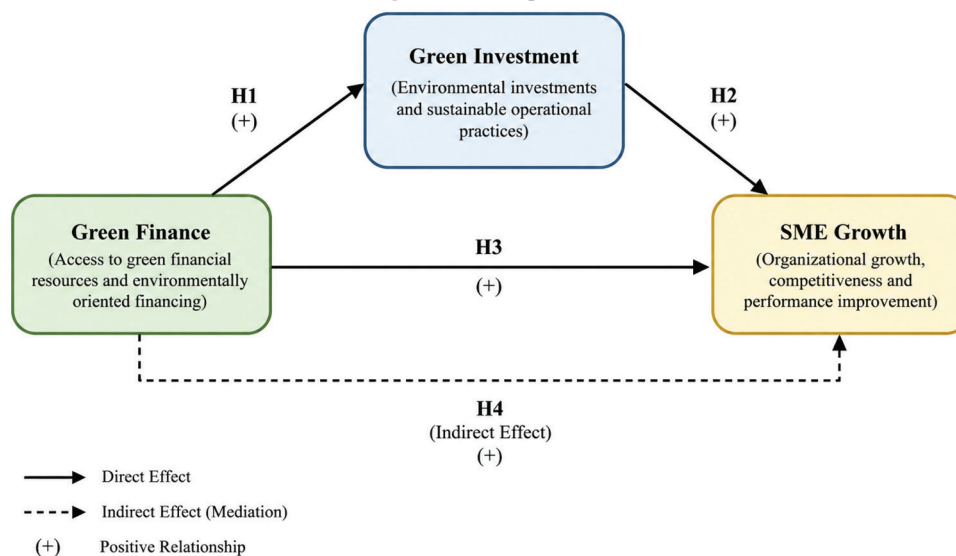
The mediating role of green investment is particularly relevant in emerging economies where SMEs often experience financial constraints and limited investment capacities. In such contexts, environmentally sustainable investments may help firms strengthen their competitiveness while simultaneously supporting environmental transition objectives.

This mediation perspective is also consistent with the Resource-Based View, according to which firms generate competitive advantage through the transformation of strategic resources into productive organizational capabilities (Barney, 1991).

Accordingly, this study proposes the following hypothesis:

H₄: Green investment mediates the relationship between green finance and SME growth in Moroccan SMEs.

Figure 1 presents the conceptual framework of this study. It illustrates the hypothesized relationships between green finance, green investment, and SME growth, highlighting the mediating role of green investment in explaining how green finance contributes to SME growth.

Figure 1: Conceptual framework

Source: Own elaboration

3. METHODOLOGY

This study uses a quantitative approach with a survey method. The data collection was conducted using a self-administered questionnaire distributed to Moroccan SMEs from January 2026 to April 2026. The population in this study consists of Moroccan SMEs operating in different economic sectors. Moroccan SMEs were selected because they represent a strategic component of the national economy and face increasing challenges related to access to finance, environmental transition, and sustainable growth.

The respondents in this study included business owners, managers, executives, and financial decision-makers considered suitable for providing information regarding firms' financial practices, green investment behavior, and growth dynamics. The questionnaire was distributed online through Google Forms using professional networks, LinkedIn communication, entrepreneurial groups, and direct professional contacts. In addition, some respondents were approached through professional and audit-related networks as well as telephone communication with SME representatives in different Moroccan regions.

The sampling technique used in this study follows the recommendation of (Hair et al., 2014), which suggests that the ideal sample size for SEM analysis should be at least 5-10 times the number of indicators in the questionnaire. The number of measurement items in this study is 15, so the sample of 116 respondents was considered adequate and appropriate for the use of the SEM-PLS method. A cross-sectional research design was used in this study. The questionnaire was accompanied by an introductory statement to ensure confidentiality, anonymity, and voluntary participation.

A five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to investigate green finance, green investment, and SME growth. Green finance was measured using five items related to access to environmentally oriented financial resources and sustainable financing mechanisms.

Green investment was measured using five items related to environmentally sustainable investment practices. SME growth was measured using five items related to organizational growth, competitiveness, and performance improvement.

The data were analyzed using structural equation modeling with the Partial Least Squares technique (SEM-PLS) under R software. The analysis was conducted in two stages. First, the measurement model was assessed through reliability and validity tests. Second, the structural model was evaluated to test the proposed hypotheses and the mediating role of green investment.

4. RESULTS

From the 116 valid responses collected from Moroccan SMEs, the majority of participating firms were small enterprises representing 41.4% of the sample, followed by very small enterprises with 40.5%, while medium-sized enterprises accounted for 18.1% of the respondents. Regarding firm age, most firms had operated for more than 10 years (44.0%), indicating relatively established business structures (Table 1).

In terms of sectoral distribution, the largest proportion of respondents operated in the service sector (38.8%), followed by industry (25.9%) and commerce (20.7%). Concerning respondents' positions, most participants were owners or managers (46.6%), followed by general directors (29.3%) and financial managers (16.4%). These profiles indicate that the respondents occupied strategic managerial positions, making them suitable for providing reliable information regarding green finance, green investment, and SME growth practices.

The data analysis used is structural equation modelling (SEM) with the partial least squares technique (SEM-PLS). The validity test is intended to determine the validity of the constructs and the compatibility between latent variables and their indicators. The outer model using R software and the cSEM package was

employed to ensure the degree of compatibility between variables and their measurements. According to Hair et al. (2019), individual reflective measures are considered acceptable when the loading values exceed 0.70. There are three analyses used to assess the outer model, namely convergent validity, discriminant validity, and composite reliability.

Table 2 shows that Cronbach's alpha and composite reliability values are above the recommended threshold of 0.70, indicating satisfactory internal consistency reliability. In addition, the average variance extracted (AVE) values for Green Finance and SME Growth are above 0.50, confirming acceptable convergent validity. Although the AVE value for Green Investment is slightly below 0.50, the construct remains acceptable because the composite reliability and loading values are satisfactory.

Table 1: Demographic profile of respondents

Variable	Category	Frequency	Percentage
Firm size	Very small (1-9)	47	40.5
	Small (10-49)	48	41.4
	Medium (50-249)	21	18.1
Firm age	<5 years	29	25.0
	5-10 years	36	31.0
	More than 10 years	51	44.0
Sector	Services	45	38.8
	Industry	30	25.9
	Commerce	24	20.7
	Other	17	14.7
Respondent position	Owner/Manager	54	46.6
	General Director	34	29.3
	Financial Manager	19	16.4
	Other	9	7.8

Source: Own elaboration

Table 2: Measurement model

Construct	Item	Loading factor	Cronbach's alpha	Composite reliability	Average variance extracted
Green Finance	GF1	0.699	0.850	0.850	0.540
	GF2	0.697			
	GF3	0.685			
	GF4	0.956			
	GF5	0.586			
Green Investment	GI1	0.734	0.810	0.810	0.466
	GI2	0.773			
	GI3	0.650			
	GI4	0.491			
	GI5	0.729			
SME Growth	SG1	0.574	0.850	0.850	0.530
	SG2	0.813			
	SG3	0.873			
	SG4	0.690			
	SG5	0.642			

Source: Own elaboration

Table 3: HTMT ratio

Constructs	1	2	3
Green Finance			
Green Investment	0.550		
SME Growth	0.450	0.610	

Source: Own elaboration

Table 3 reports the HTMT ratio results, confirming satisfactory discriminant validity. Following the recommendation of Hair et al. (2019), the HTMT ratio should be below 0.85. As shown in Table 3, all HTMT values are below the recommended threshold, indicating satisfactory discriminant validity and confirming that the constructs used in this study are empirically distinct.

The correlation analysis presented in Table 4 demonstrates moderate and positive relationships among the study constructs. Green Finance is positively associated with Green Investment, while Green Investment demonstrates the strongest relationship with SME Growth.

Based on the results of data analysis showed in the Table 5, the coefficient of determination (R^2) for Green Investment is 0.304, while the R^2 value for SME Growth is 0.415. These values indicate moderate explanatory power and demonstrate that the proposed model is acceptable in explaining the relationships among the constructs.

The results of the hypothesis testing are presented in Table 5. The findings indicate that Green Finance has a positive and significant effect on Green Investment ($\beta = 0.551$, $P < 0.001$), supporting H_1 . Furthermore, Green Investment has a positive and significant effect on SME Growth ($\beta = 0.529$, $P < 0.001$), supporting H_2 . Meanwhile, the direct effect of Green Finance on SME Growth remains relatively weak and only marginally significant ($\beta = 0.178$, $P = 0.052$), partially supporting H_3 .

Furthermore, mediation analysis was carried out using bootstrapping with 5000 subsamples. Referring to Table 6, the results indicate that Green Investment successfully mediates the relationship between Green Finance and SME Growth ($\beta = 0.292$, $P < 0.01$), confirming H_4 .

Table 7 reports the effect size (f^2) values for each structural relationship, the effect size analysis further indicates that Green Finance exerts a large effect on Green Investment ($f^2 = 0.440$), while Green Investment also demonstrates a large effect on SME

Table 4: Correlation matrix

Constructs	Green finance	Green investment	SME growth
Green Finance	1.000	0.460	0.380
Green Investment	0.460	1.000	0.510
SME Growth	0.380	0.510	1.000

Source: Own elaboration

Table 5: Direct effect

Hypotheses	Path	Original value	t-statistics
H_1	Green Finance → Green Investment	0.551	6.950***
H_2	Green Investment → SME Growth	0.529	4.120***
H_3	Green Finance → SME Growth	0.178	1.940†

† $P < 0.10$, *** $P < 0.001$. Source: Own elaboration

Growth ($f^2 = 0.330$). In contrast, the direct effect of Green Finance on SME Growth remains relatively small ($f^2 = 0.040$).

Figure 2 presents the results of the PLS-SEM structural model analysis. The findings indicate that Green Finance positively influences Green Investment ($\beta = 0.551$), while Green Investment has a positive and significant effect on SME Growth ($\beta = 0.529$). In contrast, the direct effect of Green Finance on SME Growth remains relatively weak ($\beta = 0.178$), suggesting the existence of an indirect relationship through Green Investment. The model also demonstrates acceptable explanatory power, with an R^2 value of 0.304 for Green Investment and 0.415 for SME Growth. Furthermore, most indicator loadings exceed the recommended threshold, indicating satisfactory measurement reliability and supporting the adequacy of the proposed conceptual model.

5. DISCUSSION

This study provides empirical insights into how green finance influences SME growth through the mechanism of green

investment within the context of Moroccan SMEs. The findings highlight that environmentally oriented financial resources can shape firms' investment behavior and contribute to organizational growth and competitiveness in emerging economies.

The results confirm that green finance has a positive and significant effect on green investment. This finding is consistent with previous studies suggesting that sustainable financing mechanisms facilitate firms' access to financial resources dedicated to environmentally sustainable projects and investment practices (Taghizadeh-Hesary and Yoshino, 2019). In organizational environments characterized by increasing environmental pressures and sustainability requirements, access to green finance may strengthen firms' capacity to adopt environmentally responsible operational strategies and cleaner technologies. Consequently, SMEs benefiting from sustainable financial support are more likely to engage in green investment initiatives capable of improving their long-term sustainability and competitiveness.

The findings also reveal that green investment has a positive and significant effect on SME growth. This result supports previous research indicating that environmentally sustainable investments may enhance firms' operational efficiency, reduce production costs, improve resource utilization, and strengthen market competitiveness (Chen and Chang, 2013; Porter and Linde, 1995). In increasingly competitive and environmentally sensitive markets, firms investing in sustainable technologies and environmentally responsible operational practices are more likely to improve their organizational resilience and long-term growth potential.

Furthermore, the results indicate that the direct effect of green finance on SME growth remains relatively weak compared with the indirect effect transmitted through green investment. This finding suggests that financial resources alone may not directly generate

Table 6: Mediating effect

Hypotheses	Path	Original value	t-statistics
H ₄	Green Finance→Green Investment→SME Growth	0.292	3.390**

**P<0.01. Source: Own elaboration

Table 7: Effect size results

Relationship	f^2	Interpretation
Green Finance→Green Investment	0.440	Large
Green Investment→SME Growth	0.330	Large
Green Finance→SME Growth	0.040	Small

Source: Own elaboration

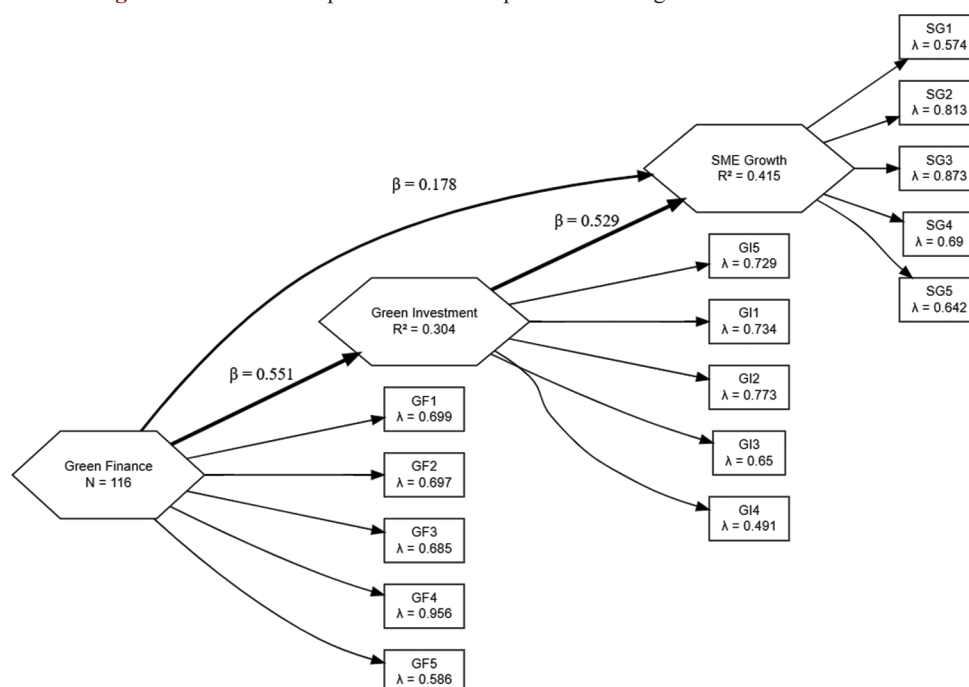


Figure 2: Partial least squares structural equation modeling structural model results

Source: Own elaboration

organizational growth unless they are effectively transformed into productive and environmentally sustainable investments. In other words, green investment constitutes a strategic transmission mechanism through which green finance contributes to SME development and competitiveness.

The mediation analysis further confirms this interpretation by demonstrating that green investment successfully mediates the relationship between green finance and SME growth. This finding represents one of the principal contributions of the study because it highlights the intermediary role of investment behavior in explaining how environmentally oriented financial resources may influence organizational development. This result is also consistent with the Resource-Based View (RBV), which suggests that firms create competitive advantage through the effective mobilization and transformation of strategic resources into productive organizational capabilities (Barney, 1991).

From a managerial perspective, the findings emphasize the importance for SMEs to strategically allocate green financial resources toward environmentally sustainable investments capable of generating long-term economic and competitive benefits. SMEs should not consider green finance merely as a source of liquidity but rather as a strategic opportunity to modernize production systems, improve operational efficiency, and strengthen sustainable competitiveness, this finding is consistent with previous studies suggesting that firms with stronger financial capabilities are better able to transform financial resources into sustainable growth opportunities (Kaur and Bansal, 2020).

The findings also suggest that policymakers and financial institutions should strengthen green financing mechanisms adapted to the specific needs and constraints of SMEs in emerging economies. Improving SMEs' access to green loans, sustainable financing programs, and environmentally oriented investment incentives may accelerate environmental transition while simultaneously supporting economic growth and organizational development.

In the Moroccan context, the findings underline the importance of developing institutional and financial frameworks capable of facilitating SMEs' access to sustainable financial resources. Such initiatives may contribute to strengthening national sustainability objectives while enhancing firms' competitiveness and economic resilience.

Despite its contributions, this study presents certain limitations. First, the sample size remains relatively moderate and restricted to Moroccan SMEs. Second, the study relies on cross-sectional and perceptual data collected through self-administered questionnaires. Third, some indicators exhibited relatively moderate loadings, although the overall reliability and validity of the model remained acceptable. Future research could extend this work by increasing the sample size, integrating additional variables such as green innovation or sustainable performance, and conducting comparative analyses across sectors or countries.

Overall, the findings confirm that green finance contributes to SME growth primarily through the development of green investments,

thereby emphasizing the strategic importance of sustainability-oriented financial and investment practices in emerging economies.

6. CONCLUSION

This study examines the influence of green finance on SME growth by incorporating green investment as a mediating variable within the context of Moroccan SMEs. The findings indicate that green finance positively affects green investment, while green investment positively influences SME growth. In contrast, the direct effect of green finance on SME growth remains relatively limited. Furthermore, the mediation analysis confirms that green investment serves as an important mechanism through which green finance contributes to organizational growth and competitiveness. These results suggest that environmentally oriented financial resources can function as strategic drivers that support sustainable investments and enhance SME growth in emerging economies.

The findings further highlight the importance of transforming financial resources into productive and environmentally sustainable investments capable of generating long-term organizational value. SMEs benefiting from green finance are more likely to engage in environmentally responsible operational practices, adopt sustainable technologies, and strengthen their competitiveness in increasingly environmentally conscious markets.

From a theoretical perspective, the study contributes to the growing literature on sustainable finance and SME development by emphasizing the intermediary role of green investment in explaining how green finance influences organizational growth. The findings also support the Resource-Based View (RBV), which suggests that firms create competitive advantage through the effective mobilization and transformation of strategic resources into productive organizational capabilities.

From a managerial perspective, the findings suggest that SME managers should strategically allocate green financial resources toward environmentally sustainable investment projects capable of improving operational efficiency, competitiveness, and long-term growth. Policymakers and financial institutions may also play an important role by developing sustainable financing mechanisms adapted to the needs and constraints of SMEs in emerging economies, similarly, green lending has been found to improve firms' access to sustainable financing while supporting environmentally responsible investment decisions (Mirza et al., 2023).

Despite these contributions, several limitations should be acknowledged. The study focuses on Moroccan SMEs, which may limit the generalizability of the findings to other economic or cultural contexts. In addition, the cross-sectional design restricts the ability to establish causal relationships. Future research is encouraged to employ longitudinal approaches and explore additional variables such as green innovation, sustainable performance, organizational culture, or environmental strategy to provide a more comprehensive understanding of how green finance influences organizational growth and sustainability.

REFERENCES

- Appiah-Kubi, E., Koranteng, F.O., Dura, C.C., Mihăilă, A.A., Drigă, I., Preda, A. (2024), Green financing and sustainability reporting among SMEs: The role of pro-environmental behavior and digitization. *Journal of Cleaner Production*, 478, 143939.
- Barney, J. (1991), Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Beck, T., Demirgüç-Kunt, A. (2006), Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking and Finance*, 30(11), 2931-2943.
- Chen, Y.S., Chang, C.H. (2013), The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of Business Ethics*, 116(1), 107-119.
- Fernandes, C.I., Ferreira, J.J.M., Veiga, P.M., Kraus, S., Jones, P. (2023), Does sustainable innovation respond to SME's growth? European empirical evidence. *The International Journal of Entrepreneurship and Innovation*, 2023, Advance online publication. <https://doi.org/10.1177/14657503231194263>.
- Hair, J., Gabriel, M., Patel, V. (2014), amos covariance-based structural equation modeling (CB-SEM): Guidelines on its application as a marketing research tool. *Revista Brasileira De Marketing*, 13, 44-55.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M., Danks, N.P., Ray, S. (2021), *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Switzerland: Springer International Publishing.
- Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019), When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Jin, C. (2025), Investigating the intersection of ESG investing, green recovery, and SME development in the OECD. *Humanities and Social Sciences Communications*, 12(1), 572.
- Kaur, H., Bansal, P. (2020), Assessing the impact of financial literacy on firm sustainability: Mediating role of financial access and firm growth. *SEDME (Small Enterprises Development, Management Extension Journal): A Worldwide Window on MSME Studies*, 47(4), 299-313.
- Mirza, N., Afzal, A., Umar, M., Skare, M. (2023), The impact of green lending on banking performance: Evidence from SME credit portfolios in the BRIC. *Economic Analysis and Policy*, 77, 843-850.
- Moroccan SMEs Observatory. (2025), *Annual Report Edition 2025*.
- OECD. (2023), *Financing SMEs and Entrepreneurs Scoreboard: 2023 Highlights* (No. 36; OECD SME and Entrepreneurship Papers. Vol. 36. France: Organisation for Economic Co-operation and Development.
- Porter, M.E., Linde, C.V.D. (1995), Toward a new conception of the environment-competitiveness relationship. *Journal of Economic Perspectives*, 9(4), 97-118.
- Sachs, J.D., Woo, W.T., Yoshino, N., Taghizadeh-Hesary, F. (2019a), Importance of green finance for achieving sustainable development goals and energy security. In: Sachs JD, Woo W.T. Yoshino N, Taghizadeh-Hesary F, editors. *Handbook of Green Finance*. Singapore: Springer. p3-12.
- Sachs, J.D., Woo, W.T., Yoshino, N., Taghizadeh-Hesary, F. (2019b), Why is green finance important? *SSRN Electronic Journal*, <https://doi.org/10.2139/ssrn.3327149>.
- Taghizadeh-Hesary, F., Yoshino, N. (2019), The way to induce private participation in green finance and investment. *Finance Research Letters*, 31, 98-103.
- UNEP. (2022), *Annual Report 2022*. Kenya: UNEP - UN Environment Programme.
- World Bank. (n.d.), *World Development Report 2022: FINANCE for an Equitable Recovery*. World Bank. Available from: <https://www.worldbank.org/en/publication/wdr2022> [Last accessed on 2026 May 17].
- Zhang, D., Mohsin, M., Rasheed, A.K., Chang, Y., Taghizadeh-Hesary, F. (2021), Public spending and green economic growth in BRI region: Mediating role of green finance. *Energy Policy*, 153, 112256.
- Zhou, X., Tang, X., Zhang, R. (2020), Impact of green finance on economic development and environmental quality: A study based on provincial panel data from China. *Environmental Science and Pollution Research*, 27(16), 19915-19932.