

Effective use of block chain technology in business process (in case of Uzbekistan)

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Abstract. In world practice, it is important to develop targeted strategies aimed at further improving the business environment, implementing active business projects to ensure sustainable economic development, pursuing economic policies that have a positive effect on business development, conducting research aimed at using block chain technology as well as ensuring interest in business development by state and society. The issues of doing business after the global crisis caused by the pandemic, statistical observation and forecasting issues, statistical assessment of the impact of the pandemic on business entities, and improving methods of statistical analysis of business development processes during and after the pandemic became important as never before. As a result of the conducted research, the authors have reached assessing quantitative and qualitative indicators of factors affecting business development processes has been developed, and a software has been created that makes the accurate analyzes on the basis of block chain of the data, a comprehensive analytical approach was developed based on statistical indicators characterizing business development trends in the country, in the SNA sectors, in the context of key industries and regions, multifactor empirical models were developed and forecast options for 2021-2026 were proposed using the scenario method. The theoretical approaches and the initial data used are taken from official sources, based on the data of business entities operating in Uzbekistan, proposals and recommendations implemented in practice, statistical data of the State Committee on Statistics of the Republic of Uzbekistan, as well as primary data obtained during the study. The proposed block chain stages in business process accurately evaluate the results that meet the requirements of the digital economy.

1 Introduction

Today's highly competitive world, the operation of a market economy is inseparably going to connect with digital economy which is considered to be one of the main way as fast growing economy and improving living standards in national economy. That's why governments set themselves an urgent task today and in the future-to ensure the effective formation, functioning and development of the e-government, e-business, e-commerce and

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other systems. E-government is a public administration system based on automating the entire set of management processes across the country and serving the purpose of significantly improving the efficiency of public administration and reducing the costs of social communications for each member of society. The creation of e-government involves the construction of a nationwide distributed public administration system that implements the solution of a full range of tasks related to document management and processing processes. This system effectively manages government organizations and provides the public with fast and efficient administrative services through the electronic systematization of knowledge and information inside and outside government organizations. In other words, e-government can be called a government in the knowledge and information society, which uses information technology to innovate in administrative work and effectively provide high-quality administrative services to the population. The tasks of e-government include electronic processing of public services, electronic processing of electronic transactions between people and business-to-business (G2C, G2B), as well as electronic processing of intra-government information. Business processing of internal government agencies and intergovernmental business (G2G), namely the creation of a state informatization fund. It is the government that significantly increases the productivity and efficiency of administrative work by integrating the administrative information system into a high-speed information and communication network.

Business is considered key to economic performance in creating innovative changes and operating facilities of manufacturing, utilities and social infrastructure, as well as providing public benefits and services, through developing of these sectors new jobs are created, productivity and competitiveness are increased, poverty are alleviated and societal goals are achieved, in particular by helping specific population groups to help themselves. They play a crucial role in the formation and development of Uzbek economy. Every year normative acts are adopted in particular fields in our country. Because of intensively changing economic conditions, newly adopted and long acting solutions sometimes come into conflict with each other. Confirming certain conditions and opportunities of Uzbekistan, our authorities are still searching for ways to modernize and develop infrastructure. In that way small business and private entrepreneurship assist to achieve particular goal as well as they have a great importance for overcoming poverty, accumulating human capital, and increasing the welfare of the country and adopting quickly for changing economic conditions.

Usage of block chain technology in business process can be avoid common pitfalls like inexperienced management, lack of financial stability, small businesses suffer a mortality rate significantly higher than that of larger, more established businesses primarily because of limited resources, poor operations management, lack of experience, poor financial management, over-investing in fixed assets, poor credit practices, failure to plan, inappropriate location, lack of inventory control and etc. Nowadays for all business owners it is needed to use digitalization by knowing his or her business in depth, developing a solid business plan, managing financial resources, understanding financial statements, learning to manage people effectively. As private sector is attracted to providing public benefits and services in infrastructure sector, so in it usage of block-chain technology plays an important structural and dynamic role in all economies.

2 Methods

The study of methods and methodological bases of analysis of business development processes is reflected in the research, scientific works, pamphlets and articles conducted by foreign and domestic economists. In particular, the theoretical aspects of business development were studied by foreign scientists R. Drogendijk [1], M. Oscar, N. Dutta,

R.S.Sobel [2], David M. Levine [3], Klell Anordstrom [4] Z. Greenberg, Y. Farjab, E. Gimmon, C.N.Leonidous, M.Hultman, M.C.Ehrhardt, E.F.Brigham., B.R.Schiller, K.Gebhardt, D.M.Levine, D.F.Stephan, K.A.Szabat, S.P.Robbins, T.A.Judge, K.Anordstrom, J.Ridderstrail, and others. V.V.Repin [5], M.Rybakov[6], V.G.Eliferov[7], Andersen Byrne[8], Burkhanov, A.[10], Mustafakulov S.[11], Tursunov,B.[12], Zarova E.V.[13], Eshov, M.[14], Saidova M.[15], scientists from the Commonwealth of Independent States (CIS) countries in the field of theoretical and practical aspects of business processes and models.

Preparation of the article methods of effective data analysis, such as statistical observation, sampling, generalization, grouping, comparison, determination of dynamic changes, SWOT and STEEPLE analysis, abstract logical thinking, modeling, analysis-synthesis, evaluation, induction and deduction, correlation and regression analysis, forecasting "If" such as scripting and tabulation.

In the context of the market economy, the concepts of "business" and "entrepreneurship" are closely related to each other. The following is a table of data on the concepts of "Entrepreneur" and "business" and the modern approach of the scientist in the white-collar period.

Table 1. The term "Entrepreneur" and its main concepts

№	The economist is a scientist (Short comment)	Sources
1	The concept of entrepreneur is from first used by A.Smit and D.Ricardo. Entrepreneur is a proprietary entrepreneur who takes economic risks in order to exploit and profit from the idea of sale [7].	Smith A. Research on the nature and causes of the wealth of peoples: (Vol. 1), Nauka, 1993. pp. 134-155.
2	In the 18th century, P. Katilon was a person who satisfied his needs in the face of uncertainty[8].	Management at the end of the 20th century. - M.: Nauka, 1992, p. 8.
3	J.B.Jey, the author of legal economist, highlighted the important role of the entrepreneur in the formation of the product. entrepreneur - a person who is able to organize people in the process of development [9].	Management at the end of the 20th century. - M.: Nauka, 1992, p. 8.
4	The German scientist, economist and philosopher M. Webb argues that the worldview and morality of the entrepreneur are greatly influenced by its activities [10].	Weber M. Selected Works. M.: Progress, 1990, p.322
5	Y.Schumpeter can be a person who implements a new combination of measures of entrepreneurial development, that is, a servant of a joint-stock company, a public servant and a manager of a company in the form of total ownership [11].	Schumpeter J. Theory of economic development. M.: Progress, 1982, p.185.
6	Dj.M. Keynz added a the modern thoughts in the entrepreneur. He defines the concept of "entrepreneur" as a socio-psychological component of the economic self-sufficiency [12].	Keynes D.M. Selected works. - M.: Economics, 1993, p.224.
7	Nobel laureate F.N. Von Hayek's cover served as a core in the modern stage of the development of the market economy. Entrepreneur is disseminated as a seeker of innovation, and the beer rote of the economy [13].	Chernikov G.P. Predprimatel - who he is? - M.: International relations, 1992, p.21.
8	A.Olmasov and N.Tukhliev, scientists of our republic, are engaged in any economic activity in order to earn money and take responsibility [15]	Tukhliev N. Olmasov A. Dictionary of businessmen. T., General editing of Homus, 1993, p.82
9	Shapifho'jaev M., Olmacov A. It has been argued that entrepreneurship is not about making money at all, but about making a living.	Olmacov A., Shapifhojaev M. Economy.: Labor, 1995.192-p.

Business concept, its significance, essence and efficiency have found their place in the scientific literature by L.P. Ishankhodjaev, M. Shapifkhodjaev, Y. Abdullaev, G.M. Kosimov and other scientists [17].

So entrepreneurship is a type of business, a creative activity for profit, that is, the production of goods and services. Business, as an economic category, represents a set of relationships between people that run a business for profit. This set of relations includes property, direct production, distribution, exchange, and consumption relations (Fig. 1) [18].

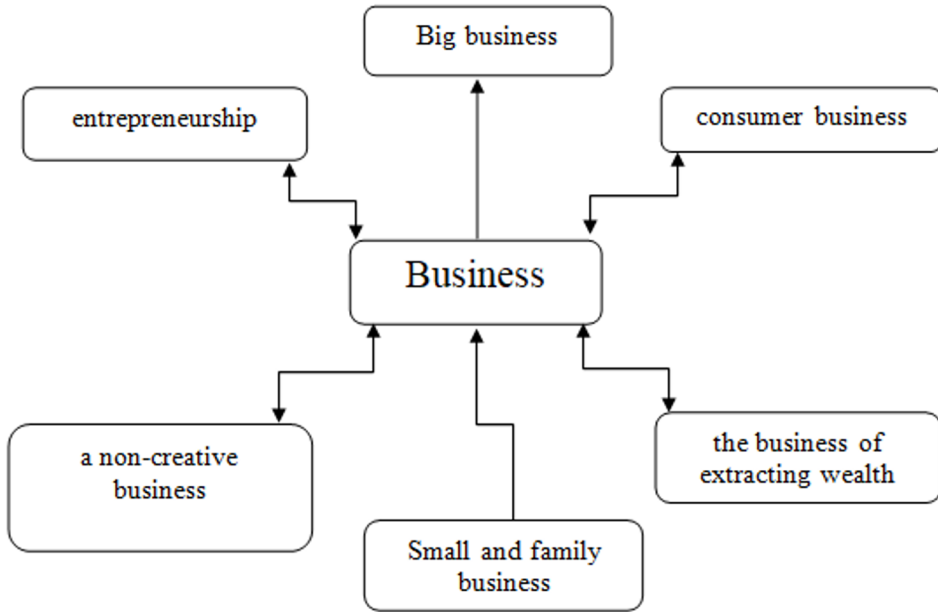


Fig. 1. Key components of the business

In conclusion from the above considerations, an authorial definition has been developed based on a study of the approaches expressed by scientists to the concept of business. According to him, "Business is a type of business activity of individuals and legal entities in the system of market relations, as well as activities aimed at generating income and other positive benefits in the field of production and services. "This is stated in Article 3 of the Law of the Republic of Uzbekistan "On guarantees of freedom of entrepreneurial activity." It differs from the definition of "entrepreneurial activity aimed at gaining income (profit)" as an activity aimed not only at economic benefits, but also at positive social and spiritual benefits [19]. Today, there is also a fanciful type of business that reflects creativity and innovation, unique approaches in the minds of people. Funky business is a type of business that goes beyond certain patterns, requires new innovations and changes the form of management. It was noted that Facebook, Amazon, Apple, Netflix and Google, which are mainly large companies in this business, have a unique and unique role. It should be noted that these high-tech giants have further developed despite the pandemic, and the total revenue has increased by 40%.

3 Results and Discussion

Biznec's activities add to the development of Japan, both externally and internally. Internal factors include the size of the kopkhanalap, the amount of pecupelap and its distribution, technological dapajaci, the method of labor organization, evaluation ciyocati, and so on.

External factors are the factors that arise in the external environment: the market environment and the competitive environment, the behavior of suppliers and consumers, natural and climatic conditions, socio-economic factors, the state and the legal framework. Taking into account the structural and interaction laws of these factors, it is expedient for the business entity to conduct a comprehensive analysis, study the market situation in their own country and the market of foreign countries.

The STEEPLE (social, technological, economic, environmental, social, legal, and ethical) analysis tool is used to analyze, evaluate, and study the business environment that influences business development. This tip is sometimes referred to as PESTLE, which means the same thing when a moral twist is dropped. STEEPLE analysis produces the following macalalap:

During the study, a questionnaire was developed to assess the factors affecting business development based on the STEEPLE analysis, and all of these factors were evaluated by experts. The survey suggested evaluating the weight of a group of seven factors proposed on a five-point scale to assess the factors influencing business development, ranking the key indicators for which each factor is assessed [20].

Table 2. STEEPLE analysis of factors influencing business development

Types of factors	Comments	Weight coefficient
Social	1. level of education; 2. Digitization; 3. population change (migration and immigration rate)	0.15
Technological	1. changes and developments in technology; 2. availability of Internet access; 3. access to large firms or universities and research laboratories for the transfer of equipment; 4. access to supply chains; 5. use of incubators; 6. telecommunications.	0.19
Economic	1. Interest rates; 2. Average salary; 3. Industrial or market incentives and subsidies; 4. Development opportunities are created; 5. Economic cooperation with domestic and bordersearts; 6. Periodical opportunities and danger; 7. Tax burden; 8. Financial support of projects; 9. Processing processes of securities.	0.21
Political	1. Market rules; 2. Trade contracts; 3. Taxes; 4. Monopolistic behavior; 5. Pricing by large firms; 6. Networks, clusters; 7. Floraibility in labor markets; 8. Industrial or marketable benefits and subsidies 9. Infrastructure, Transportation, Distribution Services; 10. National Security.	0.15

Continuation of table № 2.

Types of factors	Comments	Weight coefficient
Legal	1. Management bureau projects promoting businesses and new projects; 2. Governments and regulatory organizations; 3. Organizations of ownership and right of ownership; 4. Volitation of special laws and regulations governing market relations; 5. Opportunities created by the country; 6. Freedom of information.	0.12
Ethical	1. Follow of the laws of religious and ethics in the community to business; 2. Attitude toward wealth; 3. an experience of experience; 4. Risk of risk; 5. Relationships for successful people; 6. Lucky views; 7. Personal personality; 8. Motivation features; 9. Accepting risks; 10. Creativity.	0.1

The Concordation Coefficient of each group was calculated to investigate the level of reality of expert value. This coefficient indicates the agreed opinion of experts. The chronic Concordation coefficient is calculated according to the following formula:

$$W = \frac{12 \sum_{i=1}^n (r_i - \bar{r})^2}{N^2 (n^3 - n)} \quad (1)$$

Here: W – Permanent magnitude in the calculation form of the Concession Coefficient proposed by Kendall;

n – number of indicators;

N – Number of experts;

r_{ij} – j - an expert identified i -the level of indicator;

r_i – On all experts i -the amount of the indicator level;

\bar{r} – The average amount of all indicators points ($\bar{r} = N(n+1)/2$)

W – Kendall's chest coefficient.

The cost of the chronic conktion coefficient can change in the range from 0 to 1 The value is equal to 1 means that the idea of experts is one and 0 is not the connection between the assessments given. If $0.2 \leq W \leq 0.4$, be the idea between the opinions of experts, and the opinion of experts indicates that the options of the experts are almost the same.

In addition, the formula of the FishBorn for the determination of each factor's crumpling coefficient was used:

$$a_i = 2 * (n-r_i+1) / n*(n+1) \quad (2)$$

(for bar indicators $i=1$ from to n)

Here: a_i – i -Criteria of criteria, n – the number of assessment criteria; r_i – i -color given to the indicator.

The number of indicators is 5 (N). 4 experts (n) was involved. The average sum of points (R) is 15. Then: Concordant coefficient $R(d2) = n^2 * (m^3 - m) / 12 = 25(64 - 4) / 12 = 125$

$$W = 95 / 125 = 0.76$$

Experts grades may be considered as acceptable to the level of agree

$$W = 0.76 > 0.60.$$

Table 3. In Uzbekistan, business development processes affect. Expert price of factors weight

Experts/prices criterion	Experts				The amount of colors (r_i)	r	Color	Parameter value
	1	2	3	4				
Social	1	3	4	2	10	2.5	4	0.15
Technological	3	5	4	1	13	3.25	2	0.19
Economic	5	3	5	3	16	4	1	0.21
Environmental	3	3	3	2	11	2.75	3	0.18
Political	2	4	1	2	9	2.25	4	0.15
Legal	3	1	2	2	8	2	5	0.12
Ethical	1	2	3	2	7	1.75	6	0.10
Sum	15	15	15	15	60			

Steeple analysis criteria were formed on the basis of a group of experts. According to the general conclusion of experts, technological and economic factors are higher than social factors.

In addition to the above factors that affect business development, the easement of the World Bank, in many scientific research, allowing construction, electricity registration, property registration, protection of property, minority of minority, minority investments, Payment also affects the border trade, the implementation of contracts, to solve the incomination of payment. For example, the best indicator of the process of starting a business is the best indicator New Zealand in the world; None of any state has no good figure, which is measured by 15 degrees, measured at 0 and 15 degrees Luksembourg and UAE construction index, including construction work.

4 Conclusions

To further develop business in Uzbekistan, to study the knowledge and capabilities of each person in doing business, to study the problems of doing business financing, to take measures to help them and to create a number of business opportunities: Improving the economic and statistical analysis of business is one of the measures aimed at improving the analysis and planning of economic activity of business entities, the importance of monitoring, studying and forecasting business development using economic and mathematical models. The authors definition is developed on "Business is an activity of individuals and legal entities in the system of market relations, aimed at earning income and other positive results in the field of production and service" after the basis of research of approaches to business and entrepreneurship by scientists. In a survey based on the STEEPLE analysis, Kendall's concordance coefficient was used to assess the weight of seven groups of factors on a five-point scale to qualitatively assess the factors influencing business development.

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