

Research on the Operation and Problem Countermeasures of China's Internet Travel Platform

- Take Didi Travel as an Example

Haocheng Ding^{1,a,*†} and Shizhuang Liu^{2,†}

¹*Hunan Hongyi High School, Hunan, 410000, China*

²*Transportation and Logistic School, Southwest Jiaotong University, Sichuan, 611756, China*

a. gakuin@hbuas.edu.cn

**corresponding author*

†These authors contributed equally.

Abstract: With the rapid development of modern sharing economy and Internet platform, Didi Travel, as a network platform close to real life and highly compatible with real life, has developed very rapidly. Through mobile Internet and shared travel, it can efficiently mobilize social idle vehicle resources, alleviate travel pressure, and provide convenience for people to travel. Online car hailing has become an important part of urban transportation system from an unfamiliar industry. There are various ways of making profits for Didi Travel at present, but while Didi Travel is developing rapidly, many problems in its profit process have been exposed, many of which have bad effects, seriously affecting the future development of the enterprise and even violating the law. This paper studies the problems in the profit process of Didi Travel, proposes solutions to these problems in combination with the current situation of the Internet platform and online car hailing industry, and makes some thoughts on the future development of Didi Travel.

Keywords: Didi Travel, business problems, online car hailing, countermeasures for enterprise problems

1. Introduction

Didi Travel is the largest taxi hailing software and travel service platform in China. It was founded in 2012. After years of development, it has become one of the most influential travel platforms in the world. However, in the process of Didi's rapid expansion, it also faces many business problems, such as driver income, user experience and other challenges. These problems not only affect Didi's business status and reputation, but also affect the development and improvement of the entire travel industry.

The essence of business activities is to make profits. Profit is earned through the sale of products or the provision of services. Profit model is the main factor in the design of business model. Because the business model is designed to realize the operation of the business, and the operation of the business ultimately realizes the profitability of the enterprise. As the leader of the travel sharing industry in China, Didi Travel's enterprises have many different ways to make profits because of their

huge number of users and various businesses. However, the profit model of a good enterprise is generally directly related to its main business. For example, the basic profit of Didi Travel is still a part of the commission after matching transactions (except taxes). On this basis, advertising services, automotive financial services, car maintenance and repair services, as well as various industrial derivatives and additional services began to appear. With the expansion and complexity of Didi Travel's car hailing business, many problems of its profit model have been exposed. While the country needs to strengthen supervision and the industry needs to strengthen self-discipline, the enterprise itself should take measures to solve them.

Therefore, the research on Didi travel operation has important practical significance and theoretical value. Through in-depth analysis of Didi Travel's operation mode, management system, market competition environment and other aspects, it can provide effective business suggestions and strategic planning, promote its sustainable development and improve its market competitiveness. At the same time, the research on Didi Travel's operation will also help to deeply explore the operation rules and development trends of the Internet economy and platform economy, and provide valuable references for scholars and practitioners in related fields. This paper first combines the enterprise profile of Didi Travel, makes a brief swot analysis, then discusses the existing business problems of the enterprise, and gives a constructive solution.

2. Development History of Didi Travel

The development process of Didi Travel's car hailing platform can be roughly divided into the following stages according to the development of the business model and the increase and transformation of the profit model:

First Stage: Establishment and initial development stage (2012-2014)

Didi Travel, founded in 2012, was initially just a city taxi software based on social networks. In 2013, Didi Travel launched an online car hailing service and began to expand to many cities across the country. In 2014, Didi Travel launched the Didi taxi service and began to adopt the "Internet+ Travel" model, further expanding its market share and user base.

Second Stage: Monopoly and expansion stage (2015-2017)

In 2015, The merger of Didi Travel and Kuaidi Taxi has been completed, Didi Travel become a monopolist in China's online car hailing market. In 2016, Didi Travel began to expand to overseas markets, and launched its overseas services in Brazil, Mexico, Japan and other places. On the afternoon of August 1, 2016, Didi officially announced that it had reached a strategic agreement with Uber to acquire all the assets of Uber China, which Didi said was a landmark transaction [1]. According to a trader, after the merger, the company's valuation was close to \$35 billion, of which Uber China's price was close to \$7 billion, while Didi Travel maintained its latest round of post financing valuation, which was between \$27 billion and \$28 billion [2]. It is reported that after the two parties reach a strategic agreement, Didi Travel and Uber Global, the parent company of Uber, will mutually hold shares and become minority shareholders of the other party. Uber Global will hold 5.89% of Didi's equity, equivalent to 17.7% of its economic equity, and the rest of Uber China's Chinese shareholders will obtain a total of 2.3% of its economic equity [3]. Therefore, Didi has become the only enterprise jointly invested by Tencent, Alibaba and Baidu. In 2017, Didi Travel officially announced its entry into the field of automatic driving and began to cooperate with many domestic and foreign automobile manufacturers and scientific research institutions.

Third Stage: Security and regulatory crisis stage (2018-2019)

In May 2018, a female passenger of Didi Travel was maliciously killed by the driver when using the hitchhiker service of Didi Travel, which aroused widespread concern in Chinese society. As one of the subsidiary businesses of Didi Travel, the hitchhiker business is afraid to expose its management problems for many years after this incident. The sharing of real-time location and information, as well

as the emergency response measures at the passenger end, are very lagging and imperfect. Since then, Didi Travel has suffered safety accidents and regulatory penalties for many times, which has seriously affected its market reputation and operating conditions.

Fourth Stage: Transformation and diversified development stage (since 2020)

In 2020, Didi Travel, after completing the internal rectification of the enterprise and upgrading of the APP, announced the launch of Didi Express, Didi Taxi, Didi Hitchhiker, Didi Luxury Car, and other services, and began to transform to a diversified travel service platform. In addition, Didi Travel also continues to carry out technological innovation and cooperation in automatic driving, smart transportation, smart city, and other fields, and strives to promote the digital, intelligent, and sustainable development of travel services.

3. Analysis of Platform Revenue

The main business and income source of Didi Travel is the transaction service fees of drivers and passengers. The driver needs to pay a proportional transaction service fee to Didi every time he completes an order, and the passenger needs to pay a part of the order amount to Didi as a service fee. In addition, Didi also improves its revenue through various ways, such as advertising promotion, data sales and other additional services. Secondly, Didi Travel has launched a financial service business similar to bank loans in recent years, which charges a certain proportion of service fees and interest while lending cash to users and may also charge a certain proportion of deferred repayment fees later.

Revenue growth trend: Didi Travel's revenue growth trend continues to rise, mainly due to its leading position in China's mobile travel market and high-quality service quality. Although COVID-19 epidemic and information leakage events have had a certain impact on its business. On the evening of May 11, 2022, the Ministry of Transport released the operation data of online car hailing in April. The national online car hailing supervision information interaction platform received 476 million orders in April, down 11.6% month on month [4]. Previously, data showed that 539 million orders were generated for online car hailing nationwide in March, a year-on-year decline of more than 29%. Orders in the online car hailing industry continued to decline due to the epidemic. From the perspective of specific order volume of each platform, among the top 10 online car hailing platforms with the highest order volume, the order of 8 platforms has declined month on month. Among them, the decline of orders of XiangDao Travel is the most obvious, with the order volume declining 40.5% month on month. Orders of RuQi Travel, Sunshine Travel, MeiTuan Taxi, Didi Travel and T3 Travel fell by 15.5%, 14.6%, 13.4%, 12.9% and 11.5% respectively. However, with the gradual control of the epidemic, Didi's business activities have gradually recovered, and its platform revenue is expected to continue to grow.

In general, the online car hailing industry of Didi Travel is a highly competitive market, However, with its strong technical and operational capabilities, as well as continuously optimized service quality, it is expected to continue to maintain its leading position in the field of mobile travel and achieve sustainable development in the future.

4. Analysis of Didi Travel Enterprises Based on SWOT Model

SWOT analysis refers to the investigation of the main internal strengths, weaknesses, and external opportunities and threats that are closely related to the research object under competitive conditions, based on the internal and external competitive environment and current situation. They are arranged in a matrix manner, and then, using the thinking of system analysis, matching analysis is carried out on various elements to ultimately obtain a series of corresponding conclusions. Such results often have some decision-making implications.

Through this study, it is possible to comprehensively, systematically, and accurately understand the situation of the surveyed objects, and based on this, formulate relevant development strategies, plans, and countermeasures.

S (advantage) is an advantage, W (disadvantage) is a disadvantage, opportunity is an opportunity, and T (danger) is a danger. Overall, a company's competitive strategy should be an organic combination of what it can achieve (the strengths and weaknesses of the organization) and what it can achieve (i.e., the opportunities and threats it faces).

4.1. Internal advantages of Didi (S)

Technical advantages: after nearly ten years of development and trying models in various fields, Didi has accumulated a lot of data and technical experience in the field of travel and can provide more accurate and efficient services through AI, big data, and other technical means; Brand advantage: Didi has a high reputation and market share in China's travel market and has a strong brand appeal and user loyalty. Figure 1 shows the number of monthly active users of online car hailing app in 2020, and Didi Travel accounts for the majority.

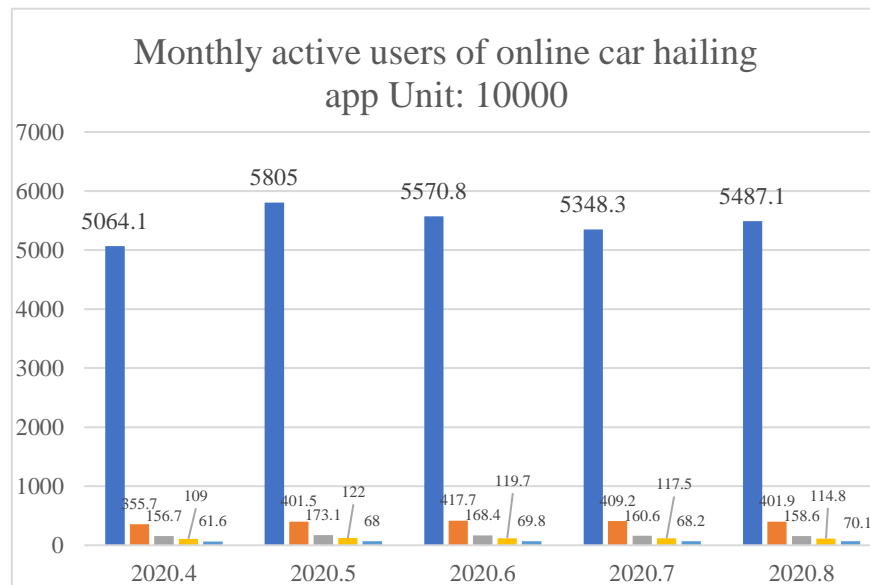


Figure 1: In 2020, the number of monthly active users of online car hailing app is Didi Travel in blue.

Financial strength: As a successful listed company, Didi has relatively considerable financial strength in the industry, After Didi acquired Uber China, it also conducted two rounds of huge financing, raising \$5.5 billion and \$4 billion respectively. The company's valuation has also increased to over \$50 billion.

Combined with previous financing, capital has invested at least \$20 billion in this ride hailing giant. And can invest heavily in R&D, promotion and marketing. It can be seen from Table 1 that the company's revenue has grown steadily in recent years.

Table 1: Total financial revenue of Didi Travel in recent years.

particular year	2020(RMB)	2021(RMB)	2022(RMB)	2023(US\$) (Note 3.6)
Income type				
China Business	133,645,113	160,520,747	125,930,620	18,258,224
international business	2,333,113	3,622,366	5,863,123	850,073
other	5,757,926	9,684,269	8,997,940	1,304,578
total	141,736,152	173,827,382	140,791,683	20,412,875

Synergy: Didi has established stable cooperative relationships with many partners, such as Tencent, Alibaba and Baidu. They can make full use of their own resources and advantages to form a good synergy.

Advanced business model: Since its inception, Didi Travel has been constantly expanding and improving its business capabilities, and its entire set of models is still the benchmark in the industry. The industrial chain and efficiency that Didi has developed for many years still occupy an advantage.

4.2. External Opportunities of Didi

Growth of China's transportation market: With urbanization and population growth, China's transportation market is growing rapidly. This provides Didi Travel with more opportunities to expand its user base and service scope.

Technological innovation: With the continuous progress of technology, Didi Travel can reduce costs and improve efficiency by using new technologies such as autonomous cars.

National policy support: The Chinese government has been promoting the development of taxi and online car hailing industries and has introduced a series of relevant policies to encourage and regulate the development of these industries. This will provide Didi Travel with a better business environment and more development opportunities.

International expansion: Didi Travel has carried out business in many countries and regions around the world and has established strategic partnerships in some countries. These internationalization strategies are expected to bring a broader user base and a larger market share.

Partnerships: Didi Travel has established partnerships with other enterprises, such as strategic cooperation with Apple, Tencent and other large technology enterprises. These partnerships can help Didi Travel strengthen its technology and market competitiveness.

4.3. Internal Disadvantages of Didi

Inadequate safety management: there have been many passenger safety incidents on Didi Travel Platform in the past, leading to a decline in public trust in Didi. As an enterprise with a wide range of business radiation, security maintenance for users and consumers is one of the key contents of internal development and external expansion of the enterprise. Didi needs to strengthen the safety management and monitoring of drivers and passengers and improve the ability to deal with emergencies.

Integrity: In 2022, Didi was questioned and severely punished for collecting user privacy information and selling user information to other institutions. The recovery of corporate reputation is not something that can be completed overnight. For Didi Travel, it needs to establish a reliable credit evaluation system and provide authentic and reliable user services.

High operating costs: Didi needs to expand its scale to reduce costs, and at the same time, it also needs to face the challenge of high expenses such as driver end subsidies and subsidies. It is necessary to reasonably allocate fund operation, optimize organizational structure and improve operational efficiency.

4.4. External Threats of Didi

National policy risk: relevant regulations and policy changes issued by the government, such as regulatory policies on online car hailing, requirements on data security, etc. In 2019, the General Office of the State Council issued the Guiding Opinions on Promoting the Standardized and Healthy Development of the Platform Economy (hereinafter referred to as the Guidance), "The definition of the relationship between flexible employment and the platform involves the cost of the platform and the socialized employment management. If the collection and management are conducted in full accordance with the natural person method, there will be a contradiction between high-throughput business and window pressure." Although the labor relationship between the platform and casual workers is not defined, the expression of the Guidance also refers to the new social security policy and skills training, which will, to a certain extent, affect the social e-commerce Flexible employment groups such as online taxi hailing drivers have better security [5].

Competitive risk: Competition from other travel service providers, including traditional taxis, shared bicycles, public transport, etc. With the increasingly competitive mobile travel market in China, Didi Travel is facing competitive pressure from multiple competitors. In addition, policy changes, public opinion and other factors may also have an adverse impact on its business. In order to maintain its competitive advantage, Didi needs to continuously improve service quality, reduce costs, and actively expand the international market. Although Didi Taxi is one of the leaders in the Chinese market, its market share is not very high in the face of many competitors. Some emerging taxi platforms are rising, and the gap between them and Didi in market share may be further narrowed. And although Didi's taxi service has always been favored by users, some users also raised some questions about its service quality, such as vehicle quality, driver quality, vehicle safety and other issues. If Didi Taxi cannot effectively solve these problems, its position in the market will be affected. Although Didi Taxi has performed very well in the Chinese market, it faces great difficulties in entering the international market. Didi Taxi needs to face challenges such as market environment, regulations and cultural differences in different countries and regions, which requires a certain degree of international strategy and management capabilities.

Intense market competition: In the China online car hailing market, Didi needs to better develop market strategies to maintain its competitive advantage in the face of strong competition from companies such as Gao De, T3, Cao Cao and other companies.

Security risks: personal safety problems of passengers and drivers, as well as platform security problems, such as passengers being in danger, drivers operating against rules, or platform information being hacked.

Social situation risks: social events, emergencies, etc. may have an impact on Didi's operation, such as road congestion and bad weather during the peak tourism period. During the peak period of car use, if Didi Travel Platform does not establish corresponding policies, such as tilting car use resources to key urban areas, customers may reduce their evaluation of enterprises after they cannot get the driver's response for a long time.

4.5. Profitability Problem

4.5.1. Transaction Commission

At present, Didi Travel has a relatively single mode of collecting transaction commission. Most of Didi Travel's operating income mainly comes from the commission of transactions. The commission ratio of Didi Travel varies in different travel modes, generally ranging from 20% to 30%, and varies slightly from region to region. During its development, Didi Travel launched other expansion businesses such as Didi Valet. The essence of its business profit is still the deduction of transaction commission.

The problem is that if the user fills in the departure and destination on Didi Travel APP., the system will automatically calculate the cost according to the distance, and the driver will choose to receive the order according to his own location. Generally, the cost of the driver is twice or more than the cost of the same distance. Because the main role of the shared travel platform is to reallocate resources, and it is also the main business of the company. The main business itself should be profitable, and its role is to help the platform provide hematopoietic function in the process of development. After the business is relatively stable, it can provide stable self-financing capacity for the long-term development of enterprises. Although there are cash rewards for drivers after completing a certain order amount or reaching a certain amount, after the communication between drivers and passengers during the trip, both parties believe that Didi Travel as an intermediate platform takes an excessive proportion of commissions. Didi taxi hailing drivers accounted for 79.1% of the total passenger payables. Of the remaining 20.9%, 10.9% is passenger subsidies, 6.9% is enterprise operating costs (technology research and development, servers, security, customer service, manpower, offline operations, etc.) and taxes and payment fees, and 3.1% is net profit of online car hailing business [1]. In fact, various platforms use high subsidies to cover up the proportion of commission taking. The driver thinks there are many subsidies, but the actual commission rate on the platform is relatively high. Here are some practical examples to illustrate that the commission rate on the Didi platform is too high.

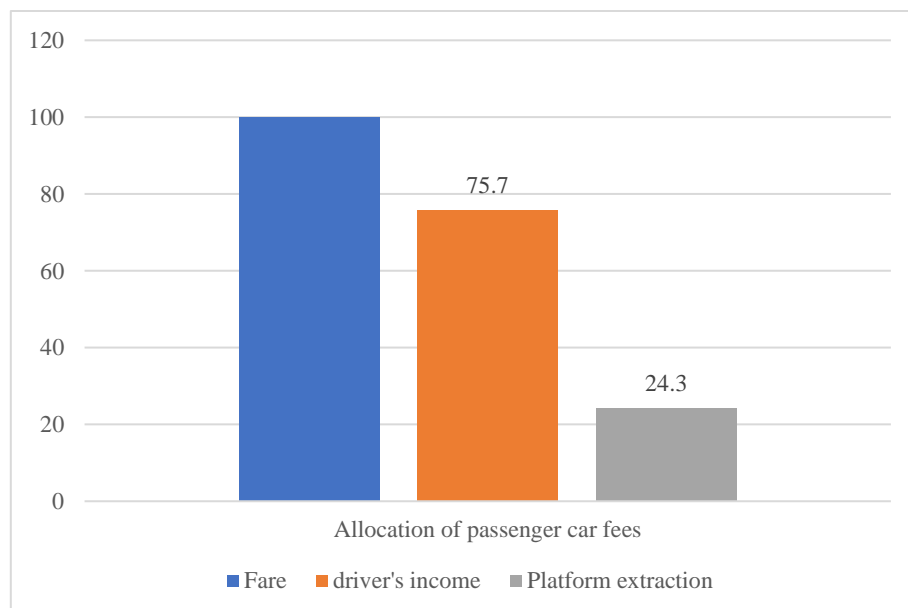


Figure 2: Percentage of passenger car fee distribution.

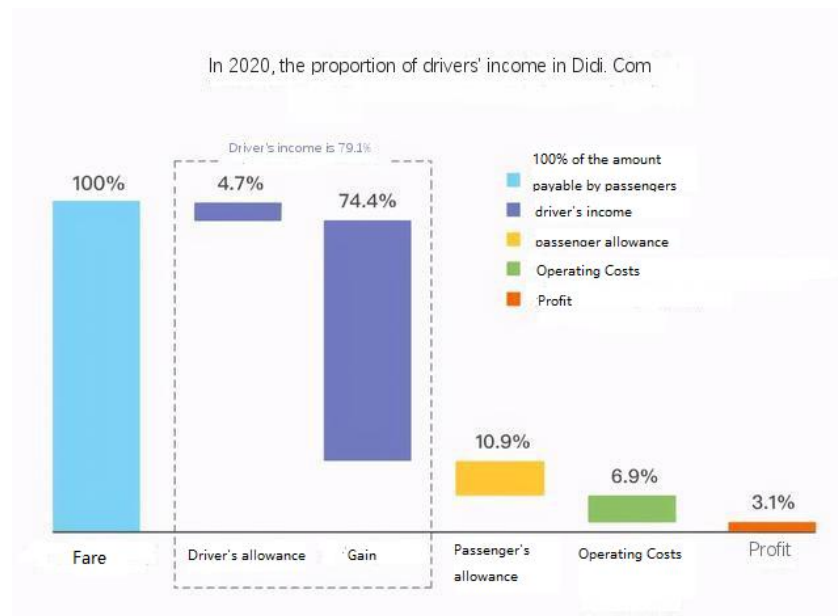


Figure 3: Percentage of taxi hailing drivers' income on Didi in 2020.

It can be seen from Figure 2 and Figure 3 that the proportion of Didi travel is high. The solution is to optimize the proportion of transaction commission, which is more conducive to the reputation of Didi Travel between drivers and users. In terms of transaction commission, Didi Travel should use the proportional ladder design of transactions to stimulate users to use Didi Travel more, so as to create the concept of "more consumption, more saving". In spite of all marketing levels, incentive design can better stimulate users to use Didi travel.

On this basis, the user's daily travel distance and number of trips were analyzed technically using GPS location information. At the same time, using the number of passengers in Didi Transportation to determine the proportion of passengers, and using discounts and other means to increase the number of passengers taking, thereby increasing the number of passengers taking. Although Didi's commission will be reduced during one-way travel. However, on this platform, the number of daily consumption units is increasing. In the case of Didi, its total handling fee has increased. At the same time, this has also increased the platform's activities and created more traffic for other profit-making methods. From the perspective of drivers, both their travel time and travel time have increased, and their travel frequency has also increased.

4.5.2. Advertising Revenue

The existing problem is that Didi Travel's advertising means are single and not innovative. The main performance is that Didi Travel's marketing method is relatively simple and lacks creativity; Didi is the largest public transportation service platform in China, with its huge passenger flow providing it with billions of traffic, which can provide it with certain advertising revenue. Currently, in addition to regular advertising exposure, Didi has also collaborated with numerous brands through navigation, apps, and other means on various websites; In addition, brand owners can also be provided with specially designed electronic taxi coupons, allowing enterprises to distribute them to users during the marketing process.

In 2021, after Shanghai, Didi targeted its car ads at Beijing. A number of Didi Express cars in Beijing have been equipped with LCD on-board advertising screens behind the co drivers, which has aroused heated discussions among many Didi drivers and passengers. Why did a large area of "ebbing tide" vehicle mounted LCD advertising screen make a comeback? Most of the advertisements are put

on the app platform and offline car rental. In addition, in some cities, excessive advertising and forced advertising exist. For example, in some cities, Didi travel operators will force the installation of advertising screens in the car, which will not only cause customers' aversion, It is also easy for drivers to receive complaints from customers and oppose advertising, which leads to inefficient advertising of Didi Travel, even counterproductive.

As for the measures to deal with this profit problem, this study suggests to cancel the advertising programs that cause repugnance and try more innovative advertising programs, such as jointly launching taxi coupons with cooperative enterprises, driver promotion incentives and other advertising marketing means. Diversified forms of advertising are also used: cooperate with the owners of Didi Travel Platform to create the exclusive logo of Didi Travel on the car body, improve the brand's publicity effect, and also strengthen the interaction between the platform and users in the service process of Didi Travel, and promote it by means of passengers pulling passengers to reward taxi coupons.

A more accurate advertising plan is adopted: put ads in a combination of taxi taking and Internet surfing to accurately target the target population, such as putting apps on other taxi taking related apps on mobile phones or computers, such as food apps for dinner parties, shopping apps for shopping, etc.

4.5.3. Weakness Supervision of Didi's Financial Platform

Didi's financial platforms mainly include Didi Loan, Didi Insurance, Didi Payment, Didi Monthly Payment and other financial platforms. On December 18, 2017, Didi Travel obtained a payment license from Beijing Jiufu Payment Technology Co., Ltd., allowing Didi Travel to leverage its "traffic" advantage in capital allocation. Didi Financing, a subsidiary of Didi Group, provides users with wealth management services, commercial insurance services, and credit loan services; Automobile insurance, funds, financial loans for installment purchase of automobiles, and various financial businesses. From simple tourism business to financial business related to tourism, including obtaining commissions or making investments, as well as enhancing its impact and competitiveness on the internet.

Didi Travel makes use of the dependence of users on the platform, builds the trust of users on the platform through services, and guides users to buy financial products or financial products on the platform. Consumers are relatively conservative in their choice of financial products. Once a purchase is made, it means that consumers have high trust in the platform.

In July 2021, there were reports that 25 apps, including Didi Travel, were found to have illegally collected and utilized user data. According to the relevant provisions of the Cybersecurity Law of the People's Republic of China, the National Cyberspace Administration has issued a notice to the software market to remove 25 software products and ordered relevant operators to rectify the problems that have arisen in accordance with relevant regulations and national standards; This can effectively protect the privacy of a large number of users [6]. The software that has been removed from 25 application markets, including Didi Wealth Management, cannot be accessed or downloaded by any website or platform. Didi's financial business has been restricted, and this change is also a factor. [7].

For the financial platform of Didi Travel, the countermeasures involved are that after Didi Finance resolutely obeys the government's rectification measures, first, it should ensure the legality and compliance of data processing activities; The second is to establish a whole process data security management system and clarify the person in charge of data security and the management organization [8]. Establish and improve the data security management system including data collection, transmission, storage and sharing, and take corresponding technical measures to ensure the legal and compliant processing of data [9]. Internet companies should, on the basis of the

hierarchical network security protection system, fulfill their data security protection obligations, specify the person in charge of data security and the management organization, and implement their data security protection responsibilities; The third is to carry out internal data classification and classification management and establish corresponding management system. In addition, it is necessary to implement the obligation of network security level protection; Regularly carry out risk assessment and fulfill the obligation of risk assessment report [10].

5. Conclusion

Didi Travel is one of the leading enterprises in China's mobile travel market, but it also faces some problems in the process of making profits:

Commission allocation: The higher or lower commission, labor costs, and technology development costs that Didi Travel needs to pay to drivers will adversely affect its profitability. In order to solve this problem, Didi Travel needs to constantly adjust the proportion of commission, or improve efficiency, optimize marketing strategies and reduce management costs through technology upgrading and automation.

Advertising and brand image: Didi Travel has received negative reports due to some safety accidents and user complaints in the past few years, which has had a negative impact on the company's brand image. Therefore, Didi Travel needs to strengthen brand management, improve user experience, improve brand reputation and enhance user stickiness.

Legal risk: The operation of Didi Travel has been severely punished by the government, which has led to the decline of the company's profitability. Therefore, Didi Travel needs to strengthen cooperation with government departments, comply with local laws and regulations, and establish sound operation specifications and safety standards.

This research is based on limited data sources and lacks sufficient experimental verification and case analysis, which may lead to the conclusion being not objective enough

In general, Didi Travel needs to strengthen the rationalization of the proportion of commission taking and risk management, improve its brand image and user satisfaction while increasing its revenue, so as to achieve long-term profitability and sustainable development.

Prospects for the future: It is suggested that future researchers, based on the contents of this paper and combined with more field verification and case data, do deeper research on the benefit distribution of online car hailing parties, and strive to make the online car hailing industry more ecologically healthy.

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