Dilemma and Innovation Optimization of Travel Agency under the Administrative Permission System based on Data Mining Platform

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Abstract
The application of data mining technology provides effective support for product analysis in tourism industry. In this paper, the author analyse the dilemma and innovation optimization of travel agency under the administrative permission system based on data mining platform. The administrative licensing system provides institutional constraints for the establishment of travel agencies, and at the same time protects the interests of consumers from a legal point of view. By analysing the development of travel agency in the context of administrative licensing system, we put forward relevant policy recommendations.

Key words: Big data, Travel agency, Data mining algorithms, Developing trend

1. INTRODUCTION

With the gradual improvement of China's opening up and the substantial increase in people's income level, China's tourism industry has made considerable progress in recent years. As the key link of the tourism industry chain, the travel agency is an important link between tourists and tourist destination. The existence of the travel agency makes the whole tourism system run normally. Therefore, the travel service industry is regarded as the "leading industry" of the tourism industry by the industry". However, China's travel agency industry, which is considered as the "leading industry" in tourism, has not been able to play a leading role. In recent years, the order of China travel service market is increasingly chaotic, "zero negative membership fee", the travel contract fraud phenomenon prevails. Disorderly development of the industry not only seriously damaged the rights and interests of tourists, but also affected the overall impression of tourists on the industry, reducing the average profit of the industry. In view of these problems, the tourism regulatory departments at all levels are not doing nothing. On the contrary, in China's tourism industry, travel industry is subject to government regulation up to the industry: whether the market access and daily management, all aspects of the development of travel agencies are marked by the Tourism Administration Department of fine.

Facts have proved that although the administrative departments of tourism have repeatedly issued new regulations, and the punishment for operating practices has become more and more great, but with little success, it is far from enough to rely solely on short-term centralized rectification. The author believes that fundamentally solving the confusion of travel agency management needs the perfection and improvement of the travel agency industry regulation. As one of the means of public administration, administrative permission system is widely used in modern countries. As one of the public power operation, compared with the administrative order, administrative punishment, administrative enforcement and other administrative acts, the administrative licensing system weakens the power of colour, reduced between the administrative organ and the relative person's distance, strengthen their mutual communication. In recent years, China's administrative law circles have actively studied the administrative licensing system, and achieved certain results. In the process of reform of administrative license system, "administrative licensing law" of the system specification on licensing behaviour of government, limiting some power, especially the right set of administrative licensing items, it will push the government to focus on the implementation of a must for public interests and social order, transform the functions of government. But the legal norms and social development between the synchronization, the administrative licensing legislation mode of limitations, the vested interest group boycott and the linkage between the system effect, legislative technology and the limitation of the administrative licensing law in practice the lack of manoeuvrability and other practical problems, has challenged the enforcement of the administrative licensing law. The healthy development of tourism can not be separated from the support of the rule of law. At present, China's regulation of unfair competition behaviour in the market of tourism related regulations has a certain scale, but how to better rationalize the relationship between government and market, to better promote the development of the tourism industry, is one of the current challenges facing the relevant laws. This paper hope that through research on economic law tourism legal adjustment in the incentive system, the healthy development of the tourism industry of our country is to do a little help.

2. BIG DATA ANALYSIS

Existing data mining tools provide a user-friendly interface for user analysis. However, these tools are not suitable for large-scale data analysis. While using these tools, it is difficult for users to add new algorithm
programs. Popular data mining algorithm library provides a large number of data mining algorithms. However, these algorithms require high-level programming skills to perform task allocation and algorithm integration in a specific data mining task. Recently, some integrated data mining products, by providing a friendly user interface to quickly configure the data mining tasks. However, these products are based on the Hadoop framework; support for non Hadoop algorithm program is very limited. Moreover, these products do not explicitly address resource allocation problems in multiuser and multi tasking scenarios. In order to solve the limitation of existing tools and products in data mining, the development of a new platform, is a user friendly and support efficient computation and fast integrated data mining system in a distributed environment, the platform supports data analysis quickly and effectively for data mining tasks.

![Big data platform](image1)

**Figure 1. Big data platform**

Compared with the existing data mining platform, Miner provides a new set of functions, can help data analysts to facilitate and effectively carry out various complex data mining tasks. Specifically, Miner has the following outstanding advantages.

- User friendly, user-friendly, fast data mining task configuration: Based on the "software as a service" model, hidden with data analysis tasks unrelated to the low-end details(Wang, 2013). Through the humanized user interface provided by Miner, users can easily complete a task configuration of complex data mining problems by assembling existing algorithms directly into workflow, without making any code.
- Flexible multi language program integration: it allows users to the most advanced data mining algorithms directly into the system algorithm library, in order to expand the analysis tool set and management. At the same time, because FIU can correctly assign tasks to computing nodes with suitable runtime environment, there is no language restriction for these imported algorithms.

![Data Mining](image2)

**Figure 2. Data Mining**
• Efficient resource management in heterogeneous environments: FIU-Miner supports running data mining tasks in heterogeneous computing environments (including graphics workstations, single computers, and servers). Miner considers various factors (including algorithm implementation, server load balancing and data location) to optimize the utilization of computing resources.

3. CONCEPT AND CHARACTERISTICS OF TRAVEL SERVICE INDUSTRY

3.1. Travel Agency

In developed countries, travel agencies are a special form of enterprises from the very beginning. Specifically, the travel agency is a type of tourism enterprise. There are many definitions about travel agency in western countries. Among them, the most representative is the definition of travel agency by the world tourism organization. According to the definition, travel agencies refer to such enterprises: Retail agencies provide the public with possible travel, residence and related services. The previously proposed travel organizers, producers, wholesalers in tourism demand, to organize transportation, booking accommodation and put forward different ways all other services for travel and living for. On the understanding of travel agency, our country has experienced the evolution process of “institution - administrative department - enterprise”. According to the provisions of China’s "travel regulations", the travel agency, is engaged in soliciting, organizing and receiving tourists and other activities to provide travel services for tourists, corporate domestic tourism business, inbound or outbound tourism business. From this point of view, the travel service industry can be regarded as a collection of several travel agencies engaged in profitable travel services. As can be seen from the above definition, no matter how China and foreign countries define travel agents, they are the same in terms of the services provided to tourists. The difference is that the definition of travel agency in China emphasizes the nature of its business and its scope of business, while the developed countries emphasize the business of travel agencies. This also reflects the traces of changes in China’s travel agencies from institutions to enterprises.

Figure 3. Travel Agency

As a part of service industry, the travel service industry has both the general characteristics of service, intermediary and profit, and its own characteristics: the information asymmetry of travel service industry is prominent. In the real world, there are different levels of information asymmetry in different industries, but the information asymmetry of travel service industry is particularly serious, which lies in the asymmetry of information between travel agencies and tourists. Travel agents can rely on occupation advantages, on the one hand, signed a contract with the travel agency, so as to know more about the tourism destination information; on the other hand, through organized tour business, travel agents have been a better understanding of the needs of tourists, to design a more tourists demand for tourism products. And tourists are mostly “one time tourism” in different places. The understanding of tourist destination and travel agency basically depends on the introduction of friends or media publicity, which is in a position of obvious information inferiority. This information asymmetry, it is easy to induce travel agencies to take false propaganda, fake management and other means to sell their products.

Information asymmetry between tour agencies and tour guides, the tourism destination is usually from the location of the travel agents in the distance, at the same time, due to the limitation of the material conditions, the current tour is the lack of effective supervision of the tour guide in quality, can only rely on tourists to test whether one-sided complaints of tour guide service. These are objectively easy to guide the “Mountain High Emperor far” feeling, thus contributing to the tour guide in violation of the travel contract, unauthorized change
of travel itinerary, forcing tourists shopping and other damage to the rights and interests of tourists. As mentioned above, travel agencies have more information about tourist destinations than tourists, such as scenic features, catering features, accommodation conditions, etc. Some tour guides for economic interests, often use share these differences in information, deliberately reduced the time to visit attractions, tourism and shopping time increase, the service Jerry greatly affected the satisfaction of tourists. The travel agency, the travel agency has to negotiate with the tourists, travel agents in terms of information, great disadvantage or financially has at the same time, dejieshe; itself is also facing great market competition, so the travel agency to "first reception, settlement pattern for the tour of tourists. In the course of time, many groups have formed the problem of defaulting on the contract, while the local agency can not recover the contract in time, and its normal operation has been affected, which has directly led to the low quality of reception service to tourists.

The travel agency industry is very dependent and fragile. The intermediary of the travel agency industry determine that it must depend on the number of tourism resources and tourism service supply department, in close collaboration with relevant industries and departments is the basis of successful business travel agency; on the other hand, it also depends on the tourist, tourist is the lifeline of travel agency. The high degree of dependence, coupled with the great demand elasticity of tourism service products, makes the travel agency management at any time under the influence of natural, political, economic and social factors.

3.2. Status and function of tourism economy

The travel agency tourism as well as middlemen, who play an important role in the effective link connecting tourism supply and tourism demand; at the same time, the travel agency through its business activities, not only to make their own development, but also led to the development of the hotel, transportation, tourist attractions, tourist shops and other industries, is an integral part of the tourism industry on the chain. Travel agencies and hotels, traffic, tourist attractions and other services to provide services for tourists in China's tourism economy plays an important role in the development process:

1) as an institutionalized medium of communication, the existence of travel agents has accelerated the process of industrialization and marketization of China's tourism industry. Through the purchase, design, assembly and sale of tourism products and services, the travel agency forms an institutionalized medium of communication between the spontaneous, decentralized supply of tourism and the demand for tourism. This system of trading media expanded the scope of time and space travel, the combination of tourism service elements scattered and individual into a comprehensive tourism product, and to the market, into the orbit of the market economy, the formation of the circulation process of tourism economy characteristic, thus promoting the tourism economy industrialization and marketization.

2) the professional service of travel agents has promoted the development of tourism economy to the masses. The travel agency has changed people's traditional, closed style of travel, providing an open one-stop service. In the organization and arrangement of tourist agencies, with the help of various products and services offered by tourists, the whole tour will be planned according to the predetermined time, line and activities. This not only greatly reduce the transaction link in tourist activities, but also by providing effective information and professional advice to tourists, tourists can not only meet the security demand, rich tourist experience, also saves the transaction cost, so as to provide preferential price for tourists, promote tourism to the popular development.

4. ADMINISTRATIVE LICENSE SYSTEM OF TRAVEL AGENCY

4.1. The necessity of industry regulation in travel agencies

According to the theory of regulation, due to the asymmetry of information and externalities, market failure has become an objective existence. The regulation is to effectively respond to market failure; the aim of the regulation is to correct market failure, so as to improve the efficiency of resource allocation and social welfare, maintain the fair and justice, promote the healthy development of the industry and to protect the legitimate rights and interests of consumers. First of all, through the analysis of China's travel agency industry, from the perspective of promoting the healthy development of the industry, expounds the necessity of regulation. Analysis, from the aspects of entry and exit wall on the ridge, China's travel industry into the wall of the emperor is not high, due to the characteristics of tourism products is invisible, making it difficult for enterprises to realize the resources and technology monopoly, the product innovation is difficult to protect, and the homogenization of serious. In general, a relatively small travel agency funds operating in the process of usage, the fixed cost is low, and provides more disposable travel service short-term, will not bear the cost of default is larger, arguably the poor performance of the travel agencies out of the market little resistance. But because of the existence of many obstacles China system from the travel industry, such as the current law does not support the transfer of property rights of local travel agencies, there is still a strong protective consciousness, which increase the travel cost to exit, artificially formed a high exit wall ridge. Few travel agents take the initiative unless they resort to compulsory intervention by the tourism administration. In our country, because of the homogenization of travel agency products, and the competitive market structure of the industry, the competition
behavior of enterprises is more likely to compete in a single price. Since the travel agency to survive, then blind vicious price competition will inevitably lead to the quality of the products greatly reduced, increasing tourists dissatisfaction, so as to further compress margins, the travel industry has become a low profit industry”.

Second, the reality is not so perfect as the economic theory assumes that there is more or less market failure in any market, and the travel agency industry is no exception. In the travel agency industry, the most prominent is asymmetric information. The so-called travel agency industry information asymmetry, refers to the travel agency market transaction process, both sides of the transaction has not the same amount of information, travel agencies often have more information than tourists. There are many reasons for it: information superiority of travel agency. The information superiority of travel agency is firstly reflected in its professional advantages, and the market division of labor in modern society is becoming more and thinner. Travel agencies focus on market segmentation and market positioning, most travel agencies specialize in producing a product or focus on a particular market, forming a professional division of labor. The professional division of labor makes the travel agency information collection scope, object and channel relative concentration; secondly, the information superiority is also reflected in the information service and the specialized agencies of the organization, such as market research companies, advertising companies, business consulting, travel agency association provides information support for. In addition, the destination of the tourist destination also has regional advantages, and has a more comprehensive understanding of the local tourism resources and tourism product information.

Tourism products are mainly based on service, and its biggest characteristic is intangible. It can not be left as an object, but independent of the service. Therefore, the production and consumption of tourist products are simultaneous. Before consumers buy, only a small amount of leads are used to judge the quality of service. It is difficult to assess the asymmetry of information. It is because of the above reasons that the information asymmetry of the travel service industry is very serious. The travel agency is the focus of the tourism industry, a mutual principal-agent relationship exists between travel agency and tourist guides, each of the two party in the principal-agent relationship are the two main agent's behavior affects the interests of the client directly, if the agents are not good, the client will assume the moral risk some.

Although the travel regulations stipulates the principle of responsibility and role of the association of travel agencies, but not specifically to be in the form of law to be determined, so in practice it is difficult to make the industry self-organization. The coordination of law and coordination is guaranteed. You can see in the industry: the lack of information reporting system, lack of industry rules, illegal events illegal travel agency business in the whole industry without public disclosure of the dawn, the travel agency qualification, credit rating is not carried out, aiming at the lack of tourists more consumer guide. Because enterprise integrity behavior is seldom publicized and publicized, the illegal behavior of enterprises lacks the prompting and restriction of the profession rules, so it will lead to the spreading and spreading of bad manners, and the enterprises will be less and less. The essence of market economy is a credit economy, the problem of the lack of credit management of travel agency industry exposed, to cultivate and enhance the hand directly restricts the competitiveness of travel agency, on the other hand has become a problem plagued the industry healthy growth. But in the factors that lead to the lack of travel agency management, the lack of the rule of law in the industry and the absence of self-regulation are the serious deficiencies of the regulation.
4.2. Analysis of the advantages and disadvantages of administrative license

Administrative license as a control means or a system and the market mechanism, the same there are both advantages and disadvantages. On administrative licensing advantages or features, different scholars have made different generalizations of the administrative system, it exists in the modern society, because it can effectively limit the special industry behavior, will be incorporated into the scope of the national macro-control, to regulate and restrict the behavior of the role of citizens and legal persons. And that the administrative licensing system can promote the protective effect and the specific performance of the administrative license is conducive to the strengthening of national macro-control on social and economic life, realize the transition from direct control to the indirect control is conducive to maintaining the social economic order and social order, limit the number of some special industries, to ensure the promotion of public welfare and public health security. To provide quality products and services to protect citizens, legal persons and other organizations of the personal rights, property rights, against illegal infringement to the society.

The advantage of administrative license includes the following four aspects: first, administrative licensing can solve the market to solve the "tragedy of public affairs", to make up for market failures, safeguard the legitimate rights and interests of the market fair competition and market. Second, as a move among force and soft administrative, management strength of administrative license may be due to the importance to solve the problem is different, it can not only deal with administrative issues of complexity and uncertainty, improve the efficiency of administration, and to strengthen national macro-control, protect the natural environment, protect human survival space, reasonable, fair and effective allocation of resources, to protect public safety, maintaining social order, the protection of citizens, legal persons and other organizations of the legitimate rights and interests. Third, the administrative license is a prior restraint for the main purpose of administrative management, can effectively prevent and stop the non economic life is harmful to others and social public interests, to protect every citizen, the organization should enjoy the most basic freedom, security, equality and welfare. Fourth, from the perspective of administrative licensing helps to clarify the current relevant legal uncertainty, the applicant can make the legal risk reduce administrative organ damage, make timely foresee legitimacy of the activities, to restrict the administration discretion behavior.

Under the condition of market economy, the defects of the administrative licensing system are completely exposed. First of all, the right of licensing limits the normal market competition behavior, and sets obstacles to investment and management, which will hinder the formation of the competition order. If the essence of the license is to restrict competition and substitute the market mechanism with administrative power, the choice of the government instead of the market choice will inevitably result in the reduction of the efficiency of the allocation of resources and the increase of social costs. Secondly, the excessive power of licensing and the lack of supervision will inevitably result in "Rent-seeking” of power, which breeds corruption and all sorts of improper winds. The greater the permission power, the more opportunities for the administration to "seek rent", and corruption will be more likely to happen. In addition, the license will inevitably lead to excessive administrative organs to replace management approval, reduce administrative efficiency and government responsibility, leading to the main market operators increased transaction costs, weakening the competitiveness distorts the market conduct of operations, destruction of good faith and fair competition in the business environment of social intermediary organizations to increase growth retardation, administrative organ burden etc..

4.3. Travel agency, industry regulation, improvement

Through the international comparison of the travel agency industry regulation system and the problems existing in the regulation of our country, this article holds that it is necessary to carry out a series of improvements to the regulation, and the principles to follow:

(1) In line with economic development stage and the characteristics of the travel service industry, China's market economy itself is led by the government to set up, at the transition stage from the planned economy to modern market economy, to a certain extent to maintain the planned economy color, but also the lack of a sound legal environment as a guarantee, the market mechanism itself is not developed, is not perfect, imperfect and immature, which leads to the emergence of a series of institutional problems, such as the main body of the market system is not perfect, the social intermediary organization functions not play, there are a lot of administrative monopoly leading to market is not unified, the market mechanism is distorted. The regulation system of the travel service industry is born in such a special political and economic environment. There are limitations, market failures and defective market failures. Therefore, we should pay close attention to the reality of the travel agency industry.

(2) The goal of correcting the market failure and safeguarding the tourists' consumption rights and interests is the same as that of other industries. The biggest limitation of the micro regulation of the travel agency industry is that it may hinder the free competition in the market. From the point of view of institutional economics, as a system, the regulation of travel service industry should also emphasize the cost and income comparison. Excessive regulation may not be worth the candle. Therefore, in order to prevent the government
from over regulating the market, the regulation fails, and the regulation of the travel agency industry in our province must aim at correcting the market failure and safeguarding the rights and interests of tourists. The third chapter analysis, tourism market failure is mainly due to information asymmetry, and the characteristics of the product itself because of the information asymmetry further aggravated the situation, causing the travel agency false propaganda, mandatory spending and other serious damage to consumer behavior of tourists. Therefore, to make up for the defects of asymmetric information in tourism market is certainly the primary goal.

(31) The anti-unfair competition regulation as the core, in the travel industry, unfair competition is concentrated on "zero negative membership fee”. it undermines the travel industry competition order, hindered the healthy development of the tourism industry. In the tourism consumption, showing a high rate of complaints, tourist satisfaction and low status, tourist rights infringement phenomenon occurs frequently, and unfair competition is often the root causes of these problems, the research results also proved this point. Therefore, the anti unfair competition regulation as the core, to solve the puzzle is the development of travel agencies.

5. CONCLUSIONS

The comprehensive application of various incentives in tourism enterprises can help stakeholders to participate in the industry governance, and complete the legal tasks that regulatory laws can not complete. The association of travel agencies should give full play to its advantages of obtaining and releasing information, and effectively promote the benign interaction between travel agencies and tourists. On the one hand, members of the association can be the tourism industry associations to provide tourist information as a basis for business decisions, so the design is more suitable for the market characteristics of tourist routes; on the other hand, can also travel through this platform to the Tourist Industry Association released an effective signal, providing real information of its own, both can the consumption choice for tourists, tourists can also improve the sense of trust and establish a good image of the industry.

REFERENCES


