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INCREASING THE COMPETITIVENESS OF ENTERPRISES WITH THE HELP OF MODERN INTERNET TECHNOLOGIES

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Internet technologies, sales,
profitability, artificial intelligence.

The article is devoted to the main ways to increase the competitiveness of enterprise through the introduction of modern Internet technologies. The authors substantiate that in the context of rapidly growing competition in the market, enterprises need to constantly improve their competitiveness in order to increase sales and improve profitability. It has been proved that Internet technologies are a powerful tool for improving the performance of an enterprise, as they give it the opportunity to attract new customers, increase the loyalty of current consumers, speed up the processes of ordering and delivery of goods, as well as optimize other processes in the company's activities. The authors analyze the general state of the internal and external environment of the organization and, on the basis of this, put forward specific proposals on the feasibility of introducing Internet technologies in its further activities.

ПІДВИЩЕННЯ КОНКУРЕНТОСПРОМОЖНОСТІ ПІДПРИЄМТВА ЗА ДОПОМОГОЮ СУЧАСНИХ ІНТЕРНЕТ-ТЕХНОЛОГІЙ

Кущик А.П., Сопіна А.Є.*Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**конкурентоспроможність,
інновації, інтернет-технології,
продажі, рентабельність,
штучний інтелект.

Стаття присвячена основним способам підвищення конкурентоспроможності підприємства шляхом впровадження сучасних інтернет-технологій. Авторами обґрунтовано, що в умовах швидко зростаючої конкуренції підприємствам необхідно постійно удосконалювати свою конкурентоспроможність з метою збільшення обсягів продажів та підвищення рентабельності. Було доведено, що інтернет-технології є потужним інструментом для підвищення результативності діяльності підприємства, оскільки вони дають йому можливість залучати нових клієнтів, підвищувати лояльність поточних споживачів, прискорювати процеси замовлення та доставки товарів, а також оптимізувати інші процеси в діяльності компанії. Авторами аналізується загальний стан внутрішнього та зовнішнього середовища організації та на основі цього висувуються конкретні пропозиції щодо доцільності впровадження інтернет-технологій у подальшу її діяльність.

Statement of the problem

The process of increasing competitiveness is essential for an enterprise and determines its success in the market. Its effectiveness depends on how accurately the company determines the needs of its customers, what products and services they need, and how successfully it can promote its products on the market, especially in wartime. Therefore, a properly developed strategy for increasing competitiveness can help the company increase sales and earnings, expand its customer base and increase economic efficiency.

Analysis of recent studies and publications

The work is devoted to the study of theoretical problems of competitiveness of enterprises in market conditions I. Ansoff, M. Porter, A. Cournot, Zh. -Zh. Lamben, F. Kotler, D. Campbell, B. Houston and others. Practical questions of the study of the influence of sales and marketing activities on the competitiveness of the enterprise are considered in the publications of G. L. Bagiyev, I. Z. Dolzhan-skyi, G. P. Gogol [1], L. V. Balabanova [2], Yu. E. Petruni, T. E. Andreeva [3], N. V. Terent'eva [4]. The role of Internet

technologies in increased competitiveness was studied by such scientists as O. P. Karpil, Yu. A. Vynogradskaya [5], I. L. Lytovchenko [6], O. M. Palivoda [6].

Objectives of the article

The aim of the article is to develop practical aspects to improve the competitive activity of enterprise with the help of modern Internet technologies on the example of Nova Poshta LLC.

Statement of the main material

Effective economic activity is a prerequisite for the successful functioning of any enterprise, since it determines the volume of sales of products and the provision of services. A successful business strategy allows you to attract new customers, increase market share, strengthen market position and increase the profitability of the enterprise. In addition, economic competitive activities include important processes such as marketing, sales, logistics, customer service, and sales management. The implementation of these processes at a high level allows the company to meet the needs of customers, establish long-term relationships with them and maintain a competitive advantage in the market [2, p. 148].

It is fair to say that Internet technologies allow you to attract new customers, increase sales, increase customer loyalty, reduce sales costs, increase competitiveness, as well as open access to various information sources and provide the opportunity to interact with your business partners [7, p. 2]. Table 1 describes the common Internet technologies in modern entrepreneurial activity.

We believe that using all the advantages of Internet technologies allows enterprises to provide their customers with additional useful information about their products and services, as well as to answer their questions and requirements.

To develop practical recommendations for the use of Internet technologies to increase the competitiveness of the enterprise, we chose Nova Poshta LLC. Nova Poshta LLC is a Ukrainian private enterprise specializing in the delivery of documents, cargo and parcels to both individuals and legal entities in Ukraine and abroad.

Let's analyze the main indicators of the financial and economic activities of the enterprise Nova Poshta LLC, using the Balance Sheet of the enterprise (form 1).

Analysis of the table data shows that:

- assets for 2022 increased by 4.1% (by UAH 148,421) compared to 2020, which indicates an increase in the property potential of the enterprise;

- working capital increased by 2.9% (by UAH 69,109) due to an increase in inventories by 1.2% (by UAH 9,988) and accounts receivable by 0.9% (by UAH 2.78);

- Thanks to profitable activities, the company was able to increase its own capital. Thus, equity increased by 2.4% (by UAH 43,875) due to an increase in the company's retained earnings and a decrease in some items of liabilities;

- Long-term liabilities decreased by 1.9% (by UAH 19,770), while current liabilities, on the contrary, increased by 16.3% (by UAH 124,316).

The results of the analysis of financial results showed the following:

- net income from the sale of products (goods, works, services) of the company increased by 18.9% (by UAH 1,213,000);

- gross profit increased significantly by as much as 36.9% (by UAH 1,959,841);

- the cost of goods sold (goods, works, services) increased, namely by 17.3% (by UAH 239,289);

- profit from operating activities decreased significantly by 467.9%, which was the result of an increase (by 14.3%) in administrative expenses.

Table 1 – Widespread Internet technologies in business activities

Technology	Characteristics
Website development	Creating a website allows a business to create an online business card where it can post detailed information about its products and services, prices, contact details and other useful information for customers. In addition, a website can become a platform for selling goods and services that operates around the clock and is not limited by geographical boundaries. [5, p. 214-215].
Advertising on the Internet	Thus, online advertising is an effective marketing tool for businesses. Its main advantage is that it allows promoting goods and services to a wide audience at minimal cost compared to traditional advertising methods, such as television, radio or the press [9, p. 505]. Thanks to online advertising campaigns, businesses can set up targeted advertising for specific audience groups, taking into account their interests and online behaviour. [6, p. 143-144].
Social media	Thus, social media has become an important marketing tool for businesses, as it allows them to interact with the audience and build relationships with potential and existing customers. Thanks to social media, businesses can promote their products and services, interact with their audience and receive feedback from customers [8, p. 95-96].
Email marketing	Through email marketing, businesses can send personalised emails with special offers, news and promotions, which helps to attract customers' attention to their products and services. In addition, email marketing allows businesses to increase customer loyalty and increase sales, as it helps to maintain communication with the audience and reminds them of the brand [7, p. 2].
Mobile applications	Today, almost everyone has a smartphone, so creating a mobile app for an enterprise can be a great option for attracting new customers and increasing the loyalty of old ones. Mobile apps allow businesses to interact with their customers via mobile devices, which helps to increase loyalty and sales.
Analytics and data tracking	Internet technologies allow businesses to analyse data about their sales, customers and the market, which enables them to make better decisions and increase the efficiency of their sales activities.

Table 2 – Analysis of the property status (balance sheet) of Nova Poshta LLC

Indicators	2020		2021		2022		Deviations 2022/2020	
	thousand UAH.	Specific gravity %.	thousand UAH.	Specific gravity %.	thousand UAH.	Specific gravity %.	+,-	%
ASSETS								
1. Non-current assets	1,312,000	36,2	1,384,121	19,5	1,391,312	20	79,312	6,0
including property, plant and equipment	623,122	17,2	633,321	6,5	648,421	7	25,299	4,1
2. Current assets	2,312,123	25	2,340,331	25,5	2,381,232	26	69,109	2,9
incl. inventories	821,333	22,7	825,123	6,5	831,321	7	9,988	1,2
Trade and other receivables	312,321	8,6	314,343	3,5	315,101	3,7	2,78	0,9
LIABILITIES								
1. Equity	2,058,632	51,3	2,079,453	50,5	2,102,507	50,4	43,875	2,4
2. Long-term liabilities and collateral	1,001,234	27,6	978,564	26,3	981,464	26,0	-19,770	-1,9
3. Current liabilities and provisions	764,257	21,1	866,435	23,3	888,573	23,6	124,316	16,3
BALANCE:	3,624,123	100%	3,724,452	100%	3,772,544	100%	148,421	4,1

Table 3 – Analysis of the financial results of Nova Poshta LLC

Indicators	Years			Deviation 2022 to 2020	
	2020	2021	2022	+,-	%
	Net income from sales of products (goods, works, services)	5,207,000	6,300,140	6,420,000	1,213,000
Cost of sales (goods, works, services)	1,141,071	1,241,056	1,380,360	239,289	17,3
Gross profit	3,340,281	5,180,221	5,300,122	1,959,841	36,9
Other operating income	209,486	172,486	131,264	-78,222	-59,6
Administrative expenses	54,068	57,031	63,110	9,042	14,3
Selling expenses	57,982	57,452	57,229	-753	-1,3
Other operating expenses	271,179	243,179	221,478	-49,701	-22,4
Financial result from operating activities: profit	335,907	248,907	59,153	-276,754	-82,4
Financial expenses	-	-	1 142	-	-
Other expenses	183	356	952	769	80,8
Financial result before tax: profit	335,724	214,724	57,059	-278,665	-83,0
Income tax expense (income)	62,824	32,865	13,184	-49,640	-79,0
Net financial result: profit	5,207,000	6,300,140	6,420,000	1,213,000	18,9

Table 4 – Dynamics of indicators for assessing the financial condition of Nova Poshta LLC

Indicators	Years			Deviation 2022 to 2020, %
	2020	2021	2022	
Total liquidity ratio	2,5	2,6	3,0	0,5
Quick ratio	2,1	1,9	2,4	0,3
Absolute liquidity ratio	1,8	1,9	2,1	0,3
Coefficient of autonomy	0,9	1,1	1,3	0,4
Financial stability ratio	1,5	1,5	1,6	0,1
Financial leverage ratio	0,5	0,5	0,4	-0,1
Profitability of economic activity, %	17,2	25,0	53,8	36,6
Return on assets, %	21,4	23,9	25,1	3,7
Return on equity, %	94,4	94,6	96,1	1,7

Let's calculate the main coefficients for assessing the financial condition of Nova Poshta LLC, and the results of the analysis will be compiled in Table. 4.

Indicators of financial stability indicate the high provision of Nova Poshta LLC with its own financial resources. Profitability tends to increase, which indicates an increase

in the efficiency of the enterprise. It has a high level of liquidity, which means it is solvent. In addition, they show growth in dynamics.

In our opinion, when studying the market environment of an enterprise, it is important to assess the impact of various factors on its activities. In particular, PEST analysis, which is a marketing tool for analyzing the impact of political, economic, social and technological factors on the company's activities.

Table 5 shows a list of factors of Nova Poshta LLC using the PEST analysis method.

Thus, the main factors of the external environment that have the greatest impact on the activities of Nova Poshta LLC are: stability of the political situation in Ukraine; development of the economy and increase in consumer demand in the market; changes in consumer needs and demand; development of technology.

It is also expedient to study the competitiveness of the enterprise with the help of SWOT analysis – a tool for strategic planning based on the study of the interaction of factors of the internal (strengths and weaknesses of the enterprise) and external (potential threats and existing

opportunities) environment. The results of the SWOT analysis of Nova Poshta LLC are shown in Table 6.

Thus, Nova Poshta LLC should pay attention to the implementation of a strategy to eliminate the existing weaknesses by using the existing capabilities of the enterprise.

We believe that the main directions of improving the competitiveness of Nova Poshta LLC with the help of Internet technologies are:

1. Development of e-commerce: expanding the range of goods and services on the company's website, improving the quality of the virtual environment for customers.

2. Mobile App Development: Expanding the features of a mobile app that allows customers to track their shipments, order delivery, and use the company's services.

3. Improving customer service: developing new interactive forms of customer interaction, such as chatbots, improving the quality of answers to customer questions, quickly solving customer problems.

4. Implementation of a loyalty system: creating a loyalty program for customers that allows you to attract new and retain regular customers, as well as encourage them to use the company's services more actively.

Table 5 – List of factors of Nova Poshta LLC according to the PEST-analysis method

Political factors (P)	Economic factors (E)
1. The stability of the political situation in Ukraine has a positive impact on the business climate, which is conducive to the company's development. 2. Legislative changes related to taxation and regulation of logistics services may have an impact on the company's operations.	1. Economic development and increased consumer demand in the market may have a positive impact on the company's development. 2. Dependence on the currency exchange rate and inflation may adversely affect the company's financial performance. 3. Competition and salary increases may increase the cost of staff retention.
Social factors (S)	Technological factors (T)
1. Changes in consumer needs and demand may affect the choice of services and methods of obtaining them, which may affect the company's operations. 2. Changes in demographics and cultural environment may affect consumer behaviour and choice of services.	1. Advances in technology can help improve and optimise a company's delivery and logistics processes. 2. The risk of technology obsolescence and competition in the market may influence the need for continuous improvement of technologies and increase of investments in this area.

Table 6 – SWOT analysis of Nova Poshta LLC

Strengths	Weaknesses
1. A wide network of branches and warehouses throughout Ukraine, which ensures high availability of services to customers. 2. High level of technological equipment and process automation, which ensures efficient and fast operation of the company. 3. Extensive experience in logistics and cargo transportation, which allows us to provide high quality services.	1. High costs of developing a network of branches and warehouses. 2. Dependence on economic and political factors in Ukraine, which may adversely affect the company's operations. 3. Insufficient understanding of consumer needs and customer preferences. 4. High competition in the labour market and rising wages.
Potential opportunities	Threats and challenges
1. European integration processes in Ukraine. 2. Expansion of the network of branches and warehouses throughout Ukraine. 3. Expanding the range of services. 4. Use of the latest technologies to improve the quality and efficiency of services. 5. Development of transport and logistics in cities and regions with a high level of economic development and consumer demand. 6. Entering the international market and expanding cooperation with international logistics companies. 7. Active advertising campaign and promotion of the company's brand in the market.	1. A full-scale Russian invasion. 2. Economic and political instability. 3. Competition in the logistics market from national and international companies. 4. Political and economic instability in Ukraine. 5. Risks associated with changes in legislation in the field of logistics and cargo transportation. 6. Decrease in demand for delivery services due to a decrease in consumer demand in the market. 7. Changes in the popularity of e-commerce and an increase in the number of purchases in physical stores.

5. Use of social networks: actively work with your social media accounts, launch promotions and contests, attract new customers through advertising on social networks.

6. Data analysis and optimization: the use of information about customers and their behavior on the site to improve sales processes and increase the effectiveness of advertising campaigns [9, p. 54].

7. Using artificial intelligence and machine learning to analyze customer behavior and predict their needs. Artificial intelligence can help a company analyze large amounts of data collected about shoppers, their purchases, habits, and behavior. Based on this data, you can develop forecasts about the demand for goods and services, as well as determine which products and services are most popular among customers.

8. The use of blockchain technology to ensure the security and reliability of transactions and reduce the cost of intermediary services.

9. The use of blogging technology, which allows companies to create interesting and departmental content that attracts attention and arouses the interest of potential customers [10, p. 161].

10. Implementation of online chat and video conferencing technology to ensure fast and efficient communication with customers.

The introduction of artificial intelligence to improve the company's competitiveness can have a significant positive effect on the economic activities of Nova Poshta LLC.

The main benefits of using artificial intelligence in sales include:

1. Process automation: AI allows for the automation of many routine tasks, such as order processing and mail distribution, and can also help to reduce the time it takes to complete these tasks and reduce human error, which can lead to increased employee productivity and a reduction in the number of employees required to complete these tasks.

2. Increased efficiency: The application of artificial intelligence allows you to analyze large amounts of data and develop forecasts about the demand for goods and services, which allows you to plan the supply and distribution of goods more efficiently.

3. Improved customer service: AI can help a company respond to customer questions and suggestions quickly and accurately, as well as offer customized offers and recommendations based on information about their previous shopping experiences.

4. Cost Reduction: The implementation of AI can help reduce the cost of forecasting, logistics optimization, and resource planning.

5. Increased productivity: The application of AI can help to reduce data-related errors, which reduces the time it takes to resolve issues and increases employee productivity.

To assess the economic efficiency of the implementation of artificial intelligence at Nova Poshta LLC, we will analyze the following:

1. Automation of order processing and mail distribution can reduce labor costs associated with these processes.

Thus, the average salary of a specialist at Nova Poshta LLC is UAH 15,000 – 30,000 per month [11]. If, for example, the automation of orders will reduce the number of specialists by 20%, it can lead to savings from 3,000 to 6,000 UAH per month for each specialist.

2. Applying AI to improve employee performance can help reduce errors and increase productivity.

Thus, according to the State Statistics Service of Ukraine, the average salary of an information technology worker in Ukraine is UAH 30,000 – 50,000 per month. If it is possible to reduce the number of errors and increase the productivity of employees with the help of artificial intelligence, it can lead to savings from 6,000 to 10,000 UAH per month for each employee of the enterprise [12].

Overall, the cost of implementing AI will depend on the specific projects and solutions that will be implemented. However, the use of artificial intelligence can lead to significant savings in labor costs, reduced unsold inventory, and optimized logistics.

Conclusions

Thus, internet technology can be a very useful tool for businesses in their sales activities. Modern technologies allow you to attract new and increase the loyalty of regular customers, automate sales processes, conduct online training and receive important information about your customers. Additionally, internet technology is becoming more accessible and widespread, so businesses that use it may have an edge over their competitors.

We believe that the introduction of AI can bring significant benefits to Nova Poshta LLC, in particular, reduce the cost of operations and increase the efficiency of business processes. At the same time, it is worth noting that the cost of implementing artificial intelligence can be significant, but it can be justified in terms of increasing the company's competitiveness. Therefore, before implementation, it is necessary to carefully analyze the cost and expected results in order to make the best decision.

References

1. Gogol G. P. Sutnyst zbutovoi diyalnosti pydpriemstva. – [Essence of Sales Activities of Enterprises]. *Scientific Bulletin of NLTU of Ukraine: Collection of Scientific and Technical Works*. Lviv : RVV NLTU of Ukraine. 2010. № 20. pp. 148-153.
2. Balabanova L. V., P. S. Mitrokhina. *Upravlinya zbutovoyu politikoyu*. [Management of sales policy: textbook]. Kyiv : TsUL Publ., 2011. 240 p. (in Ukrainian).
3. Petrunya Yu. E., Andreeva T. E., Sychova O. E. *Marketing*. [Marketing. Manual]. Knowledge, 2013. 108 p. (in Ukrainian).
4. Terentyeva N. V. *Upravlinya zbutovoyu diyalnistyu v systemy upravlinya pidpriemstvom*. – [Management of sales activities in the enterprise management system]. *Efficient economy*. 2016. № 2. P. 21-28.

5. Karpiy O. P., Vinogradska Y. A. Veb-sayt pidpriemstva yak zasyb upravlynya marketingovoyu diyalnistyu. – [Enterprise website as a means of marketing activity management]. *Scientific notes of Lviv University of Business and Law*. 2022. № 34. pp. 213-219.
6. Lytovchenko I. L. Internet-marketing. – [Internet marketin : textbook]. Center for Educational Literature, Kyiv : 2011. 332 p. (in Ukrainian).
7. Palyvoda, O. M. Zastosuvanya internet-technologii u diyalnosti pydpriemstv sfery poslug. – [Application of Internet technologies in the activities of service enterprises]. *Technology and design*. 2012. № 2(11). P. 1-5.
8. Grigorova Z.V. Novy media, sotsialny media, sotsialny merezhy – ierarhiya infomatsiynogo prostoru. – [New Media, Social Media, Social Networks – Hierarchy of Information Space]. *Technology and technique of printing*. 2017. № 3. pp. 93-100.
9. Khaminich S. Y. Internet-reklama yak osnovniy chynik prosuvanya tovaru v suchasniy umovah. – [Internet advertising as the main factor of product promotion in modern conditions]. *Global and National Problems of Economy*. 2015. № 7. pp. 504-507.
10. Shcherbak V. G. Udoskonalenya zbutovoi diyalnosti z vikoristanyam internet-tekhnologii. – [Improvement of sales activities using Internet technologies]. *Actual Problems of Innovative Development of Cluster Entrepreneurship in Ukraine*. Art. according to the materials of All-Ukrainian. Sci. -Pract. Conf. (March 30, 2017, Kyiv). Kyiv: KNUTD, 2017. P. 158-163.
11. Veb-sayt pidpriemstva TOV Nova poshta. – [Website of the enterprise LLC “Nova Poshta”]. URL: <https://novaposhta.ua/> (Last accessed: 20.04.2024).
12. Veb-sayt Derzhavnoi sluzhby statystiky. – [Website of the State Statistics Service of Ukraine]. URL: <http://www.ukrstat.gov.ua> (Last accessed: 20.04.2024).