

The Application Research on Tourism Enterprise Implementing Precision Marketing in the Era of High-speed Rail^{*}

Wu Yue, Jiang Tao (Dalian University of Technology, Dalian, China)

Abstract: The mass tourism consumption has entered the market outbreak period, and tourism economy is the typical experience economy, as the customer demand is increasingly diversified, tourism enterprise has been forced to have a full understanding of customer needs and gives the behavior prediction on the basis of Big data. Meanwhile, high-speed rail has field polymerization effect, so it could crack the problem about scale precision marketing and influence the tourism choices of mainstream crowd, to help tourism company achieve a high response rate and customer loyalty as well as improving enterprise efficiency. This paper firstly introduces the necessity of using big data in the precision marketing for tourism companies, then expounds the construction of tourism company precision marketing system framework relying on big data, then analyzes the channels to realize the precision marketing for tourism company in the era of high-speed rail.

Key words: big data; tourism; precision marketing; high-speed rail; system **JEL codes:** M310

1. Introduction

China is entering the "high-speed rail era", while 28 provinces have opened high-speed railways, which basically covered all cities with more than 500,000 population, and only in 2014 the number of passengers has been over 800,000,000, the volume of daily average sending passengers has been over 6,077,000, and in the next two years the total mileage of high-speed rail in operation will reach 8,887 km, when China would become the longest mileage and largest construction of high-speed rail in the world (Economic Daily, 2015). High-speed rail greatly shortens the distance between the cities, also leads to the blowout development of tourism and double increase of excursions in high-speed rail lines. "The integration of tourism resources and making tourism industry stronger" has become "important content of prominent transformation system and accelerating transformation mode of economic development" in Twelfth Five Year Plan (China Tourism Academy, 2014). Under this context, tourism companies, with the help of high-speed rail, could implement precision marketing for exact people, region and time nodes, through the analysis of big data, to excavate the potential customer demands, and to satisfy every customer as much as possible with the combination of products and personalized services, achieving precision marketing and enhancing the profitability of enterprises as well as promoting the development of economic transition.

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Wu Yue, Ph.D., Faculty of Management and Economics, Dalian University of Technology (DUT); research areas/interests: management science and engineering. E-mail: gakko@163.com.

2. Tourism Enterprise Using Big Data to Break through the Traditional Marketing Bottlenecks

2.1 Big Data and Precision Marketing

As the basic technical conditions and tool of precision marketing, "big data" can be thought of another expression of "analysis", which seeks to extract knowledge from data, and converts data into commercial advantages of intelligent activity (Christina et al., 2013). In most literature, "big data" are summarized with the following four characteristics (four V): huge volume of data (Volume), rapid growth velocity (Velocity), structured data (Variety), low value density (Value).

Precision marketing is firstly proposed by marketing authoritative expert Philip Kotler, specifically speaking it means "the company needs more accurate, measurable and high return on the investment of marketing communication, which needs to pay more attention to marketing communication plans of results and action, as well as to the direct sales communication investment".

In the age of big data, enterprises obtain valuable commercial information through the collection and analysis of large amounts of data. By mining this information, tourism companies could forecast market demand, and eventually transferred valuable information to business insights and intelligent decision.

2.2 Necessity of Tourism Enterprise Using Big Data to Implement Precision Marketing

At present, fierce competition, serious lagging network marketing, asymmetry of tourism information, tourists placed in a passive position, a single product line, being hard to meet the personalized needs, are all problems to be solved (Chai Haiyan, 2008). Along with the sensing device and mobile terminal being connected with the network, while high-speed rail is changing the tourism selections of mainstream people, tourism companies could use new technologies such as cloud computing, data analysis or mobile Internet, and establish precise consumer communication system on the basis of high-speed rail data, to precisely lock the target customers, proving specialized services to maximize the transactions, the contact number and conversion rate.

3. Construction of Tourism Enterprise Precision Marketing System Based on the Big Data Processing

3.1 Mining the Correlation among Data

Precision marketing connects data technology with creative process, being focused on highly-oriented customers and their interactive actions, to maximum mine the consumption potential of customers, ultimately realizing cross-selling, related sales as well as extend sales. Firstly, it helps marketers understand customer needs; secondly, it helps marketers predict when customers may respond; finally, it helps them predict customers' behavior.

3.2 Construction of Tourism Enterprise's Precision Marketing System Frame

The commercial application of big data is not just obtain or use customer information, it should be taken more attention to consider the product itself, analyzing if tourism products can meet the needs of target customers, then enhancing the competitive advantages in the essence.

Tourism enterprise, to achieve precision marketing, specifically needs to process three big nodes and 6 continuous steps, in which starts with each business demands, on the basis of big data, carries on the relative planning and marketing activities, evaluates and improves the results, and then continues to make adjustment

and improvement of itself, in order to achieve accurate "precise marketing" (Zoratti S. & Gallagher L., 2013). As shown in Figure 1 (Zoratti S. & Gallagher L., 2013).

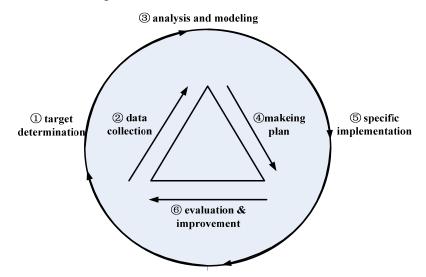


Figure 1 Precision Marketing System Frame

First of all, the decision-making mode transfers from "business-driven" to "data-driven", which selects specific tourism products, customer group and marketing channels relying on the result information provided by big data, completing the first key node, that is "target determination", then collects data further and increases the in-depth analysis of demand changes and business process updates. For example, the enterprise could recommend the most appropriate tourist route according to new high-speed rail lines, via multiple channels such as SMS, micro-chat, micro-blog, etc., and then records the customer acceptance of recommendations so as to determine next marketing goals.

The second key nodes is "analysis and modeling", which mines the information and accurately predicts market demands, then carries on the more intelligent analysis of decision making. Each route is designed to match customers with the help of high-speed railway data, and tourism enterprise detects customer behavior and implements relative marketing strategies, providing suggestions for the users at the right time and right place to deliver advertisement and send relevant information.

The final key nodes is the "evaluation and improvement" based on a sequence of data visualization. Whether marketing activities have achieved the expected goals, which activity needs to be improved, and how to guide next marketing activities, all these important data is the basis of determining next marketing objectives. To be more accurate for evaluation and improvement, applicable assessment standards should be set up on the basis of data analysis results, which could be evaluated by related experts and department directors, arriving at generally accepted evaluation conclusions and improvement suggestions.

4. Channels to Implement Precision Marketing for Tourism Enterprise in the Era of High-speed Rail

4.1 Exact Market Positioning on the Basis of Big Data

Over 800 million passengers using high-speed rail represent a huge customer group, being bound to be the primary object of tourism enterprise. The enterprise could orient customers through high-speed rail data. For

example, for the customers whose characteristics include short displacement, high frequency and short distance, the surrounding resort or vocation-village along the high-speed rail line can be recommended, and for the customers who have distant displacement, long time and low frequency density, outbound tourism and other in-depth tourism products along the rail line can be recommended. High-speed rail passengers have huge tourism consumption potential and the rail line tracks from the east coast to the western underdeveloped area, where lots of tourism resources spread. Meanwhile, through the RFM analysis (that is, Recently purchased time, purchase Frequency, single Monetary amount), the company could scientifically forecast regular customers purchase amount in the future, and analyses the late customer value, then selects the VIP clients and designs personalized products for them.

4.2 Using Big Data and Marketing Platform to Achieve Precision Marketing

While all the current marketing channels explosively expand and various media platforms tends to conform, high-speed rail in this media environment has its unique media properties. High-speed Rail and train stations across the country formed a huge "field", in this "field" there are numerous high-quality media contact points, and hundreds of millions of high-level customers are attracted into this enclosed space, so transmission effect has been strengthened in the space. Customers in this comfortable environment are more acceptable to the information related to tourism marketing. Tourism enterprises could classify customers to seek corresponding high-quality customers on the basis of high-speed rail data, making delivering tourism information more efficient. Meanwhile SNS social media has a precise nature in describing the "who", and its description of "interest and buying preferences (why)" is also the objective of precision marketing, so high-speed media could use SNS media to excavate indicators, like "comment", "contact numbers", "purchase frequency", to find potential tourism projects and completes precision marketing (Liu, 2007).

4.3 Personalized Products Design and Innovative Service

Relying on high-speed rail data, tourism enterprises could design personalized product to "awaken" diverse demands, excavate scenic spots along the railway and implements route optimization and line innovation (Cao & Liu, 2009). For example, Guiyang-Guangzhou high-speed railway has been put into operation in December 2014, which greatly increases the number of tourists choosing high-speed rail for travel in the southern region. In the 2015 festival holiday (2.18-2.24), tourist number in Guangxi has amounted to 9.4 million, which has grown 18.84% compared to the same period last year, and the total tourism income has reached 39.48 hundred million, which has grown 22.43% compared to the same period. Tourism economy has the tendency of blowout, while tourism company could design new tourism products, on the basis of this new high-speed railway travel trends, and customized personalized services to match different people, region and time nodes by means of high-speed rail data. For different audiences, in different target area and different seasons, personalized travel routes are recommended, to realize high-quality experience services and switches on the next growth point in the short distance tourism market.

5. Conclusion

The key for an excellent tourism enterprise to implement precision marketing in the era of high-speed rail lies in the accurate market positioning, data traffic optimization, scientific drainage strategy, feasible technical support, powerful product designs and abundant experience in team management. Many enterprises pay much attention to explore methods and tools of precise marketing, but they always ignore the difference between quality and quantity, which means the extreme precision marketing often represents the overdraft of database influencing the long-term stable business interests of enterprises. Therefore, tourism enterprises, in the course of precision marketing, should not only focus on the quantity of products or technology or database, but also seize the business strategy of precision marketing in the systemic perspective, which is the key to reduce the trial and error costs and enhance the marketing effects.

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