

ECONOMY

ASSESSMENT OF THE INDICATORS INFLUENCING THE DEVELOPMENT OF SMALL BUSINESSES*Iskandarova Mehriban Mirkasym kizi**Baku College of Management and Technology, teacher
Baku, Republic of Azerbaijan*DOI: https://doi.org/10.31435/rsglobal_ijite/30122019/6847**ARTICLE INFO****Received** 15 October 2019
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elasticity, method, regression,
correlation, coefficient, subject.**ABSTRACT**

The article analyzes the role of small and medium-sized businesses in the economic development of the country and assesses the factors affecting to the growth of small business income through the use of the Eviews software package. The study showed that the amount of capital investment plays a significant role in the development of small businesses.

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Introduction. The number of small and medium-sized businesses affects the economic development of the country, growth of gross domestic product (GDP), unemployment, and economic growth. Basically, state support will be provided to small and medium enterprises in the economies of all developed and developing countries, and entrepreneurial support funds will be established. Takes measures to increase the number of SMB in strategic areas for the country, such as subsidies, low-level loans, full or partial exemption from taxes, and so on [7].

Small and Medium Enterprises (SMEs) play a major role in their economies, especially in developing countries. Formal SMEs, that is, 60% of the total officially registered employment and 40% of national income in developing countries. These figures are significantly higher when informal SMEs are included. In the emerging markets, 4 out of every 5 jobs are created by SMEs. Note that the main limitation for the development of small and medium-sized businesses is that they are difficult to access [7].

According to a World Bank study, 365-445 million SMEs operate in emerging markets, 30-40 million of which are SMEs; 285-345 million are unofficial businesses. Entry of informal SMEs into the formal sector has important advantages for the SME sector (for example, better access to credit and public services can be many benefits provided by the state) and the overall economy (eg higher tax revenues, better regulation) may have [7]. It is also important for SMEs to benefit from financial opportunities and to find solutions for capital sources, and to develop and employ this potentially dynamic sector. The experience of developed countries shows that the role of SMEs in the economy has increased in recent years. The number of SMEs in both categories, both in developed and developing countries, is higher than in other businesses. According to the World Bank, Small and Medium Enterprises are more likely to be employed than developing countries.

During the last global economic crisis since 2008, SMEs are more responsive to crisis problems than large corporations. Therefore, many developed countries have begun to implement

several non-financial, financial incentives and support mechanisms to further increase the share of SMEs in their economies.

In each economy, there is a government body that supports the activities of Small and Medium Enterprises in each country, thanks to the increased government support for SMEs. Such entities can provide low-quality concessional loans to businesses. In addition to financial support, these agencies can also provide non-financial support to businesses, such as advisory support. Different countries are provided with direct or indirect support to businesses under different agencies.

Entrepreneurship Support Fund (SFF) in the Republic of Azerbaijan, Small Business Administration (SBA) in the United States - Small and Medium Industry Development and Support Office in Turkey (KOSGEB) Small and Medium Industry Development and Support Office in the European Union of Craft, Small and Medium-Sized Enterprises - Supporting SMEs, such as the European Union of Craftsmen, Small and Medium Enterprises, is an example. Almost all countries and countries have such organizations.

The main activity of the Fund is to provide preferential loans to business entities in cooperation with authorized credit institutions. Within this framework, Pasha Bank provides financial assistance to SMEs in cooperation with banks, Communication Bank and others.

In Europe, UEAPME represents small and medium-sized businesses in the member countries of the European Union. The organization consists of 80 organizations (confederations, unions, etc.) representing various SMEs in 34 countries. The organization represents 12 million businesses that employ 55 million employees [3]

Small and Medium-Sized Industrial Development and Support Department in Turkey was established in 1990 under the Ministry of Industry and Trade. One of the main activities is to provide low-interest or low-interest loans to those wishing to become entrepreneurs. Only the following persons can benefit from KOSGEB's support:

- Individuals who have passed courses related to the institution;
- Individuals who have graduated from the Young Entrepreneurship Development Program within universities
- Individual Entrepreneurs in Business Incubators for 1 year.

The organization provides loans up to 50,000 TL at 0% interest rate.

The main activities of the aforementioned bodies are to increase economic activity in the country, reduce the existing unemployment rate and achieve economic development in the country.

Main part. The classification of SMEs depends on the size of the market (population), development level, prices, and so on. Different countries have different types of classification of small and medium-sized businesses. Different classifications occur under the influence of factors that can affect the country's economic development, its classification, and so on. In the countries like Azerbaijan, Turkey, the US, the European Union, Brazil, Russia and Georgia, they are becoming more and more popular.

The distribution criteria of Micro, Small, Medium and Large Entrepreneurs, as approved by the Decree of the Cabinet of Ministers of the Republic of Azerbaijan No. 556 dated December 21, 2018, are as follows.

Table 1. Criteria for Micro, Livestock, Microbiological and Critical Preferences in the Republic of Azerbaijan

Categories by size of business entities	Average list of employees (person)	Annual income (AI) (thousand manats)
Micro Entrepreneur	1 – 10	$AI \leq 200$
Small Entrepreneur	11 – 50	$200 < AI \leq 3\ 000$
Small Entrepreneur	51 – 250	$3\ 000 < AI \leq 30\ 000$
Large entrepreneur	Large entrepreneur 251 and over	$30\ 000 < AI$

Source: Source: cool My knowledge [1], The author.

It should be noted that small business is included in the criteria of small entrepreneurship by Decree No. 556 of the Cabinet of Ministers of the Republic of Azerbaijan dated December 21, 2018, with an average annual income of 200,000 manat in the Republic of Azerbaijan, with an average business income of 200,000 manat. The number of employees is 25 to 125 employees, and large business entities are enterprises with an annual income of 125,000 manats and above, with employees of 125 and above.

It should be noted that small business is included in the criteria for small entrepreneurship by Decree No. 556 of the Cabinet of Ministers of the Republic of Azerbaijan December 21, 2018, with an average annual income of 200,000 manat in the Republic of Azerbaijan, with an average business income of 200,000 manat [1]. The number of employees is between 25 and 125 employees, and large business entities have annual income of 125,000 manats and above, with employees of 125 and above.

Table 2. Dynamics of turnover and impact of small business entities in the Republic of Azerbaijan

Years	Turnovers, mln. manat	Fixed capital investments, mln. manat	Labor productivity, manat	Value added, mln. manat	Inflation in%
2007	1653,5	289,4	17953	449,2	16,6
2008	2475,7	371,2	23983	718,7	20,8
2009	2910,1	289,3	27480	844,8	1,6
2010	3835,5	276,3	48985	1120	5,7
2011	4208,5	737,6	46657	1227	7,9
2012	5100,6	531,6	53405	1346,5	1
2013	6072,6	486,5	55712	1466,2	2,4
2014	5951,7	746,5	51754	1437	1,4
2015	5986,3	807,2	68337	1987,8	4
2016	4666,1	1828,6	46245	2928	12,4
2017	4884,7	2064,8	47936	3051,9	13
2018	9364,9	3878,2	84066	5703,3	2,3

Source: State Statistics Committee of the Republic of Azerbaijan [6].

Table 2 summarizes the regression dependence of the mathematical software packages from E-views, Mat Lab, MS Excel, Math Cad and others among the factors affecting the turnover of small entrepreneurship institutions in the Republic of Azerbaijan between 2007-2018 [6]. For this purpose, we will use the E-views software package according to Table 2 data.

Table 3.

Dependent Variable: Y				
Method: Least Squares				
Date: 29/12/19 Time: 12:15				
Sample: 2007 2018				
Included observations: 12				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X4	1,276323	1,504187	0,848513	0,4242
X3	0,082198	0,025864	3,178039	0,0155
X2	-0,620107	1,272202	-0,487427	0,6408
X1	-53,38153	37,73062	-1,414806	0,2000
C	1076,258	925,0261	1,163499	0,2827
R-squared	0.975999	Mean dependent var		4243.833
Adjusted R-squared	0.952575	S.D. dependent var		1651.302
S.E. of regression	357.7934	Akaike info criterion		14.83251
Sum squared resid	384048.3	Schwarz criterion		14.96399
Log likelihood	-60.74629	Hannan-Quinn criter.		14.54877
F-statistic	33.48069	Durbin-Watson stat		2.094414
Prob(F-statistic)	0.007806			

Source: The authors prepared the information using the EViews application software.

Based on the results of the Eviews application software package, the regression equation will be as follows:

Estimation Command:

LS Y X4 X3 X2 X1 C

Estimation Equation:

$$Y = C(1)*X4 + C(2)*X3 + C(3)*X2 + C(4)*X1 + C(5)$$

Substituted Coefficients:

$$Y = -53,38153069112*X4 - 0,62010672504*X3 + 0,08219841602*X2 + 1,27632251311*X1 + 1076,25849103 \quad (1)$$

Analyzes the correlation dependence between the free variable and the dependent variable in the model (1) and removes the weak correlation dependence factors from the research object and creates a new regression equation. To this end, if we fit the correlation matrix in the MS Excel Application Software package based on Table 1, we have the following table:

Table 4. Correlation matrix

	X1	X2	X3	X4	Y
X1	1				
X2	0,652152	1			
X3	0,984143	0,757166	1		
X4	-0,08292	-0,61719	-0,20175	1	
Y	0,737786	0,956982	0,819172	-0,60217	1

Source. The table was prepared by the authors using the MS EXCEL application software package.

As can be seen from the table, the variables Y and X1 and X5 have direct (0,7-0,9) on the Chedoke scale ($R_{yx_1} = 0,7378$, $R_{yx_2} = 0,8192$), Negative high feedback correlation between the Y and X4 variables ($R_{yx_4} = -0,60217$), Y and X2 have a very high direct relationship ($R_{yx_2} = 0,957$). Y and X1, X2, X3 and X4 have a high correlation relationship, so the relationship between the 1 contact equation remains. That is, no changes from the research object will be excluded. The regression equation will be as follows.

$$Y = -53,38*X4 - 0,62*X3 + 0,082*X2 + 1,276*X1 + 1076,26 \quad (2)$$

According to this relationship equation, we can conclude that the volume of small entrepreneurship issues in the Republic of Azerbaijan (X1), which represents the volume of investments for core capital, is increased by a unit of 1,276 units of volume of small entrepreneurship issues, a unit of the volume of annual labor productivity (X2) increase in the volume of small entrepreneurship issues by 0.082, increase in the volume of added value (X3) by a unit volume of small entrepreneurship issues by 0.62 units, in the volume of small entrepreneurship issues, (X4) an increase in interest rates leads to a decrease in the volume of small entrepreneurship issues by 53.4 units. As can be seen, one of the most important factors affecting the increase in the volume of small entrepreneurship issues is the increase of labor productivity and the nominal salary of employees.

The multiplicity correlation coefficient $R = 0.952$ shows that the relationship between the Y-dependent variable indicating the turnover of small entrepreneurial assets and the free variables (X1, X2, X3 and X4) that express the factors entering the model are quite high. The determinant coefficient $R^2 = 0.952$ means that the corresponding regression equation has 95.2% distribution results and 4.8% other factors. The high determinant coefficient indicates that the regression equation is better represented by the initial data and that the majority of the result factor (95.2%) depends on the modeling factor.

With the help of the F-Fisher criterion, it is possible to check the statistical significance of all regression equations. For this purpose, the F-Fisher criterion should be compared with the value of F-table (A; m; n-m-1) [3]. According to the Table 2 of the Eviews software package, **F-statistic = 33.48**. If we set the price of the F-table with the help of the $F_{table}(a; m; n - m - 1) = F$ **парнобп** formula in Excel, then.

$$F_{table} (a; m; n - m - 1) = F_{распобp}(0,05; 4; 7) = 6,09$$

The F-Fischer criterion $>F_{table}$ ($33.48 > 6.09$) occurs when comparing the F_{table} ($a; m; n-m-1$) with the Fischer criteria. This means that the regression equation is a statistically significant character. This means the adequacy of the built model (2).

The Darbon-Watson statistics for the observations $m = 4$ and $n = 12$, with an explanatory variable from the $DW = 2.094414$ firewood to the significance level $\alpha = 0.05$, will be as follows (4).

$$d_l = 0.512, d_u = 2.177$$

Since $d_l = 0.512 < DW = 2,094414 < d_u = 2.17$, the residual autocorrelation is positive. This means that the regression equation is statistically significant in general and the model $Y = -53,38 * X_4 - 0.62 * X_3 + 0.082 * X_2 + 1,276 * X_1 + 1076,26$ is adequate.

Expression of Dependence Between Factors Affecting Small Business Development $Y = -53,38 * X_4 - 0.62 * X_3 + 0.082 * X_2 + 1,276 * X_1 + 1076.26$ What is the percentage change of the dependent variable as a result of the 1% change in the free variable? calculate the elasticity coefficient, which results in the following [4].

$$E_1 = \frac{\alpha_1 \times \bar{x}_1}{\bar{y}} = \frac{1,276 \times 1025,6}{4759,183} = 0,275, E_2 = \frac{\alpha_2 \times \bar{x}_2}{\bar{y}} = \frac{0,822 \times 47709,42}{4759,183} = 0,822$$

$$E_3 = \frac{\alpha_3 \times \bar{x}_3}{\bar{y}} = \frac{-0,62 \times 1856,7}{4759,1834} = -0,242, E_4 = \frac{\alpha_4 \times \bar{x}_4}{\bar{y}} = \frac{-53,38 \times 7,425}{4759,183} = -0,0817$$

Based on these estimates of elasticity ratios, one can conclude that the 1% investment in fixed assets in small businesses in the Republic of Azerbaijan resulted in an increase in turnover of small businesses by 0.275%, a 1% increase in maize productivity by 0.82%. The incremental value added and incremental 1% reduced turnover by 0.242% and 0.0825% respectively.

Economic reforms in the Republic of Azerbaijan and an increase in investments in fixed assets for small businesses will also increase the turnover of business and services in this sector, according to forecasts. All of these can be seen in the figure below, which shows the forecasts of small businesses by 2025.

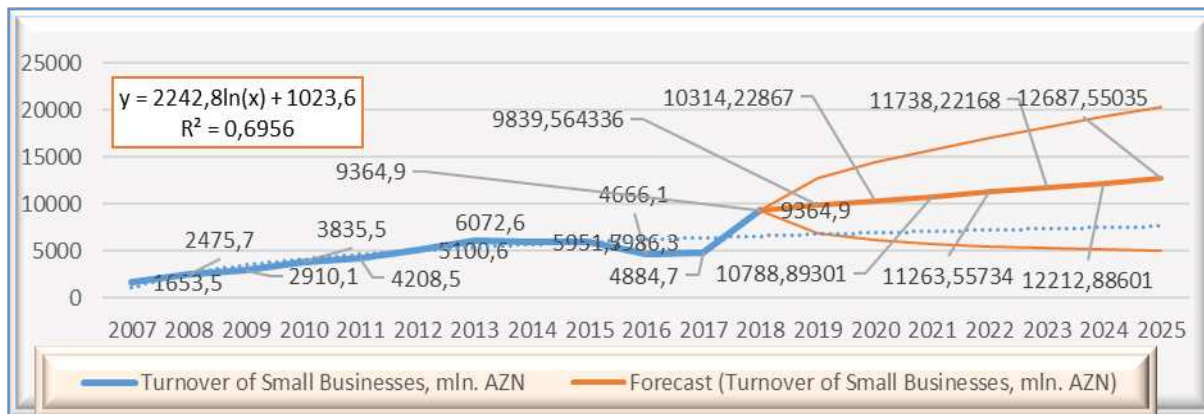


Fig. 1. Forecast prices on turnover of small business entities in the Republic of Azerbaijan till 2025.

Source: The authors prepared the information using the MS Excel software.

As can be seen from the figure, income from small businesses in the Republic of Azerbaijan will increase by 2025 according to forecasts.

Results. The study found that the turnover of small businesses in the Republic of Azerbaijan increased by 1%, increase in turnover of small businesses by 0.275%, annual labor productivity increase by 1%, and growth of small businesses by 0.82%. An increase of 1% will result in a reduction of turnover of small businesses by 0.242%, and a 1% increase in the volume of inflation in the country will result in a reduction of turnover of small businesses by 0.0825%. We also believe that the definition of criteria for small entrepreneurship should be based on turnover rather than the number of employees. Thus, the use of new innovative technologies may increase productivity, and these criteria may not be justified.

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