

<http://ansinet.com/itj>

ITJ

ISSN 1812-5638

INFORMATION TECHNOLOGY JOURNAL

ANSI*net*

Asian Network for Scientific Information
308 Lasani Town, Sargodha Road, Faisalabad - Pakistan

Study on the Impact of the Telecom Terminal Customization Service Strategy on Customer Conversion Tendency

¹Yin-Zi, ²Li Xue-Ping, ²Li Zhi-Hong and ²Wu Yu-Shan

¹South China University of Technology, Guangzhou, China

²School of Business Administration, South China University of Technology, Canton, China

Abstract: Based on the theory of customer switching tendency and combined with its own characteristics of the terminal customization strategies in the telecom industry, this study analyses and refines the three major driving factors affecting the terminal customization strategy as well as the influencing factors of the customer switching tendencies under the new strategy. The results show that the terminal customization strategies play a significant role in reducing attraction of the alternative, improving customer satisfaction, thus tend to have an impact on customer switching. It puts forward some advice for three major domestic operators in order to provide references to making effective strategies.

Key words: Telecommunications industry, terminal customization service strategy, conversion tendencies, SEM

INTRODUCTION

Every year the telecommunications industry has as much as 30%-50% loss of customers, resulting in about tens of billions of dollars economic losses, which has become a worldwide problem (Yan *et al.*, 2001; Athanassopoulos, 2000). Relevant studies have shown that the cost of developing a new customer is 5 times to keep an old customer (Bhattacharya, 1998). How to make the terminal customization service strategy effective and marketing tools deeply involved in telecom terminal development, design and acceptance are becoming the most difficult issues faced by the three operators. Previous research about the conversion services for the telecommunications industry focused on a variety of business services (Woo and Fock, 2004; Wang and Lo, 2002; Li *et al.*, 2006; Yan and Jia, 2004), few people take the terminal customized services strategy into consideration. This study by structural equation modeling focuses on the terminal customized services strategy in order to obtain a more comprehensive understanding.

LITERATURE REVIEW

Large number of documents reveals that reducing customer switching tendency, maintaining customer loyalty and improving the performance are the goals and lifeline for all enterprises. Customer switching studies focused on two main lines: one is on the customer

switching tendency (Bitner *et al.*, 1990; Parasuraman, 1996) and another focused on the real customer switching behavior (Keaveney, 1995; Ganesh *et al.*, 2000). Rust and Zahorik point out in related research that customer switching tendencies will have a directly adverse effect on the market share and revenues of the companies and through which perceived value affects customer satisfaction (Rust and Zahoric, 1993). As for the research of the motives for conversion, Bitner indicates that factors affecting the conversion are the constraints of time and money, replacement attraction, costs of conversion and usage habits (Parasuraman, 1996). From the perspective of customer perceived value, Shukla and Lecturer think consumers will generate conversion tendency according to the available information about the costs of conversion and translation gains to get perceived usefulness and perceived risk (Shukla, 2004). From the perspective of customer satisfaction, Colgate and Lang found that customers in case of dissatisfaction is not necessarily to convert service providers for the switching costs, competitive services, service recovery and other constraints which may create the inertia of the customers in a certain degree (Colgate and Lang, 2001). Thomas and Sasser found that there is not a linear relationship between customer satisfaction and loyalty (Borna, 2000). In other words, there must be other factors that affect customer switching.

With respect to the customer switching services on the telecommunications industry, it has a large number of

domestic and foreign scholars who have carried out extensive studies. Foreign scholars Rob Mattison, Lee and Feick, Wang, *et al.* based on different background did the research (Rob, 2005; Lee *et al.*, 2001; Wang and Lo, 2002). Domestically, many scholars did this research from many respects (Yan and Jia, 2004; Li *et al.*, 2006; Zhou, 2009; Liu, 2007; Chen, 2007). However, the terminal customization services strategy compared to traditional marketing strategies in the telecommunications industry, is a carrier based on customer demand, which not only asks for the performance and appearance, but preferably picks out a portion of the data content of the business and customer service as a terminal application built into the telecommunications terminal and through customer perceived quality, switching costs and alternative attractiveness has an impact on customer switching propensity.

MODEL CONSTRUCTION

On the basis of previous studies, this study focuses on the effect of terminal customization services to explore its role playing in customer switching tendency.

Customers' perception of value affects consumer behavior (Rust and Zahoric, 1993), which is connected to

the perceived value received. Studies of Jones *et al.* have shown that customers' switching intention will decrease when a high price is needed to pay for switching brands (Jones *et al.*, 2000). Therefore, switching costs affect the customer's perceived value and conversion tendencies. Jones *et al.*'s study also shows that when there is a more attractive alternative in the market, customers will have a conversion intention, while few and conversion with no benefits will increase customer loyalty (Jones *et al.*, 2002). In this study, the research of attractive alternative focuses on alternative terminal brand strategy, bundling strategy and discount packages policies which affect customer satisfaction and conversion tendencies. Word of mouth affects consumers' conversion behavior and a change in attitude through the interpersonal relationship (Bansal and Voyer, 2000; Bone, 1995; Bristor, 1990).

Based on the above research theories and correlation analysis, with reference to the measurement scale of previous studies (Keaveney, 1995; Jones *et al.*, 2002; Fornell *et al.*, 1996; Bolton and Drew, 1991; McDougall and Levesque, 2000), configure the observed variables of the latent variables to build the initial structural equation model, shown in Fig. 1.

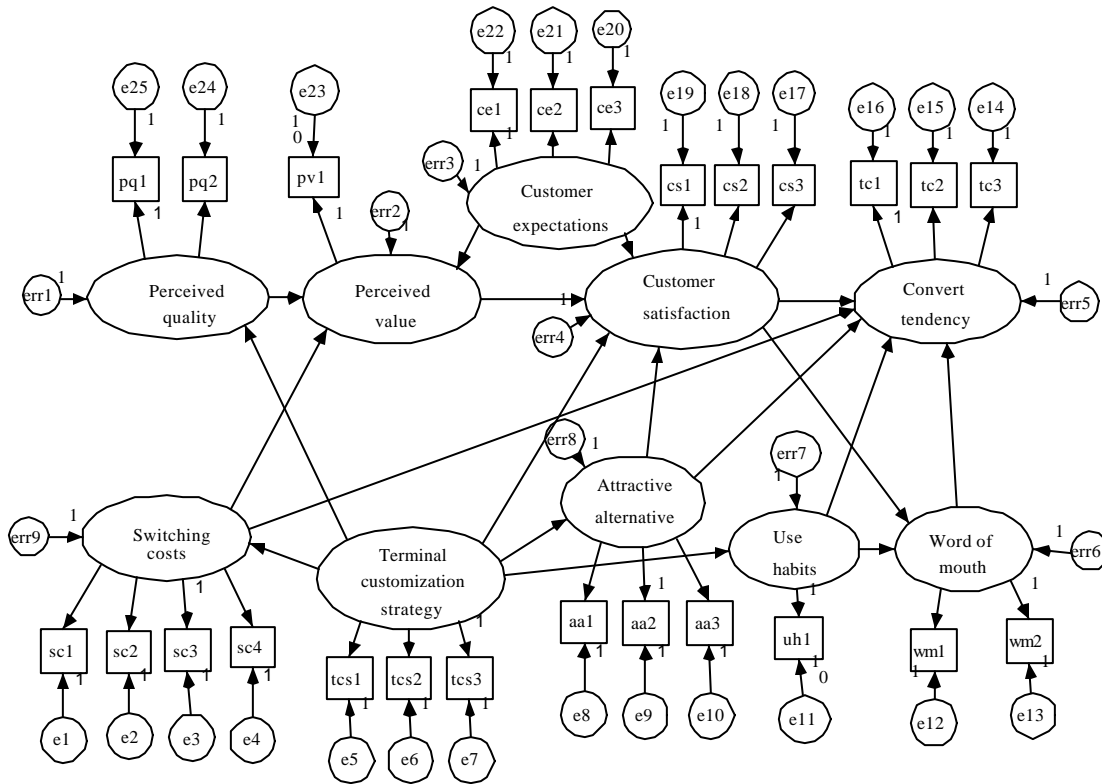


Fig. 1: Initial structural equation model

DATA COLLECTION AND ANALYSIS

Sample and questionnaire: Questionnaire was used for data collection, all asked items using Likert scale of 1-5, where a value of 5 represented “strongly agree” and 1 represented “strongly disagree”. The study sample consisted of customers from China Mobile, China Unicom and China Telecom. We collected the data with two stages. In the first stage, we carried out pre-surveying. In the second stage, we began to formally dispense questionnaire which contained electronic and study edition. A total of 300 questionnaires were sent and a total of 283 replies were returned. Though 55 were incomplete and so discarded, 228 questionnaires were used for data analysis, a respond rate of 76%.

Reliability and validity test: Cronbch's á were carried out to measure the coefficient of the internal consistency reliability and validity is tested by factor analysis (KMO test value is 0.742 which is suitable for factor analysis), the relevant data shown in Table 1. Since all Cronbach's á is greater than 0.7, while the factor loadings of every observed variables greater than 0.5, so the observed variables has a strong explanatory power for the corresponding latent variable and the questionnaire is with higher quality.

Structural model evaluation and modification: AMOS17.0 offers variety indices of model fit with the RMSEA, GFI, AGFI which is less affected by the number of samples as the main evaluation indicators and NFI, CFI and CMIN/DF as a secondary evaluation of the overall performance. The fitting coefficient of the initial structural equation model results in Table 2 which shows the model is not completely set up which needs to be further amended.

According to the initial simulation results, the estimated p-value of customer satisfaction to conversion tendency is 0.003 and the path coefficient is 0.05, which means the significance level of the initial hypothesis is low, so consider deleting this path. Terminal customization strategy has a strong relationship with customer satisfaction, so increase this path and the correlation between the observed variables.

After running the revised model shown in Table 3, all indexes are the ideal adaptation value. All the p-value of the correction model was less than 0.05, which means that all of the parameters in the model have a high level of significance. The standardization results of the parameter estimation are shown in Table 4.

Table 1: Reliability and validity analysis of the questionnaire

Latent variable	Measurement items	Cronbch's a	No. of items
Conversion tendency	Q1-Q3	0.744	3
Use habits	Q4		1
Word of mouth	Q5-Q6	0.818	2
Customer satisfaction	Q7-Q9	0.809	3
Perceived value	Q10		1
Perceived quality	Q11-Q12	0.812	2
Attractive alternative	Q13-Q15	0.811	3
Switching costs	Q16-Q19	0.711	4
Terminal customization strategy	Q20-Q22	0.813	3
Customer expectations	Q23-Q25	0.861	3

Table 2: Fitting coefficient of the initial structural equation model

GFI	RMSEA	AGFI	CMIN/DF	NFI	CFI
0.942	0.03	0.918	1.187	0.832	0.956

Table 3: Fitting coefficient of the revised structural equation model

GFI	RMSEA	AGFI	CMIN/DF	NFI	CFI
0.901	0.04	0.887	1.551	0.782	0.912

Table 4: Standardized path coefficients between variables of the modified structural equation

Path	Value	Path	Value cient	Path	Value
tcs-pq	0.183	uh-tc	-0.288	sc-sc1	0.464
tcs-sc	0.456	sc-tc	-0.201	sc-sc2	0.754
pq-pv	0.559	wm-tc	-0.059	sc-sc3	0.661
ce-pv	-0.142	pq-pq1	0.829	sc-sc4	0.545
tcs-aa	-0.108	pq-pq2	0.828	cs-cs1	0.735
sc-pv	-0.112	tc-tc1	0.708	cs-cs2	0.805
pv-cs	0.623	tc-tc2	0.922	cs-cs3	0.887
aa-cs	-0.170	tc-tc3	0.464	tcs-tcs1	0.735
tcs-uh	0.197	aa-aa1	0.821	tcs-tcs2	0.856
ce-cs	-0.137	aa-aa2	0.784	tcs-tcs3	0.711
tcs-cs	0.337	aa-aa3	0.705	pv-pv1	0.818
uh-wm	0.140	ce-ce1	0.708	wm-wm2	0.880
cs-wm	0.611	ce-ce2	0.900	e1-->e9	0.491
aa-tc	0.356	ce-ce3	0.844	e18-->e20	-0.371
wm-wm1	0.800	e19-->e23	0.248	e15-->e21	0.743

ANALYSIS OF THE EMPIRICAL RESULTS

The purpose of this study is to identify whether and how the factors in the initial structural equation model affecting the customer switching tendencies, focusing on the role of the terminal customization service strategy. According to Table 4 showing the relationship between the variables, the following meaningful conclusion can be obtained.

Factors of the customer switching tendency: Among the latent variables which have impact on the customer switching tendency, only attractive alternative has a positive correlation with customer switching tendency with a 0.356 path coefficient. In the initial structural equation model, the path coefficients between customer satisfaction and conversion tendency is 0.05. After deleting the path, the model fit was significantly enhanced which means customer satisfaction does not directly indicate a significant impact on customer conversion

tendency. When customers are not satisfied, due to the conversion costs, usage and other factors, they do not want to convert. To the influence of terminal customization strategy, the total effect of attractive alternative is obviously the most important factor to the conversion tendency.

Role analysis and influencing factors of the TCSS:

Among the three dimensions of the terminal customization service strategy, providing preferential bundled packages and increased efforts of subsidies make the largest contribution with the path coefficient 0.856. China is in a stage of 3G with the overall low consumption level, so the requirements for the terminal performance is lower than the expectations for bundling strategy and subsidies.

To the three observed variables of the attractive alternative, the most influential factor is the more preferential customization strategy with coefficient 0.821. While for the observed variables to the customer conversion tendency, the coefficient of the conversion is highly to 0.992 for the more quality custom strategies of the alternative. The terminal and bundling strategy costs have a greater impact on the conversion costs with coefficients 0.754. Customized strategies have a new standard for customer to judge if operators' product or service meets their requirements.

Correlation between the observed variables: Four coefficients covariance among the observed variables reflects a certain degree of correlation of them which means when customer's expectations are better service; they have a low satisfaction to the customized strategies, which is affected by the personality demands of the consumers.

CONCLUSION

The results show that: Terminal customized services strategy can not only be able to directly reduce customer switching tendencies, but also be able to promote customer conversion tendency by customer expectations and attractive alternative and lower by conversion costs, perceived quality, perceived value, use habit, customer satisfaction and word of mouth. From the conclusions of the empirical research it can be seen, the telecommunications industry can reduce customer conversion tendency through customized strategies from the following aspects: (1) Because the overall level of consumption is not high and consumers are more sensitive to price factors, making the bundled strategy first of all must take different customer spending habits

and consumption levels into account by using different subsidies. (2) Increase the investment on the performance of customized terminal to enhance customers' satisfaction, reduce the attractiveness of alternative and maintain the competitive advantage in the industry. (3) With economic development, quality of service will become the customer's urgent needs.

ACKNOWLEDGMENTS

This study is supported by Major Program of National Science Foundation of China (Project No. 71090403/ 71090400) and by Program called New Century Excellent Talents in University (Project No.NCET-11-0135).

REFERENCES

- Athanassopoulos, A.D., 2000. Customer satisfaction cues to support market segmentation and explain switching behavior. *J. Bus. Res.*, 47: 191-207.
- Bansal, H.S. and P.A. Voyer, 2000. Word-of-mouth processes within a services purchase decision context. *J. Serv. Res.*, 3: 166-177.
- Bhattacharya, C.B., 1998. When customers are members: Customer retention in paid membership contexts. *J. Acad. Market. Sci.*, 26: 31-44.
- Bitner, M.J., B.H. Booms and M.S. Tetreault, 1990. The service encounter: Diagnosing favorable and unfavorable incidents. *J. Market.*, 54: 71-84.
- Bolton, R.N. and J.H. Drew, 1991. A multistage model of customers' assessments of service quality and value. *J. Consum. Res.*, 17: 375-384.
- Bone, P.F., 1995. Word-of-mouth effects on short-term and long-term product judgments. *J. Bus. Res.*, 32: 213-223.
- Borna, C., 2000. Combating customer churn. *Telecommunications*, 34: 83-85.
- Bristor, J.M., 1990. Enhanced explanations of word of mouth communications: The power of relationships. *Res. Consum. Behav.*, 4: 51-83.
- Chen, K., 2007. A research upon customer switching antecedents and mechanism in mobile communication industry. Master Thesis, Dalian University of Technology, Dalian, China.
- Colgate, M. and B. Lang, 2001. Switching barriers in consumer markets: An investigation of the financial services industry. *J. Consum. Market.*, 18: 332-347.
- Fornell, C., M.D. Johnson, E.W. Anderson, J. Cha and B.E. Bryant, 1996. The American customer satisfaction index: Nature, purpose and findings. *J. Market.*, 60: 7-18.

- Ganesh, J., M.J. Arnold and K.E. Reynolds, 2000. Understanding the customer base of service providers: An examination of the differences between switchers and stayers. *J. Market.*, 64: 65-87.
- Jones, M.A., D.L. Mothersbaugh and S.E. Beatty, 2000. Switching barriers and repurchase intentions in services. *J. Retail.*, 72: 259-274.
- Jones, M.A., D.L. Mothersbaugh and S.E. Beatty, 2002. Why customers stay: Measuring the underlying dimensions of services switching costs and managing their differential strategic outcomes. *J. Bus. Res.*, 55: 441-450.
- Keaveney, S.M., 1995. Customer switching behavior in service industries: An exploratory study. *J. Marketing*, 59: 71-82.
- Lee, J., J. Lee and L. Feick, 2001. The impact of switching costs on the customer satisfaction-loyalty link. *J. Serv. Market.*, 15: 35-48.
- Li, Z.P., W.H. Zhang and F. Zhang, 2006. Customers really lost? *C-Enterprise Manage.*, 5: 50-60.
- Liu, Y., 2007. Study on the strategy of recapturing lost customers in Chinese telecom industry. Ph.D. Thesis, Huazhong University of Science and Technology, Wuhan, China.
- McDougall, G.H.G. and T. Levesque, 2000. Customer satisfaction with services: putting perceived value into the equation. *J. Ser. Market.*, 14: 392-410.
- Parasuraman, A., 1996. Understanding and leveraging the role of customer service in external, interactive and internal marketing. Proceedings of the Frontiers in Services Conference, October 3-5, 1996, Nashville, TN., USA.
- Rob, M., 2005. Telecoms Churn Management. Posts and Telecom Press, Beijing, China.
- Rust, R.T. and A.J. Zahorik, 1993. Customer satisfaction, customer retention and market share. *J. Retail.*, 69: 193-215.
- Shukla, P., 2004. Effect of product usage, satisfaction and involvement on brand switching behaviour. *Asia Pac. J. Marketing Logist.*, 16: 82-104.
- Wang, Y. and H.P. Lo, 2002. Service quality, customer satisfaction and behavior intentions: Evidence from China's telecommunication industry. *Info*, 4: 50-60.
- Woo, K.S. and H.K.Y. Fock, 2004. Retaining and divesting customers: An exploratory study of right customers, at-risk right customers and wrong customers. *J. Serv. Market.*, 28: 187-197.
- Yan, H. and S.H. Jia, 2004. Empirical research on the driving factors of mobile customer loyalty. *Telecommun. Sci.*, 5: 66-69.
- Yan, L., D.J. Miller, M.C. Mozer and R. Wolniewicz, 2001. Improving prediction of customer behavior in nonstationary environments. Proceedings of the International Joint Conference on Neural Networks, Volume 3, July 15-19, 2001, Washington, DC., USA., pp: 2258-2263.
- Zhou, J., 2009. Motivation mechanism of customer switching service. *Res. Financial Econ. Issues*, 7: 37-42.