

Effect and Sustainability of Metaverse in the Consumer Market

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ABSTRACT:

This article highlights the importance of the effect and sustainability of the metaverse in the consumer market and its implementation in the business domain. The metaverse is constantly helping business to strengthen their foot in the online world where they can extend their network and connect with potential customers with ease. Further, we are trying to emphasize the sustainable factor in the metaverse since we must take care of the fact that many consumers will give priority to sustainable and environment-friendly ways while purchasing products online. Consumer awareness of environmentally friendly strategies is now spreading into the digital sphere, where brands trying to enter the metaverse must also contribute to maintaining eco-friendly platforms and achieving sustainable goals. This paper also covers the roles of the metaverse in the consumer market which includes digital marketing and advertising, branding, services, value creation, and consumer well-being.

KEYWORDS: 1. Sustainability management 2. Metaverse 3. Consumer well-being
4. Digital marketing 5. Advertising 6. Branding 7. Services

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I. INTRODUCTION:

Metaverse and its implementation in the business domain

A single, participated, an immersive, endless, 3D virtual realm where people may witness life in ways they could not in the real world is what numerous in the computer assiduity relate to as the "metaverse" [1]. They provide a singular and immersive online experience incomparable to anything else. They give numerous openings for analysis and connection while continuously growing and improving [2]. Metaverse has great importance in the business sector as it helps in reducing wastefulness and hence increasing sustainability. Businesses may interact with potential customers, look into new opportunities, and keep up with emerging technology due to the Metaverse. Businesses are beginning to consider strategies to maintain their position in the online world. Nike, a manufacturer of footwear, is getting ready to market its goods in the Metaverse [3]. We can already communicate with other customers in the metaverse, a believable digital environment that can be accessed through tools like virtual or augmented reality glasses. For this reason, businesses are attempting to capitalize on a trend that is predicted to consolidate shortly and present excellent commercial prospects to establishments [4].

Sustainability management in the metaverse

The core management technologies of the Metaverse, which primarily include energy management, resource management, and session management, create the environment necessary for the connection and convergence of the actual world and the virtual world. The pursuit of more reliable and sustainable energy is necessary for the medium- and long-term growth of the Metaverse. The Metaverse's primary constraint—energy sustainability—is also a lucrative economic opportunity [5]. They must take into account the environmental effect of their business decisions and recognize that many customers will give sustainability initiatives first priority when making purchases. It's simple to believe that the Metaverse offers a more ecologically friendly alternative to the real world. After all, less waste is created in a purely virtual environment than in the real world. People can travel, do shopping, and attend events in the Metaverse without generating any physical trash. Nevertheless, despite these benefits, the Metaverse has negative effects on the ecosystem [6].

ROLES OF METAVERSE IN THE CONSUMER MARKET

With its many features and tools, the metaverse enables firms to provide products that would be impractical in the physical world. Since the rules of nature do not apply in the virtual world, marketers are free to use their imaginations and creativity to create items that are distinct from those found in the actual world. With greater immersion, marketers will be able to communicate with a wide spectrum of customers due to the metaverse's virtual nature. In the metaverse, advertisements may be quite participatory, which is not achievable

in traditional forms of media. Ads' features and content can be designed to transcend reality and provide users with an ethereal experience. Customers will be able to virtually utilize the product because of the high degree of immersion and involvement, which will support marketers in creating more reliable buying habits. In order to monetize themselves in the metaverse and give an additional revenue source, brands have also introduced NFT (nonfungible tokens) collections, such as Adidas virtual garments and Lamborghini artworks [7].

1. Digital Marketing and advertising

Traditional marketing strategies like television and print advertisements will ultimately come less effective as the world gets decreasingly digital, and new, cutting-edge digital marketing strategies will replace them. Following COVID-19, online gaming saw a boost in demand and income. thus, marketers are getting more interested in in-game advertising. It would also be fair to argue that consumers are laboriously coping digital means given the assiduity's recent smash in the Non-Fungible Tokens(NFT) request. In order to increase brand engagement and awareness, marketers have been inspired to provide collectables in the shape of avatars, artwork, music, real estate, etc. [8]. The metaverse will be able to enhance both the type and the quality of client encounters in terms of digital marketing. There will be several methods to do this. This will be accomplished by fusing elements of the actual world with those of the virtual one in order to provide users of the virtual world with an experience that is both captivating and immersive. Owing to the usage of internet technology, a user or client will be able to access and enjoy this experience through the use of virtual reality and augmented reality. The current status of digital marketing and social media does not permit the development of the same levels of engagement for digital marketing as are possible with the metaverse. This is because the metaverse was created with digital marketing explicitly in mind [9]. Every media has advertising, and as XR environments gain popularity and financial viability, advertising will unavoidably follow. This tendency was only exacerbated by Facebook's acquisition of Oculus in 2012 and the company's transformation into Facebook Reality Labs (FRL) in 2020 [10].

2. Branding

The metaverse provides businesses with a one-of-a-kind, innovative, and thoroughly immersive platform to engage with consumers in novel ways. From the sale of digital goods and apparel to fully immersive team meetings, it is positioned to emerge as the next digital marketing powerhouse. In the metaverse, sustainability continues. The carbon impact of their digital platforms must be addressed when businesses from all sectors enter the metaverse for the first time. There are several strategies firms may use to enter the metaverse responsibly, regardless of whether they want to employ eco-friendly blockchains or balance their carbon impact with greener platforms [11,12].

a. Consumer-Based Approach

The results showed that interaction is anticipated to be crucial to marketing in the metaverse, allowing people to "feel" the brand and enhancing its visibility. Although gaming has been introduced to the marketing industry before, our research via the consumer-based approach to branding places it at the centre. As academics began to understand the advantages and prospects of using virtual worlds to reach new audiences, there have been several studies that focused first on Second Life. Our results demonstrate that the metaverse has significantly enhanced these options in this regard. As the foundation for the metaverse and the location of a younger audience, we have observed that brands are moving into the gaming industry. This fits in well with the consumer-based approach to building brand equity, in which customers drive value rather than the business creating it. This may be explained by the fact that, in contrast to the conventional method of just being exposed to a billboard or commercial, this environment provides a whole new context for experiencing and personalising a product for their tastes.

Additionally, it may differentiate the brand and alter consumers' perceptions of it by making the users feel cherished and understood by the company [13].

b. Personality Approach

The traits and new chances provided by the metaverse also provide a space for that strategy, which emphasizes the need for self-expression as a motivator for consumer attitudes and positions brands as emotional drivers for individuals. When the metaverse is portrayed as a setting where customers are able to have a digital self that is as valuable as or more valuable than their physical self, the findings about digital value serve to establish a link with that approach. In this regard, the personality approach uses narrative as a key element. The ability of tales to form a brand's personality is another prominent theme under the personality approach, as we have observed in our research. Storytelling is a key motivator for companies when addressing the metaverse [13].

c. Relational Approach

The relational method is assessed as having a comparable ability to be implemented into brand activities in the metaverse to the personality approach. We may deduce that this gives a common baseline to a context when the metaverse offers certain levels of brand control to the consumers since it was historically the first strategy to open up part of brand control to the meaning established by customers' minds. To a certain extent, we also observed that in the metaverse, businesses that have developed devoted communities may receive second chances when they make mistakes by trying again and learning from their failures. This is also consistent with what Donovan et al. said about consumers who overlook brand indiscretions [13].

d. Community Approach

The key concept in our data collecting is the community, which, in our opinion, is a foundational element for all companies to flourish when joining Web 3. Consumers engage in value-creating behaviours in the background, and companies are beginning to recognize the influence of their communities. Some brands are starting to rely on their communities and the various ways they may add value and boost their brand equity. According to these beliefs, it is a two-way process that happens between customers and either other consumers or with brands. Organizations began incorporating these communities in a new method of "managing a brand" with Web3 and the metaverse by using them as an integral element of it and a focal point for boosting brand equity. By having decision-makers and brand managers participate in these communities, they may understand what they need and address those requirements, according to theories that take brand communities into account [13].

e. Cultural Approach

The cultural perspective on branding is focused on how cultures interact with companies and how famous brands may be shaped by cultural influences and vice versa. The cultural approach is one of the well-known constructivist viewpoints on branding that fits best for directing brand activities in the metaverse, and it can be seen that it is on the same side as the community approach. In the same way, pre-Web3 brands like Gucci and Nike, who are known for engaging the metaverse in a genuine manner, may likewise achieve and maintain their reputation as iconic brands using similar methods. When brands are maintained in that setting as elements of culture that advance over time and have an impact on society, the cultural approach to branding is provided as a still applicable viewpoint to brand management for brand activities in the metaverse [13].

3. Services

From group yoga sessions and educational opportunities to shopping and doctor visits, Metaverse provides users with a wide range of services and amenities. Simply put, "metaverse-as-a-service" is an enterprise solution that enables companies to enter the Metaverse with their own virtual worlds for a range of use cases, including entertainment, education, and more. This does not imply, however, that Roblox and Decentraland will be challenged by Metaverse-as-a-Service. In contrast, it will be a paradigm that enables firms to connect to the current Metaverse infrastructure and expand upon it, much like how software-as-a-service works [14].

a. Remote work

Companies like Meta (Facebook) and Microsoft are aiming to create an immersive virtual environment that you can use and explore utilizing technologies like augmented reality and holographic technology as part of their attempts to break down the barriers between the real and digital worlds. People may engage with one other in the business world using this technology, which up until recently was primarily considered a gimmick in the gaming environment. In order to maintain high levels of motivation and productivity, the corporate Metaverse also aims to promote the mental well-being of professionals who work remotely. In a Lenovo study, 44% of professionals said they would be happy to work in the Metaverse because they thought it would improve productivity at work [15].

b. Healthcare

As digitization and automation have developed new models that are opening up new paths for providing treatment at a cheaper cost, the healthcare business has evolved increasingly quickly. Telemedicine is the term used in the healthcare sector to describe the provision of medical care remotely. This led to an increase in interest in the COVID-19 pandemic. For routine consultations that don't involve a physical examination, doctors and nurses have found that they can diagnose many of the minor ailments that make up the vast majority of their caseload more swiftly and efficiently over the phone or through video calls.

Healthcare is now significantly impacted by the expanding use of VR in medical education, the use of AR in surgery, the use of gamification to connect hospital staff and patients, interoperability, and other elements

of the metaverse. Since it allows both patients and medical personnel to enjoy lifelike experiences, "Metaverse" offers huge promise for the healthcare sector [16].

c. Education

The metaverse classroom enables interactive and immersive learning, virtual visits, VR laboratories, student engagement, and improved attention. The virtual world of the metaverse combines real and virtual experiences with the help of numerous technologies, making it a popular option for education. The affordability of metaverse education is essential to its success. Users may pace their study from any location in the world thanks to the online platform. Since the majority of people will be able to afford the virtual reality setting, the metaverse learning experience would be cost-effective. Because students may rewind and repeat classes as necessary, they can study without being held back by deadlines or competing with other students. This makes the learning process more affordable. While still receiving all the advantages of a typical classroom experience, such as connection with professors and peers, flexibility enables students to study on their terms while also saving time and money. In the digital age, challenges offer chances to find novel approaches to change the educational ecology. A novel method of immersive virtual communication that enables real-world interactions in a virtual environment is provided by the metaverse. Meeting the requirements of the modern digital world can be difficult, though. The conventional educational system frequently favours teacher-led learning, lacks individualized instruction for pupils with particular learning needs, and could not adequately prepare students for the employability standards of the contemporary industry [17].

4. Value Creation

Today, marketers are putting into practice a variety of incredibly inventive concepts, from gaming to virtual clothing try-ons to virtual fashion shows and events. At the moment, fragmentation and adoption size are the major problems. The great majority of the metaverse worlds, even the most popular ones, are still in their infancy, with the exception of those that are well-established gaming and entertainment hubs. Because of this, it's crucial to acknowledge the marketing work needed to lead people to the experience, and considerable value is produced in earned impressions. Even so, branding success can be seen in the innovative concepts being implemented in developing platforms like Roblox. In other words, the primary value now derives from the social media and public relations that surround these activities in the metaverse [18]. Value is subjective and determined by the amount of money or other resources someone is prepared to put into it. However, not every investment needs to generate a quick return on investment. Experience, competence, and learning are all investments that eventually provide a profit. The ecosystem for the exchange of value is being shaped as world builders investigate value creation. This ecosystem includes platform players (such as Sandbox and Meta), developers and creators who contribute assets, content, levels, immersive layers, and hardware, as well as companies and brands that connect with users in virtual worlds, create activations or destinations on virtual lands, set up shops for commerce, training, or recruitment, or even design their own custom-built virtual worlds. Services and infrastructure companies that support design standards, transactions, currencies, blockchains, and smart contracts. The economics of the virtual world that developers and platforms construct, such as subscriptions or memberships, land agreements, in-world transactions between platforms and users, as well as user-to-user transactions, can establish value for developers and platforms [19].

5. Consumer well-being

The emergence of metaverses will have a significant influence on consumer behaviour, affecting everything from how customers make decisions and build connections with brands to how they feel about themselves and how well they are doing. As a result, the field of consumer research has begun to investigate metaverse-related issues, such as customer behaviour in mixed reality, augmented reality, and virtual reality (MR) [20]. The metaverse is rapidly evolving from a platform for hobbyists to an ecosystem where people interact, influence, and live online. Retailers should care about the metaverse for a number of reasons: Conversational marketing is made possible. We now have a trackable, two-way channel of communication with customers thanks to the metaverse. We own all of our first-party data thanks to the rich metaverse data, which enables tailored marketing simple and engaging. On social media, we are vying for the attention of consumers. However, it's far simpler to keep someone's interest during a branded game or in a virtual dressing room. Many companies have already gotten on the metaverse bandwagon. IKEA uses the Place app to create an augmented reality representation of how its furniture would appear in our flat, while L'Oreal and Avon let us virtually test on makeup so we can always pick the appropriate shade [21].

II. DISCUSSION

The outcome of this research paper discusses how the metaverse can be used in a sustainable way and its influence in the digital market and advertising, branding that consists of the personality approach, relational

approach, community approach and cultural approach. The metaverse is also creating a sustainable approach in the service sector which includes remote work, healthcare and education. Also, the paper discusses value creation and consumer well-being in the future of the metaverse. There are several studies being done on the metaverse and marketing, especially in the hospitality and tourism domains respectively, but our motto was to join the dots on the sustainability of the metaverse and its behaviour in the consumer market. The study ends with several recommendations for future research in this domain.

III. CONCLUSION AND FUTURE PERSPECTIVE

This article highlights the important aspect of the “Effect and sustainability of metaverse in the consumer market”. In particular, it focuses on the adverse effects of the metaverse and how it can help us in the consumer market. To cover this we mainly focussed on five main views: Digital marketing and advertising, branding, service, value creation and consumer well-being. Companies are putting their toes in the metaverse wave as it sweeps the globe in an effort to capitalise on it. Brands from several industries, including FMCG, automotive, and consumer marketing, are doing all in their power to entice young consumers who are spending a growing amount of time on virtual platforms. Major brands and corporations have been pouring a tonne of resources and technology into the metaverse, which has the potential to transform the game for brands in the near future. Nevertheless, the Metaverse has a lot to offer our society, especially in terms of facilitating greater accessibility for nearly everything. Firstly, metaverse can be used in shopping malls and buying digital assets like artworks, NFTs, etc., digital classrooms, and conversing with other virtual people on the metaverse real estate activity platform. Secondly, the gaming industry has a lot of scope in the metaverse like players have full control over every aspect of their gaming experience, from personalising their avatars to the skills they choose to use in combat and the relationships they form with other players to the loot they collect afterwards. And finally, the ability of the metaverse to satisfy the two fundamental wants of all people—to interact with others and create things—will determine how successful it is in the future. The metaverse is always being enhanced, and in the

not-too-distant future, it should be possible to utilise it for things like eCommerce, sales and marketing, decentralised banking, crypto companies, etc.

When the world is at your fingertips, the options are limitless. This being the case, we must consider the effects of waste and energy usage. The main issue is data centres and the energy they need. However, if the Metaverse is created with sustainability in mind from the outset, it can significantly enhance outcomes and lessen the environmental problems we'll have to cleanup as time goes on.

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