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## INNOVATIVE PROCESS DEVELOPMENT TRENDS IN THE PUBLISHING AND PRINTING INDUSTRY



*Innovative development of publishing and printing industry in the context of global trends has been studied. The organizational and economic relations arising due to the innovation-based development of publishing and printing industry have been described; their impact on the prospects for the national economy growth have been assessed.*

*Key words: publishing and printing industry, economic system, information flow in the system, demand index for printed products, and state regulation of innovation development.*

Traditionally, the publishing and printing activity is noted for wide product range, considerable extent of integration and cooperation with other spheres and areas of economic management, attraction and association of the best samples of technical, organizational, and economic models of the activity organization, etc. In recent years, the popularity of traditional printed materials has lessened a bit due to development of electronic means of registration and distribution of information. At the same time, the publishing and printing industry (PPI) applies the latest information and communication technologies in editorial-and-publishing process and production of printed materials to serve the consumers' interests in the most comprehensive way. Today, the growth of popularity of electronic publications (which differ from traditional ones by the principles of production and distribution) is also connected with the operation of publishing and printing entities who must provide a product with both traditional and new characteristics that meet the requirements to updating of its content and form.

At the present stage of PPI development, the effective activity of all subjects of management is impossible without strategic orientation of functioning and formation of the modern mechanism of management of innovative development of publishing and printing structures. Competition aggravation, arriving of foreign-made products to the domestic market, dynamic changes of the external environment cause the need for adequate response and adaptation of enterprise structures to these changes, in particular, through identification of strategic benchmarks, development and realization of the strategy of PPI innovative development.

National and foreign scientists, in particular *L. Abalkin, V. Abramov, O. Arefyeva, O. Baranovsky, O. Belorus, L. Vorotina, V. Geyets, V. Gorbulin, I. Yegorov, M. Yermoshenko, T. Yefimenko, Ya. Zhalelo, O. Zakharov, Ye. Libanova, M. Castells, A. Chukhno, J. Schumpeter*, etc. addressed the issues of innovative development and fundamental provisions of formation of post-industrial society. In their turn, *Yu. Barnich, B. Durnyak, P. Kyrychok, R. Mashtaler, B. Nikiforuk, Ye. Palyga, Ye. Semenyuk, V. Senkivsky, G. Senchenko, L. Shylo, A. Shtangret, Ya. Yatskiv*, etc. dealt with the re-

search of the current state and key problems of development of regulation and management of publishing and printing activity in Ukraine.

Giving credit to the scientific and practical value of works of the above mentioned scientists, it should be noted that in the national literature and in practice of state regulation the important issues of ensuring innovative development in the context of universal tendencies has not been studied adequately. Selective and fragmentary approach to the outlined problem prevails, making its solution impossible. So, the issue of necessity of improvement of theory-methodological and methodical bases of PPI regulation becomes current.

The purpose of this article is development of generalized characteristics of organizational and economic relations that arise in connection with PPI development on the basis of introduction of innovations and assessment of the influence of their prospects on the national economy.

### PROBLEMS OF DEVELOPMENT OF PUBLISHING AND PRINTING INDUSTRY

Development of the world and national economies under the influence of scientific, technical and technological progress is characterized by strengthening of the importance of an innovative component in the enterprises activity and new approaches to innovations management which under modern conditions unite knowledge, organizational structure and technologies with the market environment [1–7]. In PPI as in one of the modern spheres focused on scientific and technical progress expansion of innovative processes is an obligatory prerequisite for the economy development [8–10].

As mass and standard sphere of human activity, the printing industry is derivative from publishing which gets the increasing importance with the development of public demand on mass distribution of information. It was the transition

Table 1

**Main Characteristics of Technological Patterns of the National Publishing and Printing Industry**

Time period	Information exchange	Productive forces development	Key elements of organization
From the beginning of book-printing till the mid-19 <sup>th</sup> century	At first – irregular, then – regular disordered	Development of specialized tools and formation of specialized workforce	Separation of prepress and printing stages of production
1856–1900	Regular, structured	Professional division of labor, extensive development of tools	Isolation of publishing phase at the prepress stage of editions preparation, separation of printing and postpress stages
1900–1950	Growing in progression	Intensive development of tools, transition to brigade form of labor organization	Formation of big universal enterprises on the basis of unification of publishing and printing stages
From mid-1950-ies till today	Growing spasmodically	Separation of workforce from tools or its change with the latter	Unification of all production stages on the basis of integration of technological chain to produce specialized products
Short-term perspective	Formation of a unified standard of storage and distribution of information	Integration of workforce with adjacent industries and subindustries, use of common tools	Transfer of publishing stage directly to the client, formation of massive technological parks specializing on certain products
Long-term perspective	Universal standard of communication formed on the basis of the common information space	Integration of tools and subjects of labor	Structuring of this industry in the form of subindustries of the main spheres of people’s activity

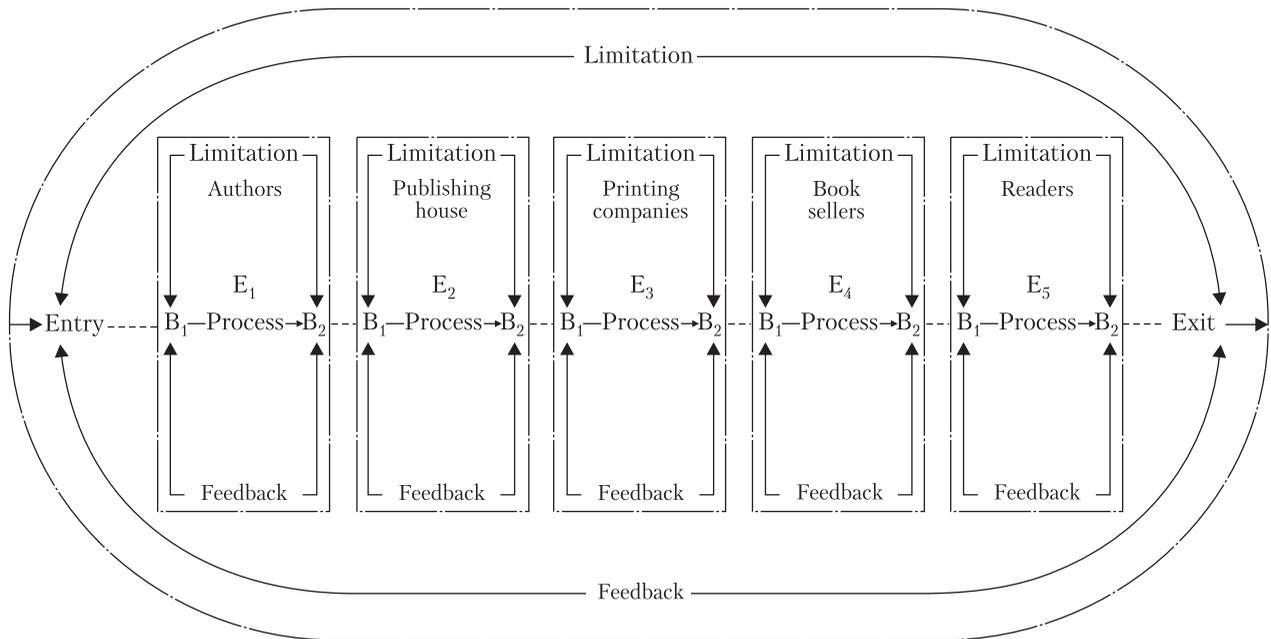


Fig. 1. Model of publishing and printing industry as of the economic system

from unidirectional and changeable information streams which promoted formation of the integral organizational and technological PPI complex.

It should be noted that scientific and technical progress provides growth of efficiency of productive forces by introduction of scientific achievements in production which turn into direct productive force and, respectively, influence organizational and economic processes of development of the national economy. PPI development is noted by the increasing extent of specialization of production processes caused by aspiration to economic feasibility of production. Starting with the end of the 20<sup>th</sup> century, on the basis of achievements of the fifth technological wave the reverse process of integration began on the basis of modern opportunities of automation in the form of stable patterns of output of standardized publishing-printing products (Table 1, [11, 12]).

Predicting prospects of technological and organizational changes in PPI (see Table 1), it is necessary to emphasize that already today the workforce of this area tends to separation from the production tools directly at the level of en-

terprises which shows itself both through work outsourcing pattern at the publishing stage, and in increase of mobility of production teams which can cooperate with several different technological parks. In such situation taking into account aspiration to minimization of expenses and maintenance of appropriate quality of production, concentration of the general means of production by owners looks quite probable. It will allow direct customers to use the productive capacity of publishing printing products adaptively in different modes. These customers will more and more often be acting as performers of prepress, respectively changing both distribution of productive forces, and borders and structure of the area itself.

From the position of system approach it is necessary to consider PPI as a system which includes the following elements: author's environment, designing structures, printing enterprises, book-selling organizations and reader's environment. The complex of these elements united by one program and one purpose forms PPI. Fig. 1 [13] shows a logical model of PPI as of the economic system E which includes five subsystems: E1, E2,

E3, E4 and E5. The available elements (subsystems) of PPI give the system rather a closed character and predetermine its working capacity, that is successful solution of the tasks set for it. Each of PPI subsystems has autonomous character and at the same time is closely connected with other subsystems. PPI activity must comply with those tasks which arise in the field of development of printing information, that is to be adequate to social needs in printed materials [14–17].

For a long time, investigating organizational and economic development of the national PPI, scientists first of all analyzed the level of mechanization and automation of production, introduction of new achievements of electronics, mechanics, physics and chemistry [18–21]. But if to look at PPI not only as at the area of production of goods but also as at the complex system which is self-developing, which compounds except production include education, science and technology, then the need of search for the general criteria to compare the levels of development of this area during different periods becomes obvious, in particular by application of information approach which showed its productivity in general science studies [22].

The unity of opportunities of application in qualitative and quantitative research is the extremely important characteristic of information approach. The movement from establishment of qualitative definiteness to quantitative regularities is the general law of development of scientific knowledge (though at separate stages of knowledge, quantity can get ahead of perception of quality). The idea of discreteness of information and introduction of a unit for measuring information quantity were of great importance for development of research of the quantitative side of information (at first a bit, then – a byte). Scientific and technical information circulates not only in science as in rather isolated system. To achieve the final effect of scientific process it is especially important that it circulates within much wider space. Earlier it was a tradition to consider the system «*science – technology – production*» [23].

In our opinion, it is also necessary to introduce «education» into this tripartite system. We mean not only a comprehensive school which gives basic knowledge, but also the higher school which trains highly qualified specialists, and the system of post-degree education which allows to develop current competences for solution of problems of certain spheres of the national economy. Besides, education acts as a communication element of three allocated classical subsystems. To have a closer look at the most significant aspects and interrelations in the considered system we suggest adding also «economy» to its elements as a measurement for redistributions of resources, including information ones.

Moreover, having placed this structure in the area of the socio-cultural sphere of a certain social and political formation, we receive a global information cluster. Even more reasonable it looks for printing industry which main product is realization of specific information link between the content (text and its design), the carrier (material and the way of its production) and the consumer (this or that group of people). Eventually it changes the very field of the system existence. It is logical to build this scheme as three-dimensional (Fig. 2) [24].

The importance of information approach to PPI research is that it allows to characterize all sides, all stages of its development on the basis of the concept of information or concepts derivative of it, such as information stream, information potential, information need, informational request, a data carrier, an information channel, aging of information, compression of information, etc. In other words, information approach is entirely justified while looking for the solution to the problem of search for the general criteria to compare the levels of this area development during different periods of time.

This approach opens new opportunities for analysis of the system components outlined by us (education, science, technology, economy, production).

Only aggregate effect of their interaction is capable to provide needs of PPI in qualified person-

nel, new equipment, materials and technologies, ways of interaction with society concerning consumption of the most important information, etc.

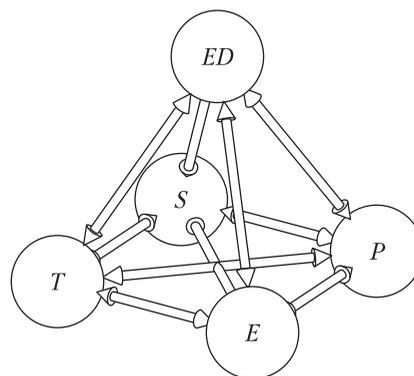
PPI activity depends not only on internal connections, but also on connections of the industry with other spheres of management. Practice shows that these connections have an essential influence on the development of the industry of printed information. For PPI successful functioning it is important to define quantitative and qualitative connections between separate subsystems in the industry (intra-branch connections), and also with other industries (external connections). The knowledge of these connections and assessment of their value will create prerequisites for increase of the efficiency of printed information and improvement of the whole system of technical and economic connections during formation of publishing and printing cycle.

Steady regularities which are the cornerstone of PPI functioning give the chance to explain the phenomena, events and facts which interest us from the scientific point of view and along with it allow to foresee new, unknown phenomena, after all the reliable scientific explanation has a potential prophetic force [25]. Relying on such regularities, science has an opportunity not only to explain the existing facts and events, but also to foresee the new ones. Without it, it is impossible to imagine conscious, purposeful practical activities [26].

It is possible to divide common regularities of PPI development and functioning with certain conditionality into three groups: balance, movement and development of the industry system (Fig. 3) [25].

To define the prospective for innovative processes in PPI we are interested in laws of the system development which display PPI development under the influence of certain technical and economic factors. Laws of this type define the current tendencies of development of the industry-specific system.

The law of non-conformity of a copy to the original. The need for organization of the current



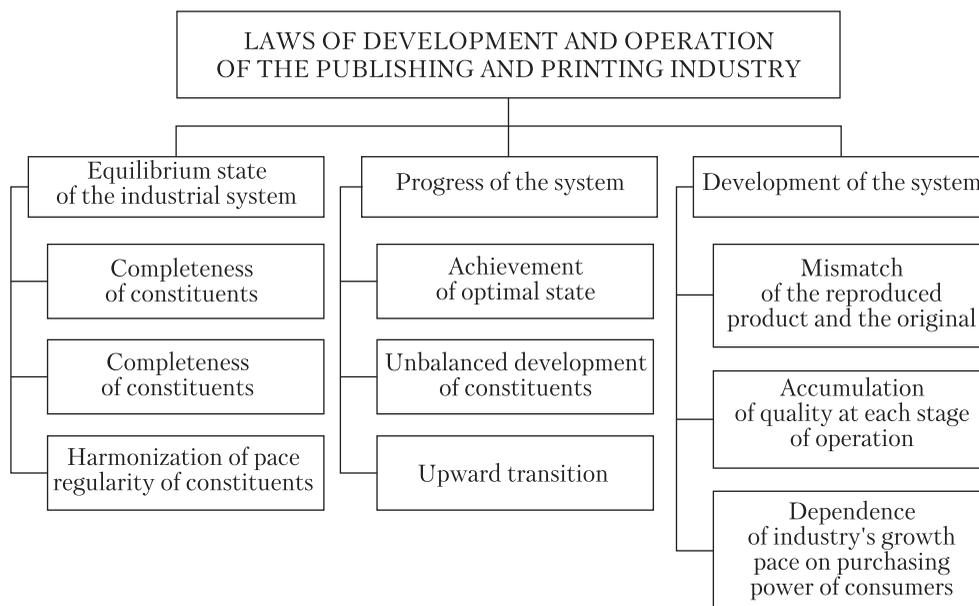
**Fig. 2.** Diagram of information flow inside the system: ED – education; S – science; T – technology; E – economy; P – production

production demands to consider all technological chain as a system which elements functions must be precisely coordinated with each other.

Quite natural is the desire to reach the same optical characteristics during reproduction which have the corresponding sites of the original, that means, to receive a reproduction identical to the original. However in most cases it is impossible to receive the exact reproduction as to gradation. It is connected with a number of factors, among which insufficient optical density of the printing paint is the most essential one. That is why the interval of optical density of reflections is always less than the interval of the original. Still it has not been decided unambiguously which features reproduction must have under these conditions. There are several thoughts about it. In general, they can be reduced to two: reproduction must be linear or ensure clear transfer of subject-important details [27, 28].

The law of quality accumulation at each stage of the system functioning. Speaking about quality of printed materials, it is always necessary to keep in mind stage-by-stage accumulation of quality of the edition that is a consequence of performance of the whole production cycle of prepress and printing of editions.

That is, there happens integration or a kind of logical addition of quality to the edition at each following stage of its production, therefore



**Fig. 3.** Classification of laws of development and operation of the publishing and printing industry

the predicted integrated quality of production is formed. Such quality will meet the needs of consumption and standards of technological reproduction. Accumulation of quality of the future edition is carried out not only through the sequence of technological stages, but also through the high-quality realization of related set of features which define the main point of a stage and series of actions. Results of the integrated processing of actions and features predetermine a certain quality of the result at the end of each technological stage of printed materials production [29].

**The law of dependence of the intensity of PPI development on the purchasing power of consumer.** The PPI product range is very wide and it has key differences not only by structure, content and designation, but also by the priority level for a consumer. For example, being a component of goods of prime necessity, packing of foodstuffs demand on which changes over time insignificantly, will always be the priority for a person. A book or a periodical isn't an essential, and in this case decrease in the purchasing power of population significantly influences production of this type. The

higher is the level of welfare of the population of a certain country, the higher is the rate of PPI development. There is interdependence between the welfare of population and PPI development. Different research [30–33] proves that demand for printed materials (demand index that is volume of printed materials per one person) depends on the welfare of population (GDP per capita).

Dependence between GDP per capita and demand index is showed in Fig. 4 [30]. The chart has the line of trend (approximation) to identify general tendencies of changes of data series. Besides, the trend line equation, the value of certainty of approximation  $R^2$ , and the correlation coefficient  $R$  are showed, as well. The trend line is built with a condition of minimization of a standard error of a forecast value for  $Y$  at a preset value of  $X$ . The correlation coefficient indicates interrelation level between  $X$  and  $Y$ : the  $R$  value, close to 1, testifies to close interrelation, and if  $R$  comes to 0, it signifies weak interrelation or its absence. It is proved [30, 33] that logarithmic approximation was more exact in comparison with linear. The correlation coefficient of  $R$  in case of logarithmic approximation made 0.93 that proves

quite a close connection between demand index and indicator of GDP per capita. Thus, values of the index, which are on the trend line can be used as constants at creation of demand models for the countries with a certain level of GDP per capita.

Needless to say that, in each country, the mechanisms of realization of innovations and methods of their management at different levels have certain peculiarities. So, looking at innovations as at the process and result, realizing their dual essence, it is possible to give a more accurate determination to the concept of innovative activity. It is a process of strategic marketing, research-and-development activities (R&D), organizational and technical training, production and registration of innovations, their implementation and distribution to other spheres. Under the market

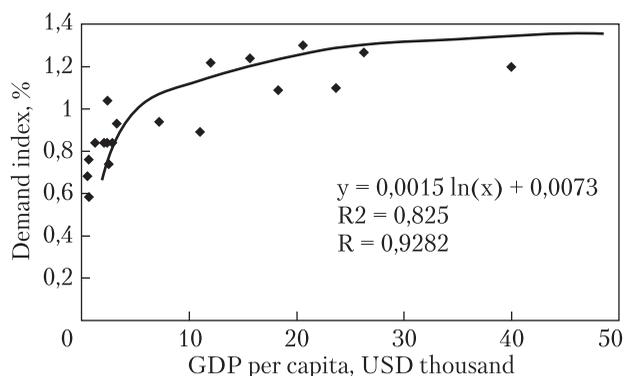


Fig. 4. Correlation of demand for printed materials with material welfare of population

conditions, it is in marketing that we must consider to be the beginning of innovative activity as such that in the end results into a product to

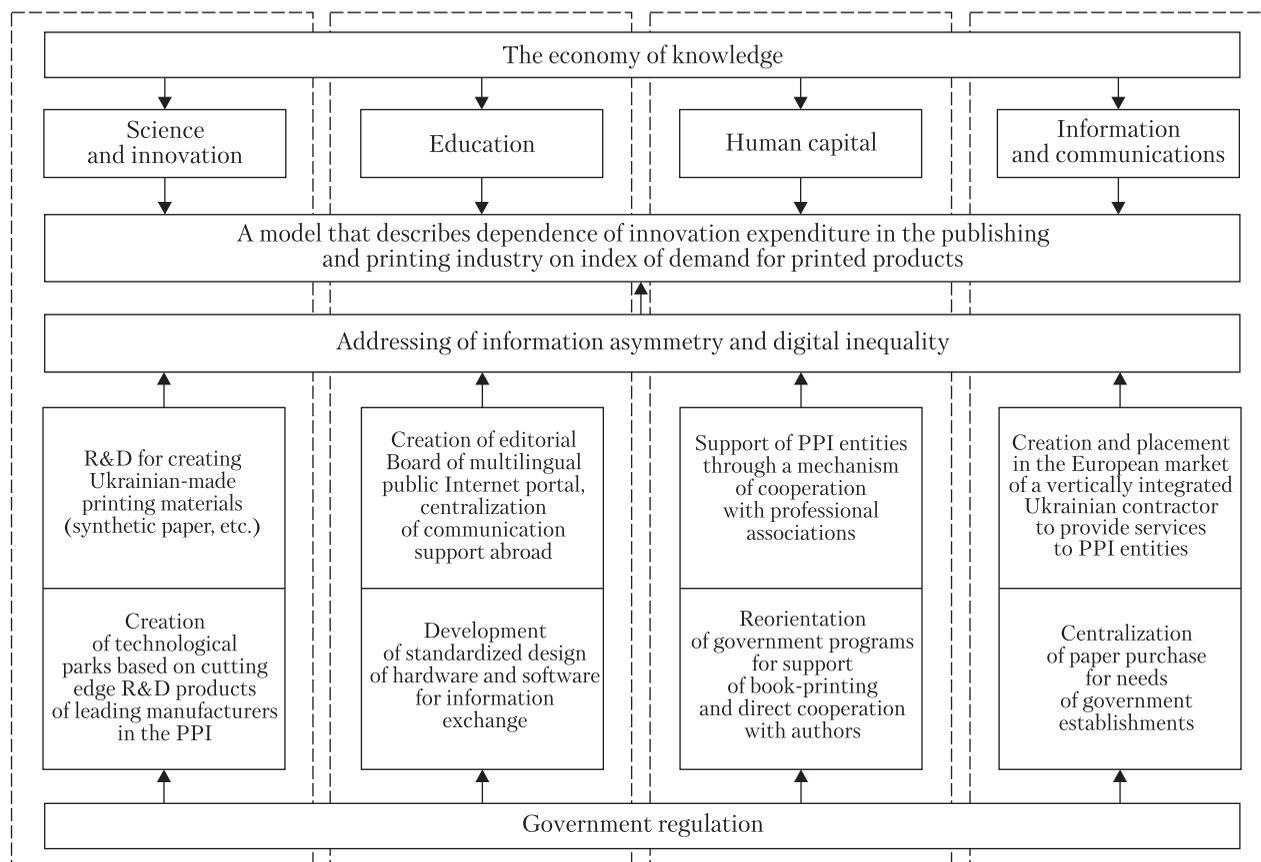


Fig. 5. A role of state regulation of innovative development of publishing and printing activity in the course of formation of the economy of knowledge

Integrated Characteristics of Innovative Prospects

No.	Product	Organizational base	Content innovations
1	Advertising catalogs, art albums, art, gift and image editions of large circulations	High quality of reproduction of half-tone images is reached due to the use of sheet offset printing. Another option is to use web intaglio printing	1) mass creation and application of digital libraries of qualitative originals; 2) application of objects of computer modeling and origin; 3) parallel creation of multimedia products
2	Glossy magazines, company magazines, children's gift editions of average circulations	Necessary characteristics are provided by sheet offset printing (high level of standardization)	1) reducing the existing digital base to public photobanks; 2) development of professionalizing and specialization of editions; 3) use of feedback with the editorial office
3	Newspapers of large and average circulations	Web intaglio or flexographic printing	1) creation of nation-wide banks of animated graphics; 2) creation of the uniform standard of publications; 3) development of systems of online distribution of visual materials for publications
4	Brochures, postcards, posters, advertising on-stream editions of average circulations	Appropriate level of reproduction of illustrations and high quality is provided by low-scale sheet offset presses. Sheet digital press is another option	1) formation of the uniform public library of clipart-images; 2) development of the software for automated processing and standardization of originals
5	Book and other text editions with line illustrations of large and average circulations	Web offset printing	1) development of rather short, variative genres; 2) development of specialized, serial and collector's editions with a possibility of sequels
6	Information text publications with insignificant quantity of illustrations of average and small circulations	Risograph (digital duplicator)	1) development of company-internal, scientific and information publishing products; 2) increase of quality and quantities of visual materials; 3) confirmation of professional editing
7	Labels and packaging	Flexographic, intaglio or offset printing (depending on the circulation of the order)	1) formation of standardized typical models for the most mass-production products; 2) increase in volume and complication of design of products at the expense of non polygraphic elements.

**of Typical Publishing and Printing Products**

Carrier innovations	Marketing innovations
<p>1) ensuring of transfer of additional characteristics of objects of reproduction (texture, smells, etc.);                      2) development of postpress technologies of processing, integration of systems of physical quality and access control</p> <p>1) development of technologies of additional framing;                      2) creation of technologies of fast transformation of materials in electronic publications through the Internet;                      3) formation of an organizational form of «remote editorial office», development of convergent editorial offices                      4) development of quality monitoring system in real time</p> <p>1) development of systems of automation of editorial preparation of editions;                      2) use of the equipment for reduction of a cycle from delivery of materials to replication due to production management automation, ERP-systems;                      3) development of the Computer-to-press and Computer-to-web technologies.</p> <p>1) development of the equipment capable to print the widest range of materials;                      2) development of technologies postpress processing (non-standard folding, insertion of objects of a different form, individual framing);                      3) confirmation of portable systems of color test</p> <p>1) integration of editions to multimedia complex products;                      2) distribution of e-books (technology of electronic ink, a kind of electronic paper – E-ink and E-paper)</p> <p>1) development of desktop operational systems of post-operational framing and personification;                      2) development of digital technologies of a printing stage with emphasis on quality maximizing</p> <p>1) introduction of the equipment of test printing and products non-standard in form and materials;                      2) development of environmental friendliness and opportunities of recycling and reuse;                      3) development of protective and labeling technologies;                      4) development of Computer-to-plate systems with increased runnability.</p>	<p>1) extension of the list of distribution channels through identification of places of potential consumers location;                      2) growth of importance of corporate culture through growth of circulation and value of brands;                      3) cultural development and encouragement of creativity</p> <p>1) integration of contextual advertising into the versions of electronic access;                      2) application of addressed personified direct mailings;                      3) development of loyalty programs of subscribers and buyers;                      4) formation of the system of supported marketing at the expense of advertisers;                      5) integration with social networks;                      6) creation of the uniform system of distribution of editions on the basis of unification of labeling, logistic and a bar - code technologies</p> <p>1) gradual rapprochement of the material carrier with a journal or tabloid format for paid versions;                      2) free versions will act as elements of supported marketing to advertisers' products;                      3) integration with thematic Internet blogs and news feeds;                      4) development of the automated sale networks on a basis of vending projects, formation of the concept of News-on-Demand.</p> <p>1) formation of the Internet channel of orders formation;                      2) development of corporate culture and increase brands recognition;                      3) formation of the system of orders distribution and formation of the centers for their carrying out irrespective of the place of reception</p> <p>1) development of Book-on-Demand network in parallel with consolidation of trade organizations;                      2) conversion into a digital form of the existing archives and development of electronic libraries with contextual inquiries;                      3) development of Time-per-pay services (making available for use on a temporary basis)</p> <p>1) increase of value of specialized and professional information;                      2) application of institutional methods of products distribution;                      3) development of the concept of the content addressness (response to concrete inquiries of consumers)</p> <p>1) use of focus groups for selection of the most suitable options;                      2) use of protective elements as marketing support;                      3) transfer of product production lines to the places of potential sale as an element of ensuring quality and promotion;                      4) gradual destruction of the border between a label and packing as different products in some areas.</p>

No	Product	Organizational base	Content innovations
8	Polymer packaging	Flexographic or intaglio printing	1) development and updating of standard sets of publishing software packages at the expense of built-in modeling packages; 2) formation of specialized palettes for color gradation taking into account the features of polymeric carriers
9	Posters and advertising bills of a big format and large circulations	Offset printing	1) socialization of the content; 2) manipulation with semantic designs
10	Banner, billboards, firewalls – average, small and single circulations of a big format	Wide format ink-jet printing (digital printing without constant material print plate)	1) development on the basis of linguistic programming and value-related reorientation of consumers; 2) expansion of a palette of reproduced colors
11	Brochures, flyers, advertising postcards of small and single circulations of a small format	Digital printing (without constant material print plate) or powerful office printers (electro-photographic, laser, photodiode, etc.)	1) orientation to growth of volumes and general decrease in informational content of products; 2) increase of the share of personalized information
12	Souvenir products or products intended for other areas of industry with a printed flat surface of any composition of materials	Tampon printing, screen printing, ink-jet printing on large formats	1) standardization of the use of digital customer's logo signature; 2) management of the content on the basis of individual programs-applets at the customer's office
13	Souvenir products or products intended for other areas of industry with printing of fragile materials and a surface of any geometrical form	Tampon printing, screen printing and non-impact printing	1) creation of layout sheets on the basis of modeling of reactions and perception of consumers

be launched on the market. This will be the content of innovative process – commercialization of the invention, new technologies, types of production or services, solutions of production, financial character and other results of intellectual activity. Looking at this process as at a sequence of research, organizational and technical, production and marketing activities, we form so-called phases of innovative process [31, 34]:

Analyzing the enterprises from the point of view of the organizational structure management [35] under which we understand morphological formation that is the mean of achievement of the objective point, performance of the organization's mission, formation of strategy in relation to external (product) and internal (organizational) variables and their association with the general administrative coordinating

Carrier (media) innovation	Marketing innovation
<p>1) introduction of complete processing lines; 2) development of recycling technologies, increase of environmental friendliness and decrease of harmfulness of the applied materials</p>	<p>1) development of advertising campaigns on the basis of shaped concepts; 2) shift of balance between form and content to the side of sale of appearance, but not new consumer qualities of goods</p>
<p>1) introduction of segment and mobile designs of the carrier; 2) application of intensive technologies of repeated processing for quality restoration.</p>	<p>1) development of concepts of improvement of sale through continuous information support of the mass consumer; 2) stimulation of processes of self-identification of potential consumers</p>
<p>1) development of technologies of printing of non-standard materials of a different form; 2) complication of designs of the material carrier, vandal-proof and limiting access to technology; 3) technologies integrating to feedback with the addressee; 4) development of reusable and nondisposable materials; 5) integration of the printing equipment of elements into a carrier design</p>	<p>1) growth of volume of branding of the city and public objects; 2) shift of balance between form and content to the side of sale of appearance, but not new consumer qualities of goods; 3) integration of an advertising appeal with technical means of sale automation</p>
<p>1) development the company-internal own production subdivisions; 2) development of technologies with changeable balance of price and quality of the final products; 3) growth of quantity of universal equipment for postoperational processing of products;</p>	<p>1) use of these products for variation of the price for large circulations of constant customers; 2) growth of number of addresses of several brands through one product for ensuring cross loyalty.</p>
<p>1) development of systems with multi-variant printing equipment; 2) transitional technologies to digital on prepress and printing stages</p>	<p>1) development of corporate culture, self-identification of brands; 2) integration of an advertising appeal into constructive specifics, use of layers to increase the time of information contact</p>
<p>1) development of material and raw materials base due to expansion of the range of paints and auxiliary chemicals; 2) integration of systems of non-impact printing into logistic schemes of goods producers</p>	<p>1) application of concepts of goods improvement, emphasis on quality and innovation of production processes</p>

connections, we come to the conclusion that the biggest positive effect can be reached in that case when the maximum quantity of phases of the innovative process are integrated within one organizational structure. Respectively the innovative process is closely connected with the enterprise's strategy as the former is based on the use of scientific and technical achievements in the sphere of organization, equipment and tech-

nology, that means it is aimed at the market, focused on the enterprise ability to use complex innovations.

From the point of view of complex PPI development and increase of market orientation of its enterprises maximization of socially useful effects will happen when an innovative process is largely implemented into the process of strategic planning of the organizations.

Besides, defining a product as the result of coordination and distribution of resources of enterprises, association of a resource and technology, and taking into consideration the features of publishing and printing products and services, introduction of partially specialized classification of possible innovative directions will be quite reasonable, in particular:

1) content innovation: focus on new methods and forms of communication with a consumer is considerably formed due to creative achievements, gets new perspective and society-significant forms at the present stage of formation of information economy, open society and digital technologies;

2) carriers innovation: a technical and technological component of innovations of the production itself which will influence increase of opportunities of release of target products for different demands taking into account achievements of scientific and technical progress (here we refer any improvements of the operational subsystem of the enterprise); and

3) marketing innovation: generalizing direction which contains a focus on a segment of the enterprise, covering distribution channels and market promotion of products (in fact, within this direction the range policy is formed and product positioning takes place).

So, developing specific innovative policies and taking into account distribution of the most typical products of publishing and printing enterprises [36], we would like to propose our own vision of perspective system of innovative development of publishing and printing enterprises as the basis for further scientific inquiries (Table 2) [34].

Let us point out that all outlined directions are rather general and are partially overlaid due to parallel course of technological processes in the real production process. However it is possible to track quite clearly that it is in the three directions mentioned above that the innovative potential of PPI could be found.

## CONCLUSIONS

The researchers have proved that to increase the efficiency of innovations implementation in publishing and printing activity, the main priorities must be the following: target-oriented and stimulating state policy (Fig. 5) [37], coordinated research and design activity of the leading circles of innovation potential, effective coordination of activities from the side of state regulation, as well as coordination of efforts and cooperation with the leading public and branch associations to form favorable infrastructure environment concerning development of domestic publishing and printing activity due to the use of intensive resources of development which make a part of innovative component of evolutionary progress on the way to the economy of knowledge.

The novelty of this analysis is the proposed approach to studying of the essence of a publishing and printing product as such and its consideration at three levels. The corresponding innovations not only represent a certain direction of development of a product, but also partially promote creation and development of other variables. In such a way, the modernization covers the industry in general and a certain enterprises in particular.

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НАПРЯМИ РОЗВИТКУ  
ІННОВАЦІЙНИХ ПРОЦЕСІВ  
У ВИДАВНИЧО-ПОЛІГРАФІЧНІЙ ГАЛУЗІ

Досліджено забезпечення інноваційного розвитку видавничо-поліграфічної галузі в контексті загальносвітових тенденцій. Здійснено узагальнену характеристику організаційно-економічних відносин, що виникають у зв'язку із розвитком видавничо-поліграфічної сфери на засадах впровадження інновацій, та зроблено спробу оцінити їх вплив і перспективність для національного господарства.

*Ключові слова:* Видавничо-поліграфічна галузь, економічна система, потоки інформації в системі, індекс попиту на друковану продукцію, державне регулювання інноваційного розвитку.

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НАПРАВЛЕНИЯ РАЗВИТИЯ  
ИННОВАЦИОННЫХ ПРОЦЕССОВ  
ИЗДАТЕЛЬСКО-ПОЛИГРАФИЧЕСКОЙ ОТРАСЛИ

Исследовано обеспечение инновационного развития издательско-полиграфической отрасли в контексте общемировых тенденций. Представлена обобщенная характеристика организационно-экономических отношений, которые возникают в связи с развитием издательско-полиграфической сферы на основе внедрения инноваций, и сделана попытка оценить их влияние и перспективность для национального хозяйства.

*Ключевые слова:* издательско-полиграфическая отрасль, экономическая система, потоки информации в системе, индекс спроса на печатную продукцию, государственное регулирование инновационного развития.

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