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Investigating structural and environmental factors on market dynamics in Iran's food and beverage industries

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EXTENDED ABSTRACT

The main purpose of this study is to investigate the dynamics of firms entering and leaving the Iranian food and beverage industry market. To achieve this goal, the four-digit code (ISIC) data of 15 active the food and beverage industries, in the period 2009 - 2019 has been used. In addition to market structure variables, Minimum efficient size, Entry rate, Exit rate,Four fire concentration raite, … and environmental variables,Gross Domestice production and sanction affecting market dynamics, the impact of real exchange rate variables, exchange rate uncertainty, inflation and inflation uncertainty as control variables in the model have been studied. The method of measuring the uncertainty variables of the model is The Generalized Autoregressive Conditional Heteroskedasticity (GARCH) approach. The final model is also estimated as fixed effects by the Feasible Generalized Least Squares (FGLS) method. Indicates the significant impact of structural and environmental factors and in accordance with the theoretical and internal and external empirical studies on the dynamics of entry and exit of firms in the food and beverage industry market during the period under review. Also, the sanction variable has the most negative impact and Minimum efficient size have the least negative impact on the entry and exit dynamics of the industry

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INTRODUCTION

Identifying the reasons and motivations for firms to enter and exit the market (turbulence) in terms of structural and environmental factors and the durability and stability of firms in industry are among the important issues affecting competitiveness and the process of economic growth and development. Therefore, considering the importance of the food and beverage in the industry, national economy and food security during the economic sanctions; In this study, we study the structural and environmental factors affecting market dynamics in the food and beverage industry of Iran using an econometric model based on theories and domestic and foreign experients during 2009-2019recommendations.

METHODOLOGY

In line with this goal, in the present study, the dynamics of entry and exit of firms to the food and beverage industry in Iran is recognized using the four-digit code of the International Classification of Goods and Services (ISIC) data of 15 active industries of the food and beverage group, over time 2009-2019. Using the panel data approach, the model specification is as follows:

$$\overbrace{Ln_ENTRY_{it} + Ln_EXIT_{it}}^{Ln_{TURBULENCE_{it}}} = \beta_0 + \beta_1 L_ln_ENTRY_{it-1} + \beta_2 L_Ln_EXIT_{it-1} + \\ +\beta_3 Ln_G_t + \beta_4 Ln_EXR_t + \beta_5 Ln_MESit + \beta_6 Ln_CR4_{it} + \beta_7 Ln_Share5_t + \\ \beta_8 Ln_GDPR_t + \beta_9 Ln_inflationr_t + \beta_{10} Ln_garchinf_t + \beta_{11} SanctionDM_t \\ + \beta_{12} Ln_garche_t$$

Where, i: represents the industry based on the ISIC code classification: 15, 000, 3, 2, 1, i = and T represents time.

In this model:

$\overbrace{Ln_ENTRY_{it} + Ln_EXIT_{it}}^{Ln_TURBULENCE_{it}}$:log enter rate + log exit rate.

$L_\ln\ _ENTRY_{it-1}$:log of lagged values of enter rate

$L_\ln\ _EXIT_{it-1}$:log of lagged values of exit rate

Ln_MESit:log of Minimum efficient scale

$\mathrm{Ln}_\mathrm{garche}xr$:log Generalized Autoregressive Conditional Heteroscedasticity Real exchange rate

Ln_CR4it:log 4Firm Concentration ratio

Ln_G:log Industry employment growth rate

Ln_inf$lation$:log inflation rate
Ln_$Share5_t$:log Share of firms whit five emploees or less
Ln_GDP :log Real Gross domestic production
Ln$_{exr}$: log Real exchange rate
Ln$_{\text{garch}f}$: log Generalized Autoregressive Conditional Heteroscedasticity inflation rate
San$ction$DM $_t$i:Dummy.

FINDINGS

Overall, the results indicate that theSanction variable has the most negative impact and Minimum efficient scale have the least negative impact on the dynamics of entry and exit of firms in the food and beverage industry in Iran during the period under review**.**

CONCLUSION

The estimation of model for the Iranian food and beverage industry show a significant effect consistent with the theoretical foundations and findings of experimental studies in relation to market structure variables along with environmental and control variables on market turbulence and dynamics in this industry during the period under study. According to the estimated coefficient of variable Minimum efficient scale, it can be acknowledged that due to the small market of Iran and the consumption pattern and household income level, the food and beverage industry in the country does not have the benefits of Minimum efficient scale.

The positive and significant coefficient of real exchange rate variables and exchange rate uncertainty as control variables in the estimation model also confirms the effective role of real exchange rate variables and exchange rate uncertainty variables on the motivations of selective intensity and fluctuations in the food and beverage industry in Iran

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