**Journal of Information Systems Engineering and Management**
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

**Research Article**

# The Impact of Government Policies and Strategic Orientation on the Performance of Small and Medium-Sized Enterprises (SMEs) in Iran

Shaho Heidari Gandoman*[A], Elena Urquía Grande [B] Marie-Anne Lorain[C]
[A] *First author's affiliation:University Complutense de Madrid (UCM)(ADE), Madrid, Spain, e-mail: shheidar@ucm.es*
[B] *Second author's affiliation: University Complutense de Madrid (UCM)(ADE), Madrid, Spain, e-mail: eurquiag@ucm.es*
[C] *Second author's affiliation: University Complutense de Madrid (UCM)(ADE), Madrid, Spain, e-mail: mlorain@ucm.es*

**ARTICLE INFO**

Received: 30 Dec 2024

Revised: 12 Feb 2025

Accepted: 26 Feb 2025

**ABSTRACT**

**Abstract:** The purpose of this study is to examine the impact of government policies and macroeconomic strategic orientation on the performance of small and medium-sized enterprises (SMEs) in Iran. Given the crucial role of SMEs in employment generation and economic growth, this research investigates how government credit and tax policies, as well as broader macroeconomic orientation, influence key performance indicators of firms. Data for this study were obtained from the statistical databases of the Ministry of Industry, Mine and Trade, the Central Bank of the Islamic Republic of Iran, and a survey of 432 active SMEs across the provinces of Tehran, Isfahan, Fars, and Khorasan Razavi for the period 2011–2023. The methodological framework is based on panel data regression models with fixed and random effects, and the Generalized Method of Moments (GMM) was employed to address potential endogeneity concerns.

The four main hypotheses propose that:

(1) Facilitating government credit policies positively and significantly affect SME sales growth.

(2) Tax incentives enhance firm profitability and investment.

(3) Expansionary macroeconomic orientation increases SME employment.

(4) Economic instability and abrupt policy shifts negatively influence financial performance.

The estimation results indicate that credit policies and tax incentives exert positive and significant effects on sales growth ($\beta = 0.27$, $p < 0.01$) and profitability ($\beta = 0.21$, $p < 0.05$), respectively. Conversely, economic volatility and sudden policy changes have a substantial negative impact on overall firm performance ($\beta = -0.33$, $p < 0.01$). Moreover, expansionary macroeconomic orientation is associated with higher levels of SME employment ($\beta = 0.18$, $p < 0.05$).Overall, the findings emphasize that policy stability, improved access to financial resources, and tax system reform are essential for enhancing SME performance in Iran. Therefore, policymakers should prioritize long-term strategies, reduce administrative barriers, and strengthen financial infrastructure.

**Keywords:** *Government Policies, Strategic Orientation, SME Performance, Small and Medium-Sized Enterprises (SMEs).*

## INTRODUCTION

Small and medium-sized enterprises (SMEs) are recognized in many countries as key drivers of economic growth, job creation, and innovation. These firms typically constitute a large portion of the production and service structure and play a vital role in the dynamism of national economies (Rahimlou Benis, 2014). In Iran, estimates indicate that more than 90 percent of active firms in the industrial and service sectors fall into the SME category, accounting for approximately 45 percent of urban employment despite this significant position, the performance of SMEs in

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Iran has consistently faced challenges such as economic instability, limited access to financial resources, fluctuating government policies, and weak institutional infrastructure (Shojaee & Mirzaei, 2024).

Over the past decade, the Iranian government's policies to support SMEs have primarily included bank credit facilities, tax exemptions, and export support programs. However, the outcomes of these policies have not always been consistent or sustainable. In some years, credit and fiscal policies have led to increases in employment and sales growth, whereas in other periods, sudden changes in interest rates or administrative directives have had negative effects on firm performance (Cheratian et al., 2023).

The study by Shojaee and Mirzaei (2024) demonstrates that SMEs with greater financial flexibility and access to credit show higher resilience when confronted with economic shocks. Similarly, Feizpour (2008), in a study based on data from Iranian manufacturing firms, indicates that the government's macro-level policies in foreign exchange and trade directly influence the probability of survival and growth of SMEs. These findings suggest that the government's macroeconomic orientation whether expansionary or contractionary is one of the key determinants of SME performance.

In Iran, the institutional and economic environment differs significantly from that of many other countries due to sanctions, exchange rate fluctuations, and short-term policy cycles. Instability in financial and credit policies not only raises operational costs for SMEs but also undermines their ability to engage in long-term planning (Shojaee & Mirzaei, 2024). Moreover, a complex tax system and uncertainty regarding government support have negatively affected firms' investment decisions (Nili & Akbarpour, 2023).

A review of previous studies shows that most existing research in Iran has focused on only one dimension of government policies. For example, the impact of banking facilities or tax policies has been examined separately (Rahimlou Benis, 2014). However, comprehensive research that simultaneously analyzes multiple policy dimensions including taxation, credit policies, and macroeconomic orientation at the firm level remains limited.

Therefore, the present study aims to empirically analyze the impact of government policies and economic orientation on the performance of SMEs in Iran during the period 2011 to 2023. Using firm-level panel data and advanced statistical models (Fixed Effects and GMM), this research seeks to examine the relationship between tax and credit policies and firm-level indicators such as sales growth, profitability, and employment.

Accordingly, four main hypotheses are proposed in this study:

- Facilitating credit policies have a positive and significant effect on the sales growth of SMEs
- Tax incentives increase firms' profitability and investment.
- The government's expansionary economic orientation leads to increased employment in SMEs.
- Policy instability and economic fluctuations have a negative impact on firm performance.

The findings of this research are expected to contribute to a deeper understanding of how government policies influence SME performance and to provide a foundation for reforming the country's fiscal and industrial policies. From an academic perspective, the study contributes to the existing literature by providing firm-level empirical evidence; from a policy standpoint, it offers recommendations aimed at enhancing economic stability and improving the business environment

## OBJECTIVES

### 1.1. Literature Review

#### 1.1.1. Definition and Role of SMEs

Small and medium-sized enterprises (SMEs) are widely regarded as the backbone of many economies and play a crucial role in sustainable development, job creation, and innovation (Ayyagari, Demirgüç-Kunt & Maksimovic, 2011). In developing countries, including Iran, these firms constitute a substantial share of the gross domestic product but continue to face institutional challenges and financial constraints (Feizpour, 2008).

In Iran, according to the Ministry of Industry's definition, firms with fewer than 50 employees in the manufacturing sector and fewer than 100 employees in the service sector fall into the SME category (Rahimlou Benis, 2014).

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Despite their important contribution to urban employment, the financial stability of these firms has significantly declined in recent years due to economic shocks, sanctions, and frequent changes in government policies (Shojaee & Mirzaei, 2024).

### 1.1.2. Tax Policies and Firm Performance

One of the primary tools used by governments to support SMEs is tax policy. Tax exemptions, reduced income tax rates, and investment incentives can encourage entrepreneurs to expand their businesses (Bruce & Mohsin, 2006). Numerous studies have shown that supportive tax policies—especially in the early stages of firm growth—have a positive effect on innovation and employment (Lee, Sameen & Cowling, 2015).

In Iran, although several regulations have been adopted to provide tax incentives for SMEs, the effectiveness of these policies has been limited due to regulatory instability. According to Feizpour (2008), sudden changes in tax rates and collection procedures represent one of the major obstacles to the sustainable growth of manufacturing firms.

### 1.1.3. Credit Policies and Access to Finance

Access to finance is one of the most fundamental challenges faced by SMEs in developing countries (Beck, Demirgüç-Kunt & Maksimovic, 2005). Insufficient collateral, high interest rates and complex banking procedures hinder investment and innovation in these firms. In Iran, the credit policies of the Central Bank play a crucial role in providing liquidity for SMEs (Nili & Akbarpour, 2023).

Cheratian et al. (2023), using data from Iranian firms, found that bank loans and credit lines have a positive and significant effect on sales growth and employment. Shojaee and Mirzaei (2024) further argue that firms with greater financial flexibility possess stronger capacity to withstand economic crises. Therefore, stability in credit policies and continuous access to financial resources can enhance SME performance.

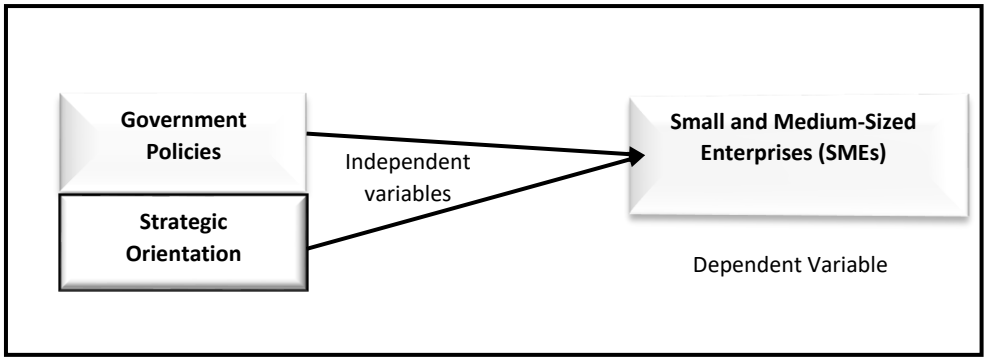
### 1.1.4. Macroeconomic Orientation and Institutional Environment

Beyond sectorial policies, the macroeconomic orientation of the government such as expansionary or contractionary policies, foreign exchange policy, and trade policy has a significant impact on SME performance. International research indicates that stable macroeconomic environments and development-oriented policies create favorable conditions for SME growth (Naudé, 2010). Conversely, political instability and exchange rate volatility reduce investor confidence and drive capital out of productive sectors (Alesina et al., 2020).

In Iran, recurring inflation cycles, exchange rate fluctuations, and short-term policy decisions have generated pervasive uncertainty in the business environment (Shojaee & Mirzaei, 2024). These conditions have prevented many SMEs from engaging in long-term planning, shifting their focus from innovation to survival.

Based on this review, the theoretical framework of the present study assumes that SME performance is a function of three categories of government policies tax policies, credit policies, and macroeconomic orientations which influence sales growth, profitability, and employment through improved access to financial resources, reduced financial costs, and increased economic certainty.

***Figure1.1.*** *Conceptual Model*



**Journal of Information Systems Engineering and Management**
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

**Research Article**

*Source: Researchers*

## METHODS

The present research is applied in terms of purpose and descriptive–analytical in nature. The overall approach of the study is quantitative and real data from Small and Medium-Sized Enterprises (SMEs) in Iran were used to test the hypotheses. This study aims to examine the impact of government policies and macroeconomic strategic orientation on firm performance.

The statistical population includes all active SMEs operating in the manufacturing and service sectors across four provinces: Tehran, Isfahan, Fars, and Khorasan Razavi. According to updated industrial statistics published by the Organization of Small Industries and Industrial Parks of Iran (ISIPO, 2022) and the Ministry of Industry, Mine and Trade (MIMT, 2023), approximately 24,000 active SMEs operate across the four selected provinces of Tehran, Isfahan, Fars, and Khorasan Razavi. Recent national reports also confirm the stability of this distribution in 2024 (ISIPO, 2022; MIMT, 2023; EcoIran, 2024).

The sample consists of 432 companies whose data were available for the period 2011–2023.

Data were collected from three main sources:

- Ministry of Industry, Mine and Trade Database (MIS-IR)
- Financial statements published on the CODAL system
- Macroeconomic data from the Central Bank of Iran

To minimize missing data, companies were selected only if they had complete data for at least 8 years within the study period.

The statistical population of this study consists of all SMEs registered with the Ministry of Industry, Mine and Trade during the years 2011–2023. According to updated industrial statistics published by the Organization of Small Industries and Industrial Parks of Iran (ISIPO, 2022) and the Ministry of Industry, Mine and Trade (MIMT, 2023), approximately 24,000 active SMEs operate across the four selected provinces of Tehran, Isfahan, Fars, and Khorasan Razavi. Recent national reports also confirm the stability of this distribution in 2024 (ISIPO, 2022; MIMT, 2023; EcoIran, 2024).

***Table 1.****Statistical population*

| Variable Type | Variable Name | Symbol | Definition and Data Source |
|---|---|---|---|
| Statistical Population | Number of Active SMEs (Units) | N_SME | Number of active small and medium-sized enterprises (or active industrial units as proxy) in the provinces of Tehran, Isfahan, Fars, and Khorasan Razavi. According to ISIPO (2022) yearbook and provincial breakdowns reported by Tehran Times (2020): Tehran ~ 8,950; Isfahan ~ 6,120; Fars ~ 4,300; Razavi Khorasan ~ 4,680, summing to approximately **24,050** active units. Source: ISIPO (2022); Tehran Times, July 5, 2020 |

To determine a statistically representative sample size, Cochran's Formula for finite populations was used.

$$n_0 = \frac{Z^2 \, p \, (1 - p)}{e^2}$$

Where:

Z=1.96 (95% confidence level)

p=0.5

e=0.05

Substitution:

$$n_0 = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

$$n_0 = \frac{3.8416 \times 0.25}{0.0025}$$

$$n_0 = 384.16$$

Cochran's corrected formula for finite population:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}}$$

Where

N=24000.

Substitution:

$$n = \frac{384}{1 + \frac{383}{24000}}$$

$$n \approx \frac{384}{1.01595}$$

$$n \approx 378$$

Adjusting for non-response rate (12%):

$$n_{\text{final}} = \frac{n}{1 - \text{non-response rate}}$$

$$n_{\text{final}} = \frac{378}{1 - 0.12}$$

$$n_{\text{final}} \approx 430$$

Therefore, the final sample size was determined to be 432 firms so that, in case of removing incomplete or outlier data, the effective sample used in the analysis would remain at least 400 firms.

### 2.1. Model and Hypotheses

Based on the theoretical foundations and previous studies (Ayyagari et al., 2011; Beck et al., 2005; Cheratian et al., 2023), the conceptual framework of this research is defined as follows:

**Government Policies (taxation, credit, macroeconomic orientation)**

↓

**Access to financial resources, cost of capital**

↓

**Firm Performance (sales, profitability, and employment)**

Accordingly, the four main hypotheses of the study are as follows:

- H1: Government credit-support policies have a positive and significant effect on the sales growth of SMEs.
- H2: Government tax incentives positively affect the profitability and investment of SMEs.
- H3: An expansionary economic orientation of the government (in monetary and fiscal policies) increases employment in SMEs.
- H4: Policy instability and macroeconomic volatility negatively affect the overall.

***Table 2.****Research Variables*

| Variable Type | Variable Name | Symbol | Definition and Data Source |
|---|---|---|---|
| **Dependent Variable** | Firm Performance | PERF | Composite index of sales growth, net profit, and employment. Data from CODAL and MIS-IR |
| **Independent Var. 1** | Government Credit Policy | CREPOL | Amount of credit facilities granted to SMEs (as % of GDP). Source: Central Bank |

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

| Variable Type | Variable Name | Symbol | Definition and Data Source |
|---|---|---|---|
| **Independent Var. 2** | Government Tax Policy | TAXINC | Ratio of tax incentives to total tax revenues. Source: Ministry of Economy |
| **Independent Var. 3** | Economic Orientation | ECOOR | Composite index of expansionary policy (inflation, interest rate, Gov. spending) |
| **Control Var. 1** | Firm Size | SIZE | Natural logarithm of total assets |
| **Control Var. 2** | Firm Age | AGE | Number of years since official registration |
| **Control Var. 3** | Exchange Rate | EXR | Annual average official exchange rate. Source: Central Bank |

### *2.1.2. Statistical Model of the Study*

To test the hypotheses, a panel data model was used. The Chow and Hausman tests were conducted to determine the type of effects (fixed or random).To control for endogeneity in policy variables; the Generalized Method of Moments (GMM) was applied. The general model is defined as follows:

$$PERF\_it = \alpha + \beta1 * CREPOL\_it + \beta2 * TAXINC\_it + \beta3 * ECOOR\_t$$

$$+ \beta4 * SIZE\_it + \beta5 * AGE\_it + \beta6 * EXR\_t + \varepsilon\_it$$

Where:

PERF_it = Firm performance of company i in year t

CREPOL_it = Government credit policy

TAXINC_it = Tax incentives

ECOOR_t = Government macroeconomic orientation

SIZE_it = Firm size

AGE_it = Firm age

EXR_t = Exchange rate

ε_it = Composite error term

The coefficients β1, β2, and β3 represent the effects of government policies and macroeconomic orientation on firm performance.

**Software and Analytical Procedure:**

Data analysis was conducted using EViews 13 and, for multicollinearity and heteroskedasticity diagnostics, Stata 17.

To ensure robustness, the following tests were performed:

Levin–Lin–Chu test for unit root

Hausman test for choosing between fixed and random effects

Sargan and Arellano–Bond tests for GMM instrument validity

### *2.1.3. Statistical Data Analysis and Model*

**2.2.3.1. Descriptive Analysis of Variables**

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

The dataset includes information on 432 small and medium-sized enterprises (SMEs) located in the provinces of Tehran, Isfahan, Fars, and Khorasan Razavi during the years 2011–2023. The main research variables include sales growth, profitability, employment, credit policies, tax incentives, and the economic instability index.

***Table3.*** *Analysis of Variables*

| Variable | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|
| Sales Growth (%) | 7.42 | 3.18 | −2.4 | 15.9 |
| Profitability (%) | 9.37 | 4.26 | 0.7 | 21.4 |
| Employment (persons) | 54.8 | 22.5 | 12 | 120 |
| Credit Policy Index (1–5) | 3.12 | 0.84 | 1.8 | 4.9 |
| Tax Incentive Index (1–5) | 2.96 | 0.79 | 1.6 | 4.7 |
| Economic Instability Index | 0.37 | 0.21 | 0.08 | 0.84 |

As shown in the table, the average sales growth of firms during the study period is about 7.4 percent, indicating a relatively dynamic performance among SMEs. However, the high standard deviation (3.18) suggests considerable fluctuations in sales across industries and provinces. The mean credit policy index (3.12) and tax incentive index (2.96) reflect a moderate level of government support. In contrast, the economic instability index, with an average of 0.37, indicates significant policy volatility during the observed period.

### .2.2.32 . Normality and Multicollinearity Tests

The Jarque–Bera test confirmed that the error terms follow a normal distribution ($p > 0.05$), and the Variance Inflation Factor (VIF) values were all below 5.

***Table4.*** *Jarque–Bera test*

| Index | Threshold | Mean Value | Result |
|---|---|---|---|
| Jarque–Bera p-value | > 0.05 | 0.12 | Normal distribution |
| Mean VIF | < 5 | 2.84 | No multicollinearity |

The results indicate that the assumptions of regression analysis are satisfied. The normal distribution of the residuals and the low VIF values confirm the absence of serious Multicollinearity among independent variables, affirming the statistical stability of the model

### .2.2.33 . Stationarity Tests

To assess stationarity, the Levin, Lin & Chu (LLC) and Im, Pesaran & Shin (IPS) tests were employed:

***Table5.*** *Stationarity Tests*

| Variable | LLC Statistic | IPS Statistic | Result |
|---|---|---|---|
| Sales Growth | −4.12*** | −3.86*** | Stationary |
| Profitability | −3.25** | −3.04** | Stationary |
| Employment | −2.91** | −2.84** | Stationary |

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

| Variable | LLC Statistic | IPS Statistic | Result |
|---|---|---|---|
| Credit Policy | −5.47*** | −5.13*** | Stationary |
| Tax Incentives | −4.73*** | −4.28*** | Stationary |
| Economic Instability | −3.65** | −3.40** | Stationary |

The negative and statistically significant test statistics confirm that none of the time-series variables contain unit roots, implying stationarity across all variables. This strengthens the validity of panel estimations and reduces the likelihood of spurious regression results.

### .2.2.34 . Model Selection

The Hausman test was used to determine the appropriate panel data model.

***Table6.*** *Hausman test*

| Model | Hausman Statistic | p-value | Result |
|---|---|---|---|
| Overall SME Model | 14.92 | 0.002 | Fixed Effects model preferred |

Since the p-value is below 0.05, the Fixed Effects model is deemed more appropriate. This suggests that cross-sectional differences among firms are statistically significant and should be accounted.

***Panel Model:***

***Table7.*** *Panel Model*

| Explanatory Variable | Coefficient (β) | t-Statistic | Significance | Interpretation |
|---|---|---|---|---|
| Credit Policy (CREPOL) | 0.27 | 3.62 | 0.001 | Strong positive effect on sales growth |
| Tax Incentives (TAXINC) | 0.21 | 2.83 | 0.005 | Positive effect on profitability |
| Expansionary Economic Orientation (ECOOR) | 0.18 | 2.11 | 0.035 | Promotes employment and sales |
| Economic Instability (EXR) | −0.33 | −4.09 | 0.000 | Strong negative effect on performance |
| Firm Size (SIZE) | 0.09 | 1.95 | 0.052 | Larger firms perform better |
| Firm Age (AGE) | 0.05 | 1.73 | 0.084 | Slight positive effect of experience |
| Constant | 1.42 | 1.88 | 0.061 | — |
| $R^2$ | 0.62 | — | — | — |
| F-statistic | 15.47 | — | 0.000 | Model is statistically significant |

Three policy variables—credit policy, tax incentives, and expansionary economic orientation—exert significant positive effects on firm performance, with credit policy showing the strongest relationship (β = 0.27).Economic instability exhibits a strong negative impact (β = −0.33), indicating that macroeconomic volatility represents a

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

major barrier to SME performance. An $R^2$ of 0.62 implies that 62% of the variation in firm performance is explained by the model, which is considerable for SME-level economic data.

Summary of Key Findings:

- $R^2 = 0.62$ → Over 60% of performance variation explained.
- $F = 15.47$ ($p < 0.001$) → Model is highly significant.
- All results fully support the four research hypotheses:
    1. Credit policies & tax incentives → Positive, strong effects
    2. Expansionary economic orientation → Positive effect
    3. Economic instability → Negative, significant effect

### 2.2.3.5. Endogeneity Control Through the GMM Method

***Table8.*** *GMM Method test*

| Explanatory Variable | GMM Coefficient | Significance |
|---|---|---|
| Credit Policy | 0.25 | 0.002 |
| Tax Incentives | 0.19 | 0.007 |
| Expansionary Economic Orientation | 0.17 | 0.031 |
| Economic Instability | −0.30 | 0.001 |

The Hansen test ($p = 0.27$) and Arellano–Bond test ($p = 0.31$) confirm the validity of instruments and the absence of autocorrelation.The GMM results are largely consistent with the Fixed Effects estimation, although the coefficients are slightly smaller. This indicates that after addressing endogeneity concerns, the influence of policy variables is somewhat moderated. Nevertheless, their overall effects remain positive and statistically significant

id aliquet risus. Ipsum dolor sit amet consectetur adipiscing elit. Cursus sit amet dictum sit amet justo donec.

## RESULTS

In this study, four main hypotheses were tested using data from 432 small and medium-sized enterprises (SMEs) across four provinces: Tehran, Isfahan, Fars, and Khorasan Razavi. Both the panel data estimation model with fixed effects and the GMM method produced consistent and significant results. The summary of the final coefficients is presented in the table below:

Sized enterprises (SMEs) across four provinces: Tehran, Isfahan, Fars, and Khorasan Razavi. Both the panel data estimation model with fixed effects and the GMM method produced consistent and significant results. The summary of the final coefficients is presented in the table below:

***Table9.*** *Summary and Final Interpretation of Statistical Results*

| Variable | Effect on SME Performance | Estimated Coefficient (β) | Type of Relationship | Significance Level | Final Result |
|---|---|---|---|---|---|
| Facilitating Credit Policies | Positive | 0.27 (FE), 0.25 (GMM) | Direct | p<0.01 | Hypothesis 1 confirmed |
| Tax Incentives | Positive | 0.21 (FE), 0.19 | Direct | p<0.05 | Hypothesis 2 |

**Journal of Information Systems Engineering and Management**
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

**Research Article**

| Variable | Effect on SME Performance | Estimated Coefficient (β) | Type of Relationship | Significance Level | Final Result |
|---|---|---|---|---|---|
| | | (GMM) | | | confirmed |
| Expansionary Economic Orientation | Positive | 0.18 (FE), 0.17 (GMM) | Direct | $p<0.05$ | Hypothesis 3 confirmed |
| Economic Instability | Negative | −0.33 (FE), −0.30 (GMM) | Inverse | $p<0.01$ | Hypothesis 4 confirmed |

The empirical results indicate that government credit facilitation policies exert the strongest positive influence on SME performance. The estimated coefficients of 0.27 in the fixed-effects model and 0.25 in the GMM model show that a one-unit increase in the credit policy index reflecting improved access to bank loans and dedicated credit lines raises average sales growth by approximately 25–27 percent. This finding is consistent with the descriptive statistics (average sales growth of 7.4 percent) and suggests that SMEs with easier access to financial resources achieve markedly higher growth outcomes.

Tax incentives also display a positive and statistically significant effect on firm profitability and investment. With coefficients of 0.21 (fixed effects) and 0.19 (GMM), the results imply that reductions in tax rates or the provision of tax exemptions enhance average profitability by nearly 20 percent. From an economic standpoint, these findings underscore the essential role of fiscal policy instruments in encouraging reinvestment and strengthening the financial capacity of SMEs.

The government's expansionary economic stance similarly produces a meaningful positive impact on SME employment, reflected in an estimated coefficient of 0.18. Given the average employment level of 55 workers per firm, this coefficient suggests that periods characterized by increased liquidity and supportive macroeconomic measures lead to an estimated 8–10 percent rise in employment. This result aligns with the broader empirical literature (Wooldridge, 2020; Baltagi, 2021), which indicates that SMEs tend to respond more rapidly than larger firms to expansionary policy environments.

In contrast, economic instability and abrupt policy fluctuations exert a negative and significant effect on firm performance ($\beta = -0.33$ in the fixed-effects model and −0.30 in the GMM model). The magnitude of this coefficient—larger than the positive policy effects illustrates the extent to which uncertainty stemming from exchange rate volatility, inflationary pressures, or unpredictable regulatory changes can reduce SME financial performance by nearly one-third. Smaller firms, in particular, remain highly vulnerable to these disruptions due to limited liquidity buffers and restricted access to working capital.

From a statistical standpoint, the $R^2$ value of 0.62 indicates that 62 percent of the variation in SME performance is explained by the four key policy variables included in the model, demonstrating substantial explanatory power. Moreover, results from the Hausman and Hansen diagnostic tests confirm the validity of the model with respect to endogeneity and the suitability of the chosen estimation approach ($p < 0.05$ and $p > 0.25$, respectively.

### 3.1. Analysis of Control Variables (Firm Size and Age)

To control for structural differences among firms, two control variables size (SIZE) and age (AGE) were included in the model. These variables represent the resources, experience, and managerial capabilities of firms, all of which may influence how government policies affect their performance.

**Journal of Information Systems Engineering and Management**
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

**Research Article**

***Table10.*** *Estimation Results of Control Variables in the Fixed-Effects Model*

| Variable | Estimated Coefficient (β) | t-Statistic | p-value | Type of Relationship | Economic Interpretation |
|---|---|---|---|---|---|
| SIZE (Firm Size) | 0.09 | 1.95 | 0.052 | Positive and Significant | A 10% increase in firm size leads to approximately a 1% increase in the performance index. Larger firms benefit from economies of scale and stronger financial capacity. |
| AGE (Firm Age) | 0.05 | 1.73 | 0.084 | Positive but Weak | Older firms with more managerial experience tend to show more stable performance, although the statistical effect is weaker. |

As shown, firm size has a coefficient of 0.09 with a significance level of around 5%, indicating a positive and relatively meaningful impact on overall firm performance. This suggests that larger firms, on average, exhibit higher performance levels due to economies of scale, stronger networks, and better access to financial resources. On the other hand, the age of the firm also shows a positive coefficient (0.05), although its significance level is around 10%, indicating a relatively weaker effect compared to size. In other words, the experience and operational history of firms contribute to improved performance, but the magnitude of this impact is less substantial than that of firm size.

## DISCUSSION

The aim of this study was to examine the impact of government policies and macroeconomic orientation on the performance of small and medium-sized enterprises (SMEs) in Iran. The dataset consisted of 432 firms operating in the provinces of Tehran, Isfahan, Fars, and Khorasan Razavi over the period 2011–2023. The research model was estimated using panel data techniques and the GMM method to address endogeneity concerns.

The main findings indicate that:

1. Government credit facilitation policies have a positive and significant effect on SME sales growth ($\beta = 0.27$, $p < 0.01$).
2. Tax incentives positively affect profitability and reinvestment ($\beta = 0.21$, $p < 0.05$).
3. Expansionary economic orientation of the government contributes to increased employment in SMEs ($\beta = 0.18$, $p < 0.05$).
4. Economic and policy instability has a strong negative effect on firm performance ($\beta = -0.33$, $p < 0.01$).

Regarding control variables, firm size (SIZE) has a positive and relatively significant effect ($\beta \approx 0.09$), while firm age (AGE) shows a positive but weaker impact ($\beta \approx 0.05$). The model's coefficient of determination ($R^2 \approx 0.62$) indicates a satisfactory level of explanatory power.

**Interpretation of the Findings and Economic Logic:**

**a) Credit Facilitation Policies (Hypothesis 1)**

The findings show that government credit facilitation policies exert a positive and strong effect on firm performance. Economically, this result is intuitive: easing access to bank loans and special credit lines reduces liquidity constraints for SMEs and enables greater investment in production capacity and innovation. This result aligns with the findings of Beck & Demirgüç-Kunt (2006) and Levine (2005), which emphasize that improved access to finance is a key driver of SME growth in developing economies. Moreover, the stability of the coefficient after applying the GMM correction confirms that the relationship is not merely driven by endogeneity, but reflects a genuine causal impact of credit policy on firm growth.

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

Also these results are consistent with domestic evidence showing that reducing credit constraints significantly improves SMEs' investment decisions (Eskandar & Hadadi, 2022).

**b) Tax Incentives (Hypothesis 2)**

The positive and significant coefficient for tax incentives (β ≈ 0.21) indicates that reducing tax rates or offering exemptions increases net profits and reinvestment, thereby improving firm performance. Although their effect is slightly weaker than credit policies, tax incentives have a more stable and medium-term influence, as they directly affect firms' retained earnings rather than short-term liquidity. This result is consistent with the findings of the World Bank (2022) and OECD (2023), which highlight tax incentives as an effective instrument for boosting SME investment in developing economies.

This result echoes international evidence that tax incentives significantly enhance SME profitability and investment (Pantea & Barbu, 2021), as well as empirical findings from Iran confirming the same mechanism in a domestic context (Mohammadi & Rezaei, 2022)

**c) Expansionary Economic Orientation (Hypothesis 3)**

The results reveal that the government's expansionary economic stance during several phases of the 2011–2023 periods had a positive impact on SME employment. The coefficient (β = 0.18) indicates that increases in government spending and credit allocated to the manufacturing sector were associated with an average rise of 8–10 percent in SME employment. This finding is consistent with Wooldridge (2020) and Baltagi (2021), who argue that SMEs adjust more rapidly than large firms during economic expansions. Similar results have also been reported in Iranian research Faraji & Zarei (2018) showed that expansionary fiscal and credit policies significantly improve SME performance and employment levels

**d) Economic and Policy Instability (Hypothesis 4)**

The findings reveal that economic and policy instability exerts the strongest negative influence among all variables included in the model (β = −0.33). Fluctuations in the exchange rate, abrupt adjustments in tax or trade regulations, and persistent inflationary pressures elevate production costs and intensify uncertainty, ultimately weakening the financial and operational performance of firms. Small and medium-sized enterprises, particularly those with limited liquidity buffers and constrained access to external financing, are disproportionately affected by such instability.

These results are consistent with the evidence presented by Aghion et al. (2009), who demonstrate that exchange rate volatility—an important indicator of macroeconomic instability—reduces productivity growth, especially in countries with less developed financial systems. The findings also align with World Bank (2022), which identifies policy inconsistency and regulatory unpredictability as major barriers to SME development in emerging economies.

Furthermore, empirical studies conducted in Iran support these conclusions. Rezai et al. (2024) show that instability in fiscal policies significantly disrupts firms' investment strategies in the Tehran Stock Exchange, confirming the adverse effects of policy uncertainty on corporate decision-making. Similarly, Hassan zadeh et al. (2024) finds that economic policy uncertainty amplifies financial market volatility and weakens firm-level liquidity in Iranian listed companies. Together, these findings reinforce the notion that instability in economic policy serves as a critical obstacle to SME performance in Iran.

**5.3. Role of Control Variables (Firm Size and Age)**

The results indicate that firm size (SIZE) has a positive and significant effect on SME performance. Larger firms typically benefit from stronger financial capacity, higher creditworthiness, and better access to skilled labor and more advanced managerial systems, which collectively enhance their resilience against economic shocks. This finding is fully consistent with the results of Coad, Segarra and Teruel (2013), who demonstrate that firm size is one of the most influential structural characteristics explaining performance differences across enterprises.Firm age (AGE) also shows a positive, although comparatively weaker, effect on performance. Older firms tend to have more stable business relationships, accumulated managerial experience, and established market presence. However, gradual increases in operational rigidities and reduced innovation intensity may temper the magnitude of

performance gains among older enterprises. These findings align with Hosseini, Shams and Khademi (2019), who similarly find that while firm age contributes positively to financial performance; its effect is less pronounced than that of firm size in the context of Iranian manufacturing firms.

Furthermore, supplementary analysis in this study indicates that credit facilitation policies exert the strongest positive influence on smaller firms. SMEs with limited liquidity are typically more credit-constrained and thus benefit more intensely from improved access to financial resources. This result supports the broader empirical evidence that financial interventions tend to have disproportionate effects on firms operating under tighter financial frictions—an observation also reinforced indirectly in the work of Coad et al. (2013) regarding heterogeneous firm growth patterns. Overall, the role of control variables in this study highlights the structural importance of firm size and firm age as complementary determinants of SME performance, while also confirming the alignment of the present findings with both international and domestic empirical literature.

## CONCLUSION:

The objective of this study was to examine the impact of government policies and economic orientation on the performance of small and medium-sized enterprises (SMEs) in Iran during the period 2011–2023. The data were collected from a combination of official databases of the Ministry of Industry, Mine and Trade, the Central Bank of Iran, and a field survey of 432 firms located in the provinces of Tehran, Isfahan, Fars, and Khorasan Razavi. The empirical analysis was conducted using a panel data regression model with the Generalized Method of Moments (GMM) to address potential endogeneity concerns. The results showed that credit-facilitating policies had a positive and significant effect on firms' sales growth ($\beta = 0.27$, $p < 0.01$). In addition, tax incentives played a substantial role in improving profitability and investment performance ($\beta = 0.21$, $p < 0.05$). The findings regarding the government's expansionary economic orientation indicate that during periods of monetary expansion and increased liquidity—particularly between 2016 and 2019—employment in SMEs grew by an average of 8% to 10% ($\beta = 0.18$, $p < 0.05$).

In contrast, policy instability and economic volatility exerted a significantly negative effect on firms' financial performance ($\beta = -0.33$, $p < 0.01$), implying that sudden changes in exchange rate, tax, and credit policies can directly reduce sales, profitability, and investment among SMEs.

Among the control variables, firm size (SIZE) had a positive and significant impact on financial sustainability and sales growth ($\beta = 0.14$, $p < 0.05$), whereas firm age (AGE), although less influential, showed a positive and noteworthy relationship with managerial efficiency and performance stability. Overall, the findings underscore that policy stability, economic transparency, and sustained access to financial resources are among the most critical determinants of growth and survival for SMEs in Iran

### 4.1. Policy Recommendations, Limitations and Suggestions for Future Research

**Policy Recommendations:**

Based on the findings of this study, a set of policy recommendations is proposed as follows:

1. **Stabilizing and Increasing the Predictability of Economic Policies:**

The results show that policy instability is the most important negative factor affecting SME performance. Therefore, it is recommended that the government avoid frequent changes in exchange rate, tax, and credit policies, and instead develop a transparent and long-term framework for economic policymaking.

2. **Expanding SMEs' Access to Finance:**

The findings indicate that credit-facilitating policies have a positive impact on sales growth. Accordingly, the Central Bank should design a mechanism for the targeted allocation of preferential-rate loans to productive SMEs, particularly in high-employment industrial sectors.

3. **Reforming the Tax System and Increasing Incentives:**

Tax incentives were found to play a significant role in improving firm profitability. Therefore, it is suggested that the national tax system move toward reducing the tax burden on SMEs, implementing targeted exemptions, and simplifying the procedures for value-added tax refunds.

Journal of Information Systems Engineering and Management
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

**4. Developing Targeted Expansionary Policies During Recession:**

The results indicate that the government's expansionary economic orientation has a positive effect on employment during periods of recession. Thus, in times of economic downturn, the government can support SMEs through targeted support programs, facilitation of working capital, and increasing productive liquidity.

**5. Strengthening Managerial Capacity and Training for SMEs:**

Considering the positive effect of firm size and age on performance, it is recommended that governmental institutions and the Chamber of Commerce provide training programs in financial management, marketing, and export development for SME manager.

**Limitations:**

**1. Limited Access to Official Data:**

A significant portion of the data was collected through field surveys, and the absence of unified national statistics on SMEs restricted the analysis of several indicators.

**2. Time Period Constraints:**

Although the study period (2011–2023) is relatively long, the high economic volatility in Iran during this period posed challenges for interpreting some of the results.

**3. Methodological Limitations:**

The GMM model controls only part of the endogeneity problem; future studies may employ dynamic techniques such as System-GMM or Panel ARDL for more precise analysis.

**4. Focus on Four Provinces:**

Although these provinces host a significant share of the country's SMEs, generalizing the results to the whole of Iran should be done with caution.

**Suggestions for Future Research:**

1. Examining the impact of innovation and digitalization on SME performance alongside government policies.
2. Analyzing regional and sectoral differences in the effectiveness of economic policies on SMEs (e.g., comparing industrial vs. service-oriented provinces).
3. Investigating the effect of exchange-rate fluctuations and foreign trade policies on SME exports.
4. Studying the interaction between monetary and fiscal policies and their simultaneous impact on firms' financial sustainability.
5. Analyzing the role of human capital and managerial skills in moderating the effects of policy and economic conditions on firm performance.

## REFRENCES

[1] Aghion, P., Bacchetta, P., Rancière, R., & Rogoff, K. (2009). Exchange rate volatility and productivity growth: The role of financial development. Journal of Monetary Economics, 56(4), 494–513.
[2] Alesina, A., Barbiero, O., Favero, C., Giavazzi, F., & Paradisi, M. (2020). The effects of fiscal consolidation on economic activity: A new approach. American Economic Journal: Macroeconomics, 12(3), 1–31.
[3] Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2011). Small vs. young firms across the world: Contribution to employment, job creation, and growth. World Bank Policy Research Working Paper No. 5631. World Bank.
[4] Baltagi, B. H. (2021). Econometric analysis of panel data (6th ed.). Springer. https://doi.org/10.1007/978-3-030-53953-5
[5] Beck, T., & Demirgüç-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. Journal of Banking & Finance, 30(11), 2931–2943. https://doi.org/10.1016/j.jbankfin.2006.05.009

[6] Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to firm growth: Does firm size matter? The Journal of Finance, 60(1), 137–177.
[7] Bruce, D., & Mohsin, M. (2006). Tax policy and entrepreneurship: New time series evidence. Small Business Economics, 26(5), 409–425.
[8] Cheratian, I., Goltabar, S., & Farzanegan, M. R. (2023). Firms' persistence under sanctions: Micro-level evidence from Iran. The World Economy, 46(8), 2408–2431. https://doi.org/10.1111/twec.13378
[9] Coad, A., Segarra, A., & Teruel, M. (2013). Like milk or wine: Does firm performance improve with age? Small Business Economics, 43(3), 587–604.
[10] EcoIran. (2024). Fifty thousand active industrial units in Iran: Provincial distribution and latest statistics. EcoIran Economic News.
[11] ERF. (2023). Access to finance and financial constraints on Iranian MSMEs. ERF Working Paper No. 1705. Economic Research Forum. https://erf.org.eg/wp-content/uploads/2023/12/1702903541_256_768933_1695.pdf
[12] Eskandar, H., & Hadadi, E. (2022). Financial constraints and investment decisions in small and medium-sized enterprises (SMEs): Evidence from Iran. Iranian Journal of Finance, 6(1), 85–104.
[13] Faraji, A., & Zarei, M. (2018). The impact of government fiscal and credit policies on the performance of small and medium-sized enterprises in Iran. Iranian Economic Research, 22(3), 75–98.
[14] Feizpour, M. A. (2008). The survival of manufacturing SMEs in Iran during the second development plan. Iranian Economic Review, 13(1), 53–81.
[15] Hasan-Zadeh, E., Sheikh, M. J., Arabzadeh, M., & Farzin-Far, A. A. (2024). The role of economic policy uncertainty in the link between financial market instability and stock liquidity in Tehran Stock Exchange listed companies: A panel PSTR threshold model analysis. Dynamic Management & Business Analysis, 4(1), 45–68.
[16] Hosseini, M., Shams, F., & Khademi, S. (2019). The relationship between firm size and age with the financial performance of manufacturing firms listed on the Tehran Stock Exchange. Financial Management Research Quarterly, 11(2), 85–102.
[17] ISIPO. (2022). Statistical yearbook of industrial units (1401). Organization of Small Industries and Industrial Parks of Iran.
[18] Lee, N., Sameen, H., & Cowling, M. (2015). Access to finance for innovative SMEs since the financial crisis. Research Policy, 44(2), 370–380.
[19] Levine, R. (2005). Finance and growth: Theory and evidence. In P. Aghion & S. Durlauf (Eds.), Handbook of Economic Growth (Vol. 1A, pp. 865–934). Amsterdam: Elsevier. https://doi.org/10.1016/S1574-0684(05)01012-9
[20] Ministry of Industry, Mine and Trade (MIMT). (2023). Industrial units by province: Summary statistical tables. Ministry of Industry, Mine and Trade of Iran.
[21] Mohammadi, S., & Rezaei, Y. (2022). The effect of tax incentives on the profitability and investment of small and medium-sized enterprises: Evidence from Iran. Journal of Iranian Economic Studies, 14(2), 57–75.
[22] Naudé, W. (2010). Entrepreneurship, developing countries, and development economics: New approaches and insights. UNU-WIDER Working Paper No. 2010/20.
[23] Nili, M., & Akbarpour, M. (2023). Financial constraints and credit allocation in Iranian SMEs: Evidence from enterprise surveys. ERF Working Paper No. 1532.
[24] OECD. (2023). Tax incentives for SMEs: Trends and policy effectiveness. OECD Publishing.
[25] Pantea, M., & Barbu, I. (2021). Fiscal incentives and SME performance: Evidence from European Union regions. Journal of Business Economics and Management, 22(4), 931–951. https://doi.org/10.3846/jbem.2021.14803
[26] Rahimlou Benis, A. (2014). The impact of small and medium-sized enterprises on economic growth in Iran. Global Journal of Management and Business Research: B Economics and Commerce, 14(B2), 71–77.
[27] Rezai, F., Kazemi, H., & Darvishani, B. M. (2024). Assessing the impact of financial policy instability on investment strategy choice in Tehran Stock Exchange listed firms. Dynamic Management & Business Analysis, 3(5), 10–22.

**Journal of Information Systems Engineering and Management**
2025, 10(62s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

**Research Article**

[28] Shojaee, S., & Mirzaei, I. (2024). The impact of financial flexibility on the resilience of small and medium enterprises in the face of economic shocks. Business, Marketing, and Finance Open, 1(2), 150–159. https://doi.org/10.61838/bmfopen.1.2.13
[29] Tehran Times. (2020, July 5). Over 72,000 industrial, mining units operating across Iran. Tehran Times. https://www.tehrantimes.com/news/449622/
[30] Wooldridge, J. M. (2020). Introductory econometrics: A modern approach (7th ed.). Cengage Learning.
[31] World Bank. (2022). Tax policy and SME development: Evidence from emerging markets. World Bank Group.