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# **Дем Ольга Дмитриевна, Сомова Елизавета Александровна**

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## О разработке программных продуктов для оценки эффективности внедрения программного обеспечения для банков и промышленных организаций

Аннотация: цифровизация экономики привела к распространению программных продуктов в банковской и промышленной сферах. В статье обоснованы методики оценки эффективности внедрения программ на примере ОАО «Белагропромбанк» и ОАО «Витебские ковры» и разработано приложение для расчета экономического эффекта.

Ключевые слова: информационные технологии, эффективность, программное обеспечение, дистанционное банковское обслуживание, издержки.

### O. Diom, L. Somova,

# On the development of software products for evaluating the effectiveness of software implementation for banks and industrial organizations

Annotation: the digitalization of the economy has led to the spread of software products in the banking and industrial sectors. The article

substantiates the methods of evaluating the effectiveness of the implementation of programs on the example of JSC "Belagroprombank" and JSC "Vitebsk Carpets" and develops an application for calculating the economic effect.

Key words: information technology, efficiency, software, remote banking, costs.

Currently, Belarusian commercial banks and industrial organizations are actively implementing modern digital technologies in their practice. The provision of banking services is the main activity of each bank. In order to make a profit, a banking institution creates its own service for customers, determines its price, and enters the market with it. Changes in the needs of customers and the possibilities of banking services have led to a certain reorganization of their sales channels: the interaction of the bank with the client in the walls of a stationary room loses its relevance. It is obvious that there is a need to introduce new banking technologies, so now various types of remote banking services (RBS) are becoming more and more widespread.

Assessing the effectiveness of the implementation of the RBO system is a difficult task, since it generates indirect income. The immediate profit is usually negligible. In addition, the principle of evaluating efficiency by the amount of revenue is incorrect for RBO systems that provide free customer service.

In order to develop remote banking services in JSC "Belagroprombank", it is proposed to introduce a campus project with Belarusian universities. Campussy project is a digital ecosystem, and includes a number of components (online payment for training on the University's website; contactless system passage; the services of contactless payments; payment in one touch; mobile app b & n, etc.).

For industrial organizations also increases the value of software that allows professionals to quickly obtain and process information on current and financial activities.

Financial software is a system aimed at increasing the productivity of employees, as well as improving and automating the financial processes in the organization. The research of SF Education company highlights some software solutions developed by leading IT companies that can improve the productivity and quality of financial results. The most well-known software products are such as Dynamics 365 Finance, Microsoft Power BI, SAP S / 4HANA (enterprise resource planning), etc.

In order to optimize the resource potential of JSC "Vitebsk Carpets", it is proposed to develop a computer system by implementing the Dynamics 365 Finance program in the work of the financial service, the use of which will also have a positive impact on the work of other services of the enterprise.

The economic efficiency of the implementation of the development in this case is understood as a set of cost, natural and qualitative indicators that allow us to judge the feasibility of implementing this development.

Thus, both measures have a common feature: the result of the development and implementation of such systems is to minimize the costs of structural divisions. There is a natural question, how to estimate the expected effect?

In order to assess the effectiveness of the implementation of software products in the bank and at the enterprise, appropriate methods were developed. In relation to the bank, to assess the effectiveness of the introduction of remote banking services, the methodology of a number of Russian authors was used, adjusted to the requirements of Belarusian legislation, including in the field of employee remuneration, and the calculation of the economic effect of the introduction of financial software for an industrial organization is based on the calculation of costs that can be reduced using the Dynamics 365 Finance program.

In order to optimize the calculations and get a faster and more accurate result, these methods were created in MS Excel using the VBA programming language. Figure 1 shows the interface of this software product.



**Figure 1.** Interface of the created software product Own development based on [1].

Figure 1 shows the visual images of the main page, on which the buttons to go to other pages are created using macros, as well as the tables with the source data for performing calculations using two methods, on which the buttons are also created.

Using this software product allows you to calculate the effectiveness of the implementation of the two described measures in the shortest possible time, obtaining the exact results shown in Figure 2.



**Figure 2.** Results of calculations using the created software product Own development based on [1].

Thus, according to Figure 2, it can be concluded that the lowest cost of the operation when servicing the client is the cost of the RBO (at current costs per month), i.e. after the return on investment in the RBO, its cost will be 0.08 BYN. It should be noted that the investment in the RBS is quickly recouped in one year, as there is a significant cost savings compared to the operating branch by reducing the administrative and management costs of the bank. The payback period of the financial software in JSC "Vitebsk Carpets" will be approximately 2 years. The calculations show the possibility of reducing the rate of one specialist and obtaining a projected economic benefit in the amount of 1462.50 BYN per year, which is equivalent to 45,000 Russian rubles.

The software product developed by the author in MS Excel using the VBA programming language is tested on real data, it can be used both in the educational and research activities of the university, and in the practical activities of banks and industrial organizations.

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УДК 2964

## Дера Хассан

Уральский Институт Управления, РАНХиГС, г. Екатеринбург Концептуализация стратегии цифровой трансформации в организациях бизнеса

Аннотация: в статье рассмотрена теоретическая основа цифровой трансформации. В статье представлен краткий обзор по характеристикам, Технологическим тенденциям в цифровой трансформации. В статье предложена концептуальная модель по стратегии цифровой трансформации.

Ключевые слова: стратегия цифровой трансформации, цифровые технологии, концептуальная модель

#### Dera Hassan

# Conceptualization of the digital transformation strategy in business organizations

Abstract: the article considers the theoretical basis of digital transformation. The article provides a brief overview of the characteristics and Technological trends in digital transformation. The article proposes a conceptual model for the digital transformation strategy

Key words: digital transformation strategy, digital technologies, conceptual model.

Внедрение новых цифровых технологий организациями вызвало множество изменений, приведших к цифровой трансформации. Эта новая форма организационного преобразования оказывает большое влияние на многие различные аспекты организации. Интернет вещей, социальные сети, облачные вычисления, социальные сети, аналитика данных и другие цифровые технологии изменили операционные процессы, создание ценности и опыт клиентов. В современную цифровую эпоху организации должны рассматривать свою ИТ-стратегию не как стратегию