CURRENT PROBLEMS, DRIVERS AND DOMINANTS OF THE SERVICE ECONOMY

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ABSTRACT

This article is devoted to studying the main problems, drivers, and dominants of the service economy. The study's main purpose is to identify and classify drivers and dominants that determine the development of the service economy in different countries. To achieve this goal, methods of correlation and cluster analysis are used. The results allowed us to determine the relationship between the development of economies and service economics, identify the main influencing factors and measure the value of each element for the service economy. The study substantiates the urgency of the problem by determining the importance of the service economy in GDP, the structure of the service economy, identifying the leading players in the global services market. Based on statistical information, financial support, human resources, business environment, and digital technologies were identified as key drivers of the service economy.

The cluster analysis results showed different strengths of the influenced factors on the formation of the service economy in countries. As a result, we have four groups of countries with familiar problems, drivers, and dominants in the service sector.

Keywords: Service economics; Business environment; Digital technologies.

INTRODUCTION

The service sector consists of different industries and activities that are important in the system of social production. It is expressed in the production and sales of intangible assets. The last decade is characterized by an increasing role of services in the world economy. Every year this value increases, which is shown in Figure 1.

In 2019, the service sector produced 13.6% of all products in the world. The statistic shows that with the increase of the population's welfare, the sphere of services develops, and on the contrary, with the decrease of the welfare of the population, the sphere of services stops its increasing. This can be clearly seen in the example of 2020-2021, when the services sector provided 30% fewer products than in previous years during the quarantine period. The quality of services fully depends on the financial and labour investments in it, so the more expensive the services are, the better is their quality. This fact is confirmed by the example of all areas of services: tourism, transport, services, financial and information services, etc.

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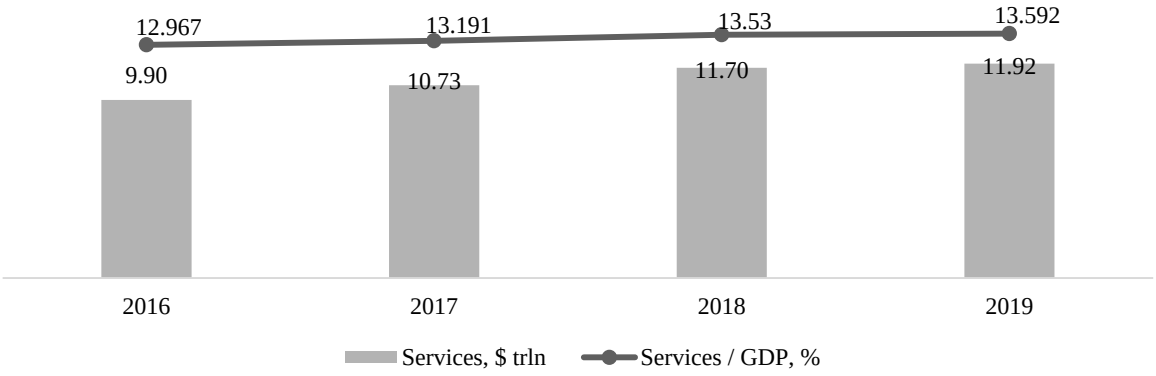

FIGURE 1

SERVICES MARKET AND ITS IMPORTANCE IN THE GLOBAL ECONOMY

The service sector is one of the most important in the global trade system. At the same time, world exports of services are dominated by imports. The trade turnover is about $ 6.34 trillion, while the value for 2018-2019 increased by 4% (Figure 2). At the same time, in 2019 exports of services amounted to $ 3.36 trln, and imports to $ 2.98 trln.

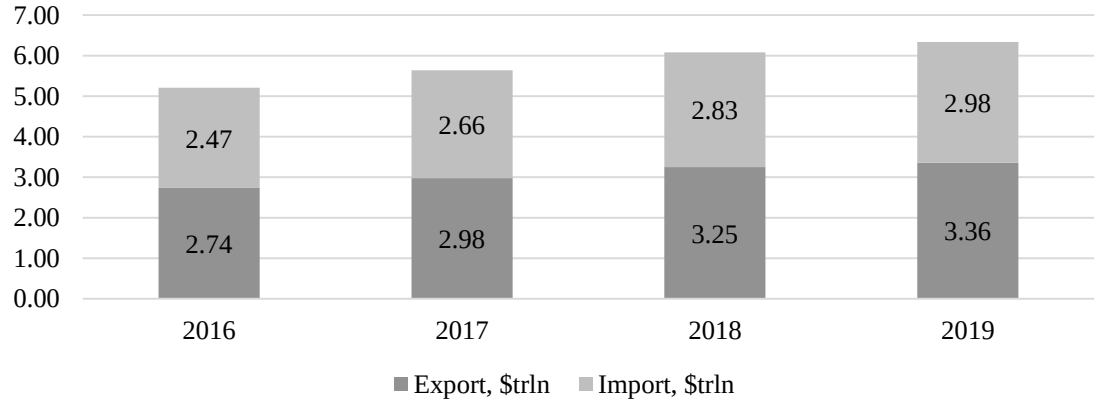

FIGURE 2

WORLD TRADE IN SERVICES

The noteworthy feature is that the largest exporters in the service sector are European countries, which account for about $ 53 of total exports (Figure 3).

Most services are provided in business areas: management, accounting, legal services, auditing, etc. The United States, East and Southeast Asia countries play an important role in the global distribution of services. These countries will have a faster increase in exports of services in the next years thanks to government support, which stimulates advanced technologies and invests in public education.

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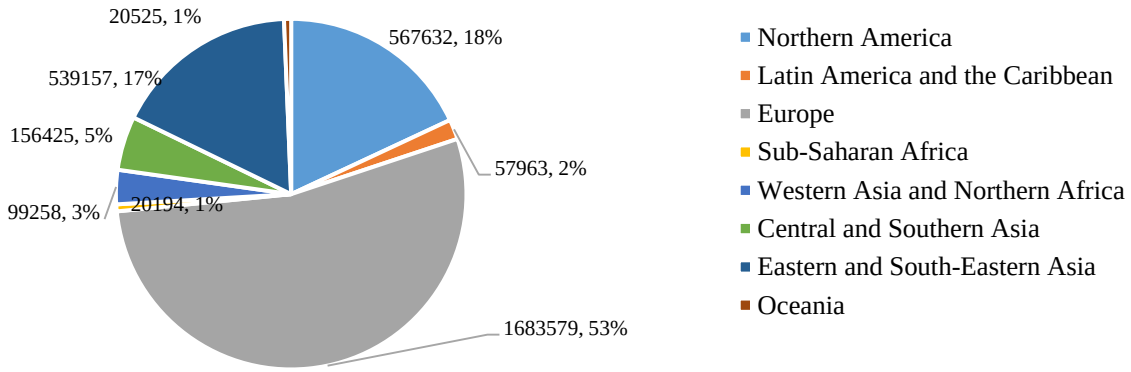

FIGURE 3

STRUCTURE OF EXPORTS OF SERVICES, $ MLN.

LITERATURE REVIEW

Problems, drivers, and dominants of the service economy are determined mainly by the main influenced factors. The service sector is a unique field of activity, as it can develop well both in developed and developing countries. It's not necessary to invest many resources to provide quality services. The countries can create quality products using information technology or increasing work efficiently. The quality of services is fully determined by four components: financing, labor, business climate, and the use of information technology (Gaisina & Artemov, 2015).

These components can become drivers of the service economy, and at the same time, they can identify the main problems. However, each country has its own set of dominants, drivers, and difficulties in the service sector. In order to understand how this sphere is arranged in the world, we will perform a more detailed analysis. Let's identify the main problems that are typical for the service sector. As mentioned above, a set of problems is formed within the main components of the development of the service economy. The main problems include lack of resource base, staffing problems, underdeveloped business environment, and insufficient level of information support.

An insufficient resource base is formed due to inadequate access of business entities to information on resource availability. Financial support is significant for developing different services in every country.

Depending on the markets and the country's level of development, the company may receive additional financing from banking institutions or from the financial market through venture capital. Most countries in the world do not have sufficiently developed financial markets, so the only way to get financing is a bank loan or government support. Practice shows that many companies do not have information about current programs for developing a particular sector of the economy and therefore do not use the original government or banking proposals.

The next problem is a lack of qualified, competent personnel. In the organization of entrepreneurial activity in the field of services, employees often lack experience, which causes problems with the organization of production and the proper use of enterprise resources (Lopushnyak et al., 2020). In order to provide quality services, it is necessary to have enough

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knowledge in the field of activity, which obtain with a quality education. Access to education determines the future development of the country. The presence of highly qualified employees who analyze, model the situation, develop effective strategies, and bring innovation, can grow the economy. In addition, entrepreneurs also do not have enough skills to use human resources efficiently. This problem is more relevant in developing or underdeveloped countries characterized by low-quality education and wages that could motivate staff to develop.

The business climate is a set of conditions and opportunities of a country or region formed by the state in a certain period and sufficient for the creation and development of business entities. The emphasis on certainty over time is very important because the business climate is a volatile concept and changes over time. The business climate is influenced by various factors, including political, economic, social, environmental and other elements. According to the ranking of the competitiveness of the world, four main factors affect the formation of the region's business climate (Shurab, 2019). The first group is formed by indicators of regulatory functions of the state. They include macroeconomic indicators as well as the activities of government institutions that regulate entrepreneurship at all levels.

An insufficiently developed legal framework is one of the severe problems of the services market, which is expressed in the lack of a single legal framework for the development and support of business in the field of services. There is a list of normative and legal documents that regulate business activities in each country. Still, the existing legislation is not perfect and is currently not able to solve most problems. First of all, it is the lack of flexibility and imperfection of tax legislation due to the lack of real tax benefits for creating business activities in the service sector (Gaisina & Artemov, 2015). Infrastructure development is also essential not only in the field transport support but also in the road surface. The second group is formed by human factors, which include the general state of health and skills used in entrepreneurship. The markets of goods and services form the third group of indicators that includes the indicators of financial and the labor market. The innovation factor also significantly impacts the formation of state competitiveness, given the factor of using innovation systems in business.

At the present stage of developing world information technologies, there are structural changes in the global trading system (Lotushkin & Paramanova, 2019). They are one of the critical factors of economic development that significantly affect the competitiveness of market participants in some countries in the world economy. The development of national exports, penetration, and conquest of high-tech markets, including information, are among the main areas of foreign economic policy of developed countries. The largest share of the information technology market is received by the IT services segment, which is 57%, hardware development is 26%, and software 17% (Gartner, 2020). Focusing on innovation and development of the IT sector ensures economic growth in all developed countries and some developing countries, including Japan, China, Israel, Malaysia, and India. The governments of these countries have become the main investors in the field of high technology. They also support this industry in the form of preferences, creating transparent conditions for doing business, comprehensive support for small and medium-sized enterprises. All these factors affect the formation of service quality. This is why many services remain out of the consumer's attention due to insufficient quality. The quality of services is determined by the degree of compliance with the requirements and expectations of consumers, which is based on competition. It is safe to say that the better the services are, the higher is the price of providing them (Schneider & Zielke, 2021). That is why many quality services are not available to citizens with middle- and below-middle-income.

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RESEARCH METHODS

Collected statistical information allows us to identify the most influential factors on world services. Using the methods of analysis, synthesis, induction and deduction, the main indicators that can affect the development of the service economy were selected. In order to analyze them, the method of comparison and averages was used. In order to determine the main relationships between the development of the country and the level of development of services, the method of correlation analysis or linear Pearson correlation coefficient is used. This indicator is determined by the formula:

$$r = \frac{COVxy}{SxSy} = \frac{\sum(X - \bar{X})(Yi - \bar{Y})}{(n-1)SxSy} = \frac{\sum(Xi - \bar{X})(Yi - \bar{Y})}{\sqrt{\sum(Xi - \bar{X})^2 \sum(Yi - \bar{Y})^2}}$$

The correlation coefficient shows the closeness of the linear relationship and varies in the range from -1 to +1. A negative value determines the complete inverse relationship between the indicators. The study determined the Pearson coefficient between the value of competitiveness and service development. The value of the Pearson coefficient in a sample of thirty countries is -0.04. Calculations are made using Excel. The search for similar characteristics and factors influencing the service sector is determined using cluster analysis. To find such countries, the principle of the nearest neighbour is used. As the distance between the indicators of the countries is used Euclidean distance, which is determined by the formula

$$L = \sqrt{\sum (x - y)^2}$$

Cluster analysis is performed according to essential indicators in terms of 30 countries. The paper divides countries into 4 clusters, which have familiar and different features. The Euclidean distance is calculated from the original non-standardized data, and therefore all variables must be measured on the same scale. In our case, it is a rating assessment of each of the factors influencing the development of the service.

RESULTS AND DISCUSSION

The problems of the service sector described above were chosen not by chance. Statistical and marketing organizations that determine the dynamics of market formation have determined the rating of countries based on the index of placement of services. Based on this rating, each country receives its own index. Surprisingly, the best indicators got not developed, but developing and Asian countries.

The correlation analysis of the ratings of Global Competitiveness and Global Distribution of Services shows a negative value, which indicates an inverse relationship between these indicators (Table 1).

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TABLE 1
GLOBAL SERVICE LOCATION INDEX STRUCTURE FOR 2019 BY COUNTRIES

Global Competitiveness Rank	Country	Global Service Location Index					Global Service Location, %			
		Financial Services	People Skills	Business Environment	Digital Resonance	Total	Financial Services	People Skills	Business Environment	Digital Resonance
2	USA	0,4	2,3	1,9	1,2	5,8	6,8	40,1	32,4	20,7
7	Germany	0,8	1,9	1,9	1,0	5,6	13,7	33,5	34,4	18,4
9	UK	0,9	1,8	2,0	1,1	5,8	14,7	31,8	33,7	19,7
14	Canada	0,7	1,7	1,9	1,1	5,3	12,3	31,5	36,2	19,9
25	UAE	2,1	0,8	1,8	0,7	5,4	39,1	14,2	33,3	13,5
27	Malaysia	2,6	1,2	1,6	0,8	6,2	42,3	18,7	26,7	12,4
28	China	1,9	2,3	1,4	1,0	6,5	29,0	34,7	21,3	15,0
31	Estonia	2,1	0,8	1,8	0,9	5,6	37,8	13,8	32,1	16,3
33	Chile	2,0	1,1	1,7	0,5	5,4	36,8	20,9	32,1	10,1
34	Portugal	1,7	1,2	1,7	0,8	5,3	31,1	21,5	31,8	15,5
37	Poland	2,1	1,1	1,6	0,6	5,3	38,8	21,0	29,5	10,6
39	Lithuania	2,5	0,7	1,6	0,7	5,5	44,6	13,1	29,6	12,7
40	Thailand	2,6	1,2	1,4	0,6	5,8	45,1	20,0	24,3	10,7
41	Latvia	2,3	0,7	1,7	0,6	5,4	43,5	13,8	31,2	11,6
43	Russia	2,3	1,2	1,2	0,7	5,4	41,7	22,8	22,8	12,6
48	Mexico	2,4	1,3	1,5	0,6	5,7	41,3	22,9	25,9	9,8
49	Bulgaria	2,5	0,7	1,6	0,6	5,4	45,6	13,5	29,7	11,3
50	Indonesia	2,8	1,3	1,3	0,7	6,0	47,2	20,9	21,1	10,8
51	Romania	2,3	0,9	1,5	0,6	5,3	43,6	17,5	27,8	11,0
52	Mauritius	2,3	0,8	1,6	0,6	5,2	43,9	14,3	30,5	11,3
57	Colombia	2,5	1,2	1,4	0,5	5,6	44,6	20,7	25,3	9,4
64	Philippines	2,8	1,3	1,1	0,6	5,8	47,8	22,7	19,2	10,2
65	Peru	2,6	1,0	1,4	0,4	5,4	48,6	18,2	25,1	8,0
67	Vietnam	2,8	1,2	1,3	0,6	5,9	48,0	19,9	22,6	9,5
68	India	2,8	2,2	1,1	0,9	7,1	39,9	31,6	16,1	12,3
71	Brazil	2,3	1,7	1,3	0,5	5,8	39,2	28,7	23,1	9,0
83	Argentina	2,2	1,3	1,3	0,5	5,2	42,3	24,5	24,1	9,2
84	Sri Lanka	2,9	0,9	1,1	0,5	5,4	55,0	15,9	20,2	9,0
85	Ukraine	2,9	0,9	1,0	0,6	5,4	54,1	16,2	18,8	10,8
93	Eqypt	2,9	1,1	1,0	0,6	5,6	52,1	19,4	18,1	10,4
	Average	2,2	1,2	1,5	0,7	5,6	39,0	21,9	26,6	12,4

Source: Kearney, 2019; Shurab, 2019.

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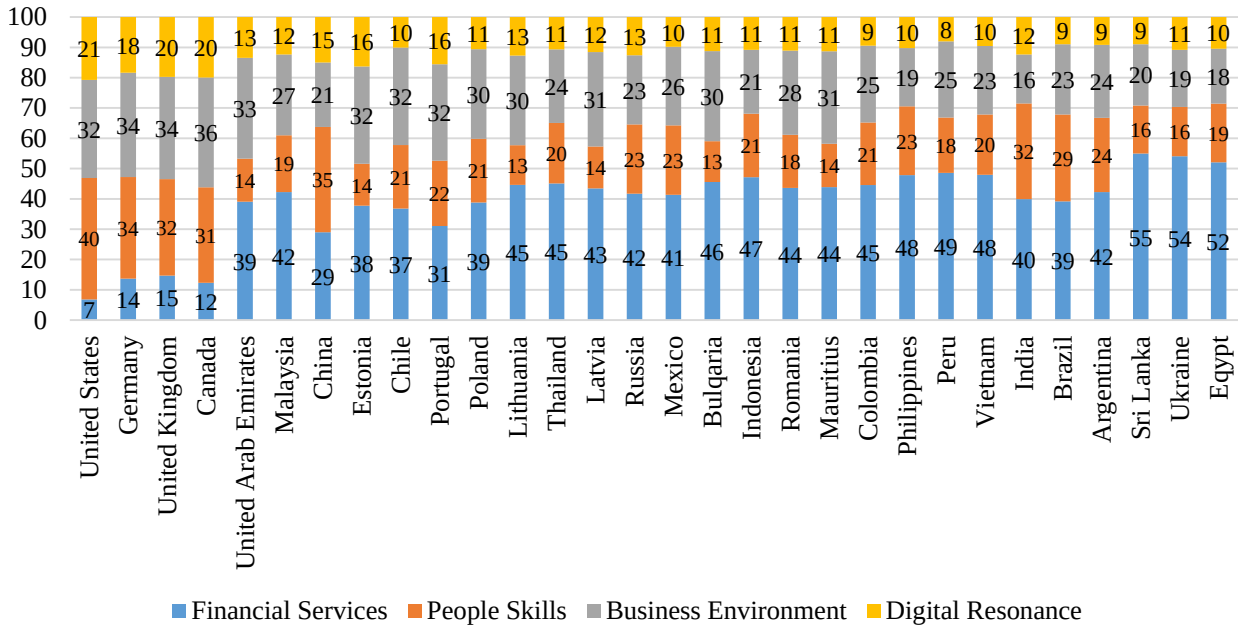

FIGURE 4

THE IMPACT OF FACTORS ON THE FORMATION OF THE SERVICE SECTOR IN SOME COUNTRIES IN 2019

Thus, it is possible to identify the main dominants in services development. It is the financial sector (average 39%) and the business environment (26.6%). According to these indicators, we will conduct a cluster analysis of countries to confirm the conclusions based on the analysis results (Table 2).

TABLE 2
THE RESULTS OF CLUSTER ANALYSIS OF THE COUNTRY BY THE LEVEL OF SERVICES

USA, Germany UK, Canada	United Arab Emirates, Malaysia, Estonia, Chile, Portugal, Poland, Lithuania, Thailand, Latvia, Russia, Mexico, Bulgaria, Indonesia, Romania, Mauritius, Colombia, Philippines, Peru, Vietnam, Brazil, Argentina, Sri Lanka, Ukraine, Egypt	China	India
0	16.125	19.105	30.806

It can be concluded that India's service sector is significantly different from the service sector of developed countries. In addition, it is also more developed than in China. The main drivers of India's services sector are financial services. As for China, the country has been more successful in educating its citizens, who can create competitive products in demand worldwide (Figure 4). Numerous service quality studies are conducted in the context of various service areas (Remenyi & Money, 1994; Korobeynikova et al., 2021; Walia et al., 2021). Some relevant studies with a mathematical model that allows finding relationships between variables and predicted results of the studied variables can be found in (Lopushnyak et al., 2021). Today, the most relevant are researches in the field of quality of information services and digitization. Such

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studies confirm the fact that the development of information technology can lead to rapid growth not only in services but also in the economy (Remenyi & Money, 1994). As can be seen from the study results, the digitalization of the economy is a sign of a developed country. Digital technologies are spreading to all areas of activity and cause their growth. This primarily affects the financial sector (Korobeynikova et al., 2021). It also has a significant impact on business services, as the ability to automate business processes depends not only on the speed of turnover but also on the quality of services (Baliga et al., 2021). The formation of the main problems and factors affecting the service sector are widely studied by various researchers (Gaisina & Artemov, 2015; Lee & Lee, 2018; Xudoyberdiyeva, 2019). In particular, some researchers believe that the banking sector has a negative impact on the services sector, as loan rates do not contribute to the development of the services sector. However, it can be argued that this is especially true for countries with underdeveloped financial markets.

CONCLUSIONS

The main drivers of the economy of services are the development of financial services in the country, the level of awareness and digital literacy of the population, a developed business environment, and the digitalization of the economy.

The main service providers are underdeveloped countries, in particular India, with the highest score of 7.06. China occupies second place with a significant lag; the distribution of services in this country is 6.48. Malaysia ranks third. On the other hand, although the United States ranks 6th in the ranking. The elements of the indicator show that this is only due to the developed business sector and the level of digital literacy of the population.

In developed countries, particularly the top four (USA, Germany, Great Britain, Canada), the development of the financial service and the sector is the least important indicator in the field of services. This is due to the fact that the stock market, equity capital mainly finances developed countries. That is why the influence of the financial sector, or rather the credit rate or the deposit rate, does not have a significant impact on the services sector.

Countries outside the top fifty competitiveness rankings are directly dependent on the development of the financial sector. In particular, in Egypt, which ranks 93rd in the ranking of competitiveness, the impact of financial services is greatest among others - 52%. At the same time, in Ukraine (85th place in the ranking of the competitiveness of countries) the figure is 54.1%. The most important financial indicator is in Sri Lanka (55%), which ranks 84th in the competitiveness ranking. The average impact of the financial sector on the sample services sector is 39%.

Speaking about the level of education and business skills of the population, we can say that in developed countries the rate is the highest. This shows that in developed countries, the population has enough money to get education and skills. In particular, the largest values are in the USA - 40.1%, China - 34.7%, Germany - 33.5%, Great Britain, Canada, and India. The smallest values are Estonia, Lithuania, Latvia, and Bulgaria. At the same time, the value of skills of the population is not the greatest in the formation of the service sector; the average sample is 21.9%.

It is also typical for developed countries to have large importance of the business environment in building the service sector. In particular, Canada, Germany, and the United States top the ranking of countries where the business environment has the greatest impact on the

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service sector. Many business services in developed countries are provided by outsourcing companies in less developed countries, such as India, China, Eastern Europe, and others.

The level of economic development largely depends on the level of digitalization of the economy. In particular, according to research, there are close links between economic development and investment in information technology in many developed economies. However, digitalization does not have as strong an impact on the services sector as on the economy. The average value of digitalization in the formation of services by country is 12.4%.

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