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IMPROVEMENT OF INFOCOMMUNICATION ACTIVITIES BUSINESS STRUCTURES IN THE CONTEXT OF INNOVATIVE DEVELOPMENT

УДОСКОНАЛЕННЯ ІНФОКОМУНІКАЦІЙНОЇ ДІЯЛЬНОСТІ БІЗНЕС-СТРУКТУРИ В УМОВАХ ІННОВАЦІЙНОГО РОЗВИТКУ

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The most important strategic resource of any business structure is information and communication. In view of this, infocommunication activity is an integral part of the functioning and the key to the success of the enterprise in the conditions of innovative development. Because business structures are open systems and exchange messages with the external environment. In today's business environment, which is accompanied by extreme business conditions, the importance of infocommunication activities is growing. Part of the business processes is implemented through the organization of the system of both remote access and remote participation. This necessitates the improvement of approaches to the management of infocommunication activities of the business structure, which is associated with the processes of providing, transmitting, storing, deleting, evaluating data and messages about objects. At the same time, the role of infocommunication activities in modern conditions is growing. The volume of messages received by the company must be processed, and the channels of information transmission are expanded accordingly. This requires due attention to information and communication management processes.

Keywords: activity, information, communication, enterprise, information activity, innovation, development, management.

Найважливішим стратегічним ресурсом будь-якої бізнес-структури є інформація та комунікація. Зважаючи на те, інфокомунікаційна діяльність є невід'ємною частиною функціонування і запорукою успіху підприємства в умовах інноваційного розвитку. В статті досліджено значення володіння інформацією та комунікаціями в бізнес-структурі, чинники впливу на них. Відсутність необхідної інформації породжує невизначеність. Бізнес на певному етапі свого розвитку стає не достатньо керованим. При нестачі необхідної інформації в зручній формі виявляється надлишок інформації, що надходить із різних підсистем і яку важко зіставляти. Крім того, нерідко відсутнє стратегічне планування з ефективним контролем. Тому для успішного розвитку підприємства потрібна комплексна система управління, зокрема інформацією та комунікаціями, яка об'єднуватиме всі аспекти менеджменту. Це не лише технологічні завдання. Виокремлено проблеми постановки регулярного менеджменту і проблемами вибору та порядку введення інфокомунікаційної системи. Оскільки бізнес-структури є відкритими системами і обмінюються повідомленнями із зовнішнім середовищем. Обґрунтовано важливість інфокомунікаційної діяльності. Частина бізнес-процесів реалізується за рахунок організації системи як дис-

танційного доступу, так і дистанційної участі. Це і обумовлює необхідність удосконалення підходів до управління інфокомунікаційною діяльністю бізнес-структури, що пов'язано з процесами надання, передачі, зберігання, видалення, оцінки даних і повідомлень про об'єкти. Разом з тим, роль інфокомунікаційної діяльності в сучасних умовах зростає. Обсяг повідомлень, що надходять компанією повинні бути оброблені, відповідно розширюються канали передачі інформації. Це вимагає належної уваги до процесів управління інформацією та комунікацією. В умовах сьогодення існує досить багато різних програм для автоматизації бізнес-процесів, але програми – це не головне. Головний акцент при реалізації проекту інфокомунікаційної системи треба робити на технічну підтримку продуктів фахівцями, які знають всі особливості систем керування та мають чітке уявлення про організації бізнес-процесів на українських підприємствах. На основі аналізу поняття інформації, ролі і призначення інформаційних ресурсів, взаємодії інформаційних систем на різних рівнях підприємств, існуючих теоретичних положень, методичних підходів та практичних рекомендацій з проектування, функціонування й удосконалення автоматизованих систем, загальних тенденцій їх розвитку, розроблено систему принципів, яка складається з трьох груп: побудови, функціонування і розвитку інфокомунікаційних систем в управлінні підприємством. Зазначені принципи забезпечуються теоретичними положеннями і методичними підходами щодо процесів створення, функціонування і розвитку інфокомунікаційних систем на всіх стадіях їх життєвого циклу.

Ключові слова: діяльність, інформація, комунікація, підприємство, інформаційна діяльність, інновація, розвиток, управління.

Staging problems. The aim of this article is to study the development of infocommunication activities, to allocate the functions of enterprises that provide information and communication services in the context of innovative development in the market segment under study, as well as to outline competitive positions in today's conditions.

Analysis of the latest research and publications. The issues of information and communication communication systems, their processes, information and communication activities have been repeatedly raised at international conferences and studied by both domestic and foreign scientists. In particular, on the basis of the analysis of literary sources by I. I. Bilyk [1], it is established that the information activity of the enterprise is a set of actions of employees of the information sphere of the enterprise, aimed at ensuring the effective exchange of information between control and managed subsystems and, within them, its management system and the external environment to meet the needs of management and owners of enterprises in a timely manner, reliable, structured, high-quality, legally obtained information for quick decision-making on the tactics and strategy of effective operation of the enterprise, etc. Kolisnyk V. S. believes that the adoption of the outlined management decisions may also relate to other aspects of the organization's infocommunication activities, but they should be consistent with strategy and tactics as the main guidelines in the business structure. Honcharuk I. V. and Tomashchuk I. V. [3] believe that communication services are an integral part of human physical essence. With the help of such services, an appropriate

form of human communication is established. Honcharuk I. V. focuses on means of communication, emphasizing their significant role. Tomashchuk I. V. emphasizes that with the development of accessibility of means of communication, the conditions for the information and communication skills of society have improved. The undeniable importance of information and communication activities is also studied by foreign scientists. In particular, Shreya Mane [2]. However, it should be noted that the issues of infocommunication activities of the business structure, in the context of the development of innovation activity, in particular in the extreme conditions of today, are not fully studied, therefore they require further research and study.

Highlighting previously unresolved parts of the general problem. The competitive environment is the key for the business structure to find ways to improve its infocommunication activities. And the priority is to replenish the company's income through the development of new segments of the service market, and at the same time to improve the quality of customer service. It is necessary to form mechanisms for managing changes in the infocommunication niche and making effective decisions in this area. To do this, you need to study the functioning of infocommunications, which are gaining their rapid development and renewal, which, accordingly, determines the study of the features of the infocommunication activity of the business structure, in particular for the implementation of the enterprise's capabilities in establishing innovative development, taking into account modern extreme conditions.

Formulation of the goals of the article (statement of the task). The aim of the study is to highlight the essence of infocommunication activities of the business structure in the context of innovative development, taking into account the extreme conditions of today. It is necessary to study the theoretical foundations and legislative acts on the problem of improving the infocommunication activities of the enterprise in the context of innovative development. Analyze and evaluate the information and communication activity of the enterprise. And to develop measures to improve the infocommunication activities of the business structure in the context of innovative development, taking into account modern extreme conditions.

Presentation of the main material of the research. Infocommunication activities of any business structure are implemented through specific operations and actions. Homogeneous operations and actions according to the purpose or form of their implementation form the functions of performers. The number and composition of the functions of each executor (employee, department, body) are determined by the volume and complexity of the composition of his actions and operations. At the same time, it should be borne in mind that the infocommunication activity of the enterprise is divided into infocommunication activities of a general nature and special. Let's consider infocommunication activities on the example of «Magura-G» LLC. Information activities of a general nature of this enterprise are related to the information support of all areas of the enterprise's work. Special information activities are carried out by professionally oriented employees of this enterprise, who solve problems in the field of mass information and informatization, provide advisory, expert and analytical work for an unlimited number of users. Specialized information activity is an activity as a result of which the tasks of formation and use of state information resources, technologies and communications necessary for the implementation of state and international programs in the field of development of the information industry and infrastructure, implementation of innovations on the basis of information technologies are solved; ensuring the information security of society, the state, and the individual. «Magura-G» LLC does not carry out specialized information activities. In connection with the expansion of the range of information activities, new professions have appeared and the requirements for specialists working in this field have become more complicated.

Programmers, system administrators of various profiles, providers (intermediaries) with different specializations in systems and networks; operators, experts, analysts. At the same time, expert and analytical information services are being formed, focused on the preparation of draft decisions, strategies and forecasts of LLC. There are also specialized information firms, companies, centers in the public and private sectors of business and economic, political, cultural and educational structures, to which it is possible to transfer part of the function of managing the innovation activity of «Magura-G» LLC. Information literacy has become a general requirement and condition for the performance of production, managerial, and service functions of «Magura-G» LLC. Qualification requirements for all professions and positions in the enterprise should provide for the necessary level of requirements and provide conditions for acquiring knowledge and skills in new working conditions. The duty of the management system of this enterprise is to ensure the rational use of information infrastructure, on the one hand, and on the other hand, the high-quality performance of all functions and operations related to infocommunication activities at any level while ensuring information security. We will implement it by studying the business processes of the enterprise, identifying the movement of information resources in the process of their implementation. To do this, we will use the BP Win CASE-tool, which allows us to decompose the main business processes of «Magura-G» LLC, which include financial, administrative, economic and sales activities, which are carried out by specialized divisions of this enterprise. Based on the results of the decomposition of the business processes of the LLC, we will describe the operation of the functional divisions of the enterprise (Table 1) and study the data flows that accompany them.

In order to identify trends in the information activity of this enterprise in the context of innovative development and identify directions for its improvement, we will carry out an assessment. To do this, we will use the method of economic evaluation of infocommunication activities of enterprises, which is based on the use of a system of generalizing indicators (used for continuous assessment of the information activity of enterprise and for analysis of its individual aspects) and indicators of the level of implementation technological operations (intended for economic evaluation of individual

Table 1

Operations of functional divisions of «Magura-G» LLC

Units	Operation
Finance Department (Accounting)	Accounting; preparation of financial statements; financial planning; accrual, payment of wages, making deductions; cost management, etc.
Administrative department (HR department, legal department, system administrator)	Contract administration; legal activity; HR activities; information support of production and economic activities, which involves the provision of communication and access to the Internet , etc.; implementation of IT technologies and information security systems.
Planning and Economic Department	Planning of the company's activities; diagnostics of the enterprise; budgeting and budgeting.
Sales Divisions	Taking orders; order processing; transportation, insurance; storage of goods; After-sales Service

Notes: formed according to the data of «Magura-G» LLC

technological operations of the information activity of the enterprise).

The method we have chosen involves the use of an appropriate evaluation procedure. In order to improve infocommunication activities in the context of innovative development of «Magura-G» LLC, it is necessary to ensure the implementation of an approach to increasing the potential of information technologies in resource management through the development of systems for accounting, planning and control of the use of information. Problems of information activity of this enterprise in the context of innovative development and ways to solve them are summarized in table. 2. In order to solve the problems of information activity of «Magura-G» LLC in the context of innovative development, it is necessary to implement a measure to form an innovative information

and analytical system of LLC and systems for training, planning and control of data and knowledge. Its components are the systematic accumulation of employees' knowledge about the objects of management in the process of performing their functions (duties); introduction of knowledge into an already prepared area (model), which systematizes and processes knowledge according to types, sources, in relation to the spheres of activity, environmental conditions, place and time of birth, in accordance with the cycles of management and information and analytical work; determination of the logic of knowledge exchange between employees in the structure of internal and external relations of the subject; hierarchical aggregation of lower-level knowledge into higher-level knowledge and decomposition of higher-level knowledge to a lower level; collective use of knowledge.

Table 2

Problems of Infocommunication Activity of «Magura-G» LLC in the context of innovative development and ways to solve them

№	Problems of Infocommunication Activity of «Magura-G» LLC in the Context of Innovative Development	Solutions
1	Irrational use of the information infrastructure of the enterprise in the context of innovative development, low level of performance of functions and operations related to information activities	Formation of an innovative information and analytical system of «Magura-G» LLC
2	Impose the unrealized potential of information technology in the management of enterprise resources in the context of innovative development	Implementation of training, planning and control systems for data and knowledge in the context of innovative development of «Magura-G» LLC
3	Change of qualification requirements for all professions and positions at the enterprise in the context of innovative development, low level of conditions for acquiring knowledge and skills at the enterprise	

Notes: grouped by enterprise data

The functional purpose of the formed innovative infocommunication analytical system of «Magura-G» LLC involves: systematic accumulation of employees' knowledge about management objects in the process of performing their functions (duties); introduction of knowledge into an already prepared environment (model), which systematizes and processes knowledge by types, sources, in accordance with the spheres of activity, environmental conditions, place and time of birth, in accordance with the cycles of management and information and analytical work; determination of the logic of knowledge exchange between employees in the structure of internal and external relations of «Magura-G» LLC; hierarchical aggregation of lower-level knowledge into higher-level knowledge and decomposition of higher-level knowledge to a lower level; cooperative use of knowledge.

The development of an organic management system based on modern scientific and technological achievements requires a description of a methodology that would meet the following requirements: has a practical orientation and realism of implementation; accessible for understanding and mastering by

specialists after a short training; is universal for use in various applied fields of activity; preserves heredity to the accumulated knowledge and scientific and technological achievements; has the ability to improve, supplement and develop. The tasks of the information and analytical system of «Magura-G» LLC are effective storage, processing and analysis of data. Effective. Storage of information is achieved by the presence of a number of data sources as part of the infocommunication analytical system.

Processing and combining information is achieved by using tools for extracting, transforming and loading data. Data analysis is carried out according to with the help of modern tools for business data analysis (Figure 2).

The complex of the infocommunication analytical system affects the entire management vertical: corporate reporting, strategic planning and financial and economic planning. Likewise, it should be noted that data analysis involves not only identifying certain trends for the future, but also provides support for decision-making and the issuance of various reports based on the data. The main requirements of «Magura-G» LLC for IAS are: to store large amounts of data; maintain internal data consistency; support a high-quality

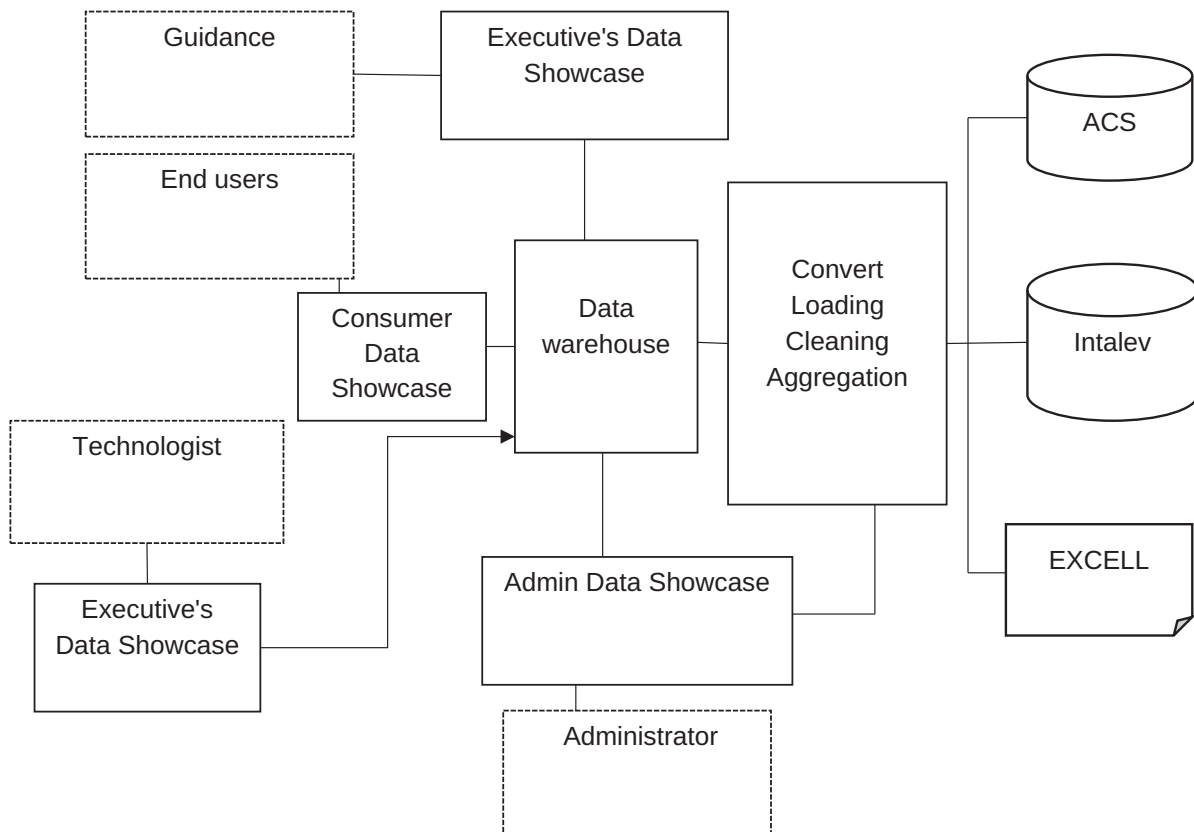


Figure 1. Three-level conceptual architecture of «Magura-G» LLC
 Notes: formed according to the data of «Magura-G» LLC

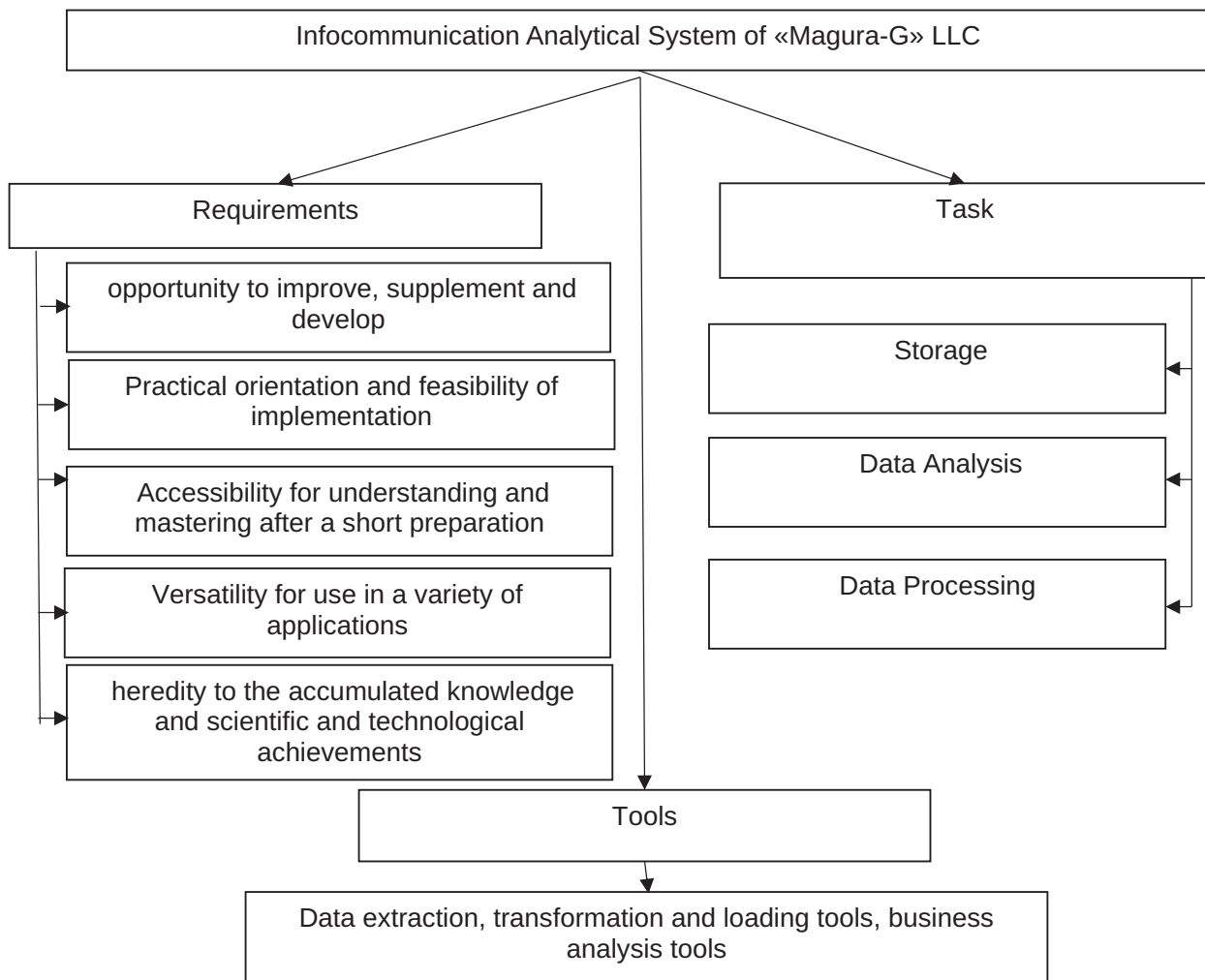


Figure 2. Properties of the recommended infocommunication analytical system of «Magura-G» LLC
Notes: formed according to the data of «Magura-G» LLC

data replenishment process; maintain a high speed of data acquisition; ensure the availability of convenient data viewing utilities; ensure the completeness and reliability of the stored data; The requirements for financial analysis determine the functionality of the IAS, and the structure of the operational data processing system determines to some extent the structure of the IAS data warehouse and the interaction between them. To date, IAS developers do not take into account the existing systems of operational data processing. This system is designed to help in making management decisions based on data obtained in real time.

Conclusions. The formation of an innovative information and analytical system of «Magura-G» LLC and systems of training, planning and control of data and knowledge is a modern highly effective tool for supporting tactical, strategic and operational management

decisions based on the prompt and visual provision of all the necessary data to users responsible for analyzing the state of affairs and making management decisions with the help of its components, such as: systematic accumulation of employees' knowledge about the objects of management in the process of performing their functions (duties); introduction of knowledge into an already prepared area (model), which systematizes and processes knowledge by types, sources, in relation to areas of activity, environmental conditions, place and time of occurrence, in terms of cycles of management and information-analytical work; determination of the logic of knowledge exchange between employees in the structure of internal and external relations of the subject; hierarchical aggregation of lower-level knowledge into higher-level knowledge and decomposition of higher-level knowledge into a lower level; collective use of knowledge.

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