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**CONVERGENCE OF DIGITAL TECHNOLOGIES AND QUALITY  
MANAGEMENT AS A CRITERION FOR ENSURING THE  
COMPETITIVENESS OF AN ENTERPRISE**

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**КОНВЕРГЕНЦІЯ ЦИФОВИХ ТЕХНОЛОГІЙ І УПРАВЛІННЯ ЯКІСТЮ  
ЯК КРИТЕРІЙ ЗАБЕЗПЕЧЕННЯ КОНКУРЕНТОЗДАТНОСТІ  
ПІДПРИЄМСТВА**

*The article substantiates the role of digital technologies in quality management of enterprises in the woodworking industry. The need for convergence of digital technologies and quality management as a criterion for ensuring the competitiveness of the enterprise is substantiated. It is established that the quality management of products of woodworking enterprises in modern conditions requires the implementation of measures aimed at optimizing the product range and expanding digital sales channels. The paper proposes the implementation of an ERP system in quality management, optimizing the product range and developing digital sales channels. The conclusion about the convergence of these areas is important, which will allow strengthening the competitive advantage of the enterprise by improving the quality of products in new, more profitable markets.*

*The implementation of a digital product catalog is proposed and the necessary costs for the implementation of this digital sales channel are distributed. In the context of the practical implementation of strategic decisions, the feasibility of integration with Prom.ua and Prozorro is substantiated. In order to ensure the efficiency and consistency of the implementation of digital channels, a phased plan for the implementation of digital sales channels with a clear division of responsibility and definition of deadlines is proposed. A conclusion is made about the advantages of the proposed approach, which will allow systematizing the quality management process, ensuring control over resources and results, and responding to possible risks in a timely manner. The paper argues for the feasibility of implementing the SAP Business One system as an effective tool for strategic quality management and increasing competitiveness in the long term. An analysis of the characteristics and functions of the software using SAP S/4HANA modules is carried out.*

*The results of the study showed that the synergy of services within a single SAP S/4HANA system will allow making operational decisions regarding product quality, identifying corrective measures to improve quality standards and prevent the release of defective products, reducing costs and minimizing waste using*

*convenient mobile applications. Using the SAP system, the company receives a single dashboard for assessing the assortment and quality of goods, which allows preventing problems with defects and improving product quality, ensuring the competitiveness of the enterprise.*

*У статті обґрунтовано роль цифрових технологій в управлінні якістю підприємств деревообробної галузі. Обґрунтовано необхідність конвергенції цифрових технологій та управління якістю як критерію забезпечення конкурентоздатності підприємства. Встановлено, що управління якістю продукції деревообробних підприємств в сучасних умовах вимагає впровадження заходів, спрямованих на оптимізацію асортименту продукції та розширення цифрових каналів збуту. В роботі запропоновано впровадження ERP-системи в управління якістю, оптимізацію товарного асортименту та розвиток цифрових каналів збуту. Важливим є висновок про конвергенцію цих напрямів, що дозволить посилити конкурентну перевагу підприємства за рахунок підвищення якості продукції на нових, більш прибуткових ринках.*

*Запропоновано впровадження цифрового каталогу продукції та здійснено розподіл необхідних витрат для реалізації цього цифрового каналу збуту. У контексті практичної реалізації стратегічних рішень обґрунтовано доцільність інтеграції з Prom.ua та Prozorro.*

*З метою забезпечення ефективності та узгодженості впровадження цифрових каналів запропоновано поетапний план впровадження цифрових каналів збуту з чітким розподілом відповідальності та визначенням строків виконання. Зроблено висновок про переваги запропонованого підходу, що дозволить систематизувати процес управління якістю, забезпечити контроль за ресурсами та результатами, своєчасно реагувати на можливі ризики. В роботі аргументовано доцільність впровадження системи SAP Business One як ефективного інструменту стратегічного управління якістю та підвищення конкурентоспроможності в довгостроковій перспективі.*

*Здійснено аналіз характеристик та функцій програмного забезпечення з використанням модулів SAP S/4HANA.*

*Результати проведеного дослідження показали, що синергія сервісів в межах єдиної системи SAP S/4HANA дозволить приймати оперативні рішення щодо якості продукції, визначити коригувальні заходи для підвищення стандартів якості та запобігання випуску дефектних товарів, знизити витрати та мінімізувати відходи за допомогою зручних мобільних додатків. За використання системи SAP підприємство отримує єдину інформаційну панель для оцінки асортименту та якості товарів, що дає змогу запобігати дефектам та підвищувати якість продукції, забезпечувати конкурентоздатність підприємства.*

***Keywords:*** *product quality, quality management, enterprise competitiveness, convergence, digital technologies, digital sales channels.*

***Ключові слова:*** *якість продукції, управління якістю, конкурентоздатність підприємства, конвергенція, цифрові технології, цифрові канали збуту.*

***Problem statement in a general form and its connection with important scientific and practical tasks.*** The transformation of the market environment, increased competition, increased consumer demands for quality, innovation and environmental friendliness of products have led to an increase in the role of quality management tools to increase the competitiveness of the enterprise. In the context of the variability of external factors, especially for the B2B sector - the woodworking industry, the issues of quality management policy are key in the context of the mechanism of strategic management of the competitiveness of the enterprise. The role of quality management is to ensure a dynamic balance between internal production capabilities and external market expectations, which guarantees sustainable development and commercial success, since it is the quality

characteristics of the product, its range and life cycle that determine the effectiveness of the enterprise.

*Analysis of recent research and publications.* The issue of quality management as a criterion for ensuring the competitiveness of an enterprise is relevant in the context of the development of the digital economy.

Thus, the article by Yu. Terletska, A. Kravchuk is devoted to the study of the problem of forming a product quality management system at an enterprise in modern business conditions. The authors identified the main components of strengthening the competitive positions of domestic enterprises in foreign markets, and substantiated the need to improve the product quality management system in modern conditions [1].

N. V. Proskurnina and V. I. Bilousko describe modern technologies, their necessity for improving quality control, emphasize the need for organizations to adopt modern trends in the quality management system in order to remain competitive in the global market and receive other advantages [2].

The article by L. V. Verbivska considers the peculiarities of the influence of market competition on ensuring high product quality, and explores the role of certification, standardization, and product quality management in modern business processes [3].

The article by S. O. Tulchynska, M. O. Dergalyuk, and D. O. Radkevych reveals theoretical and practical aspects of implementing an enterprise's competitive strategy on the foreign market in the context of globalization, and explores foreign and domestic experience in forming a competitive strategy on the foreign market in modern conditions [4].

The use of digital technologies in quality management transforms traditional reactive approaches focused on selective control into proactive systems with continuous monitoring, failure prediction and timely detection of defects. Thanks to them, it is possible to predict the risks of product defects, and the use of AI, machine learning and blockchain helps automate operational control and increase

the accuracy of management decisions, guaranteeing the immutability of data in supply chains.

K. S. Dzhunkovska argues that in conditions of high uncertainty, information technologies act as a strategic resource for increasing the competitiveness and sustainability of enterprises. The need to transition from traditional hierarchical management models to flexible, digitally oriented approaches based on the principles of adaptability, data analytics and innovative development is proven [5].

M. R. Borodiy, V. V. Cherednychenko note that the digitalization of quality management contributes to the transition to autonomous systems capable of making decisions in real time, integrating quality control into the digital infrastructure of the enterprise [6].

I. Kovalchuk, O. Orlova-Kurylova substantiated that the integration of AI allows us to move from a fragmented to a holistic approach in quality management, which involves a high level of analytical support for decision-making, risk forecasting, detection of hidden defects and increased customer satisfaction. Technologies such as machine learning, computer vision, neural networks are increasingly used for automated quality control, optimization of production processes and adaptive response to deviations [7].

I. Stankovska, L. Smaga investigate the impact of digital transformation on the quality of management of industrial enterprises on the basis of sustainable development [8]. To assess the quality of enterprise management based on the model, an evaluation algorithm and classification criteria were applied, taking into account the digital maturity of the enterprise and compliance with the principles of sustainable development.

Thus, as the analysis of literary sources shows, modern scientific research focuses on changing traditional approaches to quality management and taking into account the impact of digitalization on improving quality processes. At the same time, there is a need to continue scientific research in this area, taking into account

the improvement of quality management processes using digital technologies and ensuring the competitiveness of the enterprise.

***Formulation of article goals (task setting).*** The purpose of the article is to theoretically substantiate the convergence of digital technologies and quality management as a criterion for ensuring the competitiveness of an enterprise.

***Presentation of the main research material.*** The woodworking industry of Ukraine as of 2025 operates in a difficult macroeconomic situation, characterized by volatility in raw material prices, increasing logistics costs, and a change in the structure of consumer demand focused on reconstruction and energy independence. Product quality management of woodworking enterprises in modern conditions requires the implementation of measures aimed at optimizing the product range and expanding digital sales channels.

The woodworking enterprise of Khmelnytskyi region produces mainly standardized products, competing on price policy and product quality. To increase the competitiveness of the enterprise, it is proposed to apply a differentiation strategy by bringing to the market improved versions of products, focused on professional builders and the agricultural sector, which does not require significant investments in new equipment, since the technological process is similar, but will allow forming an offer in a higher price segment, where competition is lower.

Measures to update the product, improve its quality, promote and sell it should be accompanied by digital solutions. The regional location of the woodworking enterprise of the Khmelnytskyi region creates logistical and marketing restrictions that can be eliminated through the development of digital sales channels. The omnichannel strategy involves creating a single, convenient platform for B2B clients and end consumers. In particular, the creation of a professional online catalog will allow you to demonstrate the full range (lumber, handles, briquettes) with up-to-date prices and technical specifications 24/7, which is critically important for clients who make purchases throughout the country. Registration on key Ukrainian construction marketplaces and specialized B2B

platforms will allow you to cover the national market without the need to open physical representative offices.

Given the need to focus on powerful marketing tools for quality management, the most relevant and promising measures are: implementing an ERP system, optimizing the range and quality of finished products, and developing digital sales channels. These measures are appropriate due to their direct convergence, which allows you to turn the key strength of the enterprise (high quality wood) into an established competitive advantage in new, more profitable markets.

The first strategic direction in quality management is the development of digital sales channels. The transition to online sales, in particular, the creation of an online catalog for B2B clients and registration on the Prom.ua and Prozorro/Zakupki.ua platforms, is a critically important step for expanding markets. This transformation is becoming especially relevant due to the projected decline in revenue, as 70-80% of B2B client decisions are made using online tools.

Since modern wholesale buyers actively search and compare products on the Internet, the lack of a full-fledged web resource leads to direct losses. The introduction of a digital catalog with up-to-date prices and availability will allow the enterprise to demonstrate the uniqueness and high quality of raw materials to a wide range of wholesale buyers around the clock, ensuring the acceptance of orders and reducing dependence on seasonal fluctuations. Table 1 provides a detailed breakdown of the necessary costs for the implementation of this digital sales channel.

An important place in the digital development strategy is occupied by integration with Prom.ua, the largest Ukrainian e-commerce platform, which attracts over 52 million visitors and 3–4 million purchases every month. Registration on Prom.ua immediately provides access to an established audience and offers a ready-made solution in the format of a “store on the platform” (for example, “Prom Sales Lite/PRO/Mix” packages), which include the creation of an online store with the ability to place from 1 to 10 thousand product items.

Although a commission is charged for sales (5–16%), this is offset by low initial costs, a wide range of marketing tools of the platform, as well as the fact that the well-known Prom.ua brand significantly increases consumer trust in the new seller.

**Table 1. Summary estimate for the implementation of the digital sales channel**

<b>Digital sales channel</b>	<b>Targeted costs</b>
B2B website development (online catalog)	From \$3,500 (approximately UAH 140,000)
Website hosting and domains	Approximately 400 UAH/year
SEO and digital website promotion	From \$450–\$700/month (approximately UAH 15–20 thousand/month)
Connecting to Prom.ua	4,900–12,000 UAH/year
Registration/participation in Prozorro (Zakupki.ua)	No annual fee; state fee for submitting a proposal up to 4080 UAH (depending on the tender budget). If working through "Prozorro Market", commission 1–3% of the contract amount

*Source: compiled by the author based on market research*

To ensure constant and significant sales volumes, it is critical to reach large customers, including state-owned companies, through the Prozorro public procurement system (Zakupki.ua). Annually, contracts worth over 14 billion US dollars (about 320 thousand tenders) are concluded through Prozorro, with the “woodworking materials” category being one of the most popular. Registration in the Prozorro Market catalog opens the way to these significant contracts. At the same time, the process is as transparent and automated as possible: after a one-time verification, the factory will be able to participate in all relevant tenders of the system.

After approving the budget and key areas of digital development, such as integration with Prom.ua and access to Prozorro, the task of practical implementation of these strategic decisions arises. To ensure their effectiveness and consistency, the implementation of digital channels must be carried out in stages, with a clear division of responsibilities and definition of deadlines. This

approach allows you to systematize the process, ensure control over resources and results, and respond to possible risks in a timely manner.

A detailed implementation plan is given in Table. 2.

**Table 2. Digital sales channel implementation plan**

Stage	Contents of the works	Responsible persons	Estimated completion date
1. Project planning	Analysis of market requirements, definition of target audience, budgeting, formation of technical specifications for corporate website and marketplaces	Project manager, marketer, financial manager	1 month
2. Website development and testing	Selecting a contractor (web studio), creating a prototype and design, programming a catalog with prices and availability, integrating a content management system, filling with basic content, testing functionality	Web studio, IT manager, content manager	2–3 months
3. SEO training and content	Development of SEO strategy, copywriting and optimization of product descriptions, creation of high-quality photos, internal site optimization, launch of initial SEO campaigns (in parallel with stage 2)	SEO specialist, copywriter, content manager	2–3 months
4. Registration on Prom.ua	Choose a tariff plan, import products and photos into the catalog, set up payment and delivery methods, integrate with CRM (if necessary)	E-commerce Manager, IT Manager	0.5–1 month
5. Registration in Prozorro/Zakupki.ua	Obtaining an electronic signature, creating a supplier account, filling out a profile, checking compliance with public procurement requirements (in parallel with stage 4)	Lawyer, sales manager	0.5–1 month
6. Site launch and final testing	Hosting the site, checking the catalog, integrating analytics (Google Analytics, CRM), testing the ordering and payment processes	IT manager, marketer, web studio	0.5–1 month
7. Monitoring and adjustment	Order traffic analysis, price and assortment correction, scaling advertising campaigns, working with customer feedback, regular content updates (continuously after launch)	Marketer, sales manager, SEO specialist	Constantly

*Source: generated by the authors*

At each stage of implementing digital sales channels, it is important to ensure a clear division of responsibility between the participants in the process. The company's management monitors the deadlines and budget compliance, which

guarantees the strategic coherence of the project. The sales department is responsible for forming the product base and preparing marketing materials, while IT specialists provide the technical component - server infrastructure, integrations and information security.

The involvement of external contractors, such as web studios, SEO and advertising agencies, requires centralized coordination, which is carried out by a designated project manager. This avoids duplication of functions and ensures consistency of actions. Overall responsibility for achieving the set goals is divided between the management, sales department, IT department and selected contractors who perform specialized tasks.

In conditions of market transformations, a high share of expensive materials in the cost of production, the transition of the enterprise to the digital space becomes a necessity. This approach opens up new B2B areas, including direct online sales and participation in government procurement. In particular, creating your own modern online catalog, combined with a presence on Prom.ua and integration with Prozorro, will allow the company to become a noticeable player and restore sales dynamics. Investments in web resources and marketplaces are investments in risk diversification: customers will receive a convenient direct ordering tool, and Prozorro will provide access to large contracts, which will help strengthen the customer base and improve economic performance.

Thus, having your own website and integrating with marketplaces and Prozorro are strategically important: they contribute to increasing order volumes and diversifying sales channels, which will allow customers to directly order goods through a detailed online catalog with prices, as well as conclude long-term contracts through the transparent Prozorro system. In general, such steps will help expand the customer base, increase brand awareness and improve financial performance.

Given these features, the implementation of an ERP system is important for strategic optimization of product portfolio and resource management. Although the market offers powerful solutions, such as Microsoft Dynamics 365 or Oracle ERP

Cloud, comparative analysis indicates that for the specifics of the enterprise, the most balanced option is the solution from SAP. This choice is due to the combination of an intuitive interface with deep analytical capabilities that allow the enterprise to adapt its product offering to changes in market demand faster than competitors [9].

At the same time, the financial results of the enterprise limit investment opportunities and digital transformations at the expense of its own funds. In this regard, the only realistic scenario for modernizing commodity policy management is to attract external financing. Currently, state support programs for processing enterprises (for example, the eWork program “Grant for a processing enterprise”), EU grant programs (EU4Business) and international donor initiatives for the digitalization of small businesses (USAID, GIZ) are relevant, which can cover from 200 to 800 thousand UAH of costs. Soft lending (5–7–9%) can be considered only as a supplement provided that a grant is received for the first installment. Therefore, the further development strategy is based on the assumption that the initial investment costs will be compensated by grant financing.

Under such financial conditions, the implementation of a system of the SAP Business One class becomes advisable, since it acts as a tool for strategic quality management and improving competitiveness in the long term. It is the ERP system that allows you to combine the management of purchases, inventories and finances, which directly affects the quality of the product offer.

In addition, this software solution is built on a modular principle, which allows not only to optimize business processes, but also to integrate product portfolio management into a single automated platform. Let's consider the effectiveness of this system through the analysis of its characteristics and software functions using SAP S/4HANA modules (Table 3).

**Table 3. SAP S/4HANA modules and their characteristics**

<b>Module</b>	<b>Characteristic</b>
CO Controlling	Cost and profit accounting is carried out
FI Financial accounting, controlling, predictive analytics	Provides convenient and effective tools for organizing accounting reports, allowing you to easily create, edit and analyze financial information; provides the ability to automate the process of compiling reports on receivables and payables, which simplifies accounting and control over financial obligations; includes tools for creating auxiliary accounting reports, allowing you to track various financial transactions
AM Fixed Assets Management	Designed for accounting and management of fixed assets
WF Information flow management	Automates the execution of business processes in accordance with established procedures and rules
HR Personnel management	Provides planning and management of personnel activities
PS Project management	Provides full support in planning, managing and monitoring long-term projects with a high level of complexity. Provides tools for developing strategic plans, effectively allocating resources and identifying critical points in the project implementation process. Allows you to constantly monitor progress and respond in a timely manner to changes in project conditions or requirements, which helps ensure the successful completion of even the most complex and long-term initiatives
PP Production planning	Aimed at organizing effective planning and control of production activities. Provides tools for creating and implementing action plans, as well as for systematic monitoring and control of production processes
MM Material flow management	Provides tools for efficient supply chain functions, including ordering, receiving, and delivery control processes. Allows for inventory management by optimizing inventory levels, identifying and resolving issues with shortages or excesses of goods
SD Marketing	Allows you to effectively solve tasks related to product distribution, sales process organization, supply management and settlement. Provides tools for optimizing these processes, which allows you to increase efficiency and ensure the accuracy of performing various tasks in the field of distribution and trade
PM Equipment maintenance and repair	Allows you to keep track of equipment maintenance and repair costs, which helps to maintain control over costs and optimize maintenance management processes, provides the ability to plan resources for targeted maintenance and repair, helping to ensure uninterrupted operation of equipment and maintain an optimal level of efficiency of production processes
QM Quality management	Supports planning of product quality control and assurance processes. Allows for quality inspection and control during production or material procurement, helping to ensure compliance with quality standards and timely detection of possible non-conformities or defects
Basic system	Ensuring the functioning of a multi-tier distributed architecture in a client-server system

*Source: summarized by the authors*

According to the table provided, the ERP system has a number of advantages for forming a competitive product offer at a woodworking enterprise: accuracy of cost accounting, use of “mobile business” tools for rapid updating of the assortment, effective quality tools to prevent the appearance of defects, reliable protection of information about unique developments.

A key additional advantage for potential users is the flexibility of choosing a model for deploying a licensed solution. Customers can choose between a local (on-premise) version, when the system is managed on their own IT infrastructure, or a cloud (cloud) version, where hosting is provided directly by SAP. Both approaches have their own unique advantages, so the choice should be based on the specific needs, resources and strategy of the company [10].

However, before making a final decision on implementation, it is important to consider certain aspects of this platform:

- the implementation of the system requires significant initial costs for the purchase of software, as well as significant costs for subsequent maintenance;
- the successful use of the system directly depends on the training of employees;
- SAP S/4HANA is traditionally perceived as an industry standard and the most common solution, especially among owners of medium and large enterprises, which emphasizes its focus on complex corporate needs.

Despite these limitations, the key business objectives that SAP S/4HANA solves in the context of product quality management are:

- ensuring rhythmic online control of supply and movement of raw materials for timely production, optimizing inventories, preventing shortages and increasing the availability of finished products while reducing storage costs;
- clear monitoring and management of work-in-progress volumes;
- maximizing the profitability of product positions, obtaining a transparent picture of key business indicators through a single dashboard;
- determining balanced priorities in the production of products that take into account the dynamics of market demand to achieve enterprise goals;

- proactively identifying problems related to equipment, materials, personnel and product quality;
- accelerating the product launch cycle;
- developing resource planning scenarios to predict fluctuations in demand for products and automatically generating replenishment orders to avoid material shortages.

An important argument is that the chosen system is ideally suited for companies seeking to improve their basic operations and value creation processes (in our case, production and quality management processes), and serves as a foundation for larger business transformations [11].

To meet the needs of a goods manufacturer in the SAP environment, it is recommended to use the SAP MII modules for planning and SAP ME for manufacturing and operations management. This combination guarantees synergy of services on an enterprise scale within a single SAP S/4HANA system [10].

The implementation of the SAP ME solution will open up the following prospects:

- real-time data on the manufacturing process for quick decision-making on product quality and volumes;
- timely provision of production lines through online tracking of balances and order automation eliminates shortages, meeting growing demand and simplifying the search for counterparties;
- the implementation of accurate tracking and management of work-in-progress stages will increase the efficiency of product creation through the ability to monitor order fulfillment in real time and promptly identify bottlenecks, such as critically low component stocks;
- ensuring transparent access for stakeholders to up-to-date information on the status of product production in real time;
- the implementation of corrective actions to increase quality standards and prevent the release of defective goods guarantees timely shipment of products of the proper level;

– will enable personnel to reduce costs and minimize waste (improving the environmental friendliness of the product) using convenient mobile applications integrated into logistics for efficient packaging of products.

At the same time, if the company chooses SAP MII, such a solution will allow to solve production tasks for optimizing product output, such as increasing transparency, accelerating market response and productivity growth, optimizing the product range.

The SAP MII application simplifies the management of current production, in particular, by providing full transparency regarding the fulfillment of customer orders, regardless of the complexity or diversity of the range. Such transparency guarantees minimal delay between the approval of the calendar plan and the actual shipment of finished products. The system also allows for timely detection and prevention of problems that may arise in the manufacturing process: from equipment failures and shortages of materials to issues related to personnel and quality control of various types of products. In addition, it allows for real-time assessment of key performance indicators (KPIs), actual costs for the production of individual product lines and deviations of these costs from planned target values.

As for the responsiveness, the capabilities of SAP MII, the system reduces the response time to any critical situations. By providing tools for continuous tracking and control of cost deviations and KPIs, the program helps to quickly make economically sound decisions and set balanced priorities to achieve business goals even in conditions of unstable demand [9]. Thus, in the context of improving quality management, the SAP system solves a number of strategic tasks: it uses real-time data to assess the relevance of the assortment and quality of goods, ensuring uninterrupted supply of materials for the most popular models, which strengthens the brand and customer loyalty. Accurate tracking of the stage of product readiness is also important. The enterprise receives a single dashboard for quick assessment of profitability, gross income and real cost of product groups, which allows for flexible pricing management. In addition, advanced resource

planning goes beyond standard MRP, allowing you to set priorities and prevent quality problems before shipment.

The company has the ability to automate the coordination of demand and supply, which is critical for the Make-to-Order strategy, ensuring stable product quality through forecasting material shortages and managing delays, as well as anticipating increased demand through scenario planning.

The effectiveness of this approach is confirmed by the experience of such international companies as Topcon Positioning Systems, Inc. In particular, faced with the need to streamline international activities, Topcon made a strategic decision to consolidate seven disparate systems into a single corporate platform, choosing the cloud solution SAP S/4HANA for this. Thus, thanks to the implementation of this comprehensive system, Topcon recorded the following results: the duration of the full regional consolidated closing of reporting periods was reduced by 25%; the share of automated sales orders within one country increased from 18% to 42% and continues to grow; the user base increased by 500% [12].

Transitioning to a new automated quality management system is a long process that may require the involvement of external consultants or the creation of your own implementation team. Some business processes will remain standard, while others will need to be adapted to the specifics of the market. However, the main advantage of the chosen solution is flexibility: the system will be able to scale along with the development of the enterprise, providing a reliable digital foundation for the implementation of an effective product strategy.

**Conclusions and prospects for further exploration in this area.** A key factor in improving the efficiency of quality management is the automation of commodity policy management processes. It is recommended to implement an integrated ERP system (for example, BAS ERP or 1C:UPP/UKO) with production management modules. Such a solution will allow automating the accounting of wood from the moment it arrives at the warehouse, through all stages of production (including the output of by-products – briquettes) to the shipment of finished

products. Such a toolkit will provide accurate and prompt calculation of the actual cost, which will allow the factory management to promptly adjust the pricing and assortment policy, focusing on the most profitable items. Automation will also speed up order processing and minimize the human factor in warehouse accounting.

The strategic implementation of SAP Business One at a woodworking enterprise aims to strengthen the competitiveness and effectiveness of quality management policies. Thanks to SAP MII and SAP ME tools, a solid digital foundation is created that comprehensively improves the management of the assortment, quality and positioning of products, supporting the development of key marketing processes.

The integration of the system into quality management processes will ensure a significant increase in economic sustainability and a qualitative reformatting of product policy, offering the following expected benefits:

- rationalization of inventory management will minimize the risks of excess inventory, reduce storage costs and eliminate unproductive costs associated with suboptimal product portfolio formation;
- increased responsiveness to market demand, stability of supply and opportunities for expanding the range, which will contribute to increasing sales volumes and developing new market niches;
- digitalization of processes will provide real-time analytics, which is critically important for accurately identifying trends, optimally forming product lines and making informed decisions in the field of quality.

The implementation of these measures will allow the enterprise to transform its product policy from passive to active marketing, stabilize its financial position and ensure competitive advantages in the woodworking market in the long term, combining traditional production experience with modern digital and management measures.

Further research directions in this direction include financial and economic justification of the project by conducting calculations. Such calculations should

demonstrate the feasibility of the proposed measures and prove the profitability of the SAP implementation project.

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