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The Theoretical Basis and Landing Strategy of the Metaverse Business Model

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Abstract. With the transformation of the metaverse from the concept stage to the business model stage, the business model has gradually become one of the focal issues of the metaverse. Based on the business model canvas, this paper explores the process of value proposition, value creation, value delivery, and value acquisition of the metaverse. It puts forward a series of strategic suggestions for the metaverse business model landing: breaking through the traditional business logic, exploring the sustainable development mechanism, and predicting and preventing risks.

Keywords. metaverse, business model, landing strategy, business model canvas

1. Introduction

Since 2021, the concept of "metaverse" has been popping up in our minds. "Metaverse" is a new social form of mobile Internet based on various emerging technologies, which integrates virtual reality[1]. Currently, the metaverse is transitioning from the concept to the business model stage, and the academic discussion on the metaverse concept go ahead like a raging fire. Under this discussion, the metaverse-related enterprise practice has been in the first place. With the listing of Roblox company, the metaverse business model has emerged, forming products that can attract users or solve specific pain points.

Table 1. The development stage and characteristics of the metaverse.

Stage	Characteristics
Concept stage	Apply early technology; Simple product form; Business model is not running through; Users looking for direction.
Business model stage	A more mature business model; Can attract users and solve pain points; Form business barriers.
Profit stage	Mature business model; Sustainable development; High profitability.

Based on the development status of the metaverse, this paper analyzes the metaverse business model according to the business model canvas around the four dimensions of value proposition, value creation, value delivery, and value realization, to provide enlightenment for the metaverse business model landing. This paper consists of four chapters. The second part summarizes the related research on the metaverse and business model and obtains this paper's theoretical basis and research framework. The third part analyzes the elements and operation mechanism of the metaverse business model using

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the business model canvas model. Finally, it provides suggestions for the landing strategy of metaverse business model.

2. Literature Review

2.1. Literature Review of Metaverse

Originally from the 1992 fiction novel “Snow Crash.” , the metaverse describes a virtual space parallel to and independent of the real world. Essentially, it is an online virtual world that maps the real world. Foreign metaverse studies mostly focus on the ontology of the metaverse, involving the concept definition[2], model building[3], correlation technology analysis[4]. The application fields of the metaverse also include game[5], social interaction[6], business[7], and other fields. The research of the domestic metaverse is a little later than that of foreign countries, and its fame rose in 2021. Domestic research mainly focuses on the conceptual connotation[8], moral ethics[9], media practice[10], technological construction[11], application scenarios[12], and other aspects involved in the metaverse. In contrast, the business model of the metaverse is rarely involved. Based on the above discussion, this paper explores the business model of the metaverse and fills the research gap.

2.2. Literature Review of Business Model

As a hot research topic, the "business model" has gradually formed three views with the practical development of Internet-related enterprises. The first is the business system theory represented by Santos, which defines a business model as "the relationship system between a group of activity execution units"[13]. The second is the profit model theory. Itami and Nishino, as prominent scholars of theoretical exploration, believe that the business system essentially relies on value activities to accumulate core resources and capabilities[14]. Third, the metaverse business model, which is still in the exploration stage, covers many industries and has rich connotations. The mechanism exploration of its business model needs to be characterized by specific elements. Osterwalder's business model canvas provides a detailed and perfect description of the relationship between the business model and its components, including nine aspects in total. They are customer segmentation, value proposition, channels, customer relationships, key partners, key resources, key activities, cost structure, and revenue streams. The business model logic is built based on the value elements, which lays a theoretical foundation for this study[15].

To sum up, the article reviews and sorts out the relevant enterprise and industry reports, literature, and other materials of the metaverse. Based on the business model canvas, specifically, analyze the nine elements of the metaverse business model, and divide the nine elements into four levels: value proposition, value creation, value delivery, and value acquisition, to explain the operating mechanism of the metaverse business model.

3. Metaverse Business Model Based on Business Model Canvas

The value element is the critical connotation of the metaverse business model, and the value logic is the core of the concatenated metaverse business model.

Table 2. Metaverse business model (based on Business model Canvas).

<table>
<tr><th>Key Partners</th><th>Key Activities</th><th>Value proposition</th><th>Customer Relationships</th><th>Customer Segmentation</th></tr>
<tr><td rowspan="3">Technical infrastructure, Platform content builder, Terminal application</td><td>Synthetic sense, Synthetic environment</td><td rowspan="3">Co-create, Interconnection, Space-time freedom</td><td>Decentralized autonomous organizations</td><td rowspan="3">Interest-based community segmentation</td></tr>
<tr><td>Key Resources</td><td>Channel</td></tr>
<tr><td>Core resources, Extension resources</td><td>Immersive global marketing</td></tr>
<tr><td colspan="3">Cost Structure</td><td colspan="2">Revenue Streams</td></tr>
<tr><td colspan="3">High data processing costs, Reduced resource waste</td><td colspan="2">Virtual platform co-creation, Virtual economy (NFT, virtual currency), Wearable device sale</td></tr>
</table>

3.1. Value Proposition

The value proposition is the starting point of the value theory of business models. As a new social form of mobile Internet integrating virtual reality, the metaverse provides users with a virtual space experience parallel to the real world, breaking through the limitations of time and space and connecting everything. Firstly, the metaverse is different from the traditional business model; its platform and the user jointly create the metaverse ecology. Under the community cooperation and co-creation mode, the customer and the venue are interdependent. Second, with equal interconnection, people's boundaries in real life are broken by virtual avatars. Third, the metaverse breaks through the limits of time and space and presents a value proposition of high freedom, such as the platform is always online and has no scale limit for holding activities.

3.2. Value Creation

Value creation is the core of value behavior, and key activities, resources, and partners as its components are the key content of presenting a value proposition.

Key Activities: Key activities include synthetic sense and synthetic environment. The technological upgrade has brought a more realistic virtual experience. The metaverse has expanded from real vision, hearing, and touch to synthetic sense, including reality and virtual, providing a more immersive experience. In the metaverse, more offline scenes, including sports, tourism, conferences, exhibitions, and concerts, are unlocked, and the boundary between virtual and reality is rapidly broken to form a synthetic environment.

Key Partners: The metaverse relies more on multi-party cooperation between enterprises than other business forms. The key partners involved in the metaverse ecological chain include three categories. First, the technical infrastructure parties, such as 5G operators, provide technical support for accessing the metaverse anytime and anywhere; The second is the platform content builder. The metaverse is like a parallel world, inseparable from providing various activities and content. The third is the terminal application party, which allows all walks of life to access the metaverse. For example, the medical industry uses the metaverse space diagnosis, and the academic field conducts simulation research experiments.

Key Resources: The metaverse uses artificial intelligence algorithms, big data, and high-performance computing platforms to drive core resources. It uses immersive technologies such as extended reality technology and digital twin technology as sensing extension resources.

3.3. Value Delivery

Value delivery mainly focuses on how the enterprise transmits the value to target customers, partners, and other stakeholders through communication, distribution, or sales channels.

Customer Segments: The disappearance of spatial distance in the metaverse makes the connection based on shared interests and own attributes become a trend. Interest becomes the communication link between people. Customer division should be founded on the dimension of interest, form interest-based community relations, and carry out business activities.

Customer Relationships: Metaverse customer relationships are presented as DAO (Decentralized Autonomous Organizations). DAO is a concept derived based on blockchain and NFT technologies. It is a collaborative behavior of co-creation, co-construction, co-governance, and sharing generated by groups that reach the same consensus.

Channels: The metaverse channel is mainly reflected in the global marketing of virtual combination with reality. Through the integration of virtual form and the real world, Metauniverse provides a new form of creativity and expression for marketing activities. It virtualizes brand products and immersive shopping scenes so that global brands communicate with consumers with more vital interest to enhance user engagement, form brand loyalty, and develop potential users.

3.4. Value Acquisition

Value capture emphasizes the revenue model and the corresponding cost structure in providing the value proposition.

Cost Structure: The interconnection and interworking features of the metaverse reduce the platform's operating cost and the waste of natural resources. However, the real-time online component of the metaverse will generate many processing costs from the data environment.

Revenue Streams: Currently, the metaverse's revenue streams mainly come from the following three types. First, co-creation of virtual platforms, represented by specific enterprise Roblox. Enterprises create various kinds of virtual platform content to attract users to build UGC communities jointly and across space-time social network platforms. Users create avatars in the virtual world, freely participate in a range as producers, and sell and earn profits. At the same time, the platform obtains traffic revenue and revenue and relies on a series of advertising services and promotions to bring profits. Second, virtual economy, including Non-Fungible Tokens (NFT) and virtual currency. NFT is the path chosen by most Internet enterprises to explore the metaverse, mainly focuses on issuing NFT and conducting virtual marketing, and gradually develops towards the direction of virtual product assets. Third, the sales of wearable devices, with the popularity of the metaverse, this revenue model will have a good development in the next 5-10 years.

4. Suggestions on Metaverse landing strategy

According to the analysis of the business model of the metaverse under the business model canvas, it can be predicted that the metaverse will cover a wide range of industries and have excellent development potential in the future. Based on this analysis, this paper puts forward the following suggestions for the landing strategy of the metaverse from the perspective of a business model.

4.1. Break Through Traditional Business Logic and Innovate Business model Thinking

Under the mode of selling wearable devices, as more enterprises enter the local universe and only rely on wearable sale devices, the company's profit space will continue to be compressed. Only by constantly updating performance and reducing cost can enterprises in this business model stand high in the competition. They should make arrangements to prepare for fierce competition and industry obsolescence.

4.2. Explore Innovative Mechanisms for Sustainable Business Models

Explore sustainable business model innovation mechanisms to cope with the vast market size and profit space brought by the outbreak of the metaverse, expand the original business model, conduct in-depth research on real user needs, and improve user product and service experience. Form a healthy and sustainable ecology of metaverse-related industries and build a closed loop of metaverse business.

4.3. Anticipate and Prevent Risks

The risks faced by the metaverse mainly come from privacy, intellectual property, ethics, and psychological risks. Enterprises should strengthen identity authentication management and data information protection for privacy risks to prevent malicious use. For intellectual property risks, relevant policies should clarify the ownership and distribution rules of intellectual property rights of virtual and real-world goods and prevent potential theft of virtual goods. For ethical risk, the academic community should strengthen the theoretical exploration of the relationship between virtual humans and natural humans and the ownership of governance rights in the virtual and real worlds. For psychological risks such as addiction to the virtual world, enterprises should explore a platform system to balance the relationship between the natural world and the metaverse in practice.

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