BioTechnology

An Indian Journal

Analysis and optimization of the tripartite evaluation system of taobao

Kuang Xiangling[1,2]*, Huang Guangqiu[1], Zuo Qingang[3], Huang Rong[4]
[1]School of management, Xian University of Architecture and Technology,
Xi'an Shanxi, (CHINA)
[2]School of Economics and Management, Hubei University of Automotive
Technology, Shiyan, Hubei, (CHINA)
[3]Department of Science and Technology, Shiyan Central Sub-Branch of the People's
Bank of China, Shiyan, (CHINA)
[4]Department of Economics and Management, the Science and Technology of Hubei
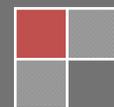University of Automotive Technology, Shiyan, Hubei, (CHINA)
E-mail: Kuang Xiangling; kuangxiangling@163.com

ABSTRACT

A tripartite evaluation system which was lack of research before is analyzed in depth based on the relationship of Taobao's buyers, sellers and the platform itself, which is the typical representative of C2C e-commerce. Then this system is overall analyzed and optimized. Firstly, the basic tripartite relationship is expressed by a traffic-light model. Secondly, by mainly using online questionnaire to survey Taobao's current situation of satisfaction degree and its tripartite evaluation system, combined with the satisfaction degree system-related data from the customer satisfaction degree department in Taobao, there are three problems to be analyzed. They are "lack of feedback mechanisms in tripartite evaluation system of Taobao", "low participation degree of evaluation" and "unreasonable assessment standards". Then, the new tripartite evaluation traffic-light model is designed. From three parties of "using Ali cloud services to optimize evaluation program", "proving participation degree of evaluation" and "optimizing assessment criteria of custom service persons in Taobao", the model is expounded in depth. At last, feasibility analysis based on technical, organizational and risk of tripartite evaluation system is done.

KEYWORDS

Taobao; Tripartite evaluation system; Satisfaction; Optimization.

© **Trade Science Inc.**

INTRODUCTION

Background

As a typical representative of C2C e-commerce, Taobao is developing rapidly. While, "fakes", "false credit", "malicious bad comments" and other issues have seriously affected the reputation of Taobao. Facing the fierce competition from jingdong, paipai and other e-commerce platform, Taobao has to improve the trust and satisfaction of its ten million members. How to improve customer satisfaction through satisfaction system and then get customer loyalty is related to the revenue performance of C2C e-commerce[1].

The purpose of the research and optimization on the tripartite evaluation system of final results are both improving customer satisfaction, that it is necessary to make a simple research and analysis on satisfaction. And then a model is constructed and optimized according to the demand of "improves satisfaction". Domestic satisfaction study was mainly from Liu Yu who analyzed the current situation by using closeness of fuzzy set in 2001. Shen Wenguo studied the satisfaction of online bookstore by locked the research object to its customers, and put forward five dimensions, they are tangible evidence, reliability, sensitive, caring and credible. In 1999, "the state-owned capital performance evaluation rules" and "rules for the operation" is formulated and promulgated. It is defined 32 indicators as the core to the roe, and formed a performance evaluation system combined with qualitative evaluation[2]. In 1999, in the united states Newsome P. & Wright proposed patient satisfaction, that is to say, the experience that patients filtered and evaluated of medical service from their own perspective is consistent with their demand degree of the results. By 2009, the foreign tripartite evaluation system has been developed to the 10th generation that is satisfaction service management system[3]. It is specified that satisfaction survey would play a major role in listening customer's voice, discovering service problems and evaluating service performance, and established the tripartite evaluation system for satisfaction, using voc system to improve the service quality and optimize service evaluation mechanism.

Under the e-commerce circumstances, satisfaction service management system has been developed mainly from improving the service quality, not from the improvement on the quality system and the evaluation system to optimize[4]. Based on the satisfaction survey data, this paper proposed an ameliorated model and some strategies of tripartite evaluation system.

Research purpose

The evaluation between buyers and sellers is the most-watched and perfect contents in current tripartite evaluation system. while, as a matter of fact, evaluative feedback from buyers and sellers (called members of Taobao) is more important for Taobao. The new system must fill the gaps in evaluative feedback.

Taobao has been an exemplification of C2C e-commerce, and its tripartite evaluation system has also become the industry standards in e-commerce. An excellent tripartite evaluation system would play a directly role in improving satisfaction, the higher satisfaction would reduce the flexibility of prices and transaction cost at the same time[5]. it is not necessary to cost too much to obtain new customers if Taobao can keep the high customer retention rate. The satisfied customers would probably use the value-added services of Taobao more frequently, which not only increase the profits, but also reduce the transaction cost in the future[6].

OVERVIEW OF TRIPARTITE EVALUATION SYSTEM OF TAOBAO CUSTOMERS

Both parties have the right to make relevant evaluation to each other's transactions after the members use the Alipay to successfully complete each transaction. The whole tripartite evaluation system of Taobao can be expressed by "the traffic lights model".
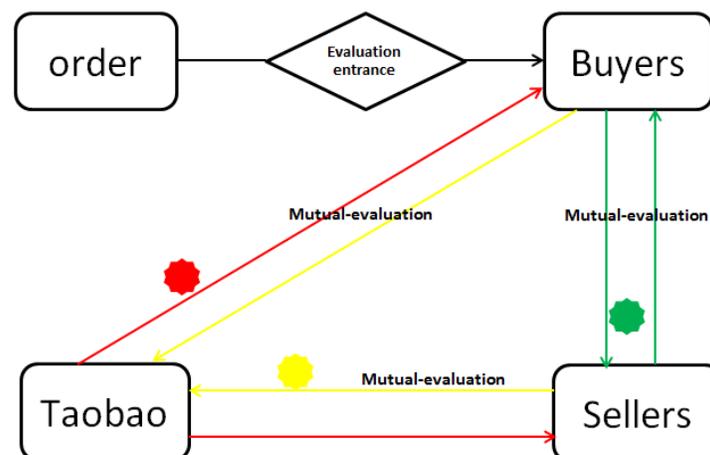

Figure 1 : The traffic lights model of tripartite evaluation system of Taobao

In the above model, there are buyers, sellers and Taobao as the tripartite in the evaluation system respectively. The system includes six evaluations which are mutual-evaluation between buyers and sellers, buyers and Taobao, sellers and Taobao. As everyone knows, the mutual-evaluation between buyers and sellers are relatively perfect, with green light. Evaluation on Taobao from buyers and sellers are created through the customer's service channels, yellow light has been expressed because of the unobstructed evaluation channels and the low participation degree of members. Since involving the trade confidential, tripartite evaluation system to buyers and sellers from Taobao hasn't disclosed temporary, represented by red light.

ANALYSIS OF CURRENT TRIPARTITE EVALUATION SYSTEM OF TAOBAO

The sensitivity of the members to Taobao

In March 2014, a survey has been conducted by "a questionnaire about the tripartite evaluation system on Taobao". The problems in tripartite evaluation system have been discovered according to the data analysis by 200 valid questionnaires, combined with the analysis of "a questionnaire about customer service of Taobao" of Hangzhou normal university Alibaba business school and Taobao's current situation of satisfaction degree. Research data shows that just only 9% of sellers and 2% of buyers (blue area) expressed their regrets and want to withdraw from Taobao. Taobao takes customer satisfaction very seriously. The responsibilities of customer satisfaction center are in charge of customer service system, optimizing tripartite evaluation system, and improving customer satisfaction. The survey data is an important basis for improving customer satisfaction of Taobao. The ultimate goal of research is to improve the satisfaction degree, and make the buyers become loyal members.
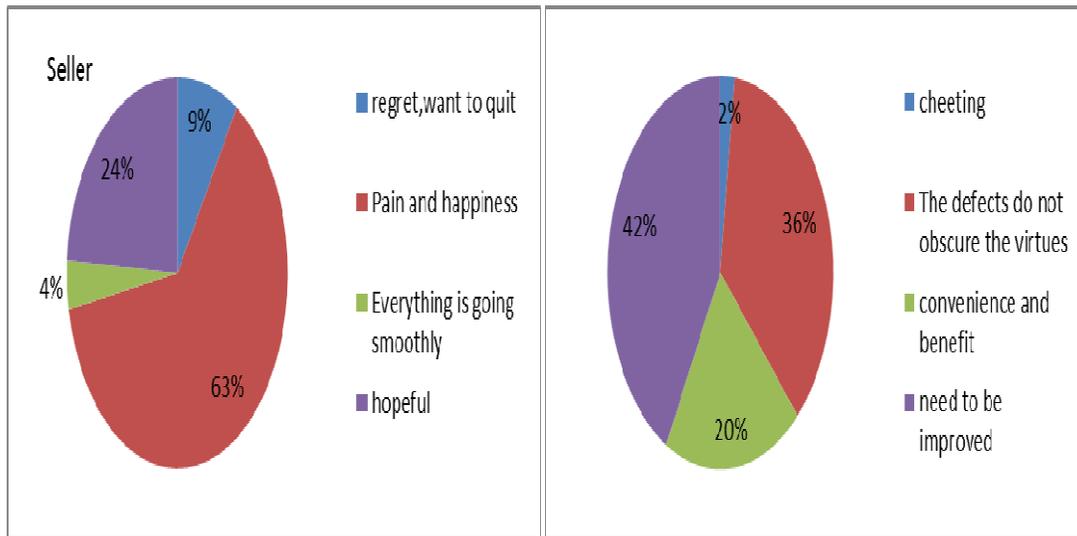

Figure 2 : The sensitivity of the buyers to Taobao

The lack of feedback mechanisms on Taobao online tripartite evaluation system

An ideal Taobao tripartite evaluation system needs to achieve the effect of the optimization of its products and services continuously, the more important is to collect feedback evaluation information of both sides. The purpose is to restrict the evaluators and plays a guiding role for others[7]. taobao is just a platform, what it can do is to enhance the sensitivity of the entire network by using its own evaluation system[8]. for example, the evaluation from buyers affected the rank of seller's shop, appearance rate of products search in Taobao current tripartite evaluation system, but, none a direct statistics and feedback for the seller to improve the business mechanism; the evaluation to buyers from sellers affect directly in the success rate of sec kill and application for free trial and so on. And all these effects Taobao seldom tells the buyers, so they don't knows what functions of their own credit rank in Taobao, even have be unaware of been blacklisted.

The low participation of Taobao online tripartite evaluation system

We extracted the evaluation data of one day in march 2014 from Ali cloud services, the total people of the service number was about 100000, but the number of the people gave the evaluation of the people was less than 10000. But now the number of the people use the customer service evaluation system of the tripartite in the cloud customer service almost 91.22% (below blue area) play no role. The participation rate was only 8.78% (light blue area), and 3.76% of them entered many times to give the evaluation on the same day, which fully embodies the problems of low participation of the evaluation system.
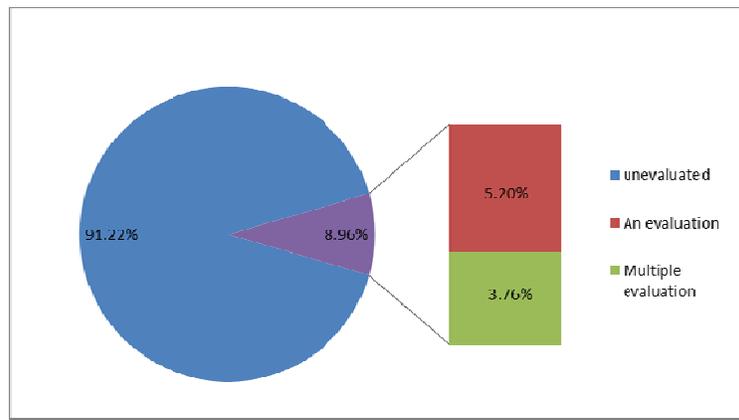
Figure 3 : Participation of Taobao online evaluation of Ali cloud services

The unreasonable assessment standards

The situation of assessment system about Taobao was explained by a simply case. According to the assessment of Taobao customer service staff, there is an indicator called "one-time resolution rate", that is to say, the evaluation part in the service request again within 24 hours of the same or similar services, the controlling of the proportion of the index for the opposite evaluation part is very low, under 30%, the rest of the 70% are controllable and related to the training and the preliminary works, thus, making use of this king of uncontrollable index is unreasonable, and do little to change the quality of services, on the other hand, also caused the suppression of the enthusiasm of the customer service staff.

OPTIMIZATION AND ANALYSIS OF TRIPARTITE EVALUATION SYSTEM

Different from the original traffic light model, the mechanism of black box turns all the area with yellow light and red light to green. The green arrow lines represent in the Figure (direction of arrows means the information flow), the optimized feedback channels drew in blue arrow lines (unblocked), and the black lines express the channels which were optimized unobvious. The evaluation in the whole tripartite evaluation system is uninterrupted, that is put two lines with the same starting goes to the same direction of black box, which can be used as the as evaluation information collection mechanism, and to unify the two lines at the end of the same black box as the starting point line as the way of feedback.
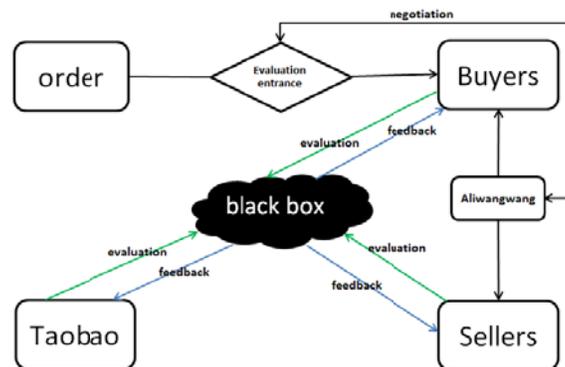

Figure 4 : The optimization and analysis of the tripartite evaluation system

To use cloud service technology to optimize the evaluation process

The optimized tripartite evaluation system implemented a new process of evaluation by "black box" of cloud service technology:

1. Cloudy evaluation. The new evaluation system introduces a "black box" to evaluate the processor, which is equivalent to CPU of computer; it can collect evaluation into cloud and make statistics and analysis of basic data, and then mailed it to tripartite anonymously as the feedback.

2. Changing the unreasonable process of evaluation. Traditional unreasonable process of evaluation means that moderate and negative comments can be changed to the positive or deleted when two parties negotiate successfully after evaluated within 30days, and a few sellers may apply to modify or delete the negative comments. This kind of treatment is almost existing in the current trading, there is a lot of bias and occasionality, but now all comments of the trading anonymously into the "black box", and then output to the evaluation of the sellers' mailbox, which can make Taobao actively involved in the evaluation of the selling and buying process, the cloud server will take the initiative to determine whether it is

peers' evaluation or the malicious attacks, in this way, we can reduce the rate of complaints and disputes, and also can improve the customer satisfaction.

3. Auxiliary strategy to stimulate consumption. Taobao will have some red envelopes for members almost every month, which make them satisfied with a feeling of luck of unearned reap without sowing. However, the red envelope or coupon has little guiding role to the consumers. Now the "black box" system can intelligently analyze and sort the current trading or dealing orders by using the red envelopes or coupon.

Promoting participation of Taobao members

The optimized tripartite evaluation system makes a breakthrough on the evaluation of the members and Taobao, which can greatly improve the members' participation to the evaluation of Taobao. The prospect participation will rise from 10% below to over 80%. After all the evaluation sent by the cloud of processor, there will be a conclusion that the result then sent by email as feedback to the buyers and the sellers will not know which buyer gave the negative comment, but will know and correct the problems timely. When the evaluation is no longer merely rewards or punishments, it will attract more members. Taobao advocates honest, active and prompt network business culture, adheres to the "honesty is the best principle"[9]. At the same time, it also provides employment opportunities for more netizens[10]. This is why a lot of Taobao members are not satisfied with it but still cannot abandon.

Optimizing Taobao's customer service staff standard of appraisal

New tripartite evaluation system in the customer service has been overall improved on the service evaluation criteria, such as relative satisfaction (refers to the number of effective evaluation of satisfaction/total number of effective evaluation); unreasonable evaluation criteria has been removed or reduced, such as one-off resolution rate completely sent to Taobao, so the request for evaluation has been cancelled.

The changes of the basic index standard of the evaluation are in the following TABLE. This is a series of qualified indexes for evaluating Taobao's customer service staff. As long as each dimension cannot conform to the evaluation, there will be a result "not equal" or "unqualified" within the month.

TABLE 1 : Some improvement on customer service staff assessment

	Old Standards	New Standards
Relative satisfaction rate	>= 82 %	>= 85 %
Complaints per month	<= 2	<= 1
Average service time	<= 700 s	<=600 s
One-off resolution rate	>= 82 %	Delete dimension
……	……	……

The feasibility analysis of optimizing the tripartite evaluation system

1. Technology feasibility. The cloud service and big data technology has being developed rapidly, Ali's research and development teams and operations team are working hard, millions of Taobao members have given good suggestions, with the mature Ali cloud system, the completion of the new evaluation system is just around the corner.

2. Organization feasibility. By analyzing the characteristics of the business platform in the e- commerce environment, we can put forward the sources of customer value on the business platform in the e- commerce environment. And on this basis we can build the customer value evaluation system of the tripartite[11]. As a platform, Taobao, at the same time as the communication link of the buyers the sellers, which play a decisive role in organization, and can quickly get Taobao customers' recognition as well. Therefore, the organization is completely feasible.

3. The feasibility of risk control. In the tripartite evaluation system, the evaluation principles for sellers have great commercial values. This means that the seller may crack leaky evaluation rules for unconventional business[7], so the confidentiality has very important practical significance. Also because of this, the rules became Taobao's trade secrets. The author put forward the black box model of the new evaluation system, all the data analysis is done in the cloud service, which not only avoids the cracking of the members evaluation rules, make the evaluation anonymously of the author at the same time, also avoid the malicious attack and revenge.

CONCLUSIONS

In this paper, by analyzing the present existing tripartite evaluation system in Taobao, the author analyzed the concept, found the problems and set up a theory model of process, introduced a black box of the cloud service, and to do a breakthrough improvement of Taobao's tripartite evaluation system, also optimize the participation of evaluation, feedback process and evaluation standards.

The emergence and development of e-commerce, has changed the traditional business model, and it has the advantages of low cost and high efficiency, it also breaks the limit of space and time existing in the traditional trade, and short the distance between producers and consumers[12]. Taobao's evaluation tends to promote its own status. The information of the "black box" feedback system will take the initiative to help purchasers and consumers identify and analyze from the large data in the cloud service, in order to improve and promote themselves. As leader of the e-commerce, the tripartite evaluation system and rules will become the benchmarking in the e-commerce industry.

ACKNOWLEDGEMENT

REFERENCES

[1] Liang Yan; A review on customer satisfaction. Journal of Beijing Technology and Business University (Social Sciences), **22(2)**, 75-80 **(2007)**.

[2] Yao Guibin; Hospital medical service customer satisfaction measurement system and its application to build, **(2009)**.

[3] Zha Jinxiang; A study on the relationship between customer value and customer loyalty in B2C e-commerce. Zhejiang University, school of management, **(2006)**.

[4] He Keng, Li Xiaochao; Foreign e-commerce statistics and applied research. China statistics press, **(2004)**.

[5] Gong Bingzheng; Status and development trend of china's e-commerce. "Yearbook of Chinese E-commerce in 2002", **(2003)**.

[6] Tang Bin; Customer relationship management (second edition). Higher education press, 3-8 **(2009)**.

[7] Qi Jiayin, Wan Yinghong; Customer relationship management theory and method. Intellectual property publishing house, **(2007)**.

[8] Quan Mingfu, Qi Jiayin, Shu, Huaying; An evaluation index system to assess customer value. Nankai business review, **3**, 17-23 **(2004)**.

[9] Wang Juan; The study of e-credit and its assessing model, **(2006)**.

[10] Huang Yixiao, Shao Peiji, Li Jingjing; Customer classification method based on customer value forecast. Forecasting, **3**, 31-35 **(2004)**.

[11] Yang Ming; Research on user trust models Of B2C e-commerce. Huazhong University of Science and Technology, **(2007)**.

[12] Chen Weiheng; Research-oriented e-commerce system of credit evaluation mechanism. Technology monthly, Pioneering with Science & Technology Monthly, **08**, **(2005)**.