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## RESEARCH OF DEVELOPMENT OF PRINTING COMPANIES

*The role of printing enterprises in promoting cultural and educational development of the population is determined. The estimation of publishing and printing complex by the number of subjects sector is done. It is established that the number of printing companies increases every year. This caused by the investment attractiveness of segment operational printing. The trends in sales production printing companies, as well as factors affecting the change is researched. Established that sales of printing products will slow down in the future. The export potential printing companies is reviewed. The analysis revealed that in 2009 the volume of printing products exports more than imports, thus increasing of efficiency of export potential.*

*The perspective directions of development of printing industry companies are grounded, in particular, improving investment policies, improve product quality.*

*Keywords: printing, publishing company, development, profit, factor, export potential, investment, quality of product.*

## ДОСЛІДЖЕННЯ РОЗВИТКУ ПОЛІГРАФІЧНИХ ПІДПРИЄМСТВ

Шендерівська Л.П.

*Визначена роль поліграфічних підприємств у сприянні культурному, освітньому розвитку населення. Дана оцінка розвитку видавничо-поліграфічного комплексу за кількістю підприємств. Визначені тенденції динаміки обсягу реалізації продукції поліграфічних підприємств, а також фактори що впливають на зміни. Оцінено експортний потенціал поліграфічних підприємств. Обґрунтовані перспективні напрями розвитку підприємств поліграфічної галузі.*

*Ключові слова: поліграфічне, видавниче підприємство, розвиток, прибуток, фактор, експортний потенціал, інвестування, якість продукції.*

## ИССЛЕДОВАНИЕ РАЗВИТИЯ ПОЛИГРАФИЧЕСКИХ ПРЕДПРИЯТИЙ

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*Определена роль полиграфических предприятий в способствовании культурному, образовательному развитию населения. Дана оценка развития издательско-полиграфического комплекса по количеству предприятий. Определены тенденции динамики объема реализации продукции полиграфических предприятий, а также факторы, влияющие на изменения. Дана оценка экспортного потенциала полиграфических предприятий. Обоснованы перспективные направления развития предприятий полиграфической отрасли.*

**Ключевые слова:** полиграфическое, издательское предприятие, развитие, прибыль, фактор, экспортный потенциал, инвестирование, качество продукции.

**Problem statement.** With the economic downturn in the country, the changes between supply and demand of printing services in connection with the development of alternative sources of disseminating information updates the survival and effective development of printing companies. So its necessary to research the development of companies to get an objective information for management.

**Analysis of recent research and publications.** The development of printing companies are exploring by Ukrainian and foreign scientists, such as Gutkevych S. [7; 9], Iyashenko V., Nazaruk M., Y.Pushak [1], Durniak B., Shtangret A., Melnikov O. [5]., Kotlyarevskiy Y. [6], Shvaika L. [8] etc. But its necessary to research in complex the development of printing companies, based on trends, the factors that caused them for grounding ways of increasing the efficiency of enterprises.

**The purpose of the article** is to research the development of printing companies in modern conditions.

**The main results of the research.** The necessity of publishing and printing companies caused by their role in cultural, educational, intellectual security. In addition, printing companies meet the need for printed products of all sectors. In particular, the development of food industry, advertising industry, market of children's books, magazine production contribute to economic growth in printing sector. Changing the format of the printed publishing products in electronic contributes to the further development of the publishing industry, but in a different format, adapted to the needs of consumers, allowing deduce about the implementation of a client-oriented approach. Most European countries, Japan and the United States ahead of Ukraine in terms of providing the population of printing companies, for example, in Japan at 1 million population accounts for 358 publishing houses in Ukraine - 61 [5].

To assess the scale of business publishing, printing complex in Ukraine should analyze the dynamics of the number of enterprises. Thus, the total number of companies publishing and printing complex, according to the State Register of publishers, manufacturers and distributors of publishing products as of 01.01.2012., was 5164 as of 01.01.2013 - 5225, on 01.01.2014 - 5528, which is an average for the year increased by 3.4%. That is, there is a trend of increasing number of companies publishing and printing industry.

Also we analyzed the scale of printing companies in terms of production and income (Table. 1).

**Table 1. Indicators of sales, profit (loss) printing companies in 2006-2013 years**

Indicator	2006	2007	2008	2009	2010	2011	2012	2013
1	2	3	4	5	6	7	8	9
The volume of sales, mln. UAH	5 099,8	7 414,6	9 179,9	9 374,8	9 935,7	10 625,1	10 739,9	10 789,8
Chain growth rate, %	-	45,4	23,8	2,1	6,0	6,9	1,1	0,5
Net profit, mln.UAH	237,77	285,77	221,48	288,47	301,17	304,63	311,21	298,07
Chain growth rate,%	-	20,19	-22,50	30,25	4,40	1,15	2,16	-4,22

Transfer of table 1

1	2	3	4	5	6	7	8	9
Net loss, mln.UAH	90,28	110,43	880,97	428,84	272,19	403,14	395,36	408,36
Chain growth rate,%	-	22,32	697,74	-51,32	-36,53	48,11	-1,93	3,29
Net (profit-loss), mln.UAH	147,49	175,34	-659,49	-140,37	28,98	-98,50	-84,15	-110,29
The share of unprofitable enterprises, %	33,70	33,50	39,30	38,20	35,50	56,90	55,90	57,80

Source: Calculated by the author according to [3; 4]

As a result of analysis, sales volume of printing company for 2007-2013 increased every year, the largest increase occurred in 2007 – 45,4% and in 2008 – 23,8%, the lowest in 2013 – 0,5%. Also found positive trend for net profit, excluding 2008 and 2013, the reduction of which by roughly 22,5% and 4,22%. About the deteriorating economic situation printing company shows a trend increase in the share of unprofitable enterprises for the period 2011-2013. It reached over 55%. Thus, the observed value, namely business losses increase, while an increase in sales, due to inflation and inefficient pricing enterprises. Generalized evaluation of variation of these parameters is presented in Table. 2. Their calculation made by the following formulas:

$$\sigma = \frac{\sum_{i=1}^n (y_i - \bar{y})}{n}, \tag{1}$$

where  $\sigma$  – the standard deviation of the index;  
 $y_i$  – value index and the period  $i$ ;  
 $\bar{y}$  – the average rate;  
 $n$  – number of periods.

$$V_{\sigma} = \frac{\sigma}{\bar{y}} \cdot 100, \tag{2}$$

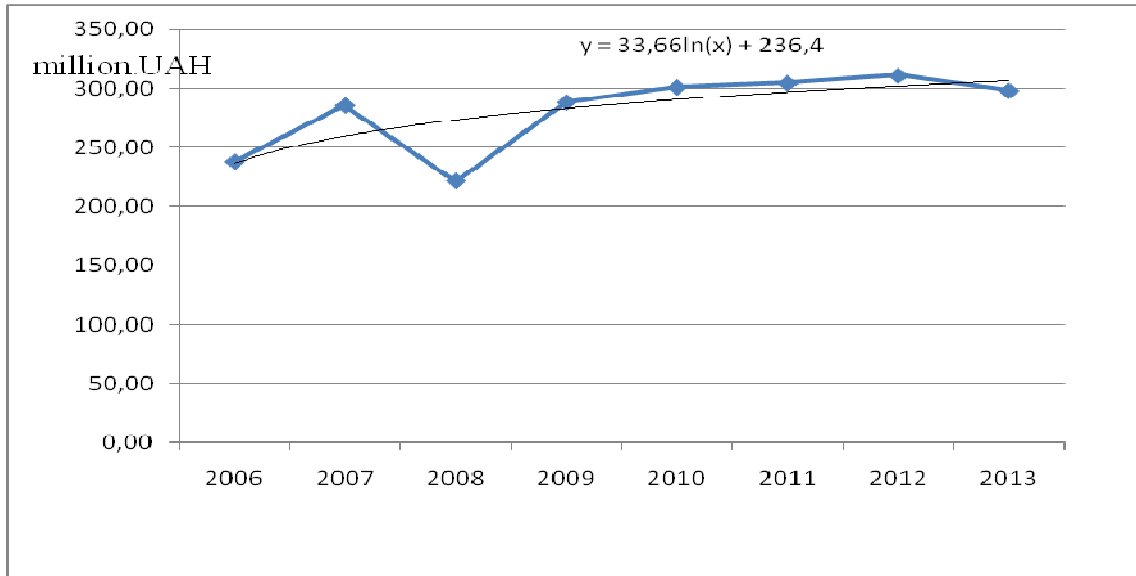
де  $V_{\sigma}$  – coefficient of variation.

**Table 2. Variations of sales, profit (loss) of printing companies in 2006-2013 years**

Indicator	Average rate	Standard deviation of the index	Coefficient of variation, %
The volume of sales, mln.UAH	9 145,0	1853,3	20,27
Net profit, mln.UAH	281,1	30,9	11,01
Net loss, mln.UAH	373,7	229,9	61,52
The share of unprofitable enterprises, %	43,9	10,3	23,40

Source: Calculated by the author according to [3; 4]

An analysis determined, the most variable is the rate of net loss printing companies (61,52%), and least - net income (11,01%). For analytical construct formalization we constructed the trend equation for net income, because among other indicators (Table. 2), it is less variation, therefore, more reliable forecast. To construct the trend equation used package MS Excel (Fig. 1).

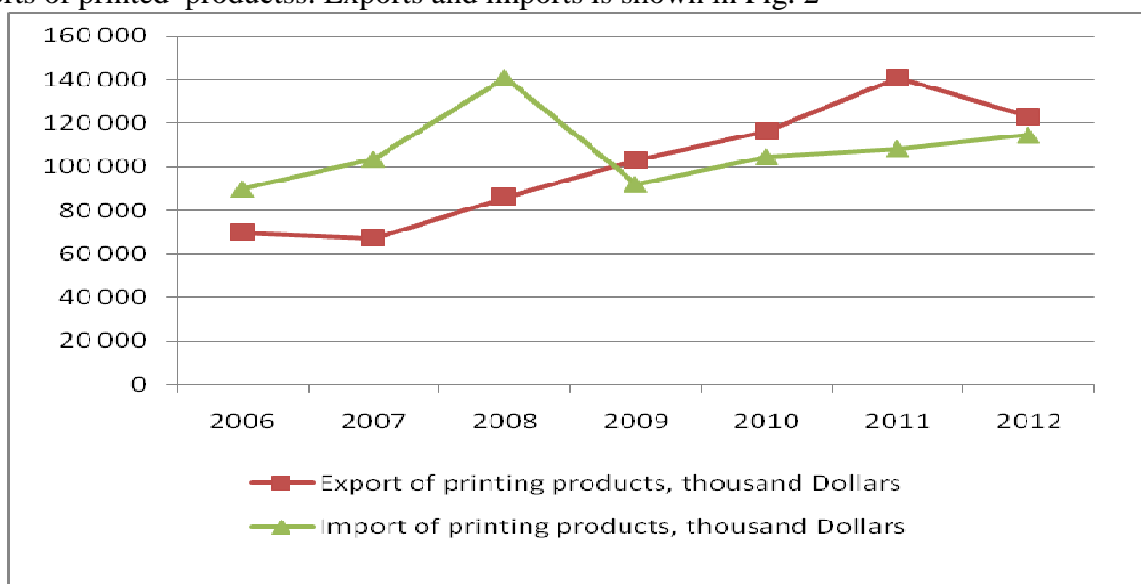


**Fig. 1. Trend of net profit of printing companies for 2006-2013 years**

Source: author constructed according to [3; 4]

Therefore, the dynamics of net profit of printing companies trend described by a logarithmic function:  $y = 33,66 \ln(x) + 236,4$ . According to the tendencies, net profit growth will slow in the future.

An important indicator of the printing companies development is dynamics of exports and imports of printed products. Exports and imports is shown in Fig. 2



**Fig. 2. Export, import of printing products, thousand dollars**

Source: author constructed according to [3; 4]

A positive trend, indicating the more intensive used of export potential of printing companies is ahead of exports over imports, since 2009. The important factor of growth of export potential is a growth of quality of printing products.

A volume of investment is meaning for the development of enterprises. Dynamics of investments in enterprises of printing industry is presented in Table 3.

**Table 3. Dynamics of investments in printing enterprises in 2006-2013 years**

Period	Total investment, mln. UAH	The growth rate of investment, %	Return on investment, % (ROI)
2006	658,7	-	36,1
2007	621,3	94,3	46,0
2008	674,1	108,5	32,9
2009	485,3	72,0	59,4
2010	431,2	88,9	69,8
2011	516,4	119,8	59,0
2012	529,5	102,5	58,8
2013	504,9	95,4	59,0

Source: Calculated by the author according to [3; 4]

Thus, in the analyzed period the volume of investment, return on investment of printing enterprises is not characterized by a stable trend. In the crisis year of 2009 the growth rate of investment was minimal. We calculated the correlation coefficient between return on investment (ROI) and volume of sales (0,53), between the volume of sales and the volume of investment in printing enterprises (-0,68), and between return on investment (ROI) and net profit (-0,83). The resulting ratio suggests a direct relationship between the efficiency of investments and the volume of sales of printed products. As a result, the important direction of development of printing enterprises is to improve investment activity.

For the development of printing companies its important to analyze the environmental factors. In the table. 4 we set the tightness and direction of connection between the volume of sales, net profit of printing companies and environmental factors.

**Table 4. Correlation between the volume of sales, net profit of printing companies and environmental factors (for 2006-2013 years)**

Factor	The correlation coefficient	
	Sales volume of printing companies and factor	Net profit of printing companies and factor
Gross domestic product (at current prices), mln. UAH	0,9210	0,6500
Gross domestic product per capita, UAH	0,9190	0,6508
Household income, mln. UAH	0,9152	0,6808
Average salary in Ukraine, UAH	0,9034	0,6696
Volume of industrial production, mln. UAH	0,9010	0,6580
Population, thous. people	-0,9556	-0,7273

Source: Calculated by the author according to [3; 4]

Thus, the correlation between the volume of sales of printing enterprises and environmental factors are significantly dense, and between a net profit of printing companies and environmental factors set an average distress communication. Moreover, the effect of size of population is the reverse, this means that, despite the population decline, sales volume of printing companies increases.

In general, for the period 2006-2013 years, the average dynamics such as growth in the number of names of books per capita - on 7,93%, copies - at 4,05% was satisfactory, except proactive growth names, comparing with circulation, demonstrates the diversity of producers range of publications in order to stimulate sales. It should be noted that despite the changes in the structure of production of books inappropriately leading position occupied by educational and methodical editions - 34% of the names in circulation 53% in 2013. According to the analysis also found that the average number of copies of books per capita in Ukraine in the period 2006-2013 - less than 2 - insufficient for the full development of society.

For periodicals showed a trend decline in production. Circulation of magazines in 2006 amounted to 137,5 million copies, the biggest - in 2010 – 338,0 million copies, in 2012- 172,0 million copies. Output volume of newspapers declined twice with 4,2341 billion copies in 2006 to 2,0615 billion. copies in 2012. Thus, reducing the capacity market intensifies competition in, respectively, affect the development of printing enterprises.

**Conclusion.** Printing companies are mainly developing of extensive way. On the worsening economic situation in general printing industry shows more than 50% of unprofitable enterprises proactively losses, compared with a profit of 1,3 times. Prospects of printing companies will depend on resolving a number of issues, such as , the level of demand, quality of products, investment activity,

1. *Актуальні проблеми соціально-економічного розвитку держави, регіону, галузі та підприємства: [монографія] / [В. І. Ляшенко, М. М. Назарук, Я. Я. Пушак та ін.] ; за заг. ред. А. М. Штангрета. – Львів : Укр. акад. друкарства, 2013. – 394 с.*

2. *Веригина А.В. Управление конкурентоспособностью организаций медиаиндустрии : [автореф. дис. ... канд. экон. наук: 08.00.05] / А.В.Веригина. – М., 2012. – 27 с.*

3. *Державна служба статистики України [Електронний ресурс] : [офіц. сайт]. – Режим доступу: <http://www.ukrstat.gov.ua>. – Назва з екрана.*

4. *Державний комітет телебачення і радіомовлення України [Електронний ресурс] : [офіц. сайт]. – Режим доступу: [http://www.comin.kmu.gov.ua/control/uk/publish/article?art\\_id=97985&cat\\_id=97933](http://www.comin.kmu.gov.ua/control/uk/publish/article?art_id=97985&cat_id=97933). – Назва з екрана.*

5. *Дурняк Б. В. Видавничо-поліграфічна галузь України: стан, проблеми, тенденції: стат.-граф. огляд : [монографія] / Б. В. Дурняк, А. М. Штангрет, О. В. Мельников. – Львів : Укр. акад. друкарства, 2006. – 274 с.*

6. *Котляревський Я. В. Організаційно-економічний механізм розвитку видавничо-поліграфічної галузі в процесі гарантування інформаційної безпеки України : [монографія] / Я. В. Котляревський, А. М. Штангрет, О. В. Мельников. – Львів: Укр. акад. друкарства, 2012. – 214 с.*

7. *Модель розвитку галузей економіки України : [монографія] / [С. О. Гуткевич, П. В. Власов, О. І. Шаманська та ін.] ; за ред. С. О. Гуткевич. – Київ : НТУУ «КПІ», 2011. – 472 с.*
8. *Швайка Л. А. Економіка видавничо-поліграфічної галузі : [підручник] / Л. А. Швайка, А. М. Штангрет. – Львів : Укр. акад. друкарства, 2008. – 480 с.*
9. *Synergetic bases of investment in economy sectors : [monograph] / uner gen. ed. S. Gutkevych. – Kyiv : NTUU «KPI», 2013. – 200 p.*