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Analysis of Family Enterprise Production Power and Profitability Forecast

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A B S T R A C T S

Family business plays an important role in the social and economic development of Uzbekistan. With this in mind, further development of family businesses and increasing their opportunities will create great opportunities not only to increase family income, and reduce poverty, but also to improve the well-being of the population. In this context, the study assessed the changing trends in the development of the above, their income, and profit levels. The study also proposed and tested an approach to econometric analysis and forecasting based on econometric time series methods.

A R T I C L E   I N F O

1. INTRODUCTION

As a result of the work done in Uzbekistan in a short period on the organization and capacity building of the family business, this sector has entered a stage of development. Due to this, the number of family businesses in the regions of the country and the volume of their product tend to grow. At the same time, the President of the Republic of Uzbekistan Sh. Mirziyoyev in his Address to the Oliy Majlis and the people noted that "more favorable conditions will be created for the development of entrepreneurship and small business." To continue the work on the financial support of entrepreneurship, within the framework of family business programs, 6 trillion soums of soft loans will be allocated next year. With this in mind, the effective solution to the identified priorities is very important today. The point is that family business ensures the development of each mahalla and a small area of the republic, which determines the economic development of the country. Therefore, the study of the current state of family businesses and forecasting their prospects should provide a basis for increasing employment, income, and profits (Shaturaev, 2021).

Analyzes show that in most cases, forecasts for the development of the country's regions are made taking into account the long term. But short- and medium-term forecasts for practice are valuable in terms of necessity. Such forecasts are necessary for the financial correctness of the set strategic goals, the maximum objective assessment of the value of the demand for investments, and the solution to other similar economic issues. With this in mind, this study analyzes family business in the regions of the country for a short period at the level of sectors of the economy, and based on it predicts changes in time series in the future. In this case, the economic indicators of the regions (production, income, gross and net profit, etc.) are forecasted econometrically for the first 2 years, then 3-4 years, etc., using the minimum and maximum limits of values for the last years based on the time-sliding method. Forecasts are necessary for assessing the development of regions and the amount of profit for expanded reproduction in industries. In this regard, it plays an important role in the development of family businesses and increasing profits for expanded reproduction in industries. In this regard, it is possible to choose to maximize profits as the main criterion for the development of a family business. With this in mind, the main goal of this study is to find the maximum value of the net profit margin of a family business in the region. Achieving this goal in practice necessitates the analysis and forecasting of time series. To achieve this goal, a database of statistical series will be formed in the study. On this basis, analyses and forecasts are made.

2. LITERATURE REVIEW

Scientific works of domestic and foreign scientists are devoted to the problems of organization and development of small business and family entrepreneurship. They are conditionally divided into two parts (Löfsten & Lindelöf, 2005). Preliminary research on entrepreneurial activity in any country has an evolutionary character, based on which the legal framework was formed and the law itself, the necessary legal documents were developed. At the same time, the problems associated with the development and improvement of family businesses are studied as a separate part, which focuses on solving specific tasks. The analysis shows the functions of the family business in Uzbekistan and the issues of its development Ostonov, O. A., Kimsanbaeva, S. B., Raimjonova, U. N., Khaydarova, L. S., and Roziboevna, F. (Ostonov *et al.*, 2020), Akhmedov U.Q. (Tolametov & Yusupkhanova, 2021), et al.

However, scientific sources contain definitions of various concepts such as "potential", and "resource potential". For example, the production potential of an economy, industry, or

enterprise of a region or a particular region has different characteristics. In the work published by R. Dyakiva, the potential is equated with the available opportunities, resources, resources, and means that can be used to achieve something, to accomplish something. Hence, the main focus in interpreting this concept is on the available opportunities and resources to achieve specific goals. With this in mind, the study of the potential of the family business through its characteristics is relevant in the current market competition in the further development of family business and increasing its contribution to sustainable economic growth. It should be noted that the term "potential" is widely used in the economic literature as a quantitative value and participates as a natural, investment, intellectual, economic, resource, and labor potential.

With this in mind, the scientific works of foreign scientists, which can be considered as a basis for the interpretation of the concept of family business potential in the following places, were analyzed. In her work, NS Krasnokutskaya emphasizes the importance of not only the required amount of resources in the enterprise but also the relevant knowledge, ie the ability to mobilize them in the process of implementing certain actions to manage these resources. With this in mind, this work proposes to interpret the potential of the author's enterprise as an opportunity to achieve a clear result for the interested parties (parties) through the implementation of business processes of its resources and knowledge system. K.M. Misko, a scientist in the field of regional economics, described potential as the limit of knowing the inner, hidden possibilities of effective human use of the object under study. A.N. Azriliyan and others proposed to understand the set of available means and opportunities in any field when talking about potential.

According to AN Lyukshinov, the potential of the enterprise is the sum of its production (services) capabilities. In addition to internal variables, it includes the capabilities of the overall organizational management - management staff. According to TF Ryabova: the sum of intelligence, production resources, and capabilities. " In our opinion, TG Khramtsova's approach to the definition of "potential" is noteworthy. "Potential is not only the number of resources but also the ability to develop the system embedded in them in a certain direction," he explained. Thus, when we talk about the production potential of enterprises, it is necessary to understand the set of tools, resources, and opportunities that allow their use to achieve economic efficiency. This will provide opportunities to increase production capacity, develop direct family businesses, and forecast profits. The solution to forecasting problems in these areas and the use of econometric methods.

3. METHODS

The methodological basis for increasing the capacity of family businesses and the analysis and forecasting of their development patterns is based on methods of statistical analysis of short-term or long-term time series. On this basis, changes in the statistical series (legislation) allow us to predict the development of family businesses in the future. Econometric methods are used. A time series is a sequence of economic indicators measured over a specific period. Time series in the economy are the number of enterprises, production volume, product value, cost, price, and so on. The time series model is usually divided into the following three parts (see equation (1)).

$$y_t = x_t + s_t + c_t, \tag{1}$$

where xt is the trend, st is the seasonal part, and ct is the cyclic section. The t value is written as t = 1,2, ... n.

4. RESULTS AND DISCUSSION

Recently, it has been observed that another component called integration (additional intervention) has been added to these three components. Additional intervention (integration) should be understood as an important short-term effect on the time series. For example, in 2020, during and after the pandemic, the decline in production can be seen as an intervention in the decline in income (profit).

The trend of the time series is not a change in non-cyclical long-term factors, but the effect of the effect gradually manifests itself. It is usually a statistical database for the implementation of forecasts based on econometric models in the activities of family businesses. As a result of this research, great attention should be paid to building an econometric model to obtain reliable and reasonable results in the analysis of economic processes. With the algorithm below, a time series is formed in three stages to analyze and forecast family business based on a short time series (See **Figure 1**).
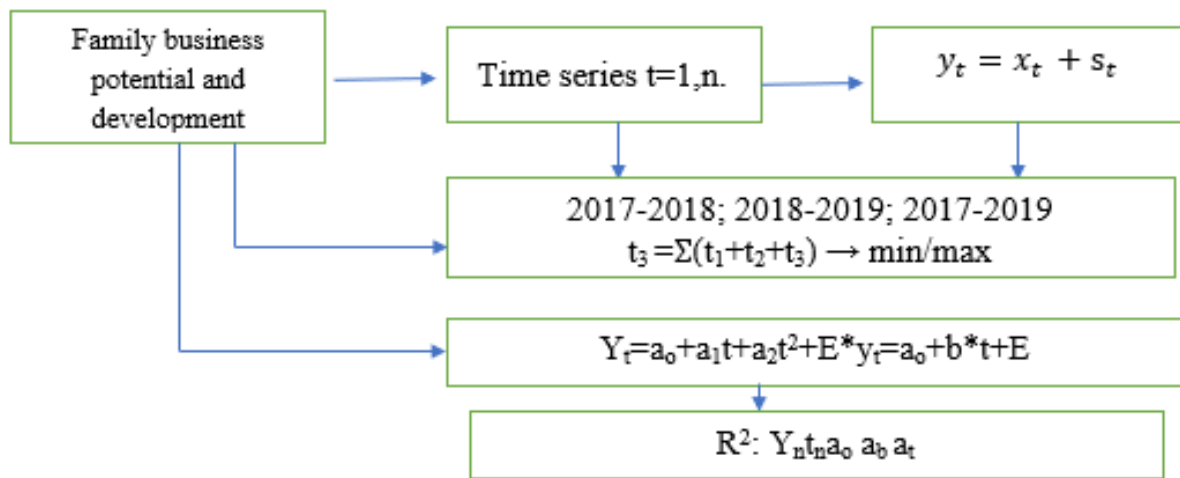
Figure 1. The general algorithm for analysis and forecasting of family business potential.

They are then analyzed and divided into growth points with minimum and maximum values. The validity of the results is assessed based on statistical criteria, which are carried out based on econometric methods using the values of the newly formed time series. The methodological approach chosen in the study is applied not only in time series but also in the implementation of multifactor econometric forecasts.

Analysis and conclusions. One of the priorities of the Action Strategy implemented in Uzbekistan is to raise family entrepreneurship to a higher level and further increase its efficiency. From this point of view, it is necessary to pay attention to all forms of the family business, especially the activities of family businesses. At present, enterprises in our country are divided into two categories, namely, large and small enterprises. Small enterprises are described as small-scale production activities and they are small business entities. Individuals, families, groups of people, small firms, cooperatives, farmers, and smallholders are engaged in the activities of small businesses.

According to the State Statistics Committee, the number of family businesses operating in Uzbekistan in 2019 amounted to 27,512 units (**Table 1**). This figure increased by 32.8% compared to 2017 and 77.4% compared to 2018 in the country. The largest number of family businesses in 2019 compared to 2018 increased by 1815 units (or 74.1%) in the Samarkand region, 954 units (or 34.9%) in Fergana, 1235 units (or 2 m.) In Khorezm, 2209 units (or 3 times) in Navoi.) and in Tashkent increased by 590 units (or 26.5%).

The increase in the number of family businesses in the country has been observed since 2017, and this is happening in almost all regions. This not only raises the development of families in the regions of the country to a new level but also makes an important contribution to increasing the income of the population. Andijan, Bukhara, Namangan, Surkhandarya, and other densely populated areas also have high numbers of family businesses and citizens and their growth rates. In general, the sharp increase in the number of family businesses is a key factor in increasing the economic potential of entrepreneurship, especially in small businesses in the regions of the country, which will accelerate the employment of the population.

Table 1. Number of family businesses operating in Uzbekistan and their growth rates.

Regions	The 2017 Year	The 2018 Year	The 2019 Year	Growth Rates From 2019 To 2018, %, March
Republic of Uzbekistan	11679	15507	27512	77.4
The Republic of Karakalpakstan	500	663	1013	52.7
Regions:				
Andijon	467	558	1451	2.6 м.
Bukhara	670	961	1836	91.0
Jizzax	337	511	733	43.4
Kashqadaryo	514	670	1297	93.6
Navoi	490	724	2933	3.0 м.
Namangan	250	318	523	64.5
Samarkand	1549	2476	4311	74.1
Surxondaryo	604	742	1445	94.7
Sirdaryo	61	89	185	2.1 м.
Tashkent	1313	1609	2820	75.2
Fergana	2146	2733	3687	34.9
Khorezm	866	1229	2464	2.0 м.
Tashkent	1912	2224	2814	26.5

The increase in the number of family businesses in the regions of the country also has a positive impact on the growth of their production and profits. According to statistics, the volume of production at family enterprises in the regions of the country in recent years has been providing high growth rates in various sectors of the economy. In 2019, the production of industrial products in family enterprises in Uzbekistan increased by 34.4% in current prices compared to 2018 (**Table 2**). At the same time, the highest growth rate was in Tashkent (1.5 times); the Tashkent region (1.4 times); Khorezm (1.8 times); Surxondaryo (2.0 times); Samarkand (1.7 times); Namangan (1.6 times); Occurred in the Fergana region (1.4 times). For the first time in the Jizzakh region, the volume of production at family enterprises increased by 1.5 times, which is 17% more than in the country.

In 2019, the production of agricultural, forestry, and fishery products in family enterprises in the country increased by 25% compared to 2018 (**Table 2**). In 2017-2018, these indicators decreased in the Republic of Karakalpakstan, Andijan, Navoi, Syrdarya, Tashkent, and Fergana regions and the city of Tashkent. In 2019, production growth was observed in these regions. In Bukhara, Jizzakh, Namangan, Surkhandarya, and Khorezm regions it was higher in agriculture, forestry and fisheries. In some regions, the decline in the volume of agricultural production of family businesses in 2017-2019, the transition of some of them to the ranks of farms, and some cases taking into account the products of industrial processing.

In recent years, the implementation of construction work in family businesses is expanding. In 2019, family businesses in the country will invest 125,683 million soums in this area. soums

worth of construction work. This is 70.3% more than in 2018. In almost all regions of the country, the volume of self-constructed construction work at family enterprises has increased at high rates. This can be observed in Tashkent, Andijan, Bukhara, Navoi, Samarkand, Tashkent, Fergana, and Khorezm regions.

Table 2. Dynamics of changes in the production of family businesses in the Republic of Uzbekistan, million sums.

	Years			Growth in 2019 compared to 2018, %
	2017	**2018**	**2019**	
The volume of industrial products (works, services) produced at current prices	402418.5	700918.5	941968.4	34.4
Agriculture, forestry and fisheries	34537.2	32846.9	41058.6	25.0
Volume of self-constructed construction works at current prices	39368.6	73805.7	125683.0	70.8
Volume of services	309556.5	497003.3	846410.4	70.3

Source: The Public Service Agency under the Ministry of Justice was formed based on a database.

In recent years, the volume of services in family businesses in the regions of the country increased by an average of 70.3%. The increase in the volume of services provided in the regions is due to the increase in the number of family businesses, as in other sectors of the economy. These are Bukhara (2.2 m.), Jizzakh (1.9 m.), Kashkadarya (2.0 m.), Navoi (2.9 m.), Samarkand (2.1 m.), Tashkent (1, 8 m.), Fergana (1.7 m.), Khorezm (1.8 m.) Regions, as well as the city of Tashkent (17.8%) and the Republic of Karakalpakstan (1.4 m.). These growth rates of the services sector are due to the growing demand of the population for various services. Given the above, the development of the services sector is an effective way to increase not only the employment of families but also the need for services. The increase in the volume of production of family enterprises in the regions of the country leads to an increase in labor productivity and the gross income and net profit of the economy of each region in recent years.

According to statistics, the total volume of the industry, agriculture, forestry and fisheries, construction, and services in 2017 amounted to 785880.6 million soums, and in 2018 - 1304574.4 million soums, in 2019 - 1955120.4 million soums. In the same period, the net income from the sale of products in the regions amounted to 993072.4 and 1730739.7 million, respectively. soums, and in 2019 - 3014399.1 million soums. Net sales revenue in 2018 was 32.7% higher than in 2017. At the same time, the net income of family businesses from the total value of products, and sales of products amounted to 6.3%. Thus, in 2018, the net profit of family businesses from sales was 6.3% in the country. In 2019, that figure dropped to about 12 percent.

The volume of profit before the payment of income tax in family businesses in the country in 2018 amounted to 314033.3 million soums, which is 58.9% or 116419.9 million soums more than in 2017. soums. In 2018, the net profit of family businesses in the country amounted to 227,368 million soums. Or the net profit for the same period increased by 56.6% compared to 2017. In the past 2019, compared to 2018, net profit amounted to 41346.6 million soums or by 18 percent (**Table 3**).

Table 3. Dynamics of changes in net profit from sales of family businesses in the regions of Uzbekistan million sum.

Regions	Net profit (loss (-))			Average growth in 2019%, times compared to 2017
	2017 year	2018 year	2019 year	
Republic of Uzbekistan	145193.8	227368.8	186022.2	28.1
The Republic of Karakalpakstan	1 799.5	6386.7	3437.8	91.1
regions: Andijon	887.8	281.6	1702.4	91.7
Bukhara	6 120.6	7350.0	12267.2	2.0 м
Jizzax	5.8	140.3	-735.9	-
Qashqadaryo	2 620.2	-13.9	-790.9	-
Navoi	1 629.0	10635.8	5431.3	3.3 м
Namangan	1 563.2	2929.8	5011.6	3.2 м
Samarkand	6 001.3	12424.0	9170.1	1.5 м
Surxondaryo	996.8	2131.3	1682.3	1.7 м
Sirdaryo	19.3	-109.7	83.2	4.3 м
Tashkent	13 233.5	9443.6	11154.2	0.8
Fergana	4 822.2	9606.1	10511.3	2.2 м
Khorezm	4 445.1	13288.5	9307.8	2.1 м
Tashkent	101 049.8	152874.6	117789.8	16.5

Source: The Public Service Agency under the Ministry of Justice was formed based on a database

The level of net profit of family businesses in 2019 compared to 2018 was higher in all regions except Jizzakh and Kashkadarya. The net profit in the Andijan region in 2017 amounted to 887.8 million soums, in 2017 this figure was 281.6 percent. In 2019, the net profit increased by 2-3 times compared to 2017 in Bukhara, Navoi, Namangan, Khorezm, and Fergana regions. From 2017-to 2019, the change in production, sales, and net profit of a single-family enterprise in the country had a growing trend. This is especially true with the increase in the number of family businesses from 2019 onwards. According to estimates, the production volume at one enterprise is 26.0 million tons on average. soums (Navoi region), 220.9 million soums (Tashkent city).

The volume of production in single-family enterprises, respectively, differed from the level of net sales revenue and net profit in 2017-2018. The net sales of one family business in the country amounted to 111.6 million soums. soums (2018), which is 31.3 percentage points more than in 2017. However, in 2019, the level of net profit in the country decreased by 53.8%. In densely populated areas, the net profit index averaged 4.0% (Namangan region) to 40.0% (Andijan region). In 2019, the activities of family businesses in the Syrdarya, Jizzakh, and Kashkadarya regions ended with losses compared to 2018. The net profit of one family business in 2018 will be 14.7 million soums, which is 2.3 million soums more than in 2017. soums. In 2019, the net profit of one family business in the country will be 7.9 million compared to 2018. less than UZS. In the regions of the country, the net income from the sale of products of family businesses has a high growth rate. These figures provided the amount of profit before the payment of income tax by regions, as well as the relatively high level of net profit.

5. CONCLUSION

Several conclusions are: (i) Even though the number of family businesses in Uzbekistan and the volume of products produced in them are still relatively low, there is a growing trend. This shows that the country has ample opportunities to ensure employment and sustainable development by increasing the potential of family businesses; (ii) Due to the measures taken in the country in recent years, the number of family businesses has increased dramatically, and their production capacity and efficiency have increased. The volume of output of this family business, as well as the net income from it, also led to a relative increase in net profit; (iii) According to the analysis, the number of family businesses operating in the country in 2019 compared to 2018 exceeded 27.5 thousand. Their overall growth rate was 77.4 percent. These growth rates are relatively high in Samarkand, Fergana, Khorezm, Navoi regions, and Tashkent. This has greatly contributed to the increase in families 'income and their employment; (iv) The production volume of one family enterprise in the republic is 67.3 million soums (2017) to 69.7 million soums (2019). The highest growth is in the Republic of Karakalpakstan, Tashkent, Namangan, Navoi, and Bukhara regions. In the past 2019, the income of family businesses amounted to 109.6 million per family soums; (v) According to the analysis, the increase in the net profit of family enterprises with the growth of production will expand the opportunities to increase the capacity of enterprises and increase employment in these family enterprises, creating a solid foundation for their effective operation; (vi) According to research, in the future, due to the further development of family businesses, and effective use of available resources in each region, it is possible to ensure an increase in the net profit of family businesses in the country from 6.5% to 10.4%; (vii) According to the forecast, the average family will receive 110.3 million soums in 2025 and 159.4 million soums in 2030. UZS may correspond to the value of the product. The minimum value of these indicators for the next 2017-2019 is 77.3 million soums, the maximum value is 78.9 million soums.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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