

FORMATION OF INFORMATIONAL AND INNOVATIVE POTENTIAL OF THE ENTERPRISE DEVELOPMENT

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Vasiutkina N. V., Velychko O. O. Formation of Informational and Innovative Potential of the Enterprise Development

The purpose of the article is to clarify the nature of informational and innovational potential of the enterprise development, the identification of the processes of its forming in the overall structure of the enterprise potential. It was also determined that the interaction of production, personnel, and financial potential is implemented by the informational and innovational potential and creates the possibility of the timely holding and the introduction of scientific research, experiments and design developments that can ensure the expand of the economic potential and competitiveness of the enterprise. The role of innovation in forming informational potential was shown. The essence of innovation processes was considered through the application of information modeling by a combination "task – tools". Four types of innovative products were characterised: marginal, technological, market, and radical innovation. The aim of further studies will be the formation of the conceptual approaches to the creation of the informational systems for management of the innovational enterprise development, organizational and economical directions of improving of informational support of innovational enterprise development and the model of innovational development of the enterprise on the basis of rational set of tools to support management decision making of informational systems.

Keywords: informational and innovational potential, forming, the relationship between informational resources and innovational processes, mechanism of creation of informational and innovational development.

Fig.: 2. **Bibl.:** 9.

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Васюткіна Н. В., Величко О. О. Формування інформаційно-інноваційного потенціалу розвитку підприємства

Метою статті є з'ясування сутності інформаційно-інноваційного потенціалу розвитку підприємства, виявлення процесів формування його в загальній структурі потенціалу підприємства. Визначено, що взаємодія виробничого, фінансового, кадрового потенціалів здійснюється за допомогою інформаційно-інноваційного потенціалу та створює можливість своєчасного проведення і впровадження у виробництво науково-дослідних і дослідно-конструкторських розробок, що дозволяє забезпечувати розширення економічного потенціалу і конкурентоспроможність підприємства. З'ясовано роль інновацій у формуванні інформаційного потенціалу. Розглянуто суть інноваційних процесів шляхом застосування інформаційного моделювання через комбінацію «завдання – засоби». Охарактеризовано чотири види інноваційного продукту: маржинальна, технологічна, ринкова, радикальна інновації. Метою подальших досліджень буде формування концептуальних підходів до створення інформаційних систем для управління інноваційним розвитком підприємства, організаційно-економічних напрямків вдосконалення інформаційного забезпечення інноваційного розвитку підприємства та моделі інноваційного розвитку підприємства на основі раціонального набору інструментів підтримки прийняття управлінських рішень інформаційних систем.

Ключові слова: інформаційно-інноваційний потенціал, формування, взаємозв'язок інформаційних ресурсів та інноваційних процесів, механізм створення інформаційно-інноваційного потенціалу розвитку підприємства.

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Васюткіна Н. В., Величко А. А. Формирование информационно-инновационного потенциала развития предприятия

Целью статьи является выяснение сущности информационно-инновационного потенциала развития предприятия, выявление процессов формирования его в общей структуре потенциала предприятия. Определено, что взаимодействие производственного, финансового, кадрового потенциалов осуществляется с помощью информационно-инновационного потенциала и создает возможность своевременного проведения и внедрения в производство научно-исследовательских и опытно-конструкторских разработок, что позволяет обеспечивать расширение экономического потенциала и конкурентоспособность предприятия. Выяснена роль инноваций в формировании информационного потенциала. Рассмотрена сущность инновационных процессов путем применения информационного моделирования через комбинацию «задачи – средства». Охарактеризованы четыре вида инновационного продукта: маржинальная, технологическая, рыночная, радикальная инновации. Целью дальнейших исследований будет формирование концептуальных подходов к созданию информационных систем для управления инновационным развитием предприятия, организационно-экономических направлений совершенствования информационного обеспечения инновационного развития предприятия и модели инновационного развития предприятия на основе рационального набора инструментов поддержки принятия управленческих решений информационных систем.

Ключевые слова: информационно-инновационный потенциал, формирование, взаимосвязь информационных ресурсов и инновационных процессов, механизм создания информационно-инновационного потенциала развития предприятия.

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The world around us is changing rapidly and transforming into a digital form, which, in its turn, affects the approach to consuming informational services: they are available at any time, anywhere due to mobile devices. Today a typical smartphone allows to pay bills online from your bank account, order a taxi, buy tickets, and search for any information. Various sensors and autonomous devices become full participants of the process of data generating along with users of online services. According to analysts, by the year 2020 there will be more than 2 billion of Internet of Things devices in the world, i.e. computer networks of physical objects (“things”) will be equipped with built-in technologies so they could interact with each other or with the environment. The organization of such networks as a phenomenon may restructure economic and social processes and result in exclusion from part of actions and operations the need of human intervention. Humanity is entering an era of avalanche growth of information, the processing of which can be managed only through innovative solutions [1].

With the development of informational and communicational technologies, a powerful global information environment serving interests of business was created; the information flows and changes caused by them in technologies and consumer preferences became very intensive. Under such circumstances a high competitive position of the enterprise can not be maintained long, since the competitive advantages that provided for it in a short time will be reproduced by competitors as a result of fast distribution and availability of information. An attractive proposition today will be no longer so attractive to consumers in the near future due to the fact that their needs (demands) have changed. Therefore, the importance of knowledge and possession of information concerning various potentials and possibilities of their use is increasing.

The issues of innovation activity of entities under modern conditions, particularly the development of their innovational and informational potential, is being paid considerable attention. A large number of works of foreign and domestic scientists, including Y. Shumpeter, Y. Tompson, N. Kondratiev, P. Druker, E. Bozhko, V. Gavvy, N. Krasnikutskaya, O. Didchenko, O. Farat and others, are dedicated to studying the innovational potential. The problem of its development is investigated by such domestic scientists as A. Bytyi, L. Melnyk, S. Illiashenko, I. Telenok, I. Sydorenko, I. Solovyov, O. Shapoval and others.

However, the analysis of these studies shows that currently there is no single holistic approach to creating the mechanism for management of informational and innovation activities of entities. In works of domestic authors there observed disagreement and controversy regarding scientific, scientific and technological potentials, their integrative relationship with innovative potential. Informational potential is considered in a broad range of elemental composition, which creates certain difficulties at determining their boundaries and interdependences between them.

In view of this, the issue of relationships between informational and innovative development through the implementation of informational and innovative potential still remains open. To understand the role of information in

innovative development of enterprises and determination of relationships between them, some essential aspects need to be clarified.

The *aim* of the research is to clarify the essence of informational and innovative potential of the enterprise, to identify the processes of its formation.

The term “potential” comes from the Latin word “*potentia*”, which means “strength”. In the broad sense of the word “potential” means capabilities of any social system in a certain area as well as tools, sources, and stocks that are available and can be used and brought into effect for a definite purpose: implementation of a plan, solution of a problem, etc. [2].

Philosophy provides its vision of potential, particularly Aristotle [3] noticed, that potentiality, as a possibility of new certainty, is laid in the most actual reality. Movement as an integral property of matter serves as a transition from its one form to another, from potentiality to implementation, from potentiality of being to having come into being. Potential characterizes the ability of movement to transfer matter from the actually existing into a new state, since matter (reality) is a unity of actual and potential being. The very reality is practically realized in specific forms of actual reality that in the aspect of their sense root in reality as potentialities. It is in the form of potentiality that matter gains sense that appears as the ability to change and is inherent in matter (actual reality). Moreover, the changes may be rooted both in the formed (specific) thing and can be caused by other independent things. Potentiality is considered by Aristotle as the beginning of changes in a thing, the ability to move and understand this movement. Each thing has the following potentiality: ability of transiting into another state and maintaining its state unchanged. Basic dominants of changes in the system states are information and innovation.

Taking into account that the basis of the development potential formation is the “theoretical core” [4, p. 109] – three main sources of resources: land, labor, and capital that are realized by means of production, personnel, and financial potential – informational and innovative potentiality is the binding component that contributes to the reality changing its conditions, i.e. for the economic system acquiring new transformational changes and developing.

The interaction of these basic potentials through informational and innovative potential creates a possibility of timely conducting and implementing scientific research and experimental developments, which provides for high competitiveness of the manufactured products, and on this basis can expand the economic potential and strengthen the competitive position of the enterprise itself.

In researches of domestic economists there prevails an opinion that “innovation is a technical and economic process that due to practical use of products of intellectual labor (ideas and inventions) leads to creation of new types of products and technologies with better characteristics” [5].

The innovative potential of the enterprise is a possibility of innovative development of the enterprise with the use of all its available resources. In the scientific community issues related to the structure of innovative potential are controversial. Thus O. V. Farat and the coauthors [6, p. 275] on the

basis of generalization of highlighted in scientific literature and practice approaches to determining the structure of innovative potential of the enterprise distinguish a model of its structure that includes market, intellectual, personnel, technical and technological, informational, motivational, financial, communicational, scientific and research potentials. In our opinion, the informational potential is the dominant basis, which in the integrative relationship with the innovative potential generates and implements changes in the financial, personnel, and production spheres of the enterprise.

According to the above conducted analytical research, the informational and innovative potential can be defined as an integrative totality of informational and innovative resources, which in their interaction produce processes of a certain order that are necessary for effective implementation of core activities of the enterprise and its development in various aspects.

An important applied aspect at considering innovation processes is the application of information modeling as a fundamental method of cognition. The classification of professors V. Trommsdorff and F. Steinhoff define innovation through the "task-tools" combination [7].

The classification criteria are ways of solving the existing problems and tasks.

On the basis of this model (Fig. 1), four types of innovative products are distinguished:

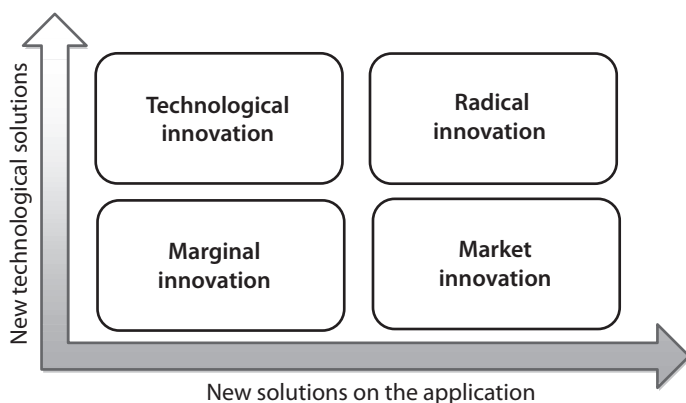


Fig. 1. Classification of the innovations

- ✦ *marginal innovation*, in the implementation of which neither the problem nor the way of its solving are new. This innovation as matter of fact does not create any new solutions or challenges. Collection, processing of information, its systematization and classification are of considerable importance in the formation of the basis of the innovative potential. Such innovations solve the problem of usefulness of application and have insignificant economic effect;
- ✦ *technological innovation*, in the implementation of which a new method of solving a well-known task is used. Technological innovation is based on the creation of a new instrument or method to solve the task. In this case, the importance of informational resources formed at different stages on the basis of collection of the information increases. In this case qualitatively different technologies of

information collection and qualitatively different resources are used;

- ✦ *market innovation*, in the implementation of which a new task is solved with the help of a known method (way). In this case, the main factor is the market demand, which is determined on the basis of available informational resources. Informational resources are used not only to create the innovative potential but also to eliminate the informational asymmetry;
- ✦ *radical innovation*, in the implementation of which a new method (way) is used to solve a new task. In this case, informational resources are used to the full extent, including both data and models, and technologies for collecting, processing, modeling, presentation of data, and their transmission.

The informational and innovative potential includes different types of informational resources and is formed on the basis of their use. From this it follows that informational resources form and increase the ability and possibility to create innovative resources. Therefore, informational resources are part of informational and innovative potential.

Informational resources increase the number of sources of information and methods of access to it [8]. However, a greater availability of information does not guarantee a possibility of its beneficial or more efficient use.

The informational methods play a key role in creating conditions (creating innovative potential) to obtain innovations. Any type of information is just information about properties of objects (innovations), but only the objects, not knowledge of them, can satisfy certain human needs.

The systematization of understanding the essence of informational innovations has allowed us to define them as [9]:

- ✦ introduction of new computer technologies, means of communication, informational technologies, informational support for organization of production and sale of goods and services, etc., which provides an opportunity to gain competitive advantage over competitors;
- ✦ implementation of new forms of work organization and enterprise management based on informational technologies covering all business processes;
- ✦ a new approach to creation (design), production and sale of goods and services based on the use of informational technologies and means of communication due to which the enterprise and its head gain advantages over their competitors;
- ✦ investments in activities that provide changes of the technology (equipment), means of communication, informational technologies.

Informational flows that are the basis for making management decisions of innovative character form the informational component of innovative potential.

It is obvious that possessing informational advantages significantly increases the level of enterprise competitiveness.

Thus the ability of continuous “generation” of competitiveness by the enterprise can be achieved only through integration of the informational and innovation processes at the enterprise, formation of the informational and innovative potential and mechanism of its realization.

One of the stages of building a mechanism for creation of the informational and innovative potential of the enterprise development is identification of the mechanism of interaction of informational resources, which are the basis for the creation of informational and innovative potential.

Fig. 2 shows the mechanism for creation of the informational and innovative potential of the enterprise development.

In the case of creating marginal innovation, there provided collection, processing and analysis of the flow of informational about the properties of the object of innovation, the technology of information processing, their hardware implementation, business models, organizational forms, competitive environment, etc.

While searching for market innovation collection, processing, and analysis of the initial information flow are directed at solving the problem of satisfaction of the market demand. This creates the informational flow on the basis of results of processing and analysis of which there implemented solving the mentioned problem by means of available methods and available informational resources.

Informational flows used to search for technological innovation substantially differ in content, complexity, volume and are aimed at solving the problem of existing market needs by more productive methods and ways.

Informational flows directed at searching for a radical innovation, a new market need, require considerably larger in volume informational resources and instruments involved with using new technological solutions, methods and means.

It is informational resources that in this case are the source of innovation processes, integrational factor of various information and new tasks in the innovative mechanism.

CONCLUSIONS

Thus informational resources are the basis of formation of the informational and innovative potential, and innovative resources. The high dynamics of development of the external environment, particularly consumer preferences, informational and communicational technologies, science and technology, informational environment shifts the focus from the management resources of the enterprise to its ability to ensure its competitiveness in the future.

The innovative and informational mechanism is the only mechanism that can facilitate it. No matter how strong the innovation system of the enterprise is, it will never be a significant factor in competitiveness of the enterprise in future periods without an adequate informational resource

and provision of its development. Only the combination and a single continuous cycle of informational flows and innovation processes will allow the enterprise to ensure its sustainable development for strengthening its competitive position not only in the current period but also in the future.

The proposed mechanism for creating the informational and innovative potential of the enterprise development and disclosing the content of its components can be used in further studies aimed at formation of conceptual approaches to creating informational systems for management of the enterprise innovative development, organizational and economical directions of improving the informational support for enterprise innovative development and the model of innovative development of the enterprise on the basis of a rational set of tools to support making management decision related to informational systems. ■

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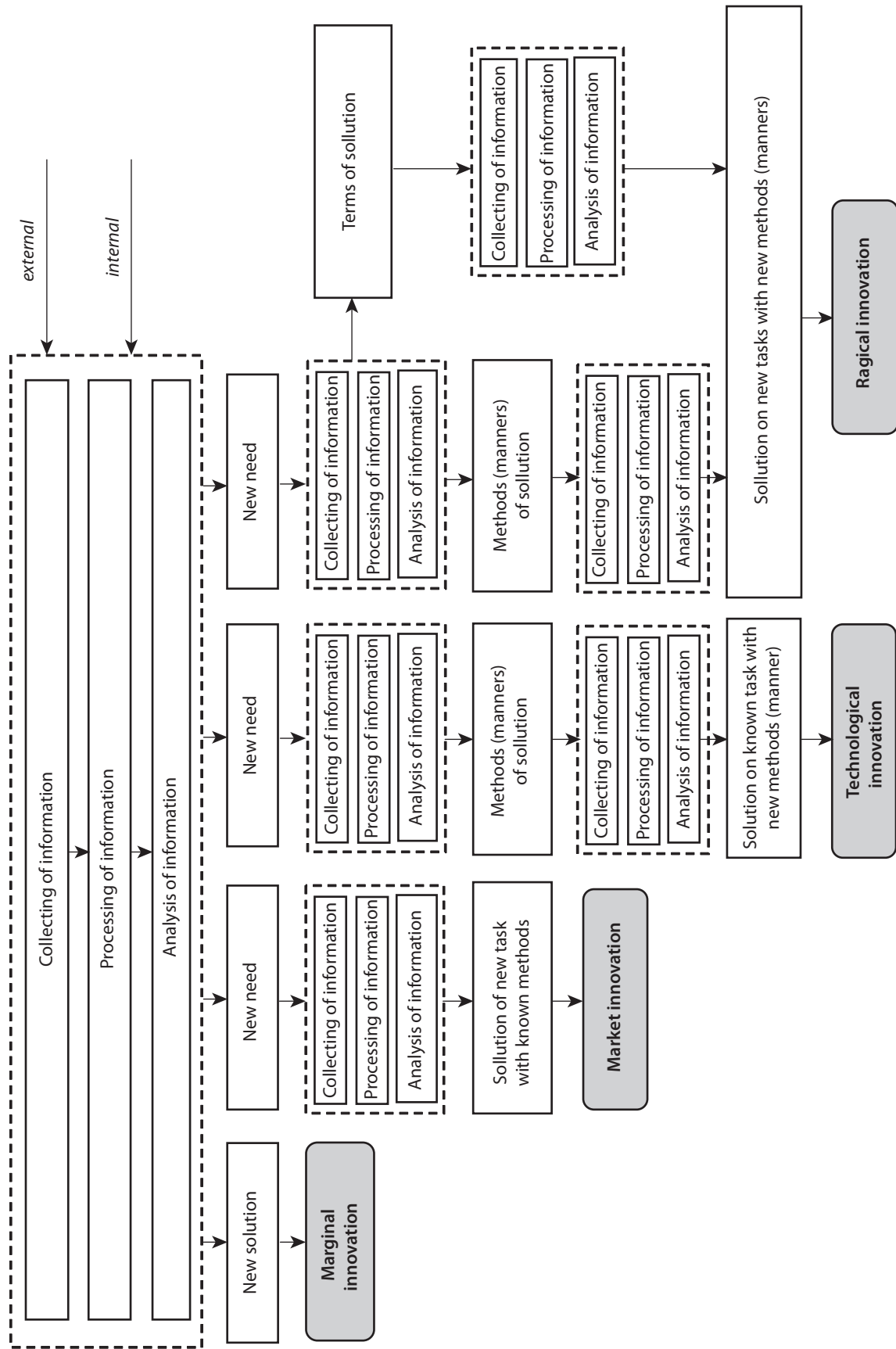


Fig. 2. The mechanism of creation of informational and innovational potential of the development of the enterprise

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КОНТРАКТНЫЕ ВЗАИМООТНОШЕНИЯ ПРИ ОРГАНИЗАЦИИ СБЫТОВОЙ ДЕЯТЕЛЬНОСТИ УГЛЕДОБЫВАЮЩИХ ПРЕДПРИЯТИЙ *

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Трушкина Н. В. Контрактные взаимоотношения при организации сбытовой деятельности угледобывающих предприятий

Целью статьи является разработка предложений по формированию системы контрактных взаимоотношений угледобывающего предприятия с различными категориями потребителей угольной продукции, исходя из специфики организации процессов сбытовой деятельности. Проанализированы особенности организации контрактной деятельности с различными категориями потребителей угольной продукции. Сформирована система контрактных взаимоотношений угледобывающего предприятия с учетом специфики обслуживания крупно-, средне- и мелкооптовых потребителей. Разработаны предложения по уточнению и дополнению содержания контракта на поставку угольной продукции. Перспективами дальнейших исследований в данном направлении является разработка модели контрактных взаимоотношений как составляющей сбытовой деятельности угледобывающего предприятия.

Ключевые слова: угледобывающее предприятие, контрактные взаимоотношения, различные категории потребителей, сбытовая деятельность, контрактная деятельность, контракт на поставку, алгоритм, процесс обслуживания.

Рис.: 2. **Табл.:** 2. **Формул.:** 1. **Библ.:** 15.

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Трушкіна Н. В. Контрактні взаємовідносини при організації збутової діяльності вугледобувних підприємств

Метою статті є розробка пропозицій щодо формування системи контрактних взаємовідносин вугледобувного підприємства з різними категоріями споживачів вугільної продукції, виходячи зі специфіки організації процесів збутової діяльності. Проаналізовано особливості організації контрактної діяльності з різними категоріями споживачів вугільної продукції. Сформовано систему контрактних взаємовідносин вугледобувного підприємства з урахуванням специфіки обслуговування велико-, середньо- та дрібнооптових споживачів. Розроблено пропозиції щодо уточнення та доповнення змісту контракту на поставку вугільної продукції. Перспективами подальших досліджень у даному напрямі є розробка моделі контрактних взаємовідносин як складової збутової діяльності вугледобувного підприємства.

Ключові слова: вугледобувне підприємство, контрактні взаємовідносини, різні категорії споживачів, збутова діяльність, контрактна діяльність, контракт на поставку, алгоритм, процес обслуговування.

Рис.: 2. **Табл.:** 2. **Формул.:** 1. **Бібл.:** 15.

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Trushkina N. V. The Contractual Relations in Terms of Organization of the Sales Activities of the Coal-Mining Enterprises

The article is aimed at elaborating proposals on formation of the system of contractual relations of the coal-mining enterprise with different categories of consumers of coal products, proceeding from the specifics of organization of processes of sales activity. Peculiarities of organizing the contractual activities with various categories of consumers of coal products have been analyzed. The system of contractual relations of the coal-mining enterprise has been formed in view of specificity of servicing the large-, medium- and small wholesale consumers. Proposals as to clarifying and supplementing the contents of a contract for the supply of coal products have been elaborated. Prospects for further research in this direction will be developing a model of contractual relations as constituent of the sales activities of the coal-mining enterprise.

Keywords: coal-mining enterprise, contractual relations, different categories of consumers, sales activities, contract activity, contract for supply, algorithm, process of servicing.

Fig.: 2. **Tbl.:** 2. **Formulae:** 1. **Bibl.:** 15.

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Современные условия хозяйствования требуют от промышленных предприятий формирования и развития системы долгосрочных партнерских взаимоотношений с потребителями. По мнению ученых, «изменение современного маркетинга осуществляется в направлении индивидуального подхода к клиенту» [1, с. 9].

«Партнерские отношения предусматривают заключение долгосрочных обязательств, гарантирующих сохранение взаимных выгод в будущем, а также наличие

общей информации, риска и вознаграждения, которые получают в результате этих взаимоотношений» [2, с. 62].

Зарубежные исследователи утверждают, что «в глобальном информационном обществе деятельность эконо-

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