

## TRENDS OF DEVELOPMENT OF THE INFORMATIONAL ECONOMY OF UKRAINE IN THE CONTEXT OF ENSURING THE COMMUNICATIVE COMPONENT OF INDUSTRIAL ENTERPRISES

Досліджено динаміку розвитку інформаційного та телекомунікаційного секторів національної економіки у контексті забезпечення комунікативної складової промислових підприємств, встановлено позитивні тенденції до зростання внаслідок збільшення притоку прямих інвестицій та покращення інвестиційної привабливості інформаційного сектору країни. Доведено, що розширення індустрії інформації, що пронизує всі сфери та різновиди людської діяльності і формує інформаційний ринок, суттєво впливає на фінансово-господарську діяльність промислових підприємств.

The dynamics of the development of the information and telecommunication sectors of the national economy in the context of ensuring the communicative component of industrial enterprises is investigated. Positive tendencies towards growth have been established due to increased inflow of direct investments and improvement of investment attractiveness of the information sector of the country. It is proved that the expansion of the information industry, which permeates all spheres and varieties of human activity and forms the information market, has a significant effect on the financial and economic activity of industrial enterprises.

Ключові слова: інформація, телекомунікації, інформаційна економіка, динаміка, промислові підприємства, комунікативна складова.

Keywords: information, telecommunications, information economy, dynamics, industrial enterprises, communicative component.

**Formulation of the problem.** The economy of the country and society are experiencing significant influence of rapidly developing information technologies and their dynamic use in business process management at enterprises, globalization of e-commerce and engagement in the digitization of countries with different economies. The development of modern information and communication technologies (ICTs) and increasing the amount of information are two main factors of the modern economic system. Accordingly, the countries of the world are aware of the need for new approaches to their own development and understand the benefits of the information economy [3]. It is impossible to avoid this process; one can only adapt and try not to keep up with the leaders, to implement in the economic system of the country the latest inventions in the field of information and communication technologies in a timely manner.

The information revolution, which has had small repercussions in the form of fundamental economic reforms that have taken place and continue to take place in the world economy and trade, have a direct impact on the Ukrainian economy. The expansion of the information industry, penetrating all spheres and varieties of human activity and forming the information market, has a significant impact on national economies, in particular, on the economy of our country. As a result, a new type of economy and

society is emerging in Ukraine and in the world - information [4]. Therefore, processes of studying the dynamics of the informational sector of the economy, establishing the nature of trends and peculiarities of development become very relevant.

**Analysis of recent research and publications.** The subject of the study of the information economy, its formation and development is not new, as shown by the analysis, in the works of domestic scientists are often raised questions of determining the essence of information, communications, information technology and their impact on economic processes in the country. However, due to the dynamism of the dissemination of information innovations, the speed of their penetration into markets and distribution in almost all spheres of economic activity, the study of certain aspects of the development of information and communication processes in the country's economy compared with other sectors requires constant research.

**Formulating the goals of the article.** The purpose of the article is to determine the dynamics of the development of the information and telecommunication sectors of the national economy.

**Presenting main material.** Over the last three years there has been an increase in the volume of sales of services in the information and telecommunication sectors of the Ukrainian economy. For example, in 2015, the share of information and telecommunications in the total volume of sales of goods (services) was only 2.36% or 105689.6 mln UAH (Table 1).

Table 1

**Volume of sold goods (goods, services) of economic entities by types of economic activity in 2016 [2]**

	Total, mln. UAH.	Including			
		Enterprises		Individual entrepreneurs	
		mln UAH	% to the total number	mln UAH	% to the total number
<b>Total</b>	<b>4459702,2</b>	<b>4170659,9</b>	<b>100,0</b>	<b>289042,3</b>	<b>100,0</b>
including					
agriculture, forestry and fisheries	220163,3	213929,8	5,1	6233,5	2,2
industry	1567714,0	1546614,9	37,1	21099,1	7,3
construction	154619,0	150466,6	3,6	4152,4	1,4
wholesale and retail trade; repair of motor vehicles and motor-cycles	1795659,9	1629690,6	39,1	165969,3	57,4
transport, warehousing, postal and courier activities	223068,4	203561,3	4,9	19507,1	6,8
temporary placement and organization of food	22684,6	14346,3	0,3	8338,3	2,9
information and telecommunications	105689,6	84103,6	2,0	21586,0	7,5

financial and insurance activities	60149,8	58597,0	1,4	1552,8	0,5
real estate transactions	66412,9	55103,9	1,3	11309,0	3,9
professional, scientific and technical activities	159753,4	145645,5	3,5	14107,9	4,9
administrative and auxiliary services activities	46479,2	41289,3	1,0	5189,9	1,8
educational	2353,3	1591,0	0,0	762,3	0,3
health care and social assistance	9356,2	7509,4	0,2	1846,8	0,6
art, sports, entertainment and recreation	17089,7	15595,0	0,4	1494,7	0,5
provision of other types of services	8508,9	2615,7	0,1	5893,2	2,0

As can be seen from Table 1, in 2015, the volume of realized services in the information and telecommunications sector almost doubled the volume of realized services in the areas of financial and insurance activities (UAH 60149.8 mln) and real estate transactions (UAH 66412.9 mln). Nevertheless, it had a significant backlog from the nearest leader in terms of construction (UAH 154619.0 mln) and almost twice behind the indicators of the volume of sales of services in the transport sector, warehousing, postal and courier activities (UAH 223068.4 mln). The situation improved somewhat in the next 2016 (Table 2).

Thus, there was an increase in the share of information and telecommunications in the total volume of sold products (services) to 2.5% or UAH 141479.6 mln. Traditionally, the information and telecommunication sector in the total economy of Ukraine exceeded real estate transactions with real estate (UAH 90298.1 mln) and almost reached the level of development indicators in the construction industry (UAH 150540.5 mln).

Table 2

**Volume of sold goods (goods, services) of economic entities by types of economic activity in 2016 [2]**

	Total, mln.UAH.	Including			
		Enterprises		Individual entrepreneurs	
		mln.UAH	% to the total number	mln.UAH	% to the total number
<b>Total</b>	<b>5716431,0</b>	<b>5318957,7</b>	<b>100,0</b>	<b>397473,3</b>	<b>100,0</b>
including					
agriculture, forestry and fisheries	372033,4	362310,0	6,8	9723,4	2,4
industry	1917185,6	1887535,4	35,5	29650,2	7,6
construction	150540,5	142871,9	2,7	7668,6	1,9

wholesale and retail trade; repair of motor vehicles and motorcycles	2159334,2	1953257,7	36,7	206076,4	51,8
transport, warehousing, postal and courier activities	322291,2	293959,4	5,5	28331,8	7,1
temporary placement and organization of food	29069,3	18250,0	0,4	10819,3	2,7
information and telecommunications	141479,6	100590,4	1,9	40889,3	10,3
financial and insurance activities	236454,9	234066,2	4,4	2388,7	0,6
real estate transactions	90298,1	75284,6	1,4	15013,5	3,8
professional, scientific and technical activities	206687,6	180668,7	3,4	26018,9	6,5
administrative and auxiliary services activities	57318,1	49242,3	0,9	8075,8	2,0
educational	3101,7	1975,6	0,0	1126,1	0,3
health care and social assistance	12991,0	10573,2	0,2	2417,8	0,6
art, sports, entertainment and recreation	6955,5	4995,1	0,1	1960,4	0,6
provision of other types of services	10690,3	3377,2	0,1	7313,1	1,8

However, again, as in the previous year, it gave way to the positions of the sector providing transport services, warehousing, postal and courier activities (UAH 322291.2 mln) and lost position to financial and insurance activities by almost UAH 90 million. (UAH 236454,9 mln). In order to determine more clearly the dynamics of the development of information and telecommunications in the sectoral section of the Ukrainian economy, we will conduct a similar analysis for the last 2017 (Table 3).

Table 3

**Volume of sold goods (goods, services) of economic entities by types of economic activity in 2017 [2]**

	Total, mln.UAH.	Including			
		Enterprises		Individual entrepreneurs	
		mln.UAH	% to the total number	mln.UAH.	% to the total number
<b>Total</b>	<b>6877077,3</b>	<b>6387872,7</b>	<b>100,0</b>	<b>489204,6</b>	<b>100,0</b>
including					
agriculture, forestry and fisheries	414799,9	403645,8	6,3	11154,1	2,3
industry	2343000,4	2305695,9	36,1	37304,5	7,6
construction	180966,5	169705,3	2,7	11261,2	2,3
wholesale and retail trade; repair of motor vehicles and motorcycles	2628672,0	2385691,5	37,4	242980,5	49,7
transport, warehousing, postal and courier activities	398913,7	365332,7	5,7	33581,0	6,9
temporary placement and organization of food	37613,4	23083,8	0,4	14529,6	3,0
information and telecommunications	175050,9	117407,2	1,8	57643,7	11,8
financial and insurance activities	214430,1	211499,8	3,3	2930,3	0,6
real estate transactions	103770,5	85497,3	1,3	18273,2	3,7
professional, scientific and technical activities	274279,9	241869,5	3,8	32410,4	6,6
administrative and auxiliary services activities	64457,8	53787,0	0,8	10670,8	2,2
education	3891,5	2253,0	0,0	1638,5	0,3
health care and social assistance	16803,1	13805,0	0,2	2998,1	0,6
art, sports, entertainment and recreation	7691,5	4921,4	0,1	2770,1	0,6
provision of other types of services	12736,1	3677,5	0,1	9058,6	1,8

As can be seen from Table 3, again there was an increase in the share of information and telecommunications in the total volume of products sold (services) to 2.6% or 175050.9 mln in 2017, according to indicators of development, information and telecommunications almost separated one place with the sphere of construction (UAH 180966.5 mln), ahead of the real estate operations sector (UAH 103770.5 mln) and reduced the gap in financial sector activity indicators and insurance activity (UAH 214430.1 mln).

The development of the information sector of economy and telecommunications over the past three years is primarily due to the rapid increase in the number of Internet subscribers in Ukraine and subscribers of mobile communications. For example, the number of Internet subscribers in 2017 is 23,632.3 thousand, in the first quarter of 2018 this number increased to 23825.7 thousand (Table 4).

Table 4

**Number of subscribers and telecommunications in 2017- the first quarter of 2018**

	2017		2018	
	Total	Including home	Total	Including home
<b>Number of subscribers of mobile communication</b>	<b>55714,7</b>	<b>51398,6</b>	<b>55323,4</b>	<b>50976,8</b>
<b>Number of TV subscribers</b>				
cable	2337,0	2322,4	2242,0	2235,3
including digital	754,2	746,0	745,4	742,1
satellite	114,8	114,7	112,8	112,0
interactive	181,8	179,3	194,1	188,2
<b>Number of Internet subscribers</b>	<b>23632,3</b>	<b>21275,8</b>	<b>23825,7</b>	<b>21391,5</b>
including the countryside	585,8	567,1	589,7	567,9
from the total number of Internet subscribers - with the provision of broadband access	22625,8	20442,8	22920,3	20713,8
including				
fixed	5116,8	4762,9	5162,3	4814,7
of them with speeds of Internet access from 10 Mbps to 100 Mbps	3251,0	3117,5	3286,4	3156,5
wireless	17509,0	15679,9	17758,0	15899,1
from them with the speed of access to the Internet from 256 kbps to 10 Mbps	5001,9	4708,2	4873,8	4581,7
from 10 Mbps to 100 Mbps	12499,8	10965,0	12876,6	11310,3

According to the express release of the State Statistics Service of Ukraine, (95.4% - 2017) – of enterprises used computers in their work (95.1% - 2016), of which 66.9%

used the Intranet (2016 – 65.6%); 61.7% – by local computer network (2016 - 62.5%). The Extranet network, as in 2016, has every eleventh enterprise [1].

Almost all enterprises (98.2%) who used computers had access to the Internet. Of these, 41.1% had their own website (in 2016 – 40.2%), which provided 18.9% of enterprises the opportunity to serve customers; 17.4% – link to their website in social media; 11.6% – announcement of open vacancies on-line (2016 – 18.5%, 15.9% and 10.7%) [1].

Cloud computing services were purchased by 10.5% of enterprises (2016 – 9.4%). Among the services of cloud computing, financial or accounting applications, which were bought by 6.1% of enterprises, were the most in demand; e-mail service - 5.5%; rent of office software – 4.9% (2016 – 5.6%, 4.9% and 4.3%) [1].

Particular attention is paid to the dynamics of direct investment (share capital) in the Ukrainian economy in the field of information and telecommunications. At the end of 2016 this indicator was 1802037,3 thousand dollars. For the year, by the end of 2017 an increase was made to 1879203.6 thousand dollars. USA, and already in the first quarter of current 2018, it amounted to 1898742.4 thousand dollars. USA. Such a positive dynamic indicates the interest of investors in the development of the information and telecommunication sectors of the country's economy and high investment attractiveness and growth potential.

**Conclusions** Thus, the dynamics of the development of the information and telecommunication sectors of the national economy over the past three years has been researched, positive tendencies towards growth have been established as a result of an increase in the inflow of direct investments and improvement of the investment attractiveness of the information sector of the country.

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