



THE ROLE OF DIGITAL MARKETING METAVERSE IN THE DEVELOPMENT OF GARMENT, KNITTING AND APPAREL ENTERPRISES

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Abstract. *The current article concentrates on the key attributes of digital marketing metaverse as well as reviews the conceptual parts of metaverse. Moreover, it studies the elements of digital marketing metaverse mostly accustomed being implemented in garment, apparel enterprises and fashion industry.*

Keywords: *digital marketing metaverse, metaverse, garment, digital fashion.*

ТИКУВ-ТРИКОТАЖ ВА КИЙИМ ИШЛАБ ЧИҚАРУВЧИ КОРХОНАЛАРНИ РИВОВОЖЛАНТИРИШДА РАҚАМЛИ МАРКЕТИНГ МЕТАОЛМИНИНГ РОЛИ

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Аннотация. *Ушбу мақолада рақамли маркетинг метаоламининг асосий хусусиятларини, шунингдек, унинг концептуал таркибий қисмлари кўриб чиқилади. Бундан ташқари, унда кийим-кечак ва мода саноатида энг кўп қўлланиладиган рақамли маркетинг метаоламининг элементларига эътибор қаратилади.*

Калит сўзлар: *рақамли маркетинг метаолами, метаолам, кийим-кечак, рақамли мода.*

РОЛЬ ЦИФРОВОЙ МАРКЕТИНГОВОЙ МЕТАВСЕЛЕННОЙ В РАЗВИТИИ ШВЕЙНО-ТРИКОТАЖНЫХ ПРЕДПРИЯТИЙ

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Аннотация. *В данной статье рассматриваются ключевые атрибуты метавселенной цифрового маркетинга, а также её концептуальные составляющие. Кроме того, изучаются элементы метавселенной цифрового маркетинга, наиболее часто применяемые в швейной промышленности и индустрии моды.*

Ключевые слова: *метавселенная цифрового маркетинга, метавселенная, одежда, цифровая мода.*

Introduction.

With the potential importance of remote environments, the metaverse emerges as an exciting option. It may offer ever great immersive virtual space where customers can engage, communicate, and cooperate regardless of their location. In addition, the metaverse not only boost efficiency, but it also encourages imagination and ingenuity by dissolving geographical obstacles. As companies increasingly adopt telecommuting as a permanent approach, the metaverse's influence in reshaping our work and collaboration methods is expanded to grow even more. Establishing and sustaining the necessary framework for a metaverse, which includes virtual and augmented reality gadgets, and cutting-edge networking tools, requires considerable financial investments. These expenses can pose an obstacle for both garment, knitting and apparel and customers eager to engage in the Metaverse, hindering its broad acceptance and potential for expansion.

Literature review.

Metaverse marketing has surfaced as one of the foremost innovative channels for promotion. A variety of factors are drawing marketers into the metaverse. Also, the most vital aspect is that marketers can engage customers in novel ways, due to the existence of metaverses. Marketers aspire to connect with these audiences and keep them updated on and intrigued by their products and technologies. While the infrastructure of the metaverse is still under development, marketers can position themselves for a productive competition into virtual reality. The value of digital assets in the metaverse matches that of their tangible counterparts, which may seem surprising. To thrive in this new landscape, marketers must contemplate what they can offer their audiences. For some brands aiming to advertise in the metaverse, this might involve virtual apparel or accessories for customer avatars. The metaverse has the potential to transform every facet of marketing and advertising. A it creates fresh promotional avenues since the platform allows businesses to host virtual campaigns without any physical or geographical limitations which reinforces the notion that the Metaverse is immersive and captivating through interactive advertisements and marketing initiatives. Metaverse can also empower companies to utilize tools that monitor, assess, and compute individuals' engagements with ads, potentially offering a valuable supplementary source of customer behavior insights. Enterprises can generate revenue in the Metaverse by creating digital assets such as avatar enhancements, games, and animations. Furthermore, it augments the sense of realism and appeal through VR technology, which enhances virtual consumer experiences. (Hussain and Farea, 2022).

The metaverse has the capability to transform how customers connect, engage, and navigate the digital landscape. This virtual realm melds various advanced technologies such as 5G connectivity, brain-computer interactions, immersive reality, blockchain, cloud infrastructures, digital counterparts, and artificial intelligence, providing customers and most well-known in digital realm as users with a fully engaging and participatory experience. As the metaverse continues to gain traction and is predicted to expand dramatically, it opens up new avenues for marketers and brands to devise innovative methods of engaging with their target audiences. Nonetheless, the metaverse is still in its emerging phase, facing numerous obstacles that should necessarily be tackled to completely harness its potential. Technical difficulties, privacy and security apprehensions, interoperability challenges, revenue generation issues, regulatory obstacles, and scalability worries are some of the considerations that must be addressed. Brands and marketers should develop a coherent strategy to navigate these hurdles, ensuring they deliver value to customers while simultaneously generating income. Moreover, it is crucial to emphasize that the commercial and promotional elements within the metaverse extend beyond just entertainment or so called gaming element; they also encompass sectors such as education, healthcare, and various other fields. The anticipated evolution of online commerce in the metaverse is projected to center around virtual marketplaces and digital twin

innovations, which will enable enterprises to craft engaging and interactive encounters for customers and consumers, offering their products and services in a virtual setting and utilizing virtual currency for the variety of transactions. In realms where digital commerce is the main factor, the necessity for manufacturing facilities, storage spaces, and logistics networks may actually fade away. The economy can also transition to direct-to-avatar (D2A), allowing a digital replica of the tangible product to be accessible in an instant within the metaverse for instance, avatars can select from various clothing items, footwear, and fashion accessories. Moreover, the risk of counterfeit items can be eliminated since digital assets can be authenticated through blockchain technology. Social media advertising has emerged as the foremost method for brands to market their offerings. No matter the scale from local businesses to global enterprises each entity maintains a presence on social media to engage with consumers and stay pertinent. Modern smartphones and tablets frequently come equipped with social media applications, encouraging new users to register, log in, and participate actively and at the current moment customer feedback, showcased through their comments and the ratio of likes to dislikes on shared content, provide valuable insights into preferences and dislikes regarding products. In the metaverse, the feedback mechanism can evolve, enhancing its ability to comprehend customer preferences and requirements. (Ali and Khan, 2023). The Metaverse represents an enduring and immersive multiuser setting that integrates the tangible world with the realm of digital world. Commonly referred to as the post-reality universe, it is constructed on the intersection of technologies such as virtual reality (VR) and augmented reality (AR), enabling multifaceted engagements with digital spaces, virtual assets, and individuals (AR). Consequently, the Metaverse emerges as a network of interconnected, immersive social experiences hosted on lasting multiuser platforms. It empowers customers to interact with one another in real-time, experiencing interactions with virtual objects (Mystakidis, 2022). The metaverse serves as a tech-driven platform designed for a contact-free era, with its relevance in both the corporate sphere and consumer marketplace on the rise. The pandemic underscored the importance of the metaverse, especially in the context of the rapid advancement of the fourth industrial revolution, tech-based networks, and device technology. Initially, when it emerged in the early 2000s, the gaming sector was the primary industry harnessing the metaverse's potential extensively. Metaverse's reach at the current moment spans various fields including performance, healthcare, and especially garment, knitting, apparel, fashion industries. Metaverse marketing emerged as one of the most potent marketing techniques in the age of contact-free transactions. The launch of commercial 5G services has spurred the creation of technologies capable of delivering virtual reality (VR), augmented reality (AR), and mixed reality (MR), leading to an increased focus on the metaverse as a space conducive to contactless environments. Since then, in an era marked by non-face-to-face interactions, interest in the metaverse has surged, partly due to its proactive use as a marketing instrument in virtual environments by companies leveraging virtual influencers. Furthermore, the VR and AR industries are poised for significant growth, paving the way for a digital platform. Consequently, metaverse marketing is expected to radically reshape daily life after the conclusion of the non-face-to-face interaction era, adapting and evolving in a more proactive manner in the future. (Nalbant et al., 2022).

Meanwhile, the essence of the metaverse lies in its social dimension. Enterprises, including garment, knitting and apparel ones can tap into this potential across a variety of contexts. In a professional setting, the metaverse can facilitate meetings and training sessions in immersive environments, furnished with diverse tools and with absence of any travel expense. For consumers, it provides collective consumption experiences that span numerous entertainment sectors, including watching films, attending events, garment, and apparel products shopping and may others. Additionally, many services can greatly benefit from the distinctive known as 'being close' between customers and staff. The metaverse is poised for substantial growth, but not necessarily in an exponential manner. Enterprises should familiarize

themselves with this new realm and begin on a small scale, investigating what succeeds and what may get not really well, while seeking to understand the similarities and differences between the metaverse and the physical world. At its essence, the metaverse represents a digitally-mediated space where individuals interact socially with one another through avatars within immersive, 360-degree realms. Although several micro metaverses such as Meta's Horizon and Fortnite, along with Microsoft's Altspace, are already in existence, an overarching "macro" metaverse that unites them has yet to materialize, and it remains uncertain to some extent. Similar to the mobile internet, customers can anticipate a few leading platforms to emerge, which may then open pathways to numerous partially interconnected micro metaverses. (Hennig-Thurau and Ognibeni, 2022). Teaming up with renowned celebrities or prominent personalities in the metaverse can instantly link a brand to a broader array of consumers and enhance brand recognition. The garment, knitting enterprises can captivate and engage its audience by leveraging their existing fan following and reputation. Enterprises might attribute their brands in light of the rise of virtual influencers, leading to heightened brand visibility. Nonetheless, due to their substantial influence on the target market, choosing the right partner or influencer to embody the product is just as crucial. Enterprises should focus on the cultural practices, traditions, and preferences of their intended audience when selecting the perfect collaborator. Influencers help brands reach a larger audience and diversify their offerings by capitalizing on this phenomenon. Aligning with the wrong entities or influencers could harm the brand's image. A thriving alliance in the metaverse necessitates that the partner's values, audience, and objectives align with the company's identity. For the partnership to flourish, it is also vital to consistently evaluate and monitor how collaborations influence the audience's sentiments and perceptions, as well as brand key performance indicators (Titans, 2023). The core element of the metaverse is social engagement. Beyond offering an escape from reality, this interconnected realm of virtual environments acts as a potent platform for businesses to enhance brand visibility. Users can create and utilize a digital persona to interact with others within the metaverse. At the same time, simultaneously promoting products and services, marketing executives can effortlessly cultivate a sense of community and lasting connections with consumers, made possible due to the metaverse. Direct engagement allows marketing managers to connect with new potential customers effortlessly by conveying a clear message as well as attracting customers. The metaverse also influences brand perception and communication. Companies must interact with consumers through their avatars instead of solely relying on virtual stores in the metaverse. Because of the digital essence of the metaverse, marketers have the chance to reach a broader worldwide customer audience with enhanced immersion. Advertisements on other digital platforms cannot match the level of engagement found within the metaverse. With its high degree of interaction and engagement, customers will be able to experience the product virtually, further aiding marketers in fostering more dependable purchasing behavior. (Hussain et al., 2024)

Research methodology.

The methodology that has been employed in the present paper can be characterized as using secondary data, along with inductive method that has been resonated to explain the diverse data discussed in the article. Consequently, digital marketing metaverse plays a pivotal role in garment, knitting, apparel enterprises as well as serves as the key in fashion industry. Thereby, metaverse marketing methodology crafts engaging, interactive brand experiences through digital realms and user-created content, harnessing insights driven by AI to tailor campaigns and nurture community. Fundamental approaches consist of organizing virtual gatherings, developing digital items, collaborating with metaverse influencers, and employing blockchain technology for ownership verification (NFTs), all while remaining adaptable to the ever-changing metaverse landscape. The aim is to forge stronger emotional connections with consumers by providing distinctive experiences and ongoing interaction within these enduring

virtual domains. Thus, that is vital to implement metaverse’s elements into the activities of garment, knitting and apparel enterprises. Virtual clothes and apparel sales: Companies can offer entirely digital outfits and accessories, crafting exclusive items that exist solely within the metaverse. Digital Collectibles: Marketing NFTs of virtual fashion pieces enables ownership and serves as an innovative income channel, as demonstrated by fashion icons like Gucci and Balenciaga. Digital try-ons: Shoppers can virtually try on apparel and accessories using their avatars in engaging settings, elevating the purchasing journey.

Analysis and discussion of results.

Referring to the information of Fairfield as provided in Figure 1 The primary trend projected to drive the growth of the metaverse market is the expanding opportunities for digital enterprises. This stems from the increasing user population and the demand for innovative digital experiences, granting businesses unparalleled avenues to flourish in this disparate digital landscape. Another significant trend anticipated to stimulate the metaverse market expansion is its integration within the aerospace and defense sector. This allows immersive and realistic training environments for pilots and military personnel, improving readiness while lowering expenses. In 2022, the hardware sector led the industry. As the Metaverse continues to develop, the need for cutting-edge hardware is expected to skyrocket, as users seek high-quality visuals and uninterrupted connectivity. While considering global market share for the metaverse, the AR and VR sector is predicted to prevail. It provides opportunities for interactive social gaming, making it advantageous for educational, retail, and entertainment uses within the Metaverse. Thus, in 2022, the gaming sector dominated the market. Within the Metaverse, game developers have the chance to craft creative, cross-platform experiences that surpass conventional limits, drawing in a varied and worldwide player demographic (Fairfield, 2024).

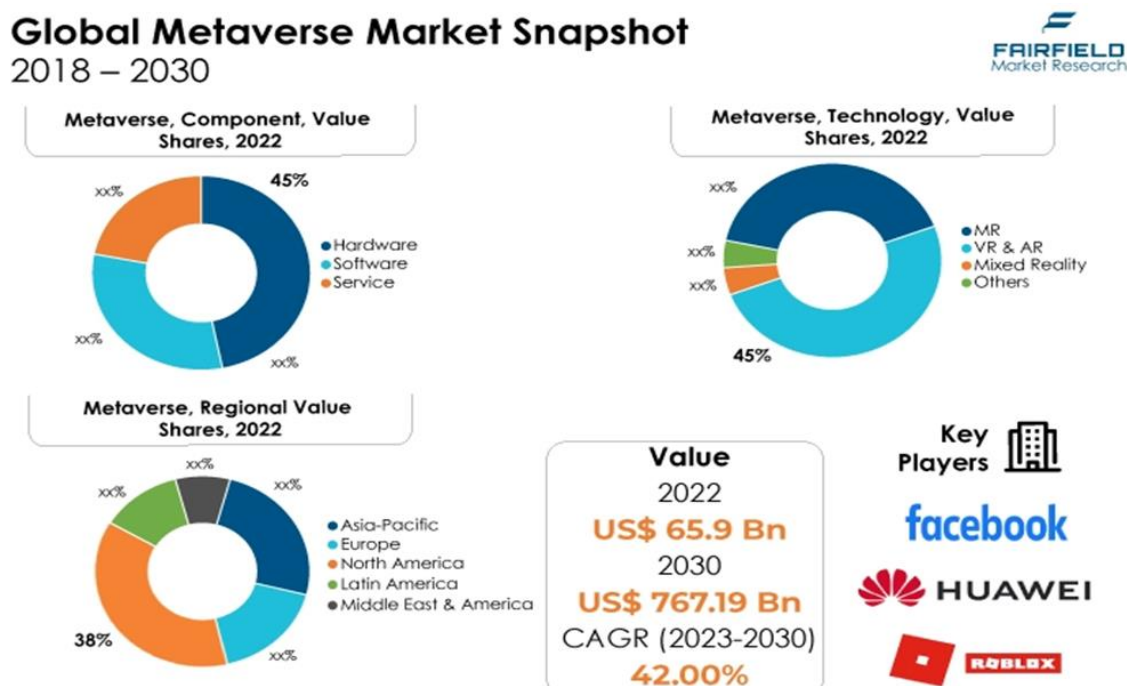


Figure 1. Metaverse Market (Fairfield Market Research, 2024)

Discussion

Engaging endeavors are unfolding within the Metaverse. For instance, several brands are venturing into Virtual Reality and Augmented Reality, allowing consumers to visualize how they would appear in various outfits prior to making a purchase. Conversely, there are initiatives that aim to construct virtual spaces where customers can engage and personalize their own fashion styles, fostering a closer connection with the brand. Just as past technological advancements

have influenced our evolving habits, many might question how the Metaverse (Figure 2) is transforming the dynamics between the garment, knitting and fashion sector and its operations.



Figure 2. Metaverse and Digital Fashion in the Fashion Industry (DeuSens. 2025)

For fashion brands and garment, knitting and apparel enterprises that are beginning to delve into the opportunities of the Metaverse, marketing digital clothing represents the simplest approach to capitalize on their presence in the virtual realm. In this regard, innovation is vital, as it allows for the creation of unique designs for new garments and accessories exclusive to the Metaverse, or even for recreating the clothing and accessories that already exist in the physical world. (DeuSens, 2025).

Conclusion and suggestions.

The Metaverse and its related technologies have exceeded the ways the customers may ever can gain the comprehension regarding its potential; Thus, technologies \are becoming essential components of customers lives. From industry expansion to concrete applications, the metaverse offers tremendous potential. By grasping these trends and channeling resources into the appropriate technologies, enterprises may strategically position themselves for success in the current swiftly changing environment. The opportunities are limitless, whether it is elevating customer interactions, enhancing operational effectiveness, or fostering innovation in the field of garment, and apparel industry. For garment, apparel and fashion industry, grasping the expansion and real-world uses of the Metaverse is vital for maintaining a competitive edge. The merging of physical and digital environments obscures the distinctions between reality and the virtual world, creating a wealth of opportunities for garment, knitting and apparel industries to innovate and gain success.

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