

## AN EXPLORATIVE SURVEY ON METAVERSE GAMING INDUSTRY IN THAILAND: MARKETING COMMUNICATION

CHEN LING<sup>1</sup> and PRIN LAKSITAMAS<sup>2</sup>

<sup>1,2</sup> Business Administration Program in Marketing, Siam University, Bangkok, Thailand.  
Email: <sup>1</sup>chenlingth2007@gmail.com, <sup>2</sup>prinsiam@gmail.com

### Abstract

The Metaverse concept and application have been a hot topic in recent years. The fact that more and more relevant technologies and early concepts are being applied initially to the gaming sector. There is no doubt that the metaverse, particularly its initial implementation in the gaming industry, is attracting increasing attention from both commercial participants and academic scholars (Abed&Rinkevic, 2022). Under these circumstances, how to effectively communicate with consumers on these metaverse game platforms becomes an essential challenge. This paper intends to introduce the concept of Metaverse, the reasons for the Virtual Metaverse world, Metaverse gaming industry technology support, some typical Metaverse games, good marketing communication approaches and interesting open issues in the Metaverse gaming industry. The primary objective of this study is to propose some feasible marketing communication tactics on Metaverse gaming platforms in the Thailand market. Using a documentary qualitative research method, it was discovered that creating virtual products, brand placement, hosting virtual events, and word-of-mouth (WOM) are some effective strategies to engage with customers on various Metaverse gaming platforms in Thailand.

**Keywords:** Metaverse; Gaming industry; Marketing communication; Thailand

### Introduction

After years of development, the metaverse and also its game industry has grown to a large scale and generated significant revenue. According to Global Industry Analysts Inc, the global metaverse market is anticipated to reach \$194.4 billion in 2022 and nearly quadruple to \$758.6 billion by 2026, owing to rising interest in virtual spaces for work and leisure during the COVID-19 pandemic (Zaman, Koo, Abbasi, Raza& Qureshi, 2022). A considerable literature has grown up around the theme of Metaverse and its initial application in gaming industry recently. Thailand is positioned themselves to become a metaverse pioneer and has the high potential to become a regional leader in the Southeast area. Metaverse is eagerly welcomed by both the public and private sectors in Thailand. According to Accenture's recent report, 72% of Thai executives believe the metaverse will benefit their organization (Komsan, 2022). At the same time, the Metaverse games that focus on human-computer interaction has been very popular and a significant demand in generation Z has been discovered in Meksumphun & Kerdvibulvech (2022)'s research in Thailand in recent years. All these phenomena suggest customers are moving from traditional platforms such as physical shops, E-commerce to new platform – Metaverse gaming industry. This makes it is worthwhile for further study on marketing communication approaches in the new Metaverse platforms. However, there is few research work mention about this topic currently. This research aims to learn and suggest effective marketing communication methods in Metaverse gaming platform in Thailand.

## Literature review

As a form of a decentralized open internet, the metaverse was first coined in Neal Stephenson's 1991 novel *Snow Crash*, it allows users to move and interact across digital worlds, and use or exchange digital items across platforms. There is no accepted definition of Metaverse in the academic world. But there are some descriptions can be found in previous literatures. The Metaverse can be simply understood as a network world parallel to the real world.

The word "metaverse" refers to highly immersive online experiences such as virtual reality (VR), augmented reality (AR), and interactive video. Individuals can set up various activities in Metaverse world, such as organize a virtual fashion show or concert, play games, hang out with friends, marry with someone, shopping or even work in Meta world. Customer can also use virtual currency in the Metaverse virtual world and these virtual currencies can be converted to real world currency. Consumers not only buy products, but also get services from Metaverse world. One thing for sure, Metaverse is coming and it is disrupted and change the life we live just as Internet ever did.

These Metaverse world including some immersive, and social spaces encompassing gaming platforms like Roblox, Fortnite and Zen Racing and online marketplaces like Decentraland, all of which have ballooned in popularity during the pandemic. According to the google trends data, the concept of the Metaverse has gained an intense amount of interest in 2021. Early examples of Metaverse most often center on ultra-realistic video games. Take the game, Roblox, for example. The platform lets players inhabit worlds crafted by other users, leaving design up to the community. Many brands and enterprises are set up its Metaverse strategy. Tech-centric enterprises such as Nike is exploring to create Virtual shoes in Metaverse, they also want to trademark their swoosh logo in Metaverse environment to preserve the brand (Sam Dart, 2021).Clinique and Coca-Cola are developing brand's first non-fungible tokens (NFTs) which allow users to own digital items like image or videos, it's being part of the metaverse will become brands' calling cards similar to how social media profiles and websites work today. Warner Bros and Hyundai have built their own virtual worlds. Sephora, TenCent and Amanzon are leaning into AR and VR experiences and trying to use metaverse to create a virtual shopping space. Facebook is so enthralled that the social media giant plans to spend \$10 billion over the next five years to become a metaverse enterprise, and the VR social platform will be launched in September 2019 (The Metaverse – How brands are boldly embracing marketing's new frontier, 2021).Italian luxury brand Gucci has launched virtual sports shoes, even Disney are trying to build a "Theme Park metaverse" in their next evolution step. As the transaction in the metaverse is exist, there is a need for virtual currency. Many virtual currencies can be found in today's metaverse market, such as Roblox's virtual currency "Robux", Tencent's QQ coins. Customers purchase these virtual currencies using real world money and it can be spent to buy game content, virtual products or even hawk these virtual currencies.

The followings factors of teamwork and competition, problematic use, immersive role-playing, new exploration experience and looking for opportunities and make capital gains can explain the importance needs for a virtual Metaverse world.

Manninen & Kujanpää (2007) found that teamwork and competition are the most accurate predictors of fast progression in the metaverse game. They also claim that both male and youthful age are associated with a strong tendency to seek for competition in the game. These can also be seen in the thriving e-sports market.

People may meet lots of problem in physical world, for example pressure from work, study, family, money, social communication and so on. Many of us may occurred ideas of escape from the real familiar world, especially for those who are social anxiety disorder, but they probably can be satisfied in Virtual world by social interaction with unknow people. Indeed, when playing, it is possible to communicate easily with other players by written chat or audio. Billieux et al (2013)'s finding postulated that negative emotions (e.g., depression, anxiety or boredom) can lead to people look for achievement in the virtual games.

Everyone has their favorite character, personality, activities, skin color, pets, house and lifestyle and so on. It is maybe impossible or very difficult to achieve all of them in real life, but immersive role-playing game make it possible in virtual world, it become more and more realistic replying on today's modern technology, such as VR, AR, 3D, VW and strong support from internet provider. For example, you like Spiderman very much when you watch the movie, it is almost impossible to become Spiderman in real life, but you can use this role to play the Spiderman games. Recent studies showed that not only teenage male, but also the number of adults and females who are also enjoy to play immerse role-playing metaverse games nowadays (Hassouneh&Brenngman, 2014).

Billieux et al (2013) found that many customers show great interest in discovery and exploration in metaverse games. There is a demand for group of customers which looking for immersive touch, smelling, listening or other feelings, they are wishing to enter a new and totally different and amazing fantasy world, just like the scene was presented in movie called "Avatar".

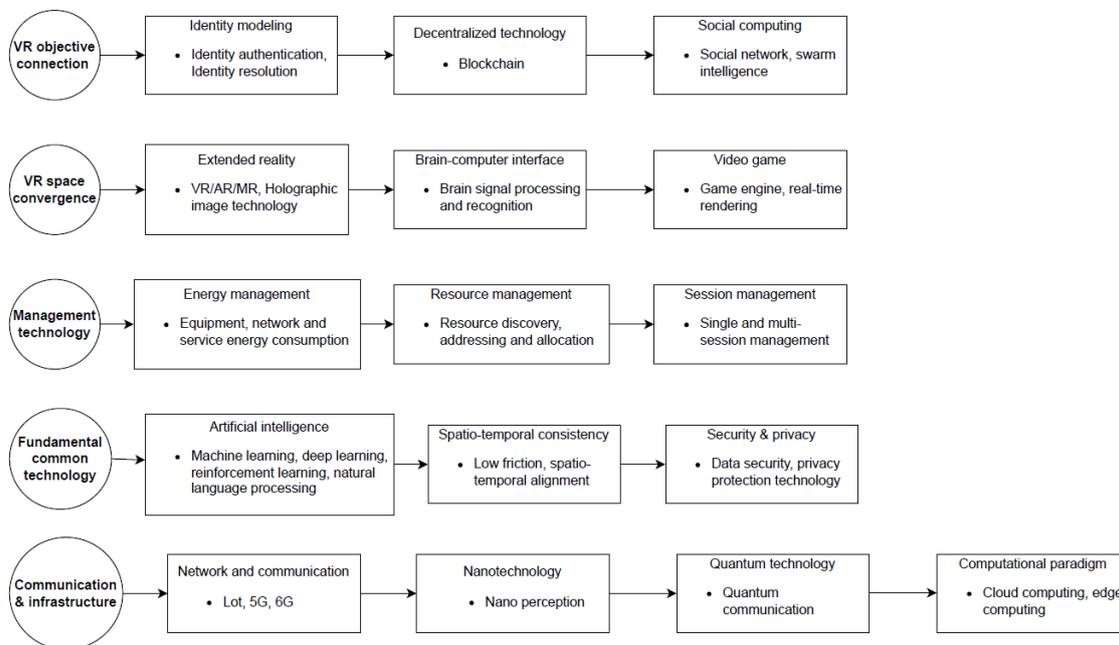
Whilst virtual economy statistics are somewhat rubbery, the number of people who participate in virtual worlds is in the hundreds of millions, and the money spent on virtual assets is in the billions of dollars every year. With such vast numbers of users gravitating to online virtual environments for social and recreational interaction, there are plenty of opportunity to make capital gains in the virtual metaverse market. According to survey of US Youth Trends Report by Voxburner, 65% of Gen Z consumers have spent money on a virtual item (The Metaverse – How brands are boldly embracing marketing's new frontier, 2021).

Sponsoring in-game items offers not only a way to market a brand but a potentially lucrative new revenue stream. Fortnite, for example, it minted Epic Games a revenue of \$5.1 billion in revenue 2020. Epic games made money through selling different characters and dances that can be used in the game (Williams, 2021).

The closest experiences and a major part we have to a Metaverse today are games. Gaming presents an important opportunity for marketers to prepare for the metaverse (Stringfield & Blizzard, 2022).Esports, short for electronic sports, growing rapidly in recent years, it creates big revenue and accepted as an accepted Olympic activity since October 2017 with its growing

popularity. Meanwhile, metagame grew sporadically in the past few years as well, with some characterizing it as a ‘game played within the game’ or “beyond” the confines of the game environment (Kokkinakis et al., 2021). Even more, the emergence of Virtual Reality (VR) headset made it possible for players to physically move in their environment as they compete with others. In such a next-generation esports metaverse game, in which players not only exercise and compete with one another but also earn money for their efforts.

Metaverse is a new type of internet application and social form that integrates a variety of new technologies. As the research finding of Ning et al (2021) point out that the technologies involved in the Metaverse can be divided into five aspects, namely network infrastructure, management technology, basic common technology, virtual reality object connection, and virtual reality convergence.



**Figure1: Technology support in Metaverse environment for gaming industry**

A metaverse includes the integration of multiple technologies, including virtual reality (VR), augmented reality (AR), artificial intelligence (AI), machine learning, blockchain, Internet of things (LOTs), spatial technologies, head-mounted displays (HMDS), and 3D reconstruction. Aside from these cutting-edge technologies, the metaverse will require the assistance of software tools, Apps, platforms, hardware, and user-generated content as well.

The Metaverse will profoundly change the organization and functioning of existing society through the integration of virtual reality (VR) by producing an entirely computer-generated simulation of an alternate world. These immersive simulations can create almost any visual or place imaginable for the player using special equipment such as computers, sensors, headsets, and gloves. Technology and equipment developed by major technology companies including

Apple, Facebook, Sony, Microsoft, Niantic and Valve are shaping the future of Metaverse. VR headsets completely take over your vision to give you the impression that you're somewhere else. Headsets like Meta Quest, Sony PSVR, Oculus Quest and the PlayStation VR blocking out your surroundings when you wear them. Visually, you're taken to wherever the headset wants you to go—the outside world is replaced with a virtual one.

Augmented reality (AR) morphs the mundane, physical world into a colorful, visual one by projecting virtual pictures and characters through a phone's camera or video viewer. AR displays can offer something as simple as a data overlay that shows the time, to something as complicated as holograms floating in the middle of a room. Augmented reality is merely adding to the user's real-life experience. AR devices, such as the Microsoft HoloLens and various enterprise-level "smart glasses," are transparent, letting you see everything in front of you as if you are wearing a weak pair of sunglasses. The concept extends to smartphones with AR apps and games, such as Pokemon Go, which use your phone's camera to track your surroundings and overlay additional information on top of it, on the screen while VR completely covers and replaces your field of vision, AR apps only show up on your smartphone or tablet screen, and even the HoloLens can only project images in a limited area in front of your eyes. It isn't very immersive like VR.

Mixed Reality (MR) is a new visualization environment that combines real and virtual worlds. MR refers to the incorporation of virtual computer graphics objects into a real three-dimensional scene, or alternatively the inclusion of real-world elements into a virtual environment ( Pan, Cheok, Yang, Zhu & Shi, 2006).

The initial graphical interface was in 2D rather than 3D. Nowadays, virtual worlds are complex immersive environments with increasingly realistic 3D graphics, with the goal of displaying more realistic virtual worlds to users (Dionisio & Gilbert, 2013). In short, the Metaverse is a concept of a 3D digital world focused on social connection.

Whether remotely performing large-scale computing tasks, accessing large databases, or providing shared experiences between users, they are inextricably linked to networks and communications. The fifth generation (5G) and the sixth generation (6G) are the communication foundation of the Metaverse. 5G has the advantages of high speed, low delay, ubiquitous network, low power consumption and interconnection of all things, which makes it possible to realize the Metaverse. 6G will break the limitations of time and virtual reality, expand the service objects from humans, machines, and things in the physical world to the "environment" of the virtual world, and realize the cooperation between humans-machines-things-environment by connecting the physical world and the virtual world, providing the network foundation for. In addition, the Internet of Things (IoT) plays a vital role in network infrastructure of the Metaverse. IoT sensing provides users with a completely real, lasting, and smooth interactive experience that bridges the Metaverse and the real world (Guan, Irizawa & Morris, 2022).

## **The new features of marketing communication in Metaverse environment**

Below are some new features of Metaverse gaming industry: Decentralization, interactive and realism, immersive, sociality, growing challenges.

Every part of the Metaverse based on the concept of decentralization, which needs the help of the underlying technology of decentralization to ensure the security and operation of the Metaverse. Decentralized technology includes blockchain, distributed storage, distributed computing, etc., and the most typical decentralization technology applied in the Metaverse is blockchain technology (Jeon, Youn, Ko & Kim, 2022).

Earlier studies have shown that the most important factors contributing to the sense of presence in a digital game are interactivity and realism. In this context, interactivity refers to interaction between the player and the virtual environment, including other players in the same virtual environment. Realism refers to the perceived realism of the virtual environment (Raatikainen, 2012). Instead of merely watching a film premiere or concert within these games as a passive viewer, you bring your avatar identity along with you and become an active participant.

The development of interactive technology has greatly improved the sense of immersion in the gameplay, which can effectively enhance the user experience, playability and enjoyment. To achieve an immersive user experience, there are two main components that should be considered in interactions between users and the metaverse. First, the metaverse should receive data from the physical world so that users could control their avatars to finish corresponding actions. Second, real-time 3D rendering-related technologies like VR/AR are regarded as the main interaction interface. Moreover, haptic feedback is also necessary, which has already equipped most game controllers, like Nintendo Switch (Duan, Li, Fan, Lin, Wu & Cai, 2021).

The Metaverse is a new type of social form, so, it with sociality features. Users living in the Metaverse cannot live without social computing. In social virtual world, users are represented by avatars that navigates through the virtual world and socially interact with other users. Users can teleport through different virtual social worlds, participate in events, and even trade real money. The emergence of the Metaverse will not replace real social relationships with virtual social relationships, but will bring about a new kind of social relationships that are integrated online and offline. For companies, it is easier to collect the location, age, preferences and other information of users in the Metaverse and make a detailed evaluation to better support the society of the Metaverse. However, another issue – privacy was proposed by some researcherson discussing about how to protect consumer’s sensitive information (Falchuk, Loeb & Neff, 2018).

As the Metaverse is still in its early stages, it faces some challenges. Take the game Roblox as the example, throughout 2017, Roblox updated their server technology but caused frequent outages. Meanwhile, Roblox experienced its longest downtime to date in October 2021, with services being unavailable for three days. Users may experience simulated motion sickness as a consequence of an imbalance in visual information acquired from human organs and eyes. Other issues include physical fatigue, headset weight, movement injuries, and hygiene issues

from prolonged wear (Park& Kim, 2022). Therefore, marketing communication of enterprises which plan to enter Metaverse world should be a long-term strategy.

### **Marketing communication in Metaverse gaming industry**

Communication can be defined as the process of using word, sound, or visual cues to supply information to one or more people. Marketing Communications refers to the use of different marketing channels and tools in combination to its desired or general market (Varey,2002). Marketing communication tools include Advertising & sales promotions, personal selling, social media, direct marketing, Email campaigns & newsletters, public relations, trade shows and so on. In digital marketing, Metaverse have become a heat discussion in marketing communication field as a customer spends time observing or trying items on in the metaverse, marketers gain real-time information about their preferences and can determine exactly how long they interact with products or entire companies.

As gaming innovation and technology become more sophisticated, brands and agencies need to seriously rethink their approach to in-game advertising. The application of in virtual reality in metaverse provides new opportunities for advertisers to connect with consumers. Metaverse didn't rely on traditional print and broadcast media to convey their view of the situation to the outside world. Instead, they adopted a many-to-many communication model that involved networks of sympathizers.

In the video metaverse game industry, there are many new video games released in 2021. Millions of people are spending hours a day in virtual social spaces like Roblox, Fortnite and Decentraland, which are interwoven, no headset required (Clark, 2021).

Roblox is an online free-to-play game platform and game creation system developed by Roblox Corporation in 2004 and released in 2006. Roblox has become the world's largest game UGC platform, supporting iOS, Android, and other platforms. It allows users to program games and play games created by other users. Roblox allows players buy, sell, and create virtual items which can be used to decorate their virtual character that serves as their avatar on the platform. They've also recently begun experimenting with interactive advertisement, which allow marketers far more freedom than product placements or merely plastering an ad on a static video game level. They create a blended experience that changes as players move through games, altogether giving advertisements a way to come to life. With exposure to Roblox's more than 43 million daily active users on the line, about half of whom are under the age 13, it's easy to see why brands are jumping at the chance to make their mark. What's more its Virtual currency - Robux acquired through the sale of user-generated content can be exchanged into real-world currency through the website's Developer Exchange system. Roblox began to grow rapidly in the second half of the 2010s, and this growth has been accelerated by the COVID-19 pandemic as players forced to remain indoors due to COVID-19 lockdowns spent more time playing video games. As of August 2020, Roblox had over 164 million monthly active users, with it being played by over half of all children aged under 16 in the United States. Roblox reported 43.2 million daily active users in their second quarter in 2021 financial results. Roblox occasionally hosts real-life and virtual events to promote films, virtual concert, virtual

party and so on. It became the third highest-grossing game of 2020, with a revenue of \$2.29 billion, and it is currently one of the "worlds" that have the potential to be closest to the Metaverse (Lee, 2021).

Built by Epic Games, Fortnite is a survival game where 100 players drop onto an island and fight to be the last player standing as a storm closes in around them, forcing everyone closer together. Fortnite was first released in 2017, but it's been a sensation that's grown to more than 350 million registered players, and has seen upwards of 15 million of those players log in at the same time. Fortnite can hold in various of virtual concert and events as well.

Then there are the massive in-game experiences like a rocket launch that blew up the virtual sky, the black hole that sucked the entire game into a void, launching a new map, and the aliens that invaded the game, abducting players that got too close. According to some monitoring tools typically show 6-12 million daily active users (Williams, 2021).

Decentraland is a 3D virtual world browser-based platform and it is first fully decentralized virtual world owned by users. Users may buy virtual plots of land in the platform as NFTs via the MANA cryptocurrency. Decentraland was created by Argentinians Ari Meilich and Esteban Ordano and it launched in 2017, but opened to the public in February 2020, and is overseen by the nonprofit Decentraland Foundation. The game's first map, Genesis City, was made up of 90,601 parcels of land. It raised \$26 million in its initial coin offering (ICO) in 2017. Users can develop the land by using the Decentraland's own editor, or importing 3D models from external software. Cosmetic gear, like t-shirts and hats, can be traded. In December 2021 the platform reached 500,000 monthly active users who are ready to get involved in today's mainstream of popular.

Today, there are several different types of marketing communication approaches can be found in metaverse digital game platforms, the typical way such as creating virtual products in gaming, brand placement in Metaverse gaming, events in the Metaverse and Word-of-Mouth (WOM).

The key for brands is to have customers experience the product. Many brands start to create virtual products in metaverse games to communicate with their customers. For example, Luxury bag brand Gucci has made a virtual bag in the metaverse game platform. The same case to Nike, which are trying to show shoppers how a shoe feels "without actually having to get out on the road and run it." Luxury clothing brand Balenciaga has created their virtual clothes in Fourtnite as well. More brands like NASCAR are dropping a digital car in Roblox. However, the problem with these virtual product placements is that the brand's promotion is limited to a specific platform or game. Users cannot bring their Roblox Gucci bag over to Fortnite or their Fortnite NFL uniforms to Roblox. There is no interoperability between experiences (Titone, 2021).

Beyond creating branded digital worlds or items, brands are also showing up in metaverse environments through digital advertising by brand placement. Anzu, for instance, places advertisement that track view ability in real-time within metaverse gaming environments like Roblox across mobile, console. Billboard advertisement and branded clothes appear in-game

just as they would in real life. All research conducted to date indicates that players demonstrate stronger recall and purchase intent after being exposed to brands during game sessions. A limited study conducted by a group of University of London researchers in 2004 "provided some evidence that in the virtual world billboards for both high and low value products have a higher recall than in 'real life' situations such as sports events,". The study confirmed earlier findings that "game players, even upon playing a game for the first time and for only a limited amount of time, were readily able to recall brands placed within games both in the short- and long-term (Vedrashko, 2006).

Another good marketing communication way in metaverse gaming environment is set up virtual events. Virtual events have many advantages such as no limitation on location, fixable timeline, high interaction and it can be repeat watched, these attributes of virtual events make it easier to reach brand's target customers. There are some successful cases to reach brand's target customers through this approach. For example, Travis Scott arranged an Astronomical event in Fortnite and over 12.3 million players attended this event. Besides, Fortnite hosted a Star Wars film preview event that included a live discussion with director J. J. Abrams and an exclusive screening of a previously unreleased scene from *The Rise of Skywalker*. All of these events shown that customers are interested in attending these types of virtual events, which can lead to increased customer traffic and further strengthen brand marketing communication.

Metaverse games are another society which parallel with the real-world. So, it usually has social attributes, when players chat, hangout, shipping, or do other activities which need to interact with other players, brand should recognize that there is a chance for word-of-mouth marketing from perspective of enterprises, and it is an important communication way to strength your brand, products and service (Taylor, 2009).

### **Interesting open issues: Ethical, Privacy and Standards & Interoperability issues**

The Metaverse has given people a new identity and create a new, very free space for life and activities. As it contains more complicated social relationships, the ethical and moral issue have been noticed by many scholars and business participants. The ethical and moral problems of the Metaverse refer to the phenomena that arise in Metaverse due to the absence and confusion of the corresponding moral norms, which conflict with the ethical norms of the real society (Wang, Yan & Zhou, 2021). Many scholars and business man believe that Metaverse must control and constrain behavior of users, and establish clear ethical and moral norms to maintain a good and orderly ecological environment of the Metaverse is with great importance. Therefore, Metaverse supervision should be increased, and relevant laws and regulations should be drafted and updated on a regular basis.

The Metaverse is closely linked to the real world and corresponds to the real identity. So, privacy issue is a big concern for users in metaverse gaming environment. These privacies live in wallets, software used, personal information when register game user, prove identity and other activities in Metaverse game platforms. Wang et al (2022) claims that the Metaverse must take full account of data privacy protection issues, just like the previous network environment. Therefore, a fundamental premise of the Metaverse is the ability to build and maintain a distinct

identity across any experience. For people to effortlessly flow in and out of experiences offered by different companies, everyone must agree on a core identity system.

Despite good development trend of metaverse gaming industry in overall, there are still some barriers in current metaverse world. Standards and interoperability are one of problem which paid much attention by many customers. Maintaining cross-game inventories is still unfeasible because these platforms are not interoperable due to their own identification systems and economies. Some prior researchers argued that Fornite and Roblox are still not true metaverse because of interoperability of these two platforms. In a true Metaverse, players could seamlessly move their digital identity across platforms. Users would be the same entity in Roblox, Fortnite, or any other platform operating on The Metaverse. That means true Metaverse there need to be no barriers between platforms (Jungherr & Schlarb, 2022). For example, if a user buys a uniform skin on Fornite, they should can wear it on Roblox, Decentraland or other Metaverse platforms. Platforms and brands sponsoring in-game items need to establish an economic model where everybody benefits from using an interoperable standard to persist identity across the Metaverse. Once the economic incentives are in place, everyone can benefit by moving towards an open model(Titone, 2021).

## Conclusion

The Metaverse has been described as the "feel-good" place of the exciting future, and it is gaining increasing attention from various market participants and scholars. It is also becoming even hotter after some leading technology firms such as Facebook, Microsoft, Apple, and consumer brands such as Gucci, Coca-Cola, and Nike jumped on it.

At the same time, Metaverse games as the initial application and closest experience of Metaverse is becoming more and more popular in recent years. Companies like Epic Games and Roblox have already established proto-metaverses that attract millions of players. They have proven there is a desire and demand for users to interact, communicate and play in a Metaverse gaming world. Thailand as one of the Southeast Asia's frontrunners in ecommerce and 5G technologies with its digitally literate population is playing important role in the Metaverse gaming industry. This paper identified the concept of Metaverse and Metaverse video games, its technology support, new marketing communication approaches in Metaverse gaming environment, and some interesting open issues. Discovering that creating virtual products, brand placement, virtual event set up and word-of-mouth are some effective marketing communication tactics in the Metaverse gaming sector, through which marketers may deliver brand messages and engage with their target customers effectively.

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