

# Commercial Services Under Digital Transformation of the Global Economy

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**Abstract.** Today the economic development focuses heavily on commercial services, which is determined by growing economic importance of their production and trade. As it is well-known, in the developed countries and today in many developing ones, the services account for a significant share of GDP. The contribution of services into manufacturing, which is often called manufacturing services, is considerable, as the added cost of services accounts for about one third of the manufacturing export in developed countries and 26% in developing ones [1]. From the other hand, the role of services is also determined by their influence on the economic efficiency of production, as services that are provided in manufacturing and goods distribution influence the final prime cost of a product, and contribute to providing a product to the consumer and demonstrate the quality of servicing.

Today when we are entering the era of digital economy as part of Industry 4.0, the role of commercial services gets a new dimension. We should also stress the advent of new services and the transformation of the new ones, changes in service delivery, new barriers between free flows of services.

## 1. Introduction

Digitilization of economy has been studied by both Russian and foreign authors. In particular, digital economy includes digital technologies, mainly through electronic operations that are carried out via Internet. The term covers all these economic processes, operations, interactions and activities based on digital technologies. Digital economy is an activity aimed at the creation, distribution and use of digital technologies and associated products and services [2]. Digital economy has its specifics, including a wide basis, focus on the aforementioned digital tools that are employed in the economy [3].

In case of the digitalization of economy, it is essential to understand its influence on the various aspects of public relations and economic processes. In particular, we should explore the issues associated with the service sector in the global economy and analyse the impact of digitalization on the ongoing changes.

Services sector is actively developing, which is proved by the interest of international organizations and leading consulting companies in services. For example, the UNCTAD meeting in 2018 discussed among other topics the types of digital technologies that shifted the traditional boundaries between various sectors, industries and services, and therefore, contributed to the economic diversification and structural changes.

Global chains of added value (GCAV) are relevant issues in commercial services that are explored in the OECD reports, which show the role of services in GCAV. The report addresses the fact that imported services (internal or foreign) account for about 37% of manufacturing export costs. The importance of creating jobs in the service sector, such as R&D, engineering, transport, logistics, etc. is stressed.

The author of the present article seeks to analyse the current trends of the commercial service development under the digital transformation of the global economy.

## 2. Review of the main concepts

Services are a result of manufacturing activities that lead to the changes in the institutional units that consume them, or encourage the exchange of products and financial assets. As a rule, services are not individual objects, that can become someone's property, and usually they are cannot be separated from the production process [4].

However, we should say that some types of products that are the embodiment of knowledge, for instance computer software and other intellectual property products, can be sold separately from the production processes as goods.

We should say that the service classification varies greatly depending on its goals. For example, in its guide on balance of payments the IMF classifies the services in the following way: transport, trips, construction, insurance and pension coverage services, financial services, telecommunication, computer and information services, etc.

The WTO divides commercial services in international trade in 4 groups: good-related services, transport, tourist services, etc. The last group includes financial, telecommunication services, etc. WTO classification of services was based on the GATS and includes 11 groups and more than 150 subgroups.

## 3. Theory

As for the tendencies of service sector development, at first services were nontraded products and were sold exclusively in the internal markets of national economies. In 1980s the importance of commercial services grew, they became essential for manufacturing and the development of agriculture.

Transnational corporations became the next stage in the development of commercial services. Their role in the development of the service sector can be explained by a number of factors, first, outsourcing their manufacturing facilities overseas, they also outsourced various services, in particular, design and engineering, technical and economical manufacturing facilities. Creation and development of major centers that provided marketing, consulting services and engaged in R&D in transnational corporations' home countries were an important factor.

As the above mentioned commercial services developed, banking, insurance, securities, engineering, leasing services became more popular, thus forming an international service market.

In 1980s the annual growth rate of international services trade was higher than the international goods trade by about 2.4-2.8%.

As the global economy developed, globalization, due to scientific and technical progress, hi-tech services were designed and developed, for example, information, telecommunication, cellular service.

These trends in the development of services required the creation and development of international norms and regulations. This resulted from barriers for free flows of services that obstructed them.

By the time, the International Trade Organization developed a number of agreements, with the resulting GATS that aimed at eliminating barriers and restrictions for commercial services with the help of WTO liberalization mechanisms. GATS provided for four types of service delivery, in particular, trans-border delivery; overseas consumption; international commercial presence; presence of individuals. Delivery types were developed with a view to improve the control over the interaction between the provider and consumer of a service, to eliminate possible restrictions of service import imposed by national governments.

#### 4. Research outcomes

Traditionally, international statistics (according to WTO) divides services into four groups, in particular, good-related services, tourist, transport and other services.

The service structure remains the same, however, demonstrating various fluctuations (Table 1)

**Table 1.** World export commercial services by category, 2017 (billion dollars and percentage).

Service	Value 2017	Share 2005	2010	2015	2016	2017
Commercial services	5279	100	100	100	100	100
Good-related services	184	3.6	3.6	3.4	3.5	3.5
Transport	931	22.3	21.5	18.5	17.5	17.6
Travel	1310	26.6	24.9	24.6	24.9	24.8
Other commercial services	2855	47.5	50.0	53.5	54.1	54.1

As we can see from Table 1, the share of transport services reduces in the total commercial services export, while the share of tourist services hardly changes with 24.8% in 2017. The table also indicates that the share of other commercial services also grows.

The share of financial services in the other services is 16%; intellectual property usage accounts for 13.3%; telecommunication, computer and information services have 18.5%.

The statistics analysis of international service trade shows a tendency to growing prices, for example, in 2017 the global service export amounted to \$5.3 trillion, which is by 10% more than in 2016. The USA, the United Kingdom, Germany and France are the traditional leading service exporters. However, China (5th), India (8th) are also among the top ten service exporting countries [5].

It is worth noting that according to the international trade statistics on categories by countries, R&D services accounts for the majority of services in the developed countries, such as the US (27%), Japan (19.1) and Israel (45.5). The majority of these services are legal, accounting, consulting ones, with the US (43.7), Canada (38.5) and the EU (23.7) being the leaders. In the developing countries, the majority of other services is represented by technical, trade and business services: India (71), Brazil (73,7), the Philippines (99.1) and Thailand (100).

At the global stage of economic development which can be characterised as the age of digitization, we would like to stress the new basipetal services system, the emergence of new types of services and transformation of the existing ones, new ways of delivery.

It is promising to explore the trends in the other services according the WTO classification, indicating that the majority of such services accounts for distribution services (including retail and wholesale), business services (including professional services), financial services (insurance, banking services services associated with securities), and construction and engineering services, transport services, and communication services (including postal, telecommunication and audio and visual services) and some others.

Retail and wholesale are going online as one of the main services and business activities that account for the largest part of GDP, participate in the creation of global value chains in terms of goods exports. In order to improve their service quality, off-line shops change it to keep up with all the major internet retailers like Amazon or Ebay. The model "online to off-line"(O2O) is being developed in China within the same logic, in order to comprehensively service the customer. First of all, O2O ensures that the product can be bought on the Internet and then taken from a real-life shop. According to the Daxue Consulting research on O2O in China, in 2016 72% of Chinese consumers wanted to buy products online, and return the product or change it in a shop. In the future O2O services would

include the design of the product for individual customers and online physical storage room assessment as well as an opportunity to buy a product in a shop and automatically deliver to the consumer [6].

Retailers provide new functional services, when they go online. For example, the American supermarket chain Walmart considers an opportunity to create their own streaming service [7]. Payments for the product put on the balance of payments as financial services are made through electronic payment systems. Major sales businesses develop an ecosystem of services that improves their relationships with clients and reduces costs associated with purchase of goods. In 2004 an electronic payment system Alipay was launched that allows to make payments without commissions. Alipay accounts for 50% of online payments, and for 82% in the segment of mobile payments. To increase its share onto market, Alibaba Group launched Yu'eBao System, a money market fund that allows to invest the money with the interest rate similar to bank deposits, which allowed the company to take 30% of the market [8].

The digitization of the global economy also results in many financial innovations. We should also say that non-banking non-financial structures (retail, social media, cell phone operators) Compete with traditional financial organisations for clients with mobile applications. The majority of services is provided with the help of an Internet banking and smart phone applications. Non-financial businesses launch and introduce their own payment systems [9].

In early 2019 Apple will present its own credit card. It will be serviced by Goldman Sachs. It is believed that Apple will have a higher interest on the on-line payments made with this new card. As for Goldman Sachs, it is a chance for the company to develop their own retail sector. Amazon has launched its own currency that is used in Amazon App store applications. Online money can be used to buy applications and make purchases inside them. Amazon coins' nominal value [10].

Banking services that are transforming to financial and technical ones. For example, a micro-financial organisation has launched a Webbankir Pay platform, That helps small and medium businesses to give loans online without banks, ATMs, or credit cards [11].

Business technology through smart contracts and based on block chains. Decentralized autonomous organizations, or DAO is the organizations, rules of procedure that are stipulated in smart contracts. The independence is associated with the fact that smart contacts (initial code) are written in block chain, in other words they can't be changed what stopped after they are launched, unless the opposite is written in the smart contract [12].

Changes in consulting and engineering services affect the transition to the internet platforms, this is why they do not always need physical transportation or presence of the service provider, a company or a consultant, and can cross borders.

Insurance services are provided through Internet. Insurance Internet-based business (СИБ) operates as an agregator. With the help of insurance agents to select insurance policy for their clients, and brokers use them to manage agent networks [13]. Today insurance companies develop services for self-driving cars [14].

Based on the aforementioned, we can say that there is a transformation in the service sector that concerns not only its globalisation but also a transition to new forms of service delivery.

Such modification resulted in changes in the existing global added value chains (GAVC) that are becoming global factories that manufacture products, and countries compete with each other for a place and a role in those added value chains. Efficient inclusion into a GAVC ensures national competitiveness at the stages where the largest added value is generated [15].

It is worth noting that today participation of the country in the GAVC is ensured by the participation in R&D, design, logistics services, marketing, branding, rather than by the manufacturing a product and its components. Such conclusions are confirmed by research on the "smiling curve".

However, under the digitalisation of economy, The aforementioned processes of the participation in the GAVC are becoming digital ones. Thanks to new information technologies and lesser global costs of communication, it is becoming easier, faster and more economical to manage the processes of creation and development of products.

Digital technologies in distribution centres allow to reduce costs by 5-10%, increase the revenues by 1-2% thanks to timely delivery in full to retail centres, they make the turnover faster and decrease the possibility of running out of stock.

For example, in Russia VeeRoute, a company from St Petersburg, provide services to computerise logistics by distributing up to 5000 orders in five minutes and reducing the delivery costs of retailers by 30%. VeeRoute also develops a module platform on the basis of artificial intellect for industrial and agricultural companies. In such companies a phone and a sheet of paper are still the main planning instruments for setting vehicles' routes. With the help of VeeRoute, companies can make use delivery easier. The application needs data on orders from CRM to distribute them to delivery men and use the forecast of the delivery time needed [16].

Digitalisation and transport systems are important characteristics of GAVC. Digital platforms allow to small and medium businesses to gain access to shipping services through an electronic stock exchange. Global digital platforms in different areas, including broker platforms such as Cargolix. Com, DBSSchenker, Cargomatic, UPS shipping agent, MyDHL, information Xeneta, Intrra, that have global coverage and have many modalities, allow to buy the logistic services in package, thus reducing the costs for the company and increasing the efficiency of its transport fleet.

So, we should say that commercial services and digital transformation of the global economy adjust their substance and go beyond national borders by taking new forms.

## **5. Conclusions**

Digital economy has a considerable effect on the global service trade. The intangibility, distance from the consumer and the provider, lack of physical presence result in the necessity to improve the regulation on service trade on the international level and harmonize different terminologies with a view to have one unified standard.

Today the WTO has stressed the necessity to develop a classification of some aspects of international service trade in the global economy affected by these processes. This is why we have the following groups here: Digital order, and support platform, digital delivery, they all demonstrate the changes in international service trade.

We should say that digital technologies allow to fulfil a digital order online. Digital delivery can be digital or physical, it can be organised directly between the customer and the vendor through a trade platform. A support platform means that services are delivered online. As for digital delivery, services are provided across borders. Under GATS agreement, these are trans-border deals falling under the first category of service delivery

The digital agenda provides for four major avenues for the upcoming changes: 1. Digital transformation of economy sectors and cross-sector transformation. 2. Digital transformation of markets of goods, capital and labour. 3. Management digital transformation of integration. 4. The development of digital infrastructure and security of digital processes [17].

We should also say that international financial organisations, the IMF and the World Bank, have adopted a middle term working plan on financial technology risk control. The international bank studies the prospects of financial technologies in the area of financial inclusion, in other words regarding the access of people across the world to financial services (according to the IMF estimates, 1.7 billion people do not have such access).

It is also important that the development of services is seen by the international community as improvement of life quality and economic growth of countries rather than just in terms of an increase in their volume. The international economic forum presented a national economic development indicator that shows both sustainable and inclusive development based on new factors associated with scientific and technical progress and promoting digital transformation of the global economy.

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