

The Investment Value of Metaverse in the Media and Entertainment Industry

Wei jie Qi*

Department of Economics, London School of Economics and Political Science, London, United Kingdom

*Corresponding author: W.Qi1@lse.ac.uk

Abstract. With the launch of the film Ready Player One, more investors start to notice the potential of the metaverse. This will lead to a revolution in consumer goods, technology, entertainment and almost all industries. The entertainment metaverse is growing at a fast speed with the production of many new economies. Although people are worried about the stalled development of metaverse and crimes derived from virtuality, many enterprises have brought a surprise to the public. The author gives many examples of potential companies to illustrate technology and application developments. Shortly, it is expected that people can interact with many sub-metaverses and more investment opportunities will exist. While the entertainment metaverse will be established with a new revolution of industries, many companies are competing with each other extremely to capture the market. Investors can keep an eye on leading companies in internet applications, software platforms and hardware platforms, cryptocurrency and NFTs.

Keywords: Metaverse; Investment Value; Media and Entertainment Industry.

1. Introduction

1.1 Background

Metaverse will create a \$100 billion digital economy and provide millions of jobs in the next 10 years. At the same time, the entertainment metaverse is developing very quickly with the surge in content and solid technology backups. Since Media and Entertainment industry is closely related to people's lives, new ways of entertainment will alter the way how humans will live. Understanding the value of blockchain and NFT technology and other related technologies enables artists' customers and investors to treat the entertainment metaverse more critically and seek opportunities for their career and interest benefits.

1.2 Related research

Garon explored the competing economic and philosophical approaches to the upcoming Web3 and compared its regulatory environment with the past, illustrating that metaverse has the potential to reshape the rules and become more regulated via NFT and other tools [1]. Qi et al analyzed the mindset and characteristics of Z-generation and showed that they have given strong interactive and highly rated feedback to the metaverse. The authors also mentioned economic risks, privacy risks, and monopoly risks in the metaverse and gave their suggestions for these problems [2]. Pryor discussed the new forms of music consumption in the metaverse and presented both opportunities and issues in the industry [3]. Qin used the PEST analysis to assess the investment environment for the VR industry, particularly focusing on the Chinese stock market [4]. Sarkar and Sukanya discussed the challenges of technical patents in the metaverse, mainly explaining the eligibility issues and regional disparities. However, the authors mentioned that it is not necessary to revise the current patent laws to accommodate the emergence of the metaverse [5]. Song et al conducted semi-structured interviews to explore the driving factors of the usage intention (UI) and platform swinging (PS) behavior among anonymous social applications (ASM), focusing on the closest mobile app in the era of the metaverse [6]. Simon investigated two criminology-related concepts: shadow economy and 'technosocial' with a case study of scams in cryptocurrency. Then he also explored how unregulated

crypto trading might influence the metaverse [7]. Duan et al built up the architecture of the metaverse and implement a blockchain-driven metaverse prototype of a university to analyze user studies [8].

1.3 Objective

This article is aimed to provide an overview of the entertainment metaverse. Firstly, the current market situation starts with market size and growth rate. Motivating factors follow the PEST(Political, Economical, Social, and Technological) analysis, and three typical companies from different countries are outlined. Secondly, the problems of the metaverse discuss from three aspects: its definition and boundary, the fundamental economic system and its application. Finally, prospects of the media and entertainment industry point out the developments in different phases of the metaverse with related examples. The concluding section summarizes current developments and discusses more investment recommendations.

2. Situation

2.1 Market

In 2020, the valuation of the Metaverse Market was calculated at around USD 27.21 Billion. The market growth is projected to grow at a CAGR of 39.1% from 2022 to 2030, possibly reaching USD 824.53 Billion by 2030. [9]. The Global Metaverse in Entertainment Market is expected to grow by \$ 28.92 bn during 2022-2026 with a relatively smaller CAGR, which is around 8.5% [10].

The main goals for the entertainment metaverse contain five aspects: Life Restart, multi-Scenario interaction, self-definition, emotional resonance, and symbiosis of reality and imagination. Life Restart means that virtual and digital humans will become our indispensable counterparts in the metaverse. Multi-scenario interaction indicates that people will be able to communicate remotely in a real scenario. It is easier to understand Self-definition as people can create their counterparts independently with no limit on appearance, outfits and gender. Emotional resonance and symbiosis of reality and imagination highlight that metaverse will become a brand new civilization established by users and will not be independent but bring physical and virtual worlds together. The entertainment metaverse contains fantasized cultural industry content products, mainly targeting the Z generation as their main users to some extent.

Entertainment metaverse also has given rise to many new economies: Single Economy, Appearance Economy, etc. It contributes to Single Economy since there will be more diversified ways of networking with better user experience, and the number of singles will be larger, leading to main consumer groups in the future. Moreover, Appearance Economy develops quite quickly because users can create their figures or even characteristics in the metaverse, digital and virtual humans will become the lead roles, and users may spend on products related to their virtual images.

2.2 Motivation factors

A growing number of governments are aware of the power of AR/VR and are interested in their potential. For example, In 2019, The VR TECHS Act is proposed to build a Federal Advisory Committee on the usability of reality technologies within the federal government. "Immersive technology" is identified as one of 10 key technology focus areas by the U.S. Innovation and Competition Act in 2021. These updates are beneficial for the growth of the VR/AR industry [12].

The existence of cryptocurrency has led to a surge in its investments, even Elon Musk often votes for dogcoin on many occasions. While Blockchain is the technology that enables the existence of cryptocurrency, its features such as accurate tracking and permanent ledger will become a foundation of economic systems in the metaverse. These changes have enabled metaverse-related stocks to rise, indicating that the financial market has a positive attitude towards this concept.

Generation Z has shown its characteristics in learning new things at a fast speed. Rising demand for virtual assets and increasing usage of NFTs indicate that people are starting to accept trade

digitally. Their interactive and responsive action towards the metaverse can help the metaverse civilization building.

Technology giants are focusing on hard-core technologies, setting up metaverse platforms, and developing Decentralized Finance (DeFi). Many enterprises have achieved remarkably in hard-core technologies such as 5G, cloud computing and XR. Also, the applications of metaverse platforms becomes more diverse. For example, the first metaverse IPO, Roblox, expanded from a game platform into a UGC and education community. These developments are all technology factors driving the Metaverse market growth.

2.3 Players

Currently, there are three paths to lay out the metaverse: one is to start from next-generation Internet applications, the other is to focus on next-generation software platforms, and the third is to invest in next-generation hardware platforms.

The US company Meta is laying out quite comprehensively and focusing on VR/AR. It plans to make the metaverse cover 1 billion people in 10 years from 2015, achieving a digital economy of US\$100 billion. The company also contributes significantly to VR gaming. For example, Oculus Quest 2 is regarded as one of the best VR gaming headsets on the market, and Quest Store has launched many popular VR games such as Beat Saber [13].

Moreover, Chinese company Mango Excellent Media Co. has disclosed that it will take exquisite VR content as the entry point, VR technology and digital humans as the means, and the NFT collection trading platform as the assistance, to promote the construction of the Mango Planet metaverse step by step. It has launched a digital human called 'Xiaoyang' and planned to employ her as a variety show host in the future.

Aespa is a Korean girl group consisting of four human members and four virtual counterparts launched by SM Entertainment in October 2020. From then on, SM entered the virtual artist area and began to lay out its metaverse plan. Recently, SM has expanded its metaverse ambitions to the blockchain and NFTs, and cooperated with a strategic partner, Binance. Binance is a famous cryptocurrency exchange and they are going to work jointly on the NFTs, and establish a global Play2Create(P2C) ecosystem for fans. The platform is decentralized and users could regenerate games, music, dance, and convert them into NFTs. This could increase engagement between global fans and Korean artists, and fans could also sell their original content for profit. The partnership combines robust technology and metaverse-oriented content IPs for fans to build a new recreation culture [14].

3. Problems

3.1 The ultimate form of the metaverse is difficult to predict

Looking at the industry life cycle, the metaverse is currently in its emerging state, which expects to last through at least 2024. We have already launched a number of interoperable, decentralized and interactive services and products such as VR, cryptocurrencies and NFTs, which comply with the features of the metaverse. However, people still wonder about which final path we will enter the metaverse [15].

Moreover, due to the lack of technological and infrastructural levels, the metaverse is unable to host a huge virtual civilization. Because the amount of information and data that the network will then need to process is enormous. Therefore, how to use artificial intelligence to sort through the data and communicate with it instantly is a challenge.

Will the metaverse be a Utopia or will the metaverse bring disasters to humans? Since the metaverse will only appear in conceptual and incomplete form for a long period, people cannot know the answer until the metaverse steps into a mature stage.

3.2 Crimes in cryptocurrency

Cryptocurrency is indispensable in the metaverse. While market abuse can be easily implemented in the crypto market, people who possess a large number of cryptocurrencies can manipulate the demand and supply. Besides, cryptocurrency is not a government-regulated project and it can be stopped at any time. More importantly, the decentralized cryptocurrency market does not recover investors' losses, so investors can easily lose all of their money. Since cryptocurrency is a part of virtual assets, protecting the ownership of the cryptocurrency is part of building the economic system in the metaverse. Hence, a reliable institution is needed to supervise cryptocurrency in order to stabilize the economic system [7].

3.3 Information Security

In order to achieve deep immersion in the entertainment metaverse, people may inevitably deliver all-rounded data even physically and mentally. Once privacy becomes digital data, it will circulate quickly and might threaten personal safety. Moreover, anonymity could further give rise to internet fraud. People should notice that the misuse of products and services may adversely affect both companies and customers. For example, Soul is a pioneer of metaverse social networking apps. Its function highlights that users can create virtual humans and could interact with other people via virtual identity. However, scams happened quite frequently among users. With this anonymous feature, fraudsters can not only use the personal information displayed by Soul users to judge the individual's financial status but can also communicate with users deliberately to understand the user's personality and hobbies and design a corresponding fraudulent scheme. Hence, Content supervision becomes necessary and many companies have invested enormously in this area. In the future, the information volume will be more tremendous, which means companies need to keep optimizing technology to regulate content. Industries and governments also need to cooperate to set regulations and introduce laws to protect users' rights.

4. Expectation

Advanced metaverse will occur when technologies seen in the emerging phase converge and partial interoperability is realized, Which is expected to happen between 2024 and 2027 [15].

At this stage, new technologies will be inspired, such as ways to link digital and physical spaces more interactively and more investment opportunities will arise. Taking the example of live events, artists will be able to engage with fans more profoundly by utilizing VR and AR technology. This will provide a new marketing tool for companies, as brands and products can take part in live concerts, festivals and other events more actively and engagingly [16].

Meanwhile, blockchain and NFT technology will be mature enough to create a more equitable competition environment for music, drawings, etc, since everything becomes traceable and copyrights are protected by such a system. Moreover, artists can completely control the supply chains and access fans directly.

Nowadays, we already established many NFT platforms. For example, OpenSea is the largest NFT marketplace for people to create and trade collections and its valuation has reached over \$13 billion. In the future, competition among NFT platforms will be more severe.

When it comes to the Mature stage, which is expected around 2030, highly developed industries merge and most applications will be able to enable interoperability [15]. At that time, we might realize the stories in films such as Avatar and Ready Player One.

5. Conclusion

The article states the current development of the entertainment metaverse and expectations at different phases. There is a positive attitude towards the development of the entertainment metaverse and three enterprises indicate remarkable achievement in aspects like gaming, digital humans and IPs.

Then the author also utilizes examples to outline how hardware platform technology such as VR, AR and XR can contribute to gaming, live events and other applications. Furthermore, it illustrates how blockchain and NFT technology will lay the economic system foundation. Besides, it highlights the market competition so investors need to pay close attention to the different phases and layout of investments in advance. The author expects that the fusion of virtuality and reality will be realized beyond 2030, and risks such as crimes in cryptocurrency and fraud will be alleviated through mature technologies.

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