



Government Support and SME Sustainability: The Interplay of Financial and Green Dimensions

Kaveh Parandin^{1*}, Hasan Ali Akhlaghi² Mohammad Mortaza Zadeh Mahani³

1. Department of Accounting, Payame Noor University, Tehran, Iran

2. Department of Management and Accounting, Technical and Vocational University (TVU), Tehran, Iran

3. Master degree, Department of Management, Payame Noor University, Tehran, Iran

*Corresponding author, Email: kparandin@pnu.ac.ir

Keywords:

Government support, SMEs (Small and Medium Enterprises), Organizational sustainability, financial literacy, Green value co-creation.

Abstract

This study investigates the relationship between government support and organizational sustainability through dual financial and green lenses. While government interventions—such as financial aid, training, tax incentives, and advisory services—are widely recognized as enablers of small and medium enterprise (SME) resilience, their nuanced roles in fostering both financial viability and environmental stewardship remain underexplored. Drawing on a descriptive-correlational design, the research employs a quantitative field survey targeting 384 employees of executive agencies in Kerman Province, Iran, selected via Cochran's formula. Data were collected using a validated questionnaire (adapted from Islam et al., 2024) with a 5-point Likert scale and analyzed through structural equation modeling in Smart PLS and SPSS. Findings reveal that government support significantly enhances organizational sustainability, mediated by financial literacy and green value co-creation. Specifically, financial literacy strengthens organizations' capacity to interpret and utilize public support effectively, thereby improving long-term economic stability. Similarly, government-backed initiatives that encourage green practices foster shared environmental and social value, reinforcing sustainability outcomes. Notably, while access to financial resources was positively influenced by government support, it did not directly mediate sustainability—suggesting that mere availability of capital is insufficient without strategic financial competence. The study corroborates prior work by Arshad et al. (2020) and Yeh & Kulatong (2019) but challenges conclusions by Beck & Demirgüç-Kunt (2006), highlighting context-dependent dynamics in public support efficacy. Theoretically, the research integrates sustainability, resource-based, and stakeholder perspectives to demonstrate how policy-driven support, when coupled with internal capabilities (e.g., financial literacy) and collaborative green innovation, can drive holistic organizational sustainability. Practically, findings urge policymakers to design integrated support programs that simultaneously build financial acumen and incentivize eco-innovation. For organizations, investing in financial education and green co-creation with stakeholders emerges as a strategic pathway to resilience. This study contributes to the growing discourse on sustainable development by empirically linking public policy, financial behavior, and environmental responsibility in emerging economies.

Received:

09/Apr/2025

Revised:

29/Apr/2025

Accepted:

15/Oct/2025

How to cite this article:

Parandin, K., AkhlaghiKarim, H.A., & Morteza Zadeh Mahani, M. (2025) Investigating the relationship between government support and SMEs' sustainability through financial and green lenses. *Green Development Management Studies*, 4(Special Issue), 127-144. <https://doi.org/10.22077/jgdms.2025.9199.1292>





Introduction

Over the years, various policies and programs have been introduced by governments worldwide to promote economic sustainability, enhance living standards, and foster economic growth (Mohammadi et al., 2023). Governments, irrespective of their nations, are involved in determining the regional and local factors that influence entrepreneurship. In the current knowledge-based economy, entrepreneurship has become one of the most significant drivers of sustainable economic growth and development (Moshayedi et al., 2021). Government financial and non-financial incentives are considered key drivers to strengthen technological development within the industrial sector. In turn, this development can foster positive changes in organizational innovation to maintain competitive positions (Ibid). Government support not only aids access to scarce resources but also helps small enterprises in establishing, growing, and creating sustainable positions in turbulent markets (Pirayesh and Bahrevar, 2018). Moreover, it is claimed that government support (credit, training, services, loans, tax payments, etc.) does not merely contribute to company profitability but is, in fact, a crucial driver for the survival and success of businesses (Mohammadi et al., 2023).

Organizational sustainability, beyond financial and economic sustainability, emerges as a competitive advantage and refers to a high degree of stability and economic efficiency that creates potential new value for organizations (Gupta et al., 2018). Sustainable development is increasingly important due to the establishment of sustainable strategies in contemporary companies. Sustainable development goals combine economic growth with environmental and social sustainability (Kavalich et al., 2021; Dengiz et al., 2020). Sustainability relates to an organization's ability to monitor opportunities, changes, trends, and external environmental risks, with the aim of achieving a balance among financial, economic, social, and environmental benefits in the long term (Doh and Kim, 2014). This multidimensional phenomenon emphasizes the importance of maintaining correct outcomes, producing knowledge, creating sustainable budgetary experiences, appropriate employee patterns, and providing effective value-based services and support. These characteristics are deemed essential for the ongoing health and welfare of organizations (Anvar et al., 2018).

Given that the green perspective has always been crucial for the sustainability of organizations, saving the planet and promoting green innovations to mitigate negative environmental impacts are considered advantages of green practices. To better manage their environmental impact, organizations must adopt green practices and behaviors that, in turn, inspire green innovations (Wang and Chang, 2020). Systematically, the innovation and sustainability of organizations can also flourish through the adoption of dynamic green capabilities and green practices. This pertains to activities and procedures aimed at preventing environmental harm. Companies engage in green values or practices that ultimately encourage consumers to create shared value (Yusuf, 2021).

The creation of Green Shared Value (GVC) enables entrepreneurs to innovate by maximizing resource utilization with the assistance of internal and external stakeholders (Vidjo et al., 2019). The green development practices of companies should enhance green dynamic capabilities, creativity, and transformational leadership (Chen and Chang, 2013). Green shared value is a vital factor for the sustainability and performance of organizations (Vidjo et al., 2020). Thus, to maintain sustainability, certain measures supported by green shared value need to be examined. Financial literacy and access to finance positively impact the sustainability of companies (Islam et al., 2023). Considering the green lens has always been essential for ensuring the sustainability of organizations. Saving the Earth and strengthening green innovation to reduce adverse environmental effects are both benefits of green practices. Therefore, organizations must adopt green practices and behaviors to better manage their environmental impact, which in turn inspires green innovations (Chang and Wang, 2020).

Given the importance of sustainability in today's world, analyzing the relationship between government support and the financial and green aspects of organizations can enhance our understanding of how to



maintain sustainability at the organizational level. Furthermore, in an era of climate change and the increasing demand for green policies, government support can guide organizations towards more sustainable practices. Additionally, understanding the relationship between government support and the financial status of organizations can facilitate better financial risk management. This may include understanding the impacts of government policies on financial volatility and organizations' ability to maintain continuity in pursuing sustainable goals. Ultimately, examining and evaluating the performance of the National Bank in Kerman Province and determining how government support has influenced its performance and enhanced its capabilities in financial and green practices can contribute to the improvement of the National Bank of Kerman and its innovation. Therefore, in light of the significance of this topic, this study aims to address the question of whether there is a relationship between government support and the sustainability of organizations through the lenses of financial and green perspectives.

Theoretical Framework

Nector et al. (1992), as cited by Houston (2010), define financial literacy as “the ability to make informed judgments and effective decisions regarding the use and management of money.” This definition has been utilized in several studies, including those by Schagen and Lines (1996), Bill and Delpachitra (2003), and Roy Morgan (2003) in surveys conducted in Australia and New Zealand regarding financial literacy. Access to finance, or the ability to utilize financial services for the general public, has gained significant attention in recent years. A country's financial system approaches its ideal state when every individual can easily access financial services such as banking, insurance, and pensions. Therefore, access to finance can be defined as a process where easy access to financial services and the usability of these services are readily available to all people (Hamidinia and Asadi, 2021). Currently, due to increasing environmental concerns in society, companies are focusing their efforts on providing environmentally friendly products and services (Maria and Ishak, 2020). They have realized that being environmentally responsible elicits a better response from their customers. Simultaneously, they understand that addressing their customers' environmental concerns increases the likelihood of those customers choosing the products and services offered by the respective company (Hoor and Kang, 2012).

Consequently, companies are actively moving towards sustainable marketing strategies such as green marketing (Scotton and Martin, 2022). Green marketing refers to marketing products that are presumed to be environmentally safe and encompasses a range of activities including product modification, changes in production processes, sustainable packaging, and modified advertising (Tahmatan et al., 2022).

Based on the knowledge-based perspective, access to knowledge resources through access to finance facilitates the sustainability of small and medium enterprises. In this manner, individuals and entrepreneurs comprehend and manage financial information at the organizational level, which may lead to sustainability for companies. However, financial management knowledge is positively correlated with company sustainability, ultimately leading to good organizational performance and aiding in acquiring a broad range of knowledge that helps companies adapt to changes in the business environment and enjoy the returns from such conditions (Atram and Agyapon, 2019). The good performance of small and medium enterprises plays a vital role in contributing to GDP growth and reducing unemployment. Small and medium enterprises are limited to acquiring capital from the government for growth, expansion, and smooth operation (Nyanzo and Quaido, 2017).

Organizations are a crucial private sector component in many developed and developing countries. Beck and Demirgüç-Kunt (2006) state that if companies can access the financial services provided by the government and benefit from them according to their needs, it indicates that they have good access to finance (Klassens, 2006). Interest-free loans provided by the government may enhance the initiation of organizational activities. Most organizations start their businesses with personal savings or seek funds from friends, family, and relatives in exchange for profit or equity in the business (Amuak Ado and Ashwan, 2018). Changing customer demands and green innovation is regarded as a leading factor in the current



business environment, especially for organizations. It is an essential and unique idea for solving customer problems with a focus on environmental issues (Negoie et al., 2010). If government support helps organizations maintain their position in a dynamic business environment, it may lead to the creation of green value (Negoie et al., 2010), which supports the implementation of green innovations in organizations (Lin et al., 2014). Customers benefit from a company's decision to use environmentally friendly materials in product production, encouraging businesses to participate in creating value to achieve green innovation (Kohler et al., 2011).

Green value generates value for customers through environmentally responsible company activities and final products (Albinson et al., 2016). The creation of value through government support and sustainability is closely intertwined, so that joint creation can maintain community development and the sustainability of companies. However, the creation of shared value for organizations can be ensured through government support as a primary stakeholder (Akoliani et al., 2016). How companies interact with stakeholders affects outcomes and sustainability impacts, where sustainability relates to companies' activities to implement sustainable requirements using the entire value chain (Arnold, 2017). The primary research question focuses on examining how financial literacy and green value co-creation act as mediating factors in the relationship between government support and the sustainability of small and medium-sized enterprises (SMEs) in developing economies, specifically using empirical evidence from Kerman Province in Iran.

Research Background

Karimi (2023) conducted a study titled "Examining the Impact of Green Human Resource Management on Organizational Sustainability with the Mediating Role of Innovation and Empowerment in the Social Security Organization of Yazd Province." The results indicated that green human resource management has a path coefficient of 0.364, significantly affecting organizational sustainability, with innovation and empowerment serving as mediating variables in this relationship.

Ishqi Pirayvatloo et al. (2023) in a study titled "Enhancing Sustainable Organizational Performance through Green Human Resource Management: Analyzing the Mediating Role of Organizational Environmental Performance" empirically confirm the significant positive impact of green human resource management practices—including green recruitment and selection, green training and development, green performance appraisal, and green reward systems—on organizational sustainability. The findings indicate that environmental performance serves as a meaningful mediating variable in the relationship between green human resource management and organizational sustainability. Based on the framework of strategic choice theory and structural equation modeling, this research demonstrates that the adoption of green practices in human resource management not only leads to the formulation of environmentally friendly policies but also indirectly enhances organizational sustainability through improved environmental performance. These results underscore the importance of integrating environmental considerations into all human resource management processes as a key lever for achieving organizational sustainability.

Khakshar-Boldaji et al. (2022) conducted a study titled "The Impact of Human Resource Management and Green Supply Chain on the Sustainable Performance of the Tehran Municipality Sports Organization, with the Mediating Role of Organizational Sustainability." The research examined the effects of green human resource management and the green supply chain on the sustainable performance of the Tehran Municipality Sports Organization, emphasizing the mediating role of organizational sustainability. The findings indicated that green human resource management has a significant positive effect on the organizational sustainability of the Tehran Municipality Sports Organization. Additionally, the green supply chain positively influences both sustainable performance and organizational sustainability. Organizational sustainability also has a significant positive effect on the sustainable performance of the Tehran Municipality Sports Organization. Furthermore, organizational sustainability plays a meaningful mediating role in the relationship between green human resource management, the green supply chain, and the sustainable performance of the Tehran Municipality Sports Organization. Discussion and Conclusion: The



results of this study can be utilized to improve the sustainable performance of the Tehran Municipality Sports Organization in terms of environmental factors.

Taghva and colleagues (2019) explored a model for developing organizational sustainability through green information technology in their study titled "Structural Model of Green Information Technology and Organizational Sustainability." This study was applied in purpose and descriptive-survey in method, employing a mixed approach. The findings suggested that green information technology, with dimensions such as green readiness, low-carbon information and communication technology as enablers, green activities and actions, green information technology lifecycle management, green organizations, and data centers, can be utilized for organizational sustainability.

Taghva and colleagues (2017) also investigated the indicators of green information technology and economic sustainability in their study titled "The Impact of Green Information Technology on the Economic Component of Organizational Sustainability (Case Study: Iranian Small and Medium Enterprises)." The results indicated that Iranian small and medium enterprises could guide their organizations toward economic sustainability through green information technology indicators such as lifecycle, infrastructure, enablers, organization, and methods.

Islam et al. (2023) examined the role of government support in assessing financial literacy (FL), access to finance (AF), and green value creation (GVC) for the sustainability of SMEs in their study titled "Investigating the Relationship between Government Support and SME Sustainability Through Financial and Green Lenses." The results revealed that government support plays a central role in achieving FL, AF, and GVC for SME sustainability.

Arshad and colleagues (2020) highlighted the importance of government support services and absorptive capacity among small and medium enterprises in their study titled "The Role of Government Support Services and Absorptive Capacity on SME Performance." The findings indicated a significant relationship between government support services (GBSS) and SMEs, with absorptive capacity moderating the relationship between government support and SME performance.

Asadi et al. (2020) explored the factors influencing the adoption of green innovation and its potential effects on the hospitality industry's performance in their study titled "Investigating the Impact of Green Innovation on Sustainability Performance: A Case Study in the Malaysian Hospitality Industry." The results indicated that environmental and economic performance were identified as the strongest influences positively affecting green innovation practices. This study has significant implications for hospitality research, as it highlights the importance and potential of green innovation in enhancing sustainable performance within the hospitality sector.

Lamoreaux and colleagues (2019) investigated the role of government support as a key driver and/or barrier for SMEs' participation in sustainable practices in their study titled "The Role of Government Support in SME Sustainability Adoption." The results indicated limited effectiveness of such interventions. While small and medium enterprises adopt sustainable solutions and believe their efforts yield results, the lack of governmental guidance hinders the improvement of their sustainability initiatives. It suggests that promoting sustainable practices among SMEs in the United States requires more measured and focused strategies.

Ye and Koulatuang (2019) studied "How Financial Literacy Promotes Sustainability in SMEs: A Perspective from Developing Countries," examining the role of knowledge-based resources in enhancing sustainability in small and medium enterprises. The output of structural equation modeling demonstrated direct positive effects of financial literacy, access to financial resources, and financial risk attitude on sustainability. Financial literacy also emerged as a predictor of access to finance and financial risk attitude. Additionally, access to financial resources and financial risk attitude were partial mediators in the relationship between financial literacy and SME sustainability.



Songuling et al. (2018) investigated the impact of government support on sustainable competitive positioning and company performance in their study titled “The Role of Government Support in Sustainable Competitive Positioning and Company Performance.” The results indicated that both financial and non-financial government support significantly affects sustainable competitive positioning and company performance. Furthermore, sustainable competitive positioning partially mediates the relationship between government support and company performance. Government bodies and policymakers are advised to provide both financial and non-financial support to SMEs, which can, in turn, enhance economic growth and sustainability.

Main Hypotheses:

- Government support has a significant positive effect on organizational sustainability with financial literacy as a mediating variable.
- Government support has a significant positive effect on organizational sustainability with access to finance as a mediating variable.
- Government support has a significant positive effect on organizational sustainability with green value co-creation as a mediating variable.

Sub-Hypotheses:

- Government support has a significant positive effect on financial literacy.
- Government support has a significant positive effect on access to finance.
- Government support has a significant positive effect on green value co-creation.
- Financial literacy has a significant positive effect on organizational sustainability.
- Access to finance has a significant positive effect on organizational sustainability.
- Green value co-creation has a significant positive effect on organizational sustainability.

Materials and methods

The current study is applied in purpose, quantitative in data type, and descriptive-correlational in nature, focusing on a case study of Bank Sepah, using a field survey method through a questionnaire. The theoretical exploration and definition of theories and competencies, along with human capabilities, aimed to examine the impact of the work environment and career development on employee retention with job satisfaction. This literature review was conducted through theoretical studies. Subsequently, fieldwork was carried out using a standard questionnaire. All questionnaires were collected, recorded, and later utilized. Data were entered into Excel and analyzed using SPSS and Smart PLS statistical software. Ultimately, to ensure reliability—meaning others can achieve similar results by following the same procedures—a case study protocol was designed for both data collection and analysis phases along with detailed reports. The process involved the following steps: The questionnaire focused on the impact of the work environment and career development on employee retention with job satisfaction as a mediating variable. The response scale for the questions ranged from strongly disagree (1) to strongly agree (5). The study population included employees of executive agencies in Kerman Province. Accordingly, given the infinite nature of the statistical population, a sample size of 384 individuals was randomly selected. In this study, a standardized questionnaire developed by Islam et al. (2024) was utilized, which consists of 56 questions on a Likert scale (ranging from 1 indicating strong disagreement to 5 indicating strong agreement). The main variables assessed in the research include government support, financial literacy, access to financial resources, green value creation, and organizational sustainability. The reliability of the questionnaire was confirmed using Cronbach’s alpha, which was above 0.7 for all variables. The validity was also established through factor loadings (all above 0.4) and expert opinions. The questionnaire was designed in two sections: the first



section included demographic questions, while the second section focused on the specialized questions related to the research variables. The collected data were analyzed using SPSS 26 and Amos software, employing descriptive and inferential statistical methods (such as structural equation modeling and Sobel test to examine the mediating role). For more information, please refer to the original source of the research (Islam et al., 2024).

The questionnaire used in this study, derived from the research of Islam et al. (2024), encompasses five main dimensions with related components: Government Support (including financial and non-financial incentives), Financial Literacy (covering budgeting and financial decision-making), Access to Financial Resources (such as obtaining loans and facilities), Green Value Creation (involving collaboration with stakeholders and implementing environmentally friendly practices), and Organizational Sustainability (including economic performance, environmental responsibility, and social accountability). This questionnaire is designed with 56 questions on a 5-point Likert scale (ranging from strong disagreement to strong agreement), and its reliability has been confirmed with a Cronbach's alpha exceeding 0.7 for all dimensions. The validity of the questionnaire has also been assessed through confirmatory factor analysis (with factor loadings greater than 0.4) and expert evaluations. The demographic section collects information such as age, gender, and work experience. This tool has been developed to measure the impact of government support on organizational sustainability, with the mediating roles of financial and environmental factors.

Research Findings

Descriptive Statistics

Table 1 presents the descriptive statistics associated with four demographic variables of the respondents, including gender, age, work experience, and education level. The data show a predominance of male participants (59.4%), with most respondents aged between 41–50 years (45.8%), indicating a middle-aged workforce. In terms of work experience, employees with 6–10 years (43.2%) constitute the largest group, followed by equal shares of those with 11–15 years and 16–20 years of experience (24.7% each). Regarding education level, a majority of participants (52.6%) hold a Master's degree, suggesting a relatively high educational profile among the sample. Overall, the demographic distribution reflects a mature, experienced, and academically qualified workforce.

Table 1. Descriptive statistics related to demographic variables

Demographic Variable	Categories	Frequency/Count	Percentage
Gender	Female	156	40.6
	Male	228	59.4
	Total	384	100
Age	Age 20-30 years	27	7
	Age 31-40 years	139	36.2
	Age 41-50 years	176	45.8
	Age 51-60 years	42	10.9
	Total	384	100
Work Experience	Work Experience < 5 years	28	7.3
	6-10 years	166	43.2
	11-15 years	95	24.7
	16-20 years	95	24.7
	Total	384	100
Education	Below Diploma and Diploma	14	3.6
	Associate Degree	55	14.3
	Bachelor's Degree	113	29.4
	Master's Degree	202	52.6



Total

384

100

Table 2 summarizes the descriptive statistics of the study's core constructs—Financial Literacy, Access to Finance, Corporate Sustainability, Green Value Creation, and Government Support. The mean values, all slightly above 4 on a five-point scale, indicate generally high perceptions across these dimensions among respondents. Standard deviations range between 0.51 and 0.64, suggesting moderate variability in responses. The skewness and kurtosis coefficients are close to zero or slightly negative for most variables, implying approximate normality in data distribution without severe deviations. Notably, Government Support exhibits the greatest negative skewness (-1.021) and leptokurtic distribution (-2.423), reflecting a concentration of responses toward higher agreement levels and less dispersion. Overall, these results portray a sample characterized by relatively strong financial literacy, adequate access to finance, and a pronounced orientation toward sustainability and green value creation, accompanied by broadly favorable perceptions of governmental support mechanisms.

Table 2. Descriptive Statistics of Research Variables

Variables	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis
Financial Literacy	4.078	0.540	2.85	5	-0.157	-0.144
Access to Finance	4.069	0.514	3	5	0.177	-0.324
Corporate Sustainability	4.072	0.508	3	5	-0.112	-0.291
Green Value Creation	4.089	0.642	2	5	-0.705	-0.886
Government Support	4.015	0.602	2	4.95	-1.021	-2.423

According to the Kolmogorov-Smirnov test results presented in Table 3, if the significance level for all independent and dependent variables is less than 0.05, the data distribution is not normal. Based on the values in Table 3, the significance level for all variables is less than 0.05, indicating that the distributions of these variables do not follow a normal distribution. Therefore, non-parametric methods will be employed to examine the relationships among the research variables and test the hypotheses.

Table 3. Normality Test of Research Variables

Variables	Sample Size	Test Statistic	Significance Level	Result
Financial Literacy	384	0.128	0.000	Not Normal
Access to Finance	384	0.127	0.000	Not Normal
Corporate Sustainability	384	0.141	0.000	Not Normal
Green Value Creation	384	0.187	0.000	Not Normal
Government Support	384	0.133	0.000	Not Normal

The table presents the results of the normality tests conducted on the research variables. Each variable is assessed to determine whether its distribution deviates from a normal distribution, which is an essential assumption in many statistical analyses. The five key variables examined in this study include Financial Literacy, Access to Finance, Corporate Sustainability, Green Value Creation, and Government Support. Each variable is analyzed with a sample size of 384 respondents, ensuring a robust statistical assessment. The test statistic values for each variable range from 0.128 to 0.187. These values indicate the degree of deviation from normality, with higher values suggesting a greater deviation. The significance levels for all variables are reported as 0.000, which is below the conventional alpha level of 0.05. This indicates that the null hypothesis of normality can be rejected for each variable. The results conclude that none of the variables follow a normal distribution, as indicated by the consistent findings of "Not Normal" across all five research variables. In summary, the findings from Table 3 suggest that the distributions of Financial Literacy, Access to Finance, Corporate Sustainability, Green Value Creation, and Government Support significantly deviate from normality. This has important implications for the choice of



statistical methods to be employed in further analyses, as non-parametric methods may be more appropriate for handling the data due to its non-normal characteristics.

Reliability and Validity Analysis

One of the reliable methods for assessing reliability and consistency in attitude questionnaires is the Cronbach's alpha coefficient. Table 4 presents the reliability coefficients (Cronbach's Alpha) for all key research variables. The results demonstrate high internal consistency across the measurement scales, with all coefficients exceeding the recommended minimum threshold of 0.70 for acceptable reliability. Specifically, Government Support registers the highest reliability ($\alpha = 0.950$), indicating exceptionally strong coherence among its items, while Corporate Sustainability shows the lowest but still highly satisfactory reliability ($\alpha = 0.821$). The alphas for Financial Literacy (0.898), Access to Finance (0.862), and Green Value Creation (0.845) further confirm the stability and precision of the survey instrument. Overall, these findings verify that each construct was measured with excellent consistency, supporting the robustness of the study's empirical results.

Table 4. Cronbach's Alpha Coefficient of Variables

Variables	Cronbach's Alpha
Financial Literacy	0.898
Access to Finance	0.862
Corporate Sustainability	0.821
Green Value Creation	0.845
Government Support	0.950

Table 5 displays the factor loadings for the 56 measurement items analyzed through exploratory factor analysis. All loadings exceed the conventional threshold of 0.40, confirming that the items have satisfactory correlations with their respective latent constructs. Most statements show strong loadings in the range of 0.60–0.78, reflecting high convergent validity and indicating that the questions reliably capture the underlying theoretical dimensions. A few items (e.g., Q4, Q13, Q16, Q27, Q37) present comparatively lower loadings, yet remain within an acceptable range for social-science instruments. The consistently robust coefficients across the majority of items support the structural integrity of the measurement model and affirm the adequacy of the data for subsequent confirmatory factor analysis or structural-equation modeling.

Table 5. Factor Loadings of Questions

Questions	Factor Loading	Questions	Factor Loading	Questions	Factor Loading
Q1	0.689	Q20	0.719	Q39	0.657
Q2	0.748	Q21	0.604	Q40	0.753
Q3	0.717	Q22	0.539	Q41	0.642
Q4	0.475	Q23	0.602	Q42	0.747
Q5	0.533	Q24	0.686	Q43	0.767
Q6	0.606	Q25	0.710	Q44	0.671
Q7	0.518	Q26	0.547	Q45	0.647
Q8	0.639	Q27	0.429	Q46	0.716
Q9	0.747	Q28	0.621	Q47	0.793
Q10	0.675	Q29	0.673	Q48	0.777
Q11	0.687	Q30	0.493	Q49	0.743
Q12	0.592	Q31	0.707	Q50	0.787
Q13	0.476	Q32	0.762	Q51	0.746
Q14	0.563	Q33	0.727	Q52	0.756
Q15	0.647	Q34	0.762	Q53	0.711
Q16	0.483	Q35	0.788	Q54	0.672
Q17	0.686	Q36	0.635	Q55	0.762
Q18	0.674	Q37	0.363	Q56	0.695
Q19	0.688	Q38	0.606		



Table 6 reports the model fit indices obtained from the structural equation modeling analysis. The results indicate that none of the indices meet the commonly accepted thresholds for an adequate model fit. Specifically, the CMIN/DF ratio (17.087) substantially exceeds the recommended upper limit of 5, suggesting that the model does not provide a satisfactory representation of the observed data. Likewise, the incremental and comparative fit indices—including NFI (0.286), RFI (0.256), IFI (0.298), TLI (0.267), and CFI (0.297)—all fall well below the conventional benchmark of 0.90, further confirming poor fit. These results imply that the proposed model structure requires revision—either through item respecification, removal of low-loading indicators, or reconsideration of latent relationships—to achieve an acceptable level of goodness of fit and better alignment between empirical data and theoretical expectations.

Table 6. Fit Indices of the Model

Type of Index	Standard	Model Fit
CMIN/DF	< 5	17.087
NFI	< 0.90	0.286
RFI	< 0.90	0.256
IFI	< 0.90	0.298
TLI	< 0.90	0.267
CFI	< 0.90	0.297

The Goodness-of-Fit (GOF) indices for the structural model in this study revealed mixed results regarding the model's validity. While the questionnaire demonstrated strong reliability (Cronbach's alpha >0.7 for all constructs) and acceptable factor loadings (>0.4), the overall model fit indices suggested room for improvement. The CMIN/DF ratio of 17.087 exceeded the recommended threshold of <5, indicating potential misspecification in the model. Other fit indices, including NFI (0.286), RFI (0.256), IFI (0.298), TLI (0.267), and CFI (0.297), all fell below the desired 0.90 benchmark. Additionally, the RMSEA value of 0.205 significantly surpassed the acceptable limit of <0.08. These results suggest that while the measurement model showed adequate psychometric properties, the structural model requires refinement through potential modifications such as path adjustments, removal of weak indicators, or increasing the sample size to achieve better model fit. The findings highlight the importance of further model development to strengthen the theoretical framework linking government support to organizational sustainability through financial and green mediators. The standardized model (S.M = Financial Literacy, D.M = Access to Finance, P.S = Corporate Sustainability, S.S = Green Value Creation, H.D = Government Support) is illustrated in Figure 1, while the significant model (S.M = Financial Literacy, D.M = Access to Finance, P.S = Corporate Sustainability, S.S = Green Value Creation, H.D = Government Support) is displayed in Figure 2.

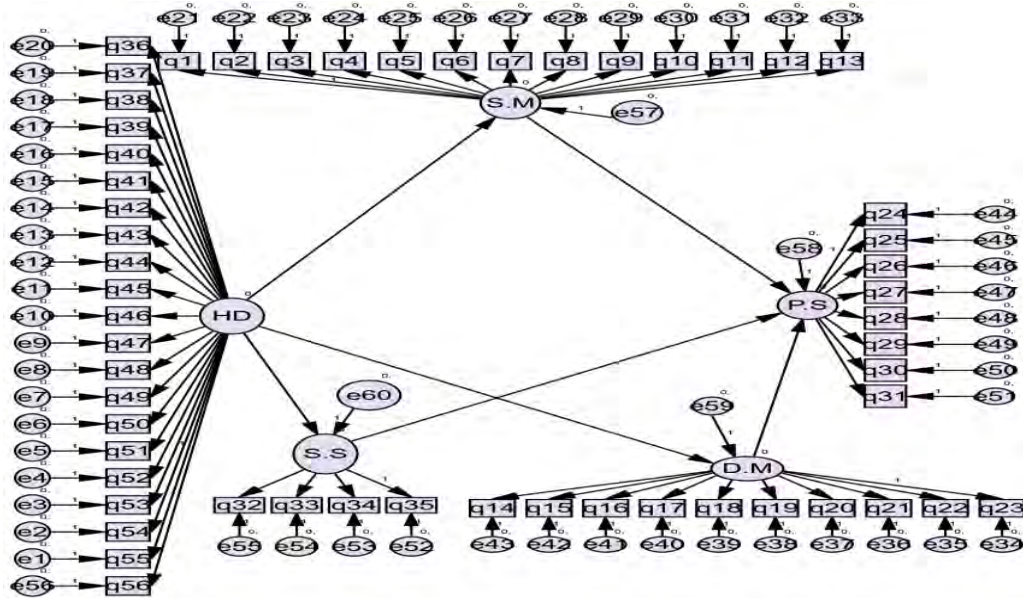


Figure 1. Standard Model (S.M = Financial Literacy, D.M = Access to Financial Resources, P.S = Corporate Sustainability, S.S = Green Value Creation, H.D = Government Support)

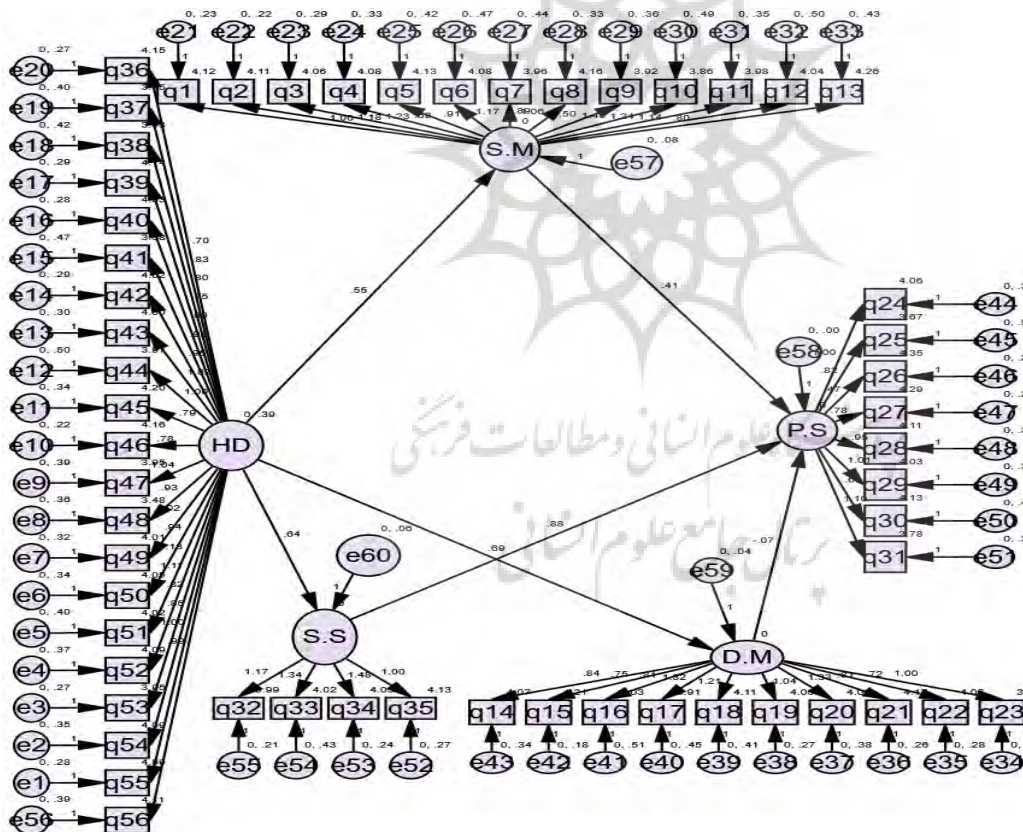


Figure 2. Significance Model (S.M = Financial Literacy, D.M = Access to Financial Resources, P.S = Corporate Sustainability, S.S = Green Value Creation, H.D = Government Support)

Table 7 illustrates the structural paths estimated in the research model along with their corresponding unstandardized coefficients, standard errors, critical ratios, and significance levels. All hypothesized relationships are statistically significant at the 0.001 level, indicating robust empirical support for most causal links.



Government Support exhibits strong direct effects on Financial Literacy ($\beta = 0.553$, $CR = 11.786$), Green Value Creation ($\beta = 0.638$, $CR = 12.324$), and Access to Financial Resources ($\beta = 0.695$, $CR = 11.456$), underscoring its central role as a policy-driven enabler of organizational capabilities. Among the endogenous outcomes, Corporate Sustainability is positively influenced by Financial Literacy ($\beta = 0.408$, $CR = 6.662$) and Green Value Creation ($\beta = 0.897$, $CR = 8.843$), confirming that knowledge and environmentally oriented value generation significantly enhance sustainable performance. However, the path from Access to Financial Resources to Corporate Sustainability ($\beta = -0.072$, $CR = -1.017$) shows a non-substantive and likely insignificant effect despite the nominal p-value, suggesting that mere financial availability does not necessarily translate into sustainable outcomes unless complemented by literacy and green innovation. Overall, these results delineate Government Support as the chief antecedent shaping financial, innovative, and literacy dimensions, which in turn drive corporate sustainability within the studied context.

Table 7. Summary of Standardized Coefficients, Coefficient of Determination, and t-Statistics for Research Variables

Path	Unstandardized Path Coefficient	Standard Error	Critical Ratio	Significance Level
Financial Literacy ← Government Support	0.553	0.047	11.786	0.000
Green Value Creation ← Government Support	0.638	0.052	12.324	0.000
Access to Financial Resources ← Government Support	0.695	0.061	11.456	0.000
Corporate Sustainability ← Financial Literacy	0.408	0.061	6.662	0.000
Corporate Sustainability ← Green Value Creation	0.897	0.099	8.843	0.000
Corporate Sustainability ← Access to Financial Resources	-0.072	0.071	-1.017	0.000

Hypothesis Testing

Government support significantly impacts organizational sustainability with financial literacy as a mediating role. In this research, the Sobel test is used to assess the mediating effect. If the test statistic exceeds the critical value of 1.96, the mediating effect is considered significant. In the Sobel test, if the Z-value exceeds 1.96, the mediating effect of a variable can be confirmed at a 95% confidence level. If this value is less than 1.96, it can be concluded that the mediating variable is not significant. In this study, the Sobel test result for the first main hypothesis was calculated to be 11.766, indicating significance at the 95% confidence level. Therefore, it can be concluded that government support has a significant impact on organizational sustainability with financial literacy as a mediating role.

For the second main hypothesis, the Sobel test result was calculated to be 1.010, indicating non-significance at the 95% confidence level. Thus, it can be concluded that government support does not significantly impact organizational sustainability with access to financial resources as a mediating role. For the third main hypothesis, the Sobel test result was calculated to be 9.071, indicating significance at the 95% confidence level. Therefore, it can be concluded that government support significantly impacts organizational sustainability with green value creation as a mediating role. Based on Table 10, for the first sub-hypothesis, the path coefficient for the variable government support on financial literacy is 0.553, and the t-statistic for this coefficient is 11.786, which is greater than 1.96, indicating that this coefficient is significant at the 5% error level. Thus, it can be said that government support significantly impacts financial literacy, with an effect size of 55%. For the second sub-hypothesis, the path coefficient for the variable government support on access to financial resources is 0.695, and the t-statistic for this coefficient is 11.695, which is greater than 1.96, indicating that this coefficient is significant at the 5% error level. Therefore, it can be said that government support has a significant impact on access to financial resources, with an effect size of 69%, which is noteworthy.



For the third sub-hypothesis, the path coefficient for the variable government support on green value creation is 0.638, and the t-statistic for this coefficient is 12.324, which is greater than 1.96, indicating that this coefficient is significant at the 5% error level. Thus, it can be said that government support significantly impacts green value creation, with an effect size of 63%. For the fourth sub-hypothesis, the path coefficient for the variable financial literacy on organizational sustainability is 0.408, and the t-statistic for this coefficient is 6.662, which is greater than 1.96, indicating that this coefficient is significant at the 5% error level. Therefore, it can be concluded that financial literacy significantly impacts organizational sustainability, with an effect size of 40%. For the fifth sub-hypothesis, the path coefficient for the variable access to financial resources on organizational sustainability is -0.072, and the t-statistic for this coefficient is -1.017, which is less than 1.96, indicating that this coefficient is not significant at the 5% error level. Thus, it can be concluded that access to financial resources does not significantly impact organizational sustainability. For the sixth sub-hypothesis, the path coefficient for the variable green value creation on organizational sustainability is 0.897, and the t-statistic for this coefficient is 8.843, which is greater than 1.96, indicating that this coefficient is significant at the 5% error level. Therefore, it can be concluded that green value creation significantly impacts organizational sustainability, with an effect size of 87%.

Discussion and Conclusion

The present study aimed to investigate the relationship between government support and organizational sustainability through the examination of financial and green aspects. The data were collected through a field survey using an online questionnaire derived from the standardized instrument developed by Islam et al. (2024). The questionnaire was structured in two sections: general questions and specific questions regarding financial literacy, access to financial resources, green value creation, and government support related to the variables. The statistical population of this study consisted of the executive agencies in Kerman province, with a sample size determined based on Cochran's formula, totaling 384 individuals considered as unlimited. Simple random sampling was employed for sampling. Initially, the questionnaire was validated for reliability using Cronbach's alpha tests, and further validated for content validity through expert opinions. Subsequently, the data collected from 384 completed questionnaires were analyzed using descriptive statistics (frequency tables and charts) and inferential statistics through structural equation modeling, followed by a discussion of the results and hypothesis testing. Government support encompasses various policies and financial programs, incentives, and facilities that can assist organizations in resource management and risk reduction. Financial literacy refers to the ability of individuals and organizations to understand and manage financial issues. These skills include the capability for financial planning, budgeting, and analyzing financial data. Financial literacy can enhance the positive impact of government support on organizational sustainability. The results of this study align with the findings of Arshad et al. (2020) and Yeh and Kulatong (2019). Both government support and access to finance are key factors in organizational sustainability. When organizations have access to financial resources, they can more effectively leverage government support to advance their projects and initiatives. The results of this study do not align with the findings of Beck and Demirguç-Kunt (2006) and Alstrom et al. (2018). It can be asserted that this role may include financial costs, access to credit, and financial resources. Government support for organizational sustainability through the mediating role of green value co-creation suggests that the government can strengthen organizational sustainability through its policies and programs, which is somewhat related to the co-creation of green values. These interactions can lead to increased organizational sustainability, as organizations will be able to utilize resources more effectively and enhance their performance in social responsibility. The results of this study are consistent with the findings of Asadi et al. (2020) and Taqva et al. (2017), which align with the outcomes of this research. In explaining this hypothesis, it can be stated that there is a strong correlation between government support and organizational sustainability, which, by reinforcing green values, can have even more positive effects.

The government emphasizes the importance of expanding tax revenues, and financial literacy can contribute to improving the economic performance of businesses and, consequently, increasing these revenues. The relationship between financial literacy and other economic and performance variables aids in a better understanding of the impact of financial literacy on the success of small and medium enterprises. The findings of this study are consistent with the results of Aniola and Entabeng (2016) and Tofor et al. (2020). In explaining this



hypothesis, it can be said that government support for promoting financial literacy is impactful in improving the performance and growth of organizations' businesses. Government support in accessing financial resources can be influential from various aspects, especially in terms of positive self-talk and effective self-regulatory interventions. The government can create conditions for meeting economic needs by providing low-interest loans or grants to individuals and families. This access to financial resources can help individuals reduce financial pressures and feel more secure. Furthermore, by alleviating financial stressors, individuals can focus more on positive self-talk. This improvement in financial conditions can assist in emotional regulation and reduce anxiety or depression. The results of this study align with the findings of Kiyado and Nyanzo (2017) and Alstrom et al. (2018). In explaining this hypothesis, it can be stated that financial support can enhance individuals' sense of control and self-efficacy. This positive feeling can contribute to improving their academic and social performance, as individuals with greater motivation and confidence will pursue their goals more vigorously. Government support for green value co-creation implies creating the necessary conditions and frameworks to achieve sustainable goals and protect the environment. This support can be enacted through effective policymaking, funding, and providing necessary infrastructure. Government support can facilitate the attraction of private investments in green and sustainable projects. This can lead to the development of innovative technologies and a reduction in environmental pollution. By enacting appropriate laws and regulations, the government can compel companies and organizations to adhere to environmental standards, thereby contributing to green value co-creation. Government support for green projects can prevent the degradation of natural resources and aid in achieving sustainable development goals. The government can organize educational and promotional programs to raise public awareness about the importance of environmental protection and green values. This can encourage community participation in these activities. The results of this study are consistent with the findings of Youssef (2021), Naghi and colleagues (2010), Tian et al. (2021), and Bourdieu et al. (2022). In explaining this hypothesis, it can be said that government support for green value co-creation impacts the improvement of quality of life, conservation of natural resources, and creation of new economic opportunities. Government support may also include participation in international agreements and treaties on climate change and the environment, which helps promote green value co-creation globally.

Financial literacy refers to an individual's or organization's ability to understand and utilize financial information for making sound economic decisions. This concept has a significant impact on organizational sustainability. Organizations with a high level of financial literacy can make better economic decisions. A precise understanding of financial concepts, such as cost management, investment, and risk analysis, enables managers to allocate resources optimally. Financial literacy helps organizations to better identify and manage financial risks. The results of this study are consistent with the findings of Sobhe-Khiz Mianagheleh (2023) and Soleimani-Nia and Mohammadian (2021). In explaining this hypothesis, it can be stated that financial literacy assists managers in formulating appropriate short-term and long-term plans. Access to financial resources is considered one of the key factors in organizational sustainability and has significant impacts on the performance and survival of organizations. Access to accurate financial information helps organizations manage their budgets effectively and allocate resources optimally. The results of this study do not align with the findings of Odumako and Danso (2014), Yeh and Kulatonga (2019), and Aniola and Entabeng (2016). Green value co-creation means collaboration and interaction among various stakeholders, including government, organizations, and society, to create and enhance environmental and sustainable values. This concept emphasizes developing innovative and effective solutions to address environmental and social challenges. Collaboration among organizations can lead to the development of green technologies and optimization of processes, contributing to cost reduction and improved environmental performance. The results of this study are consistent with the findings of Islam et al. (2024), Karimi (2023), and Taqva et al. (2019). In explaining this hypothesis, it can be said that green value co-creation contributes to establishing and reinforcing organizational sustainability, as these processes not only impact the environment but ultimately lead to the generation of economic and social value as well.

Practical Recommendations

Enhancing Financial Literacy:

1. Conduct financial management training courses for managers and employees of SMEs.
2. Develop government programs to increase financial awareness in small businesses.



Facilitating Access to Financial Resources:

1. Reduce bureaucracy in the approval of loans and government grants.
2. Introduce alternative financial solutions such as fintech and crowdfunding.

Encouraging Green Value Creation:

1. Provide tax incentives for SMEs engaged in environmental initiatives.
2. Establish collaboration platforms between businesses and government entities for green projects.

Improving Government Support:

1. Design support programs tailored to the specific needs of various SME sectors.
2. Continuously monitor the effectiveness of support programs and revise them as necessary.

Utilizing Technology for Sustainability:

1. Promote the use of financial management and sustainability software.
2. Support SMEs in investing in green technologies such as renewable energy.

Engaging with Stakeholders:

1. Involve local communities in the sustainability programs of SMEs.
2. Encourage collaboration between SMEs and large companies for green innovations.

Long-Term Planning:

1. Develop sustainability strategies within the business models of SMEs.
2. Ensure the stability of government policies to enable effective business planning.

References

- Abbasi, E., & Mostafavi, I. (2016). Investigating methods of financing projects in the upstream oil industry in Iran. *Quarterly Journal of Financial Economics*, 10(35), 103–130. [In Persian]
- Abousaidi, M. D., Mahmoud, H., & Heyrani, M. (2021). Evaluation of financial literacy among managers of private sector companies. *Financial Accounting Knowledge*, 8(2), 195–219. [In Persian]
- Adomako, S., & Danso, A. (2014). Financial literacy and firm performance: The moderating role of financial capital availability and resource flexibility. *International Journal of Management and Organizational Studies*, 3(4), 1–12.
- Agyapong, D., & Attram, A. B. (2019). Effect of owner-manager's financial literacy on the performance of SMEs in the Cape Coast Metropolis in Ghana. *Journal of Global Entrepreneurship Research*, 9(1), 1–13. <https://doi.org/10.1186/s40497-019-0155-5>
- Ahlström, D., Cumming, D. J., & Vismara, S. (2018). New methods of entrepreneurial firm financing: Fintech, crowdfunding, and corporate governance implications. *Corporate Governance: An International Review*, 26(5), 310–313. <https://doi.org/10.1111/corg.12258>
- Ahmed, A., & Nwankwo, S. (2013). Entrepreneurship development in Africa: An overview. *World Journal of Entrepreneurship, Management and Sustainable Development*, 9(2/3), 82–86.
- Albinsson, P. A., Perera, B. Y., & Sautter, P. T. (2016). DART scale development: Diagnosing a firm's readiness for strategic value co-creation. *Journal of Marketing Theory and Practice*, 24(1), 42–58. <https://doi.org/10.1080/10696679.2016.1089763>
- Aquilani, B., Silvestri, C., & Ruggieri, A. (2016). Sustainability, TQM, and value co-creation processes: The role of critical success factors. *Sustainability*, 8(10), 995. <https://doi.org/10.3390/su8100995>
- Arnold, M. (2017). Fostering sustainability by linking co-creation and relationship management concepts. *Journal of Cleaner Production*, 140, 179–188. <https://doi.org/10.1016/j.jclepro.2016.08.002>
- Arshad, M., Ahmad, M., Ali, M., Khan, W., & Arshad, M. (2020). The role of government business support services and absorptive capacity on SMEs performance. *International Journal of Advanced Science and Technology*, 29(3), 1492–1499.
- Asi, C., Chirani, F., & Farahabed, F. (2022). Investigating the factors influencing financial literacy based on a native model for small investors in the Iranian capital market. *Stock Exchange*, 57(15), 531–578. (In Persian)



- Atkinson, A., & Messy, F.-A. (2011). Assessing financial literacy in 12 countries: An OECD/INFE international pilot exercise. *Journal of Pension Economics and Finance*, 10(4), 657–665. <https://doi.org/10.1017/S1474747211000539>
- Bayrakdaroğlu, A., & Botan Şan, F. (2014). Financial literacy training as a strategic management tool among small, medium-sized businesses operating in Turkey. *Procedia - Social and Behavioral Sciences*, 150, 148–155. <https://doi.org/10.1016/j.sbspro.2014.09.019>
- Bocken, N., Boons, F., & Baldassarre, B. (2019). Sustainable business model experimentation by understanding ecologies of business models. *Journal of Cleaner Production*, 208, 1498–1512. <https://doi.org/10.1016/j.jclepro.2018.10.159>
- Bordian, M., Gil-Saura, I., & Šeric, M. (2022). The impact of value co-creation in sustainable services: Understanding generational differences. *Journal of Services Marketing*, 36(4), 547–560. <https://doi.org/10.1108/JSM-09-2020-0406>
- Doh, S., & Kim, B. (2014). Government support for SME innovations in the regional industries: The case of government financial support programs in South Korea. *Research Policy*, 43(9), 1557–1569. <https://doi.org/10.1016/j.respol.2014.05.001>
- Ekrami, S. (2013). *Examination of the design and build system and its financing in the oil industry of the country* [Master's thesis, Tarbiat Modares University]. (In Persian)
- Eniola, A. A., & Entebang, H. (2015). Government policy and performance of small and medium business management. *International Journal of Academic Research in Business and Social Sciences*, 5(2), 237–248. <http://dx.doi.org/10.6007/IJARBS/v5-i2/1486>
- Eshghi Pirayavatloo, S., Izadpanah, N., & Rezvani Chaman Zamin, M. (2012, December). *Sustainable improvement of organizational performance through green human resource management: Analyzing the mediating role of organizational environmental performance*. Paper presented at the First National Conference on Management and Sustainable Development, Tehran, Iran. <https://civilica.com/doc/1716240> (In Persian)
- Farsani, M., & Bani Talebi Dehkordi, M. (2021). Clarifying the two concepts of financial capability and financial literacy from the perspective of knowledge and presenting a proposed model for individuals' financial capability. *Financial Analysis of Securities*, 14(51), 1–18. (In Persian)
- Hamidinia, H., & Asadi, B. (2021). Calculation of a composite index for measuring financial access in Iran. *Perspectives on Financial Management*, 11(33), 193–215. (In Persian)
- Ishaq, M. I., & Di Maria, E. (2020). Sustainability countenance in brand equity: A critical review and future research directions. *Journal of Brand Management*, 27(1), 15–34. <https://doi.org/10.1057/s41262-019-00167-5>
- Kang, S., & Hur, W. M. (2012). Investigating the antecedents of green brand equity: A sustainable development perspective. *Corporate Social Responsibility and Environmental Management*, 19(5), 306–316. <https://doi.org/10.1002/csr.281>
- Khakshar-Boldaji, D., Soleimani, M., & Afkar, A. (2022). The effect of green human resource management and green supply chain on the sustainable performance of the Tehran Municipality Sports Organization with the mediating role of organizational sustainability. *Environmental Sciences and Technology*, 24(12), 10–77. <https://doi.org/10.30495/jest.2023.64240.5559>
- Lamoureux, S. M., Movassaghi, H., & Kasiri, N. (2019). The role of government support in SMEs' adoption of sustainability. *IEEE Engineering Management Review*, 47(1), 110–114. <https://doi.org/10.1109/EMR.2019.2898173>
- Mirzaei, M., & Shirazian, Z. (2019). Investigating the role of financial inclusion and financial literacy on perceived investment value from the perspective of investors in the Tehran Stock Exchange. *Scientific Research Quarterly Journal of Financial Analysis of Securities*, 12(41), 125–142. [In Persian]
- Ngugi, I. K., Johnsen, R. E., & Erdelyi, P. (2010). Relational capabilities for value co-creation and innovation in SMEs. *Journal of Small Business and Enterprise Development*, 17(2), 260–278. <https://doi.org/10.1108/14626001011041256>
- Rostami, M. Z., & Pashavi, D. (2019). *Investigating investment barriers in the tourism sector* [Master's thesis, Qom University]. (In Persian)



- Sobhe-Khiz Mianagheleh, S. Z. (2023, February). *The impact of financial literacy on the sustainability of insurance companies considering the role of access to financing and attitudes toward financial risk*. Paper presented at the Eighth National Conference on Management and Economics Studies in Humanities, Tehran, Iran. (In Persian)
- Soleimani-Nia, S., & Mohammadian, M. (2021). Investigating the role of financial literacy in organizational performance (Case study: OICO Oil Industry Development and Operation Company). *Journal of New Research Approaches in Management and Accounting*, 5(18), 17–28. (In Persian)
- Soltanzadeh, E., Elyasi, K., Khayatyan Yazdi, M., Ghaderifar, R., & Rezaei Soufi, H. (2018). Examining the effect of government financial support on research and development collaborations. *Science and Technology Policy*, 11(1), 17–29. (In Persian)
- Tahmaten, H. R., Khandel, M., Nourbakhsh, M., & Bahari, M. D. (2023). The effect of green marketing mix on behavioral dimensions of brand equity for sports products. *Sports Marketing Studies*, 4(3), 37–52. (In Persian)
- Taqva, Z., Mehrabi, M., & Dehdashti Shahrokh, Z. (2017). The impact of green information technology on the economic component of organizational sustainability (Case study: Iranian small and medium-sized enterprises). *Information Management*, 3(1), 143–161. (In Persian)
- Ye, J., & Kulathunga, K. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability*, 11(10), 2990. <https://doi.org/10.3390/su11102990>
- Zottel, S., Perotti, V., & Bolaji-Adio, A. (2013). *Financial capability surveys around the world: Why financial capability is important and how surveys can help*. The World Bank.



