Innovative Promotion Technologies: Brand Management in the Digital Environment

Marina Borisovna Ianenko 1, Mikhail Evgenievich Ianenko 2* and Ekaterina Vladimirovna Shevchuk 1,*

1 Institute of Industrial Management, Economics and Trade, Graduate School of Service and Trade, Peter the Great St. Petersburg Polytechnic University, Polytechnicheskaya Str., 29, St. Petersburg 195251, Russia
2 Department of Economics, Accounting and Analysis of Economic Activities, St. Petersburg State Forest Technical University, Institutsky per. 5U, St. Petersburg 194021, Russia
*
Correspondence: ekaterinashevchuk@yandex.com; Tel.: +7-911-941-8335

Abstract: As innovative technologies spread, the role of means of interaction with customers in the digital environment is growing. Virtual reality technologies are becoming one of the most promising tools for significantly expanding customer interaction in the context of digital transformation. The purpose of this article is to analyze the brand strategies of the leading companies and show the possibilities of using virtual reality technology and the concept of the metaverse for brand formation and promotion. We also aim to assess the prospects and formulate recommendations on the use of the digital environment in brand management strategies. To achieve the set goal, several tasks were completed. The authors analyzed the experience of using the digital environment for interacting with customers and studied the influence of VR, AR, MR, and XR technologies on brand management. Additionally, the possibilities of using the metaverse concept for brand management was defined. In this work, general scientific theoretical and empirical research methods were applied. The study furthers the theoretical foundations of brand management in the digital environment via innovative branding technologies that support an increase in the competitive performance of companies.

Keywords: branding; brand management; virtual environment; VR; AR; MR; XR; metaverse; marketing communications; digital environment

1. Introduction

As information and communication technologies develop, the digital environment forces enterprises to rethink their strategic goals, transforming both the business itself and the methods of doing business. The use of digital technologies in marketing offers completely new value propositions and ways to promote the business [1].

Traditionally, promotion (communicative mix), as an element of marketing mix, combines various types of marketing communications, including advertising, direct marketing, public relations, etc. They are used to inform the target audience about the merits of a product, service, brand, or idea. Promotion is aimed at generating interest, raising awareness, increasing sales, or building brand loyalty [2]. The development of digital technologies has changed almost all the classic communication instruments and ways of obtaining information. Social networks, instant messengers, video hosting (e.g., YouTube, TikTok), and video conferencing tools (e.g., Zoom, Discord) are becoming more popular. Print media, TV, and radio channels are going digital and introducing online versions.

Many communication channels are becoming available for promotion through various social networks, each having several unique characteristics and features. At the same time, brands moving through various digital environments must provide a single text and visual version of the message content.

The use of virtual reality (VR), augmented reality (AR), mixed reality (MR), and extended reality (XR) technologies significantly expands brand communication opportunities.
With their help, any complex product concept can be presented online in an easy and creative manner. It is possible to select or create the most suitable images for the target audience of the brand.

Thanks to additional sensory-based, emotional, and behavioral impacts, a new purchasing experience of interaction is formed through a combination of virtual and physical touchpoints. For example, AR applications can help customers visualize the design and decor of their living room before making an order or pick and “try on” the garments before (or even without) visiting the store. With a help of a VR helmet, customers can experience a test roller coaster ride before an actual visit to an amusement park. Consumers can use virtual reality devices to explore the wine making process during a wine tasting. AR solutions can help drivers view real-time GPS information on the windscreen of their car while traveling [3].

The ever-growing use of the Internet and development of mobile technologies leads to the formation of a new behavior model. Such a model is based on the growing volume of consumption of digital content and the formation of ecosystems that combine real and virtual environments, and it changes the conditions for building brand relationships with consumers [4].

In recent years, the concept of the metaverse has been considered as one of the key areas of digital transformation. Such a concept describes a common virtual cyberspace that has its own economy, money, jobs, and means of communication between suppliers and consumers.

A new impetus to the development of the concept of the metaverse was given by the COVID-19 pandemic [5]. Working from home, lockdown, minimization of personal contacts, and other coronavirus restrictions caused a surge in the popularity of Zoom and other video platforms, an increase in online shopping, and the transfer of cultural and personal events to a virtual environment [6]. Many new users, often with no special skills, were forced to master modern digital technologies and concepts [7].

To date, considerable experience of the use of digital technologies has been accumulated. It helps promote goods and services and allows companies to analyze the impact of such technologies on the development of brand management tools [8]. At the same time, marketers must ensure brand awareness by creating virtual images and effects in various digital environments and virtual spaces. As a result, a focus on innovation that supports corporate branding, image, identity, and reputation can be the key to improving brand performance [9].

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2. Terms, Technologies, and Methods of Brand Management Research in the Digital Environment

At the present stage of economic development, a company’s brand acts as a necessary strategic competitive advantage, since the uniqueness of the image created in the branding process helps to form and maintain strong long-term relationships with the consumer. This also turns the brand into a means of satisfying the desires of consumers, which brings the offering company high material and intangible assets.

Among the large number of innovative promotion technologies that are increasingly used in brand management, namely, virtual, augmented, mixed, and extended reality technologies, it is the concept of the metaverse that stand out.

Virtual reality (VR) is a computer-generated world that can be accessed using special devices, such as VR helmets, gloves, and headphones. To enhance the effect of immersion in a virtual environment, systems for fixing the movements of the body, head, and eyes are used. When in the virtual space, the user sees only virtual objects and interacts with them as in computer games. It is assumed that when immersed in virtual reality by means of
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modern technical means, users cannot distinguish between events and things of the real and virtual world with the help of their senses.

Augmented reality (AR) assumes that users interact with the real environment, receiving additional information from their devices or AR applications. A smartphone or tablet with an AR application installed can help users see a real picture of the surrounding world with added objects or hints. For a more convenient presentation of information, AR glasses, a car windshield, etc., can be used. In other words, AR is a digital representation of the real world, supplemented with information about real objects.

Unlike AR, mixed reality (MR) technologies allow virtual objects not only to complement real ones, but also to influence the real world. MR is often used to create simulators that allow you to combine virtual objects and reality, used for commercial, educational, developmental, and entertainment-related purposes.

Extended reality (XR) combines ideas, technologies, and methods of changing reality, including virtual, augmented, and mixed reality. XR devices will provide a choice between VR, AR, or MR. For example, after immersing yourself in virtual reality, you can switch to MR mode to perform actions in the real world, and then you can return to virtual reality.

This approach, combined with Big Data, IoT, AI, and metaverse technologies, will lead to a change in the paradigm of the development of economic sectors [10].

Thus, innovative developments in the field of information and communication technologies (ICT) are changing the way people interact and their perception of the physical and virtual environment. These technologies are beginning to play an increasing role in industries such as retail, tourism, education, healthcare, entertainment, and scientific research. [11]. Growing sales of AR and VR devices, as well as a decrease in their cost, confirm positive expectations regarding the future of these technologies.

The concept of the metaverse is closely related to the technologies of virtual and augmented reality, the Internet, mobile communications, and artificial intelligence. The Cambridge Online Dictionary defines the metaverse as “a virtual world where people, such as avatars, interact with each other in a three-dimensional space that mimics reality”.

Under the concept of the metaverse, the authors understand an integral metaspatial system, a set of concepts similar in structure, of one or another business entity in a specific virtual reality space, which is often understood as cyberspace. The understanding of metaverses as metaspatial structures will allow them to be created, analyzed, and optimized as a platform for running a particular economy, using a single metric of indicators and indicators for analysis and comparison. The essence of the metaspatial structure is disclosed in a complete manner by M. Ball, one of the ideologists of the metaverses, who formulated the features that distinguish the metaverse from online games, digital platforms, ecosystems, and virtual technologies [12].

From a marketing standpoint, the concept of the metaverse formulates a generalized idea of transition to a more filled digital environment that creates the effect of presence and expands the possibilities of socio-economic interaction.

From the standpoint of innovative promotion technologies, the metaverse can be viewed as a virtual digital environment that uses augmented and virtual reality, as well as social networking and blockchain technologies, to create a three-dimensional Internet space that displays the real world and expands the possibilities of user interaction [13].

Promotion using the concept of the metaverse is becoming one of the key elements of marketing [14]. First, companies tend to use this fashion trend to attract the attention of potential consumers, as well as to highlight the innovative characteristics of their products. Secondly, thanks to AR, VR, MR, and XR technologies, there are many new opportunities to advantageously present their goods and services to the user. Thirdly, companies, following the consumer, are increasingly convinced of the reality of the attention indicator, which characterizes the effectiveness of interaction with the client in the process of strategic virtual and real communications.

In this work, general scientific theoretical and empirical research methods were applied. As a theoretical and methodological basis of the study, the methods of system
analysis, structural and logical analysis, content analysis of human interaction with the
digital environment, as well as methods of comparative analysis, forecasting, and expert
assessments were used.

The research was carried out because of generalization of data describing innovative
promotion technologies, with practical examples given of brand management application
in real, digital, and virtual environments.

Given the high pace of development of digital technologies, research was limited to
data obtained in recent years (during the COVID-19 pandemic and the post-COVID-19
period). The choice of technologies was determined by the prospects for their use in brand
management.

3. Results: Brand Management in the Digital Environment

Brand management, which includes the planning and overall coordination of an
organization’s marketing activities relating to a particular brand or portfolio of brands, has
been successfully used by businesses for many years.

In 1960, the American Marketing Association defined a brand as “a name, term, mark,
symbol, or design, or combination thereof, intended to identify the goods or services of one
seller or group of sellers and to distinguish them from others”.

This definition, like other traditional definitions, equates a brand with a trademark
attached to a physical product. At the same time, the main attention is paid to the brand
concept as a means of sale, as a means of differentiating the company’s offer. Such def-
initions focus on the business purpose of branding, focusing on achieving competitive
advantage and providing the brand owner with higher profits.

Exploring the conceptual content of the brand and branding, Aaker and Jochimsteiler
showed that in the post-industrial world, the classical brand management system can fail
when faced with the difficulties associated with globalization, changing business conditions,
and brand architecture adding complexity. In Aaker’s own words, “When markets operate
multiple brands, aggressive brand extensions take place, and complex sub-brand structures
emerge”.

Brand leadership is becoming a new model of brand management. The novelty of the
model lies in the shift in branding emphasis from tactical tasks that respond to situations
to strategic tasks that respond to trends and long-term forecasts. Now the brand manager
must be involved in creating the company’s business strategy, not just in its implementation.

In the context of the digital transformation of the economy, new terminology has
emerged, such as “Branding 2.0” or “Branding Web 2.0”. This attempts to capture the
multifaceted nature of the new brand building process. For example, “Branding 2.0” is
built on three principles: (a) the online community of the brand, which is not just formed
around the brand, but is part of it; (b) the physical–virtual interface that integrates both
physical and virtual environments; and (c) the underlying information system that collects,
analyzes, and distributes information created by consumers.

In this context, branding is seen as a dynamic concept that develops through interac-
tions between the firm and consumers, as well as through independent consumer activity.
It is carried out through word of mouth at the level of blogs, social networks, video sharing
sites (YouTube, etc.), and open virtual environments (for example, Second Life).

Direct-to-consumer (D2C) models enable brands to interact directly with customers
through social, mobile, and digital channels. This provides them with insights never
available before. Consequently, this helps brands improve product and customer experience
and adapt to changes in customer behavior [8].

As virtual environments become more diverse, people are looking to outfit their
avatars with branded products known in the real world. For example, no self-respecting
avatar would want to attend a virtual event without proper—preferably branded—clothing.

Along with the development of the market for new products that implement the
functions of AR and VR (virtual reality glasses and helmets, computer equipment, and
software), the growth of online trade has necessitated the formation of an attractive product image in a virtual environment.

The virtual image of a product is becoming the most important component of its presentation in the platform economy on digital platforms, in platform business models, in online media, and in digital entrepreneurship [15].

In the pre-COVID-19 times, companies offering furniture, sophisticated household appliances, and cars hired sales agents, created showrooms to attract and introduce potential consumers to the real product. In the context of coronavirus restrictions, the possibility of demonstrating a real product to a client has been significantly reduced. Now, this task is increasingly being solved using a smartphone with AR applications that allows you to demonstrate a product in a particular office or apartment. Similarly, the problem of customer support after purchase is solved, for example, when assembling IKEA furniture.

Siemens has created an AR application that allows you to demonstrate how its home appliances (gas, electric stoves, etc.) will look in a real kitchen.

The IKEA Place AR app for Apple and Android allows you to choose furniture from the manufacturer’s catalog and “fit it” on any apartment, house, or office. An AR application for assembling and installing IKEA furniture has also been developed for IKEA.

The main reasons for Leroy Merlin’s interest in developing a mobile application with augmented reality function was the fact that smartphones are becoming not only the main tool for searching for goods, but they also allow you to compare the features and prices of such goods. Thanks to this application, clients can “fit in” the piece of furniture or decor they like to their interior in real time and buy the selected product. If the proposed option does not suit them, they will be offered other products [16].

To promote the new Volvo XC 90 car, Volvo has created a VR app and branded VR glasses powered by Google Cardboard. A Volvo-organized virtual test drive garnered 4,000,000 views on social media. Over 40,000 people downloaded the app, and the first batch of the Volvo XC 90 sold out in 2 days [17].

To market their new trekking boots, Merrell has developed a dedicated VR app. Participants representing the target audience put on a VR helmet, stood on a wooden bridge, and went on an extreme journey, allowing them to evaluate the product in the “field conditions” even before purchase.

Thus, by placing their future consumers in a virtual environment that allows them to visually demonstrate the benefits of their products, Volvo and Merrell have proven the effectiveness of the use of AR and VR in promoting new products.

There are regular reports that people are spending serious money on acquiring “Internet properties” (digital real estate, premium cars, digital fashion, and accessories, etc.). For example, a piece of virtual real estate was sold for USD 2.4 million in the online world of Decentraland.

Digital fashion house The Fabricant aims to show the world that clothes do not have to be physical and intends to lead the fashion industry towards a new digital clothing market. The digital dress he created was sold in 2019 for USD 9500 [18].

Many well-known brands including Puma, Adidas, Nike, The North Face, Balenciaga, Tommy Hilfiger, Gucci, Aston Martin, Tesla, Rolls-Royce, Maserati, and Hyundai Motor Company make special digital products for metaplatforms.

The global clothing brand H&M announced the creation of its virtual store in January 2022. Users can navigate the store, select clothes that can only be worn in a digital environment and purchase them using Ceek coins. It is also possible to order these clothes in physical H&M stores. In the metaverse of Ceek city, you can also visit other shops, sports events and concerts. The creation of own stores, showrooms, and representative offices in the metaverse has become one of the components of the development strategies of many major brands.

Freed from the limitations of physical embodiment, the sphere of the brand can expand beyond reality into virtuality. If a brand is no longer a product and only gains value when it is a set of perceptions in the minds of consumers, then the argument can be made that
brands need not be born out of a tangible product. They may arise from fictional or computer-generated objects whose synthesized environments capture the imagination of consumers [19].

The resulting turbulence of the external environment can lead to a loss of access to the consumer, a weakening of interaction with the client base, and a decrease in brand differentiation among buyers. This may result in a reduction in brand equity, as described in [20].

The intersection of the virtual and the real, and its implications for brand management, is important for two reasons. First, the convergence of consumers’ ability to communicate digitally and the growing interoperability of media technologies require a more sophisticated interpretation of brands. Second, from a business perspective, early identification of brand potential in virtual worlds presents new opportunities and risks.

The growing popularity of the virtual environment is due to the ubiquity of smartphones that are available to almost every consumer, the decreasing cost of developing AR and VR applications, and the vivid and memorable impressions of communication and interaction in the virtual environment.

The above examples confirm the thesis that augmented reality from the standpoint of promotion technologies is an innovative media format that integrates virtual information into the user’s perception of the real world. Additionally, applications such as virtual mirrors, which allow consumers to see themselves in virtual clothing or with virtual makeup trials, furniture design programs that allow you to see the furniture in the house, and many others are becoming examples of augmented reality in marketing applications [21].

4. Discussion

Brand management is becoming increasingly popular among scientists and practitioners, especially considering the continuing trends in the spread of new technologies.

The brand leadership model conceptually shifts the main branding effort from brand image, a tactical asset, to brand equity, a strategic asset. The image is usually entrusted to advertising and promotion specialists, while the brand equity characterizes the long-term competitive advantages and strategic stability of the business.

Brand equity refers to intangible assets, along with software, patents, utility models, licenses, quotas, long-term contracts, customer bases, partnerships, intellectual potential of personnel, management teams, distribution network configurations, and innovative business management models, including those based on the use of computer information systems. Increasing the share of intangible assets, especially brand assets in the structure of corporate capital, is one of the characteristic trends of the post-industrial economy.

The authors’ analysis of the brand strategies of a number of leading companies, including Disney, Hyundai Motor Company, Nike, Warner Bros. Pictures, Gucci, Coca-Cola, Louis Vuitton, and others allows us to formulate some conclusions and suggestions.

First, while virtual branding is quite different from regular branding, to maximize its benefits, you need to:

- create a clear definition of the brand, presenting existing and potential customers with information about the company’s activities;
- understand your audience. The better you understand your audience, the more effectively you will be able to communicate about your company. It is important to understand the means, languages, and technologies this audience uses;
- expand the reach of the target audience, including customer support, the quality of your product, etc.

Secondly, many technologies are developed annually that can be used in branding in a virtual environment (video conferencing, chats, social networks, and other remote communication technologies). New opportunities for creating means of communication with the target audience and solving branding problems are provided using technologies such as QR codes, NFTs, smart devices, Zoom, chat bots, and self-service programs.
Thirdly, the virtual space provides many tools to make working with the target audience more individual. Avatars, customizable backgrounds, digital assets, and many other tools can be accompanied by brand messages during presentations.

Fourth, since most organizations operate in both virtual and real environments, it is necessary to provide an easy and user-friendly transition between virtual and real environments. To do this, you need to facilitate quick and easy actions that ensure the client will interact with the brand after they leave the virtual environment. These can be side events, discussions of personal experiences, physical souvenirs, etc.

Fifth, using social media as a virtual branding tool is not only cost-effective but also effective in general. TikTok, Telegram, Instagram, LinkedIn, and Twitter should be used to increase the effectiveness of virtual branding as well as improve engagement with the target audience.

It should also be considered that the rapid development of digital technologies leads to a change in the market situation, forcing a change in marketing tools. At the same time, the impact of brands on the consumer is increasing. This takes place by virtue of the rapid development of computer networks, which in turn increases the transparency of markets and enhances consumer’s need for reliable and accessible information.

5. Conclusions

The analysis of the brand strategies of the leading companies showed quite ample opportunities for using the technologies of virtual, augmented, and mixed reality and the concept of the metaverse for the formation and promotion of brands.

New technologies and platforms, growing connections between communication channels, force companies to constantly seek and summarize best practices, working with customers and other stakeholders through various communication systems.

Branding in a virtual environment can often be challenging, but the benefits far outweigh the drawbacks. Therefore, virtual branding opportunities should be used to the maximum to gain competitive advantages.

In the face of digital transformation, the virtual space is a place for exploration, creativity, teamwork, and ingenuity. The comprehension and competent application of brand management strategies in a virtual environment will provide a competitive advantage for the company.

When planning further research in this area, one should consider the breakthrough development of individual technologies, which changes the relevance of their development and use for the promotion of goods and services. Thus, theoretical and methodological understanding requires the use of artificial intelligence methods, machine learning, and chat bots to create means of personalized interaction with a brand in the real world, virtual environment and metaverse.

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References


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