Research on the Transformation of Traditional Retail Industry in the Context of Digital Economy -Taking Douyin as an Example

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Abstract. During the COVID-19 pandemic, the government has introduced various measures to restrict people's travel in order to curb the spread of the virus. These bans make it difficult for the traditional retail industry to survive. However, the development of the digital economy has brought new opportunities to the traditional retail industry. As one of the media of the digital economy, Douyin can effectively help traditional enterprises out of difficulties. However, at present, for most traditional retailers, there are many difficult problems in the process of integrating and using new media. Therefore, this paper mainly summarizes the necessity of the transformation of the traditional retail industry from the perspective of the traditional retail industry, taking Douyin as an example, and analyzes the problems existing in the traditional retail industry in the initial stage of Douyin, such as insufficient content operation capability, difficulty in product selection, and scene setting. Finally, this paper analyzes how to solve the above challenges from the three dimensions of controlling "people," "goods," and "field". Finally, it puts forward countermeasures and suggestions for the transformation of merchants.

Keywords: Digital economy; live commerce; traditional retail; transformation and upgrading.

1. Introduction

construction of digital China will make substantial progress, digital infrastructure connectivity will be effectively promoted, the digital economy will be significantly improved, and digital technology innovation will make significant breakthroughs. Digital economy has become an unavoidable problem for the development of traditional enterprises. The government has taken several measures to restrict people's travel during the COVID-19 pandemic. The real economy and offline consumption, including catering, hotels, tourism, and entertainment, were hit hard during this period. Because of weak supply and demand， global trade contracted by 3.5% in the second quarter of 2020 due to inadequate supply and demand, followed by blockades in various economies that disrupted global supply chains and reduced aggregate demand. Due to a sharp fall in incomes and weak consumer confidence， consumption of goods and services has declined significantly [1]. However, the rise of the digital economy has brought new vitality to many traditional enterprises during this period. Douyin live delivery has become one of the main forms of People's Daily consumption. There are still problems to be solved in transforming traditional retail into the digital economy. Therefore, through case analysis and data analysis, this paper analyzes the economic significance of the digital economy and how Douyin, as a product of the digital economy, has become a new driver for the development of the traditional retail industry and finally proposes solutions to the existing problems of digital transformation.

2. The Development Process and Transformation of Retail Industry

2.1. The Problem of Traditional Retail

The first stage of the traditional retail industry is in the form of "mom-and-pop stores." Since the first Industrial Revolution realized the mechanization of the production process and stimulated the demand for consumption and continuous product renewal, it promoted the emergence of the first retail

form, "mom-and-pop stores" [2]. A mom-and-pop business is a small, family-owned, independent business. The categories for sale range from groceries and fabrics to toys and tools. Then the Second Industrial Revolution brought new energy, mass production, and consumption of revolutionary goods. With the accumulation of the two industrial revolutions, the economic pillar of the country represented by the United States gradually changed to industry. The social dimension also leads to new employment opportunities and a better quality of life. As a result, department stores such as Macy's, Bloomingdales, and Sears began to spring up in cities such as New York and Chicago. This was followed by the emergence of credit cards and shopping malls [3]. The retail form of large supermarkets, department stores, and retail supermarkets has gradually been introduced in China. The above traditional retail dividend period almost extends to 2015 or so. However, after 2015, according to the National Bureau of Statistics, the growth rate of the total sales of China's traditional retail industry has slowed yearly. The main reason is several irreversible problems in the traditional retail industry. The first is that the investment cost of traditional physical stores is getting higher and higher, which is because businesses, in addition to paying high decoration, rent, water and electricity, property, and other costs, with the rising market labor price, traditional retail enterprises are facing great pressure in hiring staff. As China's advantage of cheap labor is no longer apparent, enterprises have to invest more money to attract and recruit excellent employees [4]. Second, the customer flow is limited. Due to the fixed location and operation time of traditional retail stores, the customer flow will be limited [4]. The third is the low delivery efficiency, reflected in the traditional retail stores that need customers to take a specific amount of time to purchase offline stores personally but also need to shop around to finally determine the purchase of goods, which will undoubtedly consume a lot of time and energy.

2.2. New Opportunities for Traditional Retail

A digital economy is a form of economy that uses digital technology to process data. It involves data collection, storage, processing, transformation, and transmission, generating various economic activities through the online connectivity of hundreds of millions of people, businesses, devices, data, and processes [5]. At the heart of the digital economy is hyperconnectivity, the development of the Internet, mobile technology, and the Internet of Things, bringing people, organizations, and machines closer [6]. From a micro point of view, e-commerce is a manifestation of the digital economy, where business organizations provide cheap and efficient distribution channels, increasing global competitiveness. It reduces costs, generates revenue, and improves customer service for individual and business users. For non-industrialized countries, it offers development opportunities and higher status. Electronic commerce has permanently and comprehensively impacted world trade [7]. In recent years, the development of e-commerce has derived a new type of electricity commercial state, such as live streaming with goods. During the COVID-19 pandemic, Douyin, a new retail platform, has reduced some of the losses from reduced consumer demand caused by the ban. With the development of modern information technologies such as 5G, artificial intelligence, and big data, the digital economy provides a new way to integrate consumer service industries. For example, live delivery of goods as a carrier of the digital economy has played a certain degree of positive role in consumption, both during the epidemic and in the post-epidemic era. The main impact of live streaming e-commerce in the consumer industry is that, on the one hand, live streaming can narrow the distance between products and consumers, improve the communication efficiency with anchors, strengthen interaction, and remotely experience the services explained by anchors, which can make users' understanding of products more intuitive. On the other hand, it is unsurprising that the data of 100,000 + users of live streaming online is already available. Through one-to-many services, merchants reduce the communication and decision-making costs of merchants and build the trust of merchants and consumers [8]. With the industrial digital transformation and the improvement of public service and policy systems, the cultural and tourism industry will achieve deep integration in a broader range, more profound level, and higher level, which will also bring about the transformation of the development mode of the tertiary industry and the development of new business forms [9].

2.2.1 Traditional e-commerce

The third Industrial Revolution has spawned the prototype of digital retail - traditional e-commerce. Traditional e-commerce uses e-commerce technology to realize online sales and transactions of goods in a digital and networked environment. At this stage, a series of online trading platforms, such as Amazon, eBay, Taobao, and Jingdong, came into being. The emergence of these e-commerce platforms has reduced the investment cost of merchants for physical stores to a certain extent, eliminated location and time restrictions, can display products continuously, and improved delivery efficiency. From the perspective of merchants, the rise of e-commerce platforms has solved many cost pain points. From the standpoint of consumers, this more convenient form of consumption has dramatically changed their consumption habits.

With the further development of e-commerce platforms, online shopping has penetrated people's lives, but consumers' sense of novelty has gradually decreased. With the advent of big data, product production, delivery, and sales are more adaptable to market needs. Yet there is a tension between low prices and diversity. Traditional e-commerce mainly relies on the low-price competition of products, but in the case of low prices and a wide variety of products, it is difficult for consumers to find the products that best meet their needs [4]. Traditional e-commerce also has two prominent problems as follows: product display is single, and it isn't easy to directly convey product characteristics and advantages through static display such as text or pictures, and the interaction between users and merchants is not high, so consumers often need to self-check or screen, and cannot obtain timely and personalized services [10]. According to the statistics of the total number of Taobao stores from June 2019 to December 2020, the number of traditional e-commerce merchants represented by Taobao decreased from 11.19 million to 10.06 million [10]. The continued downward trend in the share of the field also indicates that traditional e-commerce problems are expanding.

2.2.2 Live commerce

Douyin live commerce refers to a new service method that uses live streaming technology to display goods and guide shopping at a close distance [11]. Compared with traditional retail, the most significant advantage of Douyin live commerce is that, on the one hand, it can remotely bring consumers into the store with the help of the broadcast room so that consumers seem to be able to talk directly with merchants to bypass intermediary channels, improve communication efficiency and reduce trading costs. On the other hand, from the perspective of businesses, it can improve the exposure of their products. In addition, the underlying logic of Douyin push is based on algorithms. Douyin can make users change from passive to active, and even the media can actively seek readers and push the content they want to see to realize two-way communication between the media and audience. As a result, users can quickly obtain valuable information. This new type of video interaction and live interaction mode solves the drawbacks of traditional e-commerce. According to Statista data statistics from 2017 to 2020, the market size of live e-commerce has grown rapidly to 961 billion yuan, with a year-on-year growth rate of 112%, and the proportion of live e-commerce in online e-commerce in 2020 has increased from 0.3% in 2017 to 8.6%. Businesses should actively adapt to new consumption trends and prioritize new live commerce models to enhance market competitiveness and customer satisfaction.

3. Difficulties in Douyin Live Commerce

When it comes to how the traditional retail industry enters Tiktok, it is necessary to understand the operating mechanism of live commerce, as shown in Figure 1.

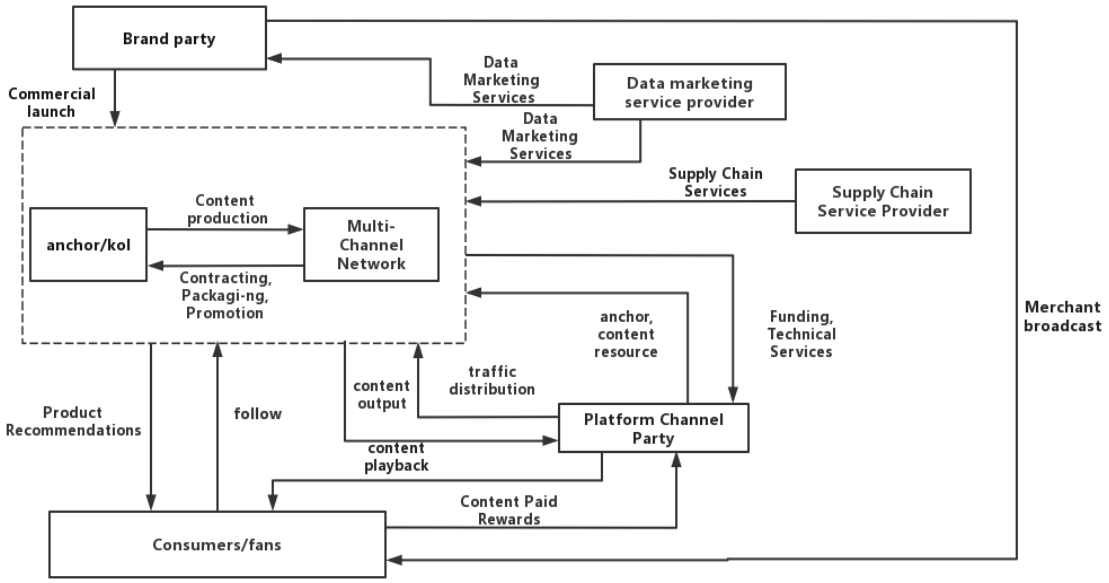

Fig. 1 Operation process of the industrial chain of live commerce [11]

The main body of the above industrial chain can be divided into "people," "goods," and "fields." "People" can be understood as broadcasters, MCN institutions, and consumers. Goods can be understood as the brand and supply chain, while the field is the platform channel. As the core part of e-commerce, the collaborative operation of people, goods, and places is crucial [11]. The operation mechanism is as follows: the brand will invest commercial resources in the anchor and MCN agency and generate content in the form of a contract. The content is customized according to the needs of the brand, and after the customization is completed, the product is recommended to the consumer on the one hand, and the brand can also reach the user through the self-broadcast direct. As a platform party, Douyin is responsible for providing traffic, providing anchors, content, resources, and technical support to users, and providing content service tipping functions. Data marketing service providers mainly provide data marketing services to brands and MCN organizations. Supply Chain Services focuses on supply chain management. In this process, whether the traditional retail industry can successfully enter Douyin needs to be studied in depth. Therefore, the following paper combines the live commerce industry chain for a detailed analysis.

3.1. The "People" in Tiktok - Lack of Content Operation Capability

The following paragraph mainly analyzes the elements of "people" from the perspectives of anchors and MCN institutions. The quality of anchors and MCN play a crucial role in live content production, publicity, and marketing. The essence of Douyin's operation is to attract users through high-quality content to achieve commercial value ultimately. The stickiness and experience of users are closely related to the content. However, at present, traditional retail merchants have two prominent problems from the "people" level: the uneven quality control of anchors and the poor quality of content. Regarding the selection of live commerce anchors, merchants or MCN institutions have uneven control over the quality of anchors, and it is challenging to find anchors that conform to their product attributes and are suitable for their corporate image. Therefore, live commerce content also presents a high homogeneity feature, and the quality of live commerce content cannot be guaranteed [11]. From the content point of view, its poor quality mainly reflects that if the enterprise IP wants to monetize through Douyin, it must continuously create high-quality and attractive content. In the initial stage of integrating Douyin with traditional retailers, from the point of view of content output, most traditional merchants simply use Douyin as an advertising tool and release some illogical fragmented videos through the platform, which often does not bring traffic. In the increasingly fierce live commerce market competition, improving the quality of live commerce content and anchors to meet users' increasingly diversified and professional needs has become an important issue faced by live commerce platforms and anchors.

3.2. The "Goods" in Tiktok – Difficulties in Choosing Products

In addition, there is also the problem of difficult selection of products for retail merchants to enter Douyin live commerce with goods. First of all, many traditional retail industry products are non-standardized products; their quality is difficult to control; Secondly, logistics and storage are more difficult, the shelf life is short, and the transportation time is long, which is easy to cause product damage; Third, the profit margin is limited, and the gross profit margin is usually not more than 10% or even 15% [11]. These low-value categories, products with short quality time, logistics, and storage costs, cannot maintain profits. For the Douyin platform, the selection of products needs to be as much as possible in line with the "explosive logic"; either the product has a significant price advantage, or it needs to bring its network celebrity attributes, and as those traditional retail merchants, it is difficult to access products with network celebrity characteristics in the initial stage of transformation.

3.3. The "Field" in Tiktok – Control of Scene Mode in the Broadcast Room

The field mainly refers to the broadcast room and platform. "Live commerce" refers to selling goods through live commerce, but its ultimate purpose is still commercial electronic transactions. Therefore, the way of presenting anchors and products plays a decisive role in the difficulty of making a deal in a broadcast room. Due to traditional retailers' conservative business model and operation mechanism, it is difficult to control the scene's layout in the broadcast room and the mode of live commerce in the initial stage of Tiktok. For example, the scene design is poor, the lighting effect is poor, the use of props is simple, the anchor talks lacks interaction and attention, the process is not smooth enough, and the live commerce mode is old-fashioned; these problems will affect the effect and promotion value of live commerce.

4. Outlook and Suggestion

If traditional retailers want to integrate Douyin resources successfully, they need to realize the control of "people," "goods," and "field." The flowchart is shown in Figure 2. First, businesses must understand their product positioning and lock the target group fully. According to the target group, the products suitable for live commerce carry property are screened. Then it should filter the anchors suitable for the product attributes and, at the same time, control the logic, interaction, innovation, and verticality of the content. Furthermore, the control of "field" is realized through the layout of the scene of the live commerce platform and the innovation of the live commerce form. At the same time, businesses should pay attention to doing a good job of product sales feedback and product re-screening to optimize the selection process further.

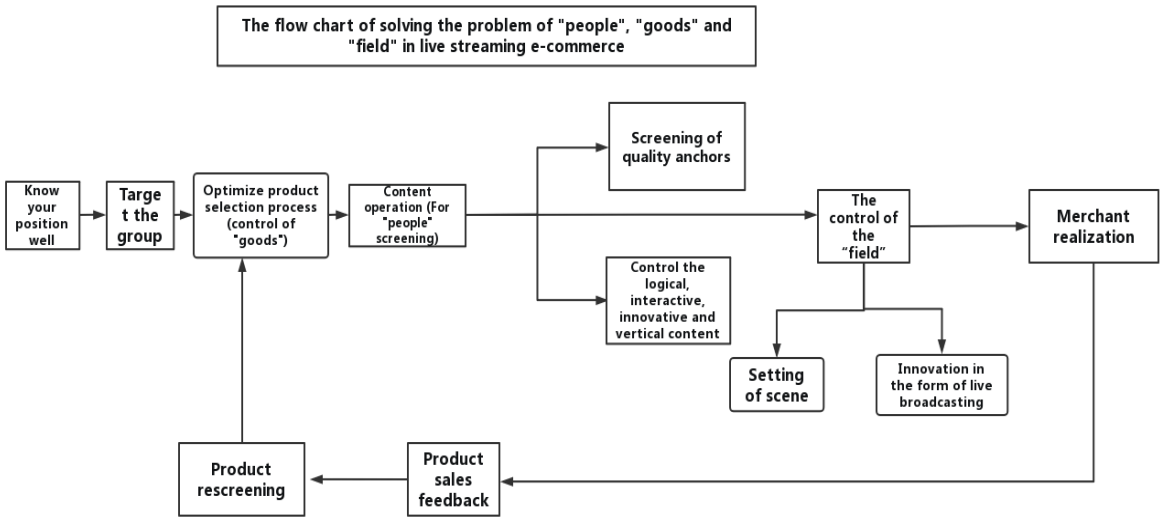

Fig. 2 Traditional retailers solving the delivery problem of Douyin live commerce (Photo credit: Original)

4.1. The Content Operation of Tiktok

From the aspect of content operation, traditional merchants should first control the quality of anchors. From the successful case of "Oriental Selection," an anchor that conforms to its product attributes plays a significant role in the success of live commerce with goods. Its anchor Dong Yuhui is not a high-appearance level anchor but a person full of knowledge and wisdom. In the "Oriental Selection" live commerce room, from life philosophy to poetry, teaching, and selling goods, the organic combination of live commerce and online education has produced a unique effect. This model, which combines entertainment and knowledge learning through edutainment, meets the public's pursuit of practicality and entertainment and is thus sought after by netizens [11]. It can be seen that businesses do not necessarily take the appearance level as the standard when screening anchors. In the current environment of more professional and subdivided live commerce platforms, finding anchors suitable for their product attributes is imperative. Second, use live commerce or short video content output as a communication tool rather than an advertising tool. For example, the innovative knowledge-based delivery model adopted by "New Oriental Bilingual Live" has established a good communication bridge for users and businesses; Therefore, as a business, consider what kind of content is valuable to users before the video release or live commerce, and use interactive skills such as answering user questions, solving user problems, and preferential activities to stimulate user enthusiasm. Third, merchants should develop a good content strategy to control the content's logic, innovation, continuity, and vertical. The above points can make the content enter the higher Douyin traffic pool [11]. They are logical means of ensuring that the video or live commerce content aligns with the target group's preferences. Innovation refers to the current stage of pure plagiarism; imitative video or live commerce does not have too much traffic because the user's aesthetic for hot content has timeliness and cycle; once passed, this cycle will be aesthetic fatigue. However, businesses can use IP with large traffic in the same industry for reference, from the perspective of music, copywriting, shooting techniques, and other aspects of their characteristics, grafting their values to convey ideas to users. Continuity and verticality refer to the fact that content output is relatively focused on a specific topic or area, and by maintaining continuity, users are able to build their brand image and attract viewers who have been interested in their content for a long time. Finally, it is essential to note that traditional merchants can use a "matrix strategy" in the launch stage, which simply means that the strategy uses many IPs to launch their content. This is due to the uncertainty of the current traffic push of Douyin, and some of the same content is "lukewarm" from one account and may explode from another account. The use of a matrix system can counter the instability of platform flow.

4.2. The Optimization of Product Selection Process

Optimizing the selection process can be started from the following dimensions. First of all, businesses should fully understand their positioning and what their target groups are. Understand the needs of target groups either through industry success stories or by analyzing Douyin user data. Secondly, it is to choose products with high-value content products with network celebrity attributes; in other words, the price of these products can outperform logistics and warehousing costs. For example, refer to the popular category data of various online shopping platforms and then select and position their products, such as pet supplies, small household appliances, beauty makeup, fashion accessories, etc. Suppose the above problems are still difficult to solve. In that case, the early stage of retail goods can also cooperate with well-known brands to improve the store's exposure and customer trust to consider the layout of their products in the later stage. Finally, in the later stage of building enterprise IP, the team can establish a professional selection and evaluation team to evaluate the selection of various items of products and test operations. After the official operation, further data feedback on the sales of products sold online, and finally eliminate products with poor sales.

4.3. The Control of "Field" in Live Commerce of Goods

There are two ways for retailers to build their live commerce venues. From the aspect of scene layout, businesses should make plans in advance, clarify the theme and style of the broadcast room,

use professional lighting, and pay attention to the matching of props and background. In addition, in the process of live commerce, it is necessary to control the scene professionally, timely adjust and optimize the lighting, sound effects, and images, and strengthen team communication and cooperation, focusing on cooperation in order to present a perfect live commerce scene. On the other hand, from the form of live commerce can break the tradition and extend more new marketing models, such as "second kill live," "live bargaining," "store-style product introduction," "outdoor walking off the base," "expert consultation, etc.", to meet the needs of different product characteristics. In the live commerce process, the product introduction is more intuitive while interacting with the audience at any time to answer questions so that the e-commerce business gets rid of the usual pain points but also becomes the creator of traffic rather than just a consumer.

5. Conclusion

This paper finds that the development of the traditional retail industry and traditional e-commerce has entered a bottleneck period or even a downward trend. However, the development of the digital economy has brought new opportunities for traditional industries. Despite this, most traditional retailers often face problems with content operations, product selection, and scene placement during the transformation process, especially in the early stages, mainly due to inexperience. In addition, little literature is focused on analyzing traditional retailers' transformation process from a more micro perspective. Therefore, based on the existing literature and the understanding of new media, this paper discusses the process of how traditional retailers break through the dilemma from the perspectives of content operation, product selection optimization, and scene control. To sum up, the process mainly includes the following steps: First, merchants need to understand their products' positioning and target groups and choose products suitable for live commerce. At the same time, they also need to select anchors that match the product's attributes and focus on the content's logic, interactivity, innovation, and verticality. In terms of the management "field," businesses can achieve differentiation through innovative live commerce forms and platform scene layouts. Finally, merchants should pay attention to the sales feedback of the products that have been realized while completing the realization of cash and carry out product re-screening to optimize the selection process further.

References

[1] Padhan R, Prabheesh K.P. The economics of COVID-19 pandemic: A survey. Economic Analysis and Policy, 2021, 70: 220-237.

[2] Duarte A.Y.S, Sanches R.A, Dedini F.G. Assessment and technological forecasting in the textile industry: From first industrial revolution to the industry 4.0. Strategic Design Research Journal, 2018, 11(3): 1-10.

[3] Meyer S. The history and evolution of retail stores: from mom and pop to online shops. Ecommerce News, 2020.

[4] Liu Q.L. The development path of China's traditional retail industry under the background of big data. Economic and Trade Practice, 2019, (6): 12-25.

[5] Borremans D, Zaychenko I, Iliashenko O. Digital economy: IT strategy of the company development. MATEC Web of Conferences, 2018.

[6] Bukht R, Heeks R. Defining, conceptualizing and measuring the digital economy. SSRN Electronic Journal, 2017, 68: 10.

[7] Taher G. E-Commerce: Advantages and limitations. International Journal of Academic Research in Accounting Finance and Management Sciences, 2021, 11(1): 153-165.

[8] Guo Y, Zhong W.X, Ma, Y.S. Research on retail e-commerce under "live +" mode. Xuzhou Institute of Technology, 2021, 11: 76-77.

[9] Li X, Liang X, Yu T, et al. Research on the integration of cultural tourism industry driven by digital economy in the context of COVID-19 -Based on the data of 31 Chinese provinces. Public Health, 2022, 10: 1-10.

[10] Liu, H. Rapid development of Douyin will have a great threat to Taobao and subvert the industry pattern. Beijing: Atlantis Press, 2022.

[11] Zhang N.N. Study on oriental selection based on live-commerce industry chain. E-Commerce Letters, 2022, 11(04): 63-71.