Business Model Innovation of Tourism Planning Platform—Based on the Theory of Human Cargo Field

Lichen Wu[1], Xiaoyan Deng[1], Zihan Xu[1], Bingyu Guo[2], Xuan Yang[3]

[1]Department of Tourism Management, Jinan University, Guangzhou, China
[2]Department of Business English, Jinan University, Guangzhou, China
[3]Department of E-Commerce, Jinan University, Guangzhou, China

Abstract: With globalization and rapid economic development, tourism has become one of the most important backbone of the global economy. However, the traditional tourism business model has been difficult to meet the increasing personalized demands of consumers. The theory of "people, goods and field" plays an important role in business model innovation, in which "people" represents users, "goods" represents products or services, and "field" refers to the consumption scene. This theory is particularly important in tourism planning platforms, because it not only involves changes in user needs, but also product innovation and scene optimization. Through combing the existing literature and market analysis, this article concludes the necessity of business model innovation for tourism planning platforms, and then analyses the path and strategy of business model innovation for tourism planning platforms based on the theory of "people, goods, and scenes", so as to better satisfy the market demand, improve the user experience, and achieve sustainable development.

1. Introduction

As the global economy continues to recover and people's living standards continue to improve, tourism, as an important force for economic development, is experiencing unprecedented change and development. The rapid development of network information technology and the explosive growth of domestic tourism consumption demand have accelerated the process of tourism informatization, making online tourism a new industry format[1]. At the same time, the new business supply model of Internet +Tourism has gradually penetrated into all business aspects of the tourism industry, and the traditional business model of tourism supply has begun to be decomposed and reconstructed[2]. The traditional model has been difficult to meet the increasingly diversified and personalized needs of modern tourists, and the competition in the tourism market has become increasingly fierce. In this context, tourism planning platform as a bridge connecting tourism suppliers and consumers, its business model innovation has become the key to enhance core competitiveness and promote sustainable development.

As an important methodology in business management, the theory of "people, goods and field" provides a unique perspective for understanding the nature of business activities. In the business model innovation of tourism planning platform, "people" represents users and consumers, which is the demand side of tourism services; "goods" refers to tourism products and services, which is the

core to satisfy users' needs; "field" The "field" covers the tourism scene, market environment and platform ecology, which is the bridge connecting people and goods. This study aims to reveal the business model change path of tourism planning platform in the context of the new era through an in-depth exploration of the business model innovation of tourism planning platform, combined with the analytical framework of the theory of "people, goods and field". This study is expected to provide useful references and insights for managers, researchers and practitioners of tourism planning platforms, and to jointly promote the prosperous development of the tourism industry.

2. Literature review

2.1 Current status of research related to man-cargo field theory

2.1.1 Conceptual Connotation of "People and Cargo" Theory

In 2017, Alibaba CEO Zhang Yong put forward the concept of "people, goods and field", where "people" refers to reconstructing user perception, "goods" refers to regaining product innovation, the "field" refers to the continuous dynamic operation[3]. The theory of "people, goods and field" is one of the basic theories of retailing, the essence of which is to stand on the position of the seller, take "goods" as the core, layout marketing "field", and attract "people" to the "field", so as to attract "people" to buy "goods", emphasizing the control of channels and resources by the sales body[4]. In different business situations, people, while goods and field are the core of marketing, the connotation of people, goods and field and the relationship among the three is not static, instead it's in the process of change and development[5]. In tourism planning platforms, this theory is particularly important, because it not only involves changes in users' needs, but also product innovation and scenario optimization.

2.1.2 Application and development of the theory of "People and Cargo"

A total of 190 Chinese articles were searched in ZhiNET database with "human cargo field" as the subject term. After sorting and analyzing, it is found that there are few studies on the theory of human-cargo field in China, and most scholars mainly study the transformation of the application of human-cargo field theory in the retail industry, the innovation of business model based on the theory of human-cargo field, as well as the development of live e-commerce under the theory of human-cargo field, and so on. For example, Wang Fu, Liu Junhua and Changqing (2023) explore the path of scene-enabled new retail business model innovation from the perspective of "human-cargo field"[6].Lin Lin (2023) looks for the key success factors of live e-commerce operation based on the three elements of "people, goods and field"[7].

2.2 Current status of research on the development of tourism planning platform

2.2.1 Current status of foreign research

Using "Tourism Planning Platform" as the subject word to search literature in Web of Science database, there are 398 foreign literature. After sorting and analyzing, it is indicated that the current foreign research on tourism planning platforms mainly focuses on the design and construction of intelligent tourism platforms, technology application, development prospects, etc. Zhou M, Chen D, Yi T (2018) discuss the construction and application of online tour guide platforms for college students, and put forward some constructive suggestions in terms of the platform's design, composition, profitability, and technology, in order to help college students better achieve personalized travel[8]. Gavalas, Konstantopoulos, Mastakas & Pantziou discuss the classification of

mobile travel RS, i.e. mobile travel recommendation systems, and the services they can bring to tourists[9]. It can be seen that the technology and system optimisation of online travel service platform is one of the hotspots researched by foreign scholars.

2.2.2 Current status of domestic research

Compared with foreign countries, the current research on tourism planning platform in China's academic community is fewer, and mainly focuses on exploring the current development status and problems of China's tourism industry, the design and construction of tourism planning platform, technology application and innovation. First, in terms of the current situation and problems of the development of China's tourism industry, Yang Dongmei et al. (2019) analyze the current situation of the development of tourism information technology and summarize the dilemmas faced by the traditional tourism industry[10]. Secondly, in the design and construction of tourism planning platform, FuHanyu (2023) find that the traditional "group tour" and existing tourism platforms in China have problems such as the lack of intelligent planning and personalized design, and design an intelligent tourism planning platform based on Linux to address the existing problems[11]. Dong Chunhua et al. select Tianjin as the research object and apply the ant colony algorithm to build an intelligent tourism route planning platform in order to provide users with the optimal tour routes[12]. The purpose is to provide users with the optimal tour routes.

To sum up, the present research on tourism planning platforms in both domestic and international academic circles mainly focuses on the design and construction of platforms, the application and innovation of technology, but few scholars have explored the innovation of the business model of tourism planning platforms. With the rapid development of the Internet and the continuous maturity of the tourism industry model, the development and innovation of tourism planning platforms will gradually receive attention. Therefore, the exploration of the business model innovation path of tourism planning platform can not be ignored.

3. Market analyses

The tourism planning platform market is a comprehensive industry that relies on Internet technology, integrates upstream and downstream resources of the tourism industry chain, and provides tourism consumers with a full range of services such as information enquiry, product booking, and service evaluation. In recent years, with the recovery of the tourism industry and the development of consumers' online travel habits, the size of the travel planning platform market has continued to expand. According to relevant data, the size of China's online travel market is growing year by year, and is expected to continue to maintain a rapid growth trend in the coming years. This growth is mainly due to the rapid development of China's tourism industry, the formation of consumers' online travel consumption habits and the popularity of Internet technology.

The tourism planning platform market is highly competitive and has a high degree of market concentration. Currently, the major domestic travel planning platforms include Ctrip, Where to Go, Flying Pig and Tongcheng Travel, which occupy an important position in the market with their respective advantages. These platforms are consolidating and expanding their market share through continuous innovation and improvement of service quality. Meanwhile, new platforms are also emerging, which attract consumers through differentiated competition and innovative services. In addition, content platforms such as Jittery, Shutterbug, and Xiaohongshu are also taking their place in the tourism market, driving its development through their strong traffic and content creation capabilities.

The rapid development of Internet technology provides strong technical support for tourism planning platforms. Through the application of big data, artificial intelligence and other technologies,

tourism planning platforms are able to analyse user needs more accurately and provide personalized tourism products and services. At the same time, the addition of digital intelligence technology has also promoted the development of immersive cultural tourism projects, attracting more young people and tourists from the sinking market. In addition, the application of emerging technologies such as AIGC has also brought new development opportunities for tourism planning platforms.

With the diversified development of the tourism market, users' needs have become increasingly diversified. At present, personalized and customized tourism continues to rise, and new types of tourism such as punch-card tours, hotel house holidays, self-driving tours, national folklore tours and parent-child tours are favoured by consumers. Different groups of people also show differentiated trends in their choice of travel modes, such as college students who prefer cost-effective special forces-style tours and star-catching tours, while urban white-collar workers prefer lightweight outdoor tours for stress relief and relaxation. In addition, users are increasingly focusing on the sense of travel experience and interactivity, and are willing to enhance the convenience of travelling through digital tools.

In conclusion, in the current context of continuous growth in the scale of the tourism market and the continuous development of science and technology, with the diversified development of the tourism market, the changing needs of consumers, and the intensified competition in the industry, it is urgent for tourism planning platforms to innovate their business models, enhance the user experience, and achieve sustainable development.

4. Analysis of tourism planning platform business model innovation based on human cargo field theory

4.1 Humanism: Deeply connecting users and reconstructing user perception

With the improvement of living standards, consumer demand for tourism is no longer limited to traditional sightseeing tours, but focuses more on personalized and customized experiences [13]. For example, new types of tours such as short-distance tours, parent-child tours and theme tours are gradually emerging. At present, travel planning platforms need to gain in-depth insight into users' needs and provide products and services that meet their personalized preferences. The "human theory" plays a crucial role in the business model innovation of tourism planning platforms. By encouraging user-generated content, realizing value co-creation and building a membership system, tourism planning platforms can reconstruct user perceptions, deepen user relationships, and enhance user loyalty and platform competitiveness. In this process, "people" as the core element, their needs, behaviours and feedback will become an important driving force for the platform's continuous innovation and development.

4.1.1 User-generated content: user participation and interaction

Enhancing user participation and interaction is an important means to improve user experience. Travel planning platforms can encourage users to share travel tips, strategies and experiences through social media, online forums and other channels to form user-generated content (UGC), thus enriching the platform content and increasing user stickiness.

In the "Internet+" era, users are no longer just passive recipients of products or services, but have become content creators and disseminators. By encouraging user-generated content (e.g. travelogues, tips, pictures, videos, etc.), travel planning platforms not only enrich the content ecology of the platforms, but also greatly enhance users' sense of participation and belonging. UGC not only provides valuable reference information for other potential users, but also helps platforms to build a communication community based on real-life experiences, which strengthens the interaction and trust

among users.

Through UGC, travel planning platforms are able to grasp user needs more accurately, as user-generated content often directly reflects their true feelings and demand pain points. This bottom-up user feedback mechanism enables the platform to continuously optimize its services and provide more personalized and accurate travel planning solutions.

4.1.2 Value co-creation: a win-win situation for users and platforms

In the business model of the travel planning platform, users and the platform are no longer simply buyers and sellers, but partners who create value together. Users share travel tips and travelogues, or knowledge, experience and creativity on the platform, and provide feedback to the platform on how they feel about using the platform, which provides an exclusive source of information for the platform, thus promoting the integration of users' own value into the development of the platform; the platform provides users with convenient tools and abundant resources, and supports users to participate in the development and sharing of tourism planning, so that both can realize the value of co-creating.

For example, some travel planning platforms set up activities such as the "Master Plan" or "Traveler Recruitment", inviting users with rich travel experience to become partners of the platforms and jointly develop special travel routes and in-depth experience projects. These travelers not only bring high-quality UGC content to the platform, but also attract more potential users through their influence and fan base.

4.1.3 Membership: deepening user relationships and loyalty

Membership is an important means for travel planning platforms to deepen user relationships and enhance user loyalty. By building a perfect membership system, the platform can provide differentiated services and rights for users at different levels, thus enhancing their sense of belonging and stickiness. In the design of the membership system, tourism planning platforms can learn from the successful experience of platforms such as Dianping, and set up incentive mechanisms such as the rating system, VIP system and identity medals. These mechanisms can not only stimulate the enthusiasm and creativity of users, but also promote healthy competition and cooperation among users, further enriching the content ecology of the platform.

At the same time, the platform can also gain a deeper understanding of users' behavioural habits and preferences through member data analysis, providing strong support for personalized recommendations and precision marketing. For example, based on a member's travel history and preferences, the platform can tailor-make a travel planning programme for them, or push preferential information and activity notifications that match their interests.

4.2 Theory of Goods: Promoting Product and Service Innovation to Enhance Consumer Experience

4.2.1 Product design innovation

(1) Provision of customized tourism products

The so-called customized tourism is a tourist-led planning and designing of the tourism action process according to the needs of tourists[14]. Tourism planning platforms use big data to analyze users' travel preferences and form an integrated solution of "different users, different solutions"[15], so as to provide them with customized tourism throughout the entire trip.

Tourism planning platforms should use big data as technical support, focusing on strengthening the innovative power of online customized tourism, so that users can grasp the overall itinerary through the online platform. It greatly reduces the preparation time used by users before the tour. At

the same time, the support of big data also saves part of the labor cost, thus realizing the different needs of users and platforms.

(2) Provision of diversified tourism products

Travelling has become the most important way of entertainment and leisure for the public. Therefore, the product design of the tourism planning platform should be closer to diversification, so that it can not only provide users with the most comprehensive and characteristic guide[16]. This not only provides users with the most comprehensive and distinctive guide, but also meets the diversified needs of users. At the same time, the platform can also classify different groups, so that the platform's online products are directly pushed to different groups of travel consumers.

4.2.2 Service concept innovation

(1) Deeply enhance the membership system to improve user stickiness

For consumers, becoming a member is to get more favourable prices and better quality services. From the perspective of enterprises, membership not only improves user stickiness, but also, in an era when traffic acquisition is becoming more and more difficult, member customers are the key to increasing platform activity.

Travel planning platforms can develop a multi-level growth membership system. The platform should start from the user's needs and enhance the user's travelling experience so as to launch diversified value-added services. This can truly attract consumers and increase their stickiness.

(2) Establishment of a feedback mechanism to collect feedback and form a unique information base within the Platform

Under the increasingly stable economic situation in China, tourism has become a common choice for people. And the demand for tourism service products has also changed from simple economic sightseeing to a higher level of quality experience, and tourist satisfaction has gradually become an important indicator for evaluating the quality of tourism services.

Tourism planning platforms can set up a tourism service satisfaction system where users can feed back their real feelings to the platform. Overall user satisfaction and the image of the platform and scenic spots will directly affect tourists' willingness to reuse and recommend. Meanwhile, by integrating the feedback results according to the KANO model, platform operators can allocate limited resources and formulate reasonable strategies based on the classification results.

4.3 Field theory: integration of standardization and customization for value co-creation

4.3.1 Adaptation of standardized scenarios

(1) Usage scenarios: standardization of interface design and user interaction

The interface design of a distinctive product is inevitably user-centered, i.e., it should have distinctive features and deep memory points, but also ensure that users can interact with the product conveniently and efficiently in the process of using it, so as to achieve the goal of user value co-creation[17]. Therefore, the tourism planning platform needs to consider unity and coordination in its visual style.

First of all, the overall page design should focus on the harmony and unity of color. The overall style can be designed through clever color combinations to create a "can see, easy to see, want to see" visual atmosphere. At the same time, the icon design should be more creative and personalized, not only to meet the user's aesthetic needs, but also to accurately convey the functional information of each board. Through these clever designs, users can browse and search for tourism content and information more easily, thus increasing their usage rate and satisfaction with the tourism planning platform. Secondly, the tourism planning platform should continue to optimize the social scene. By

designing an intuitive and multi-functional navigation interface, users can use functions such as commenting, rating, sharing and referring to recommended routes in the platform community, so that users can easily participate in various social activities, thus building user emotions and community ecology.

(2) Tourism scenarios: chain scenarios and standardization of user consumption

With the increasing richness of scenario elements and powerful scenario functions, the supply chain of tourism planning platform has gradually formed a one-stop scenario chain of "planning-booking-tour-feedback", therefore, the ecological innovation of tourism planning platform cannot be separated from the scenario configuration of the supply chain.

Tourism planning platform can accelerate the formation of "scene node-scene cluster-scene chain" value creation dynamic capability with the logic of "route planning-service booking-scenic spot tour-tour feedback"[13]. For example, by providing lazy map and custom route planning services, one-stop booking services for catering, hotels, transportation and ticketing services, this kind of scenario chain integrating services in the whole process of tourism can use travel scenarios to connect tourism, social networking and shopping scenarios to further build a closed-loop of the tourism scenarios, thus establishing lasting user relationships and stickiness, and realizing the value creation dynamic capability of tourism products and services.

4.3.2 Adaptation of customized scenarios

(1) Social Scenarios: customization of Business Models and User Engagement

An innovative business model requires not only a clear customer value proposition to provide a unique product or service, but also the integration of the concept of value co-creation to achieve positive interaction and synergy between suppliers, tourism planning platforms and users.

The travel planning platform can be managed to form a user-generated content (UGC for short) as the core, first of all, the platform can launch a variety of social scenarios and more community activities, such as the creation of topic-based activities, challenges activities and content creation activities, to encourage users to participate and increase their emotional ties [18]. Secondly, the platform can also set up a multi-level growth membership system through the use of H5 form to simulate the image of members' growth footprints [19].And the simulation design of this membership growth scenario can create a basic sense of space and realism for the members of the platform, and furthermore, the membership growth system can generate customized "membership reports" based on users' data regularly. In addition, the membership growth system can generate customized "member reports" based on user data on a regular basis, binding the user's emotions to the platform, thus strengthening the user's loyalty to the platform.

(2) Planning scenarios: customization of route planning and user value generation

With the rapid development of mobile Internet and location service technology, it has become possible to provide users with travel route recommendations.

In this context, the travel planning platform can make use of Location Based Services (LBS), cloud computing, big data, artificial intelligence, Linux Real-time, C language, AR and VR and other digital technologies to digitally integrate and transform the user's travel decision-making scene, travel scene, residence and catering scene. The travel planning platform can thus introduce two special features, one is to generate a variety of scientific and reasonable travel routes for users with one click, i.e. the "lazy map" function; and the other is to give users the experience of customizing personalized travel routes. These scenario experiences can further enrich the connotation and form of route planning scenarios, reduce the actual cost of users, and provide users with real-time, fast and convenient planning experiences.

4.4 Ecological Innovation Path of Tourism Planning Platform Business Model

In the "tourism planning product functionality" stage, the platform functions accompanied by the tourism planning platform, as well as tourism route planning required tourism product features, tourism product services and tourism product experience, can inspire users' "willingness to pay attention" to tourism planning. "The logic of tourism planning at this stage is "because of the goods", mainly through the standardized configuration of scenarios to achieve the creation of product functional value, reflecting the characteristics of "delivery of products". In the stage of "tourism planning service utility", the user has the service utility of the tourism planning platform, as well as the service functions, service utility and service experience required for tourism route planning, which can stimulate their "interactive will" and "behavioral will" for tourism planning. And "behavioral willingness", the logic of tourism planning at this stage is "due to people", mainly through the personalized configuration of the scenario to achieve the creation of the value of the service utility, embodied in the "service delivery". In the stage of "experiencing scenario", the user's experience of the platform using scenarios accompanying the tourism planning platform, as well as the scenario functions, scenario services and scenario experience required for tourism planning itself can further stimulate their "sharing" for tourism planning. The logic of tourism planning in this stage is "because of the field", which is mainly to achieve the creation of scene experience value through the dual-path configuration of scenario-based contexts, reflecting the "delivery scheme". As a result, the ecological innovation mechanism of the tourism planning platform business model uncovered in this study is shown in Figure 1.
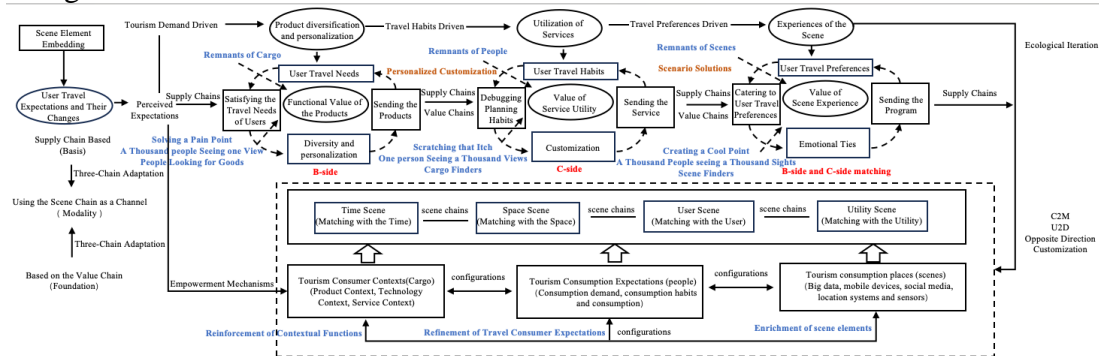

Figure 1: Tourism Planning Platform Business Model Ecological Innovation Mechanism

5. Conclusion

Business model innovation of tourism planning platform is an important way to improve user experience and enhance the competitiveness of the platform. This article focuses on the innovation of the platform's business model and discusses the theory of "human cargo field" form three aspects. The following conclusions are drawn: driven by consumers' personalized and customized demands, platforms should establish a "people"-based business model, and build diversified new scenarios. Platforms should meet user needs by reconstructing user perceptions, creating product and service innovations, and promoting scene adaptation and other strategies. This will enable consumers to have a better travel experience and achieve sustainable development of tourism.

Acknowledgments

References

[1] Huang Mang, Shu Boyang Research on the construction of new tourism supply chain with online tourism service providers as the core[J] Hubei Social Science, 2015, (04):83-88 DOI:10 13660/j cnki 42-1112/c 013156

[2] Liu Haiyang The construction of new business supply mode of "Internet+Tourism"[J] Journal of Dalian University, 2018, 39(06):90-95

[3] Zhu, Kexin Exhibition, Value-added and Interaction: Reconstruction of People, Goods and Field in Publishing Industry Live Streaming [J] Publishing Reference, 2023, (09): 9-12+8

[4] Liu Zhongguo, ZHANG Hongyu The Expansion of Marketing Path of National Wave Brands in the Field of Meta-Cosmos--Based on the Theory of "People, Cargo, and Field" [J] Young Journalist, 2023, (18): 60-62 DOI:10 15997/j cnki qnjz 2023 18 013

[5] Liu Dongfeng Study on the Evolution Mechanism of "People and Goods Field" in Live Marketing [J] Contemporary Economy, 2022, 39 (09): 88-94

[6] Wang Fu, Liu Junhua, Chang Qing How can the scenarios based on the evolution of the dominant logic of "people, goods and field" empower the innovation of new retail business model? --A case study of Yili Group [J] Management Review, 2023, 35 (09): 337-352 DOI:10 14120/j cnki cn11-5057/f 2023 09 020

[7] Lin Lin Live E-commerce Operation Methodology - Starting from the Three Elements of "People, Cargo, and Field" [J] Journal of Economic Research, 2023, (22): 44-47

[8] Zhou M, Chen D, Yi T The research on construction of college student online tour guide platform base on wisdom tourism[C]//2018 Chinese Control And Decision Conference (CCDC) ieee, 2018: 3051-3054

[9] Gavalas D, Konstantopoulos C, Mastakas K, et al Mobile recommender systems in tourism[J] Journal of network and computer applications, 2014, 39: 319-333

[10] YANG Dongmei, QIAN Yu, SUN Jin Planning and research on tourism big data platform [J] Market Research, 2019, (06): 3-6 DOI:10 13999/j cnki scyj 2019 06 001

[11] Fu, Hanyu Intelligent tourism planning platform based on Linux implementation [J] Information Technology and Informatisation, 2023, (07): 199-202

[12] DONG Chunhua, MA Zhaoguang, WANG Guanhua, et al Application of intelligent tourism route planning platform [J] Journal of Tianjin Urban Construction University, 2020, 26 (01): 56-59 DOI:10 19479/j 2095-719x 2001056

[13] Wang Yuxi A preliminary study on the development of industrial heritage tourism from the perspective of tourism experience--Taking "Dahua 1935" in Xi'an as an example[J] Urban Architecture, 2020, 17(31):60-63+76 DOI:10 19892/j cnki csjz 2020 31 14

[14] Gao Lihong O2O mode mass customised tourism feasibility discussion[J] Journal of Suzhou Institute of Education, 2014, 17(06):237-238 DOI:10 13985/j cnki 34-1227/c 2014 06 109

[15] WANG Fu, HE Jiahua, LIU Junhua, et al How Scene Chain Enables Ecological Innovation of Manufacturing Business Models Based on the Evolution of the Dominant Logic of "People, Cargo, and Field"--A Case Study of Foton Motor [J] Science and Technology Progress and Countermeasures, 2024, 41(06):30-39

[16] Duan Guanghong Upgrading Agricultural Radio and Television Media Operation Innovation in the Era of Melting Media--Constructing Content Co-Creation Mode Based on the Logic of People, Goods and Field[J] Southern Media Research, 2022, (03):79-84

[17] Jiang Biyi Research on Social Interaction Behaviour in Online Music Live Streaming Room under Scene Threshold [D] Zhejiang Media College, 2024 DOI:10 27852/d cnki gzjcm 2024 000059

[18] Hou Na Research on User Participation Behaviour and Its Driving Factors of PUGC Platforms under the Background of Digital Economy[D] Qilu University of Technology, 2024 DOI:10 27278/d cnki gsdqc 2024 001037

[19] Zhao T Research on OTA brand scene marketing [D] Shandong University, 2021 DOI:10 27272/d cnki gshdu 2021 001592