INNOVATIVE DEVELOPMENT OF ENTERPRISES: AUGMENTED REALITY IN THE MANAGEMENT OF E-COMMERCE COMPANIES

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The transition to the digital economy, evolution of immersive technologies and artificial intelligence requires constant search and optimization of ways and means to manage a company through the application of innovative solutions. This is particularly significant for businesses that actively use all current capabilities of the Internet in general, online and digital communications in building appropriate business models of enterprises, i.e., e-commerce firms.

In economic terms, electronic commerce is economic activity aimed at the online product’s sale and delivery (or works, services delivery), the selection and whose order is carried out through computer networks, and settlements between the parties are made by electronic tools [1]. For 2022, the global electronic commerce turnover reached about $5.7 trillion [2], Ukrainian e-commerce transactions are expected to reach $14.8 billion by the end of 2023, and by 2026 this figure must be reached $23 billion [3].

Thus, e-commerce is the realization of entrepreneurial activity through Internet communications. The most widespread forms of such business activities are online stores, paid online website subscriptions, digital banking, etc.

The innovative way of growing modern e-commerce organizations (especially online stores being the main e-commerce platforms) requires the owners of such companies to find innovative ways and tools to solve existing and new challenges, especially when working directly with consumer needs. The use of immersive technologies helps to raise demand and simplify consumer communication. One of the most effective innovative tools for improving such communication and increasing competitiveness by expanding the customer base and retaining it is the use of augmented reality, or AR.

Augmented reality is a technology that makes it possible to insert virtual things into the physical world an expanded version of the existing real world that is created by using digital visual elements of sound or other sensory stimuli and transmitted using technology [4]. For example, an object taken by the phone’s camera can be supplemented with different lines or three-dimensional models. These elements are often interactive and can be transformed, rearranged and otherwise manipulated.
This is a rising trend in mobile computing and business apps in specific. E-commerce businesses hold potential to use AR to promote specific goods or services, run successful marketing campaigns, and collect unique consumer data. It should be understood that AR complements the existing physical world, rather than creating its own cyber environment or metaverse (like virtual reality).

AR in the innovative management of e-commerce companies may greatly support in their market promotion, namely in the advancement of brands, commodities, services and various types of content.

The main advantages of using innovative AR techs in the management of electronic commerce activities are: interesting and variable presentation of their own product; increased engagement; and the ability to gamify processes. All this is possible by creating 3D models of goods and integrating AR functionality into a web platform (online store or mobile device) [5].

In addition, AR in enterprise management solves the following issues:

- personalization of internet sales. AR technologies help to individualize the experience of purchasing a particular product for the buyer, who can, for example, see how the clothes look on him or her, whether the right size of clothes is chosen, etc. Moreover, the expansion of AR tools will even allow to see the buyer in these clothes without leaving your home:
  - increase in conversion rates. A prospective client is most likely to return to the same online store if he or she has gained a better understanding of the product or service through the introduction of AR tools by such a store;
  - reduction of the return rate. AR increases client’s understanding of the selected goods, gives more details about it, so the percentage of returns due to a wrongly selected product or a mismatch between the product description and what it actually is decreases.

According to a study by Daymon Interactions (Consumer Experience Marketing) [5]: 40% of customers are ready to pay more for a product if they can evaluate it through AR technology; 61% of consumers prefer shopping in stores that have implemented AR functionality; 71% of customers say they are ready to buy again more often from retailers offering examples of supplemented reality experience.

Examples of successful use of augmented reality in the management of e-commerce companies and other commercial businesses include IKEA (in 2014 IKEA created the first printed directory that allowed customers to see interior in supplemented reality in people’s homes by pointing a smartphone camera, and soon presented a mobile application for IOS mobile application – “IKEA place”, that allowed consumers to place virtual IKEA furniture in customer’s homes); Gap (created an application that allows customers to try on clothes in a virtual mirror); Converse (using the application customer can virtually test shoes and share the image of shoes with friends); L’Oreal (works as a filter on Instagram) [5]; Microsoft (developed Mesh for Microsoft Teams, an online platform that uses holograms and mixed reality for creating virtual spaces. Currently, it is needed to develop a remote workspace for employees), Meta (creates a metaverse based on AR, VR (virtual reality), Blockchain, and non-fungible tokens (NFTs). By combining those technologies, users will be able to “live” inside the digital universe) and other companies.
As for Ukraine, the most famous example is a Ukrainian startup project (based in Odesa) Looksery (a mobile application that allows user to change his or her face in real time to look good in photos and even during video chat. With the help of the application, user can lose weight, gain weight, even out skin color and eliminate skin defects, change anything from eye color to skull shape, put an animation of a cartoon character or a horror movie character on user face), which was acquired by the American company Snapchat in 2015 [6].

Thus, augmented reality can become a determining factor at almost every stage of the sales funnel. Amid the growth of gathering data and analysis in business management, in particular in the management of e-commerce enterprises, augmented reality tools allow us to expand our physical world by adding layers of digital information and get reasonable and accessible information which could be applied in the management of a company when developing mobile apps for online sales and Internet platforms. Interactive virtual elements engage the target audience, helping to understand customer purchasing habits, and thus contribute to further innovative growth in the management of electronic commerce firms.

References: