

A STUDY ON RELATIONSHIP MARKETING STRATEGY AND ITS IMPACT ON CUSTOMER BEHAVIOUR OF PUBLIC AND PRIVATE SECTOR BANKS IN KERALA – MEASURING LIFETIME VALUE WITH THE HELP OF MANN-WHITNEY U TEST

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Abstract: The banking industry plays an important role in the economic development of a country by acting as a hub and barometer of the financial system. The Indian Banking system consists of 27 public sector banks, 21 private sector banks, 49 foreign banks, 56 regional rural banks, 1562 urban co-operative banks and 94384 rural co-operative banks, in addition to co-operative credit institutions. Today, many banks are rushing to become more customer focused. Customer Lifetime Value (CLV) refers to the net present value of expected benefits less the burdens from customers over their life of relationship with a firm (Dwyer, 1989). So, they are realizing that the magical formulae for attaining success in such a competitive environment are to focus on maintaining a healthy relationship with customers who will lead to customer loyalty, retention and customer lifetime value. The present study aims to measure the lifetime value of a customer by both public and private sector banks in Kerala.

Keywords: Relationship Marketing Strategy, Customer Lifetime Value

I. Introduction

Customer lifetime value (CLV) is an important indicator in evaluating the performance of customer relationship, implying that firms should focus on the development and maintenance of long-term profitable customer relationships rather than discrete transactions (Buttle, 2010; Cravens and Piercy, 2009; Rust et al., 2010). Firms can increase their CLV when the relationships with long-term profitable customers are enhanced (Jain and Singh, 2002).

CLV (lifetime customer value, lifetime value) has been studied under the names of value from customer, customer equity and customer profitability. An accepted consensus on the definition of CLV is that it represents the net present value of the expected revenues from customers over the lifetime of transactions with the firm minus the cost of attracting, selling and servicing them. That is, CLV refers to the net present value of expected benefits less the burdens from customers over their life of relationship with a firm (Dwyer, 1989). Although CLV is typically defined and calculated at an individual customer, which helps firms differentiate customers who are more profitable to firms, accurately estimating the revenues and costs of a relationship still remains challenging (Sohrabi and Khanlari, 2007). In theory, CLV represents the margin between how much a firm spends to acquire each customer and how much each customer is worth in monetary terms. Firms can compute it for individual customers from their purchase records and thus forecast individual customer's benefit, distribute promotions and allocate organizational resources to retain customers (Shin and Liu, 2003). However, in practice it is relatively difficult to make accurate calculations of it.

Though several scholars have placed great emphasis on the financial perspective of CLV, most are theoretical, complex and not applicable (Sohrabi and Khanlari, 2007). Therefore, CLV is not only a financial index, but a marketing index.

II. Statement of the Problem

The banks are facing lot of difficulties in acquiring new customers and in retaining the existing customers. The ultimate aim of every bank is that to attain the loyalty of the customers. The customers are loyal only if they were satisfied with the products and services offered by the banks. So it is very difficult to assess the relation between the life time value, customer relationship and retention and depicted that Customer lifetime value (CLV) is a key-metric within CRM. The prediction of CLV in multi-service industries is rather complex, because customers can purchase more than one service, and these purchases are often not independent from each other. As the customer base level are more complicated the forecasting errors are rather small, which emphasizes the usability of CLV predictions for customer base valuation purposes (Bas Donkers, Peter C. Verhoef, Martijn de Jong, 2003). In the light of this development, it seems pertinent to focus on the study for testing the variables (9 statements are given) among the type of bank i.e., public and private sector bank customers.

III. Methodology

The study is descriptive and analytical in nature. 511 customers were selected from public and private sector banks by applying multi-stage random sampling method.

IV. Objectives

The main objective of the study is to measure the lifetime value of the customer in public and private sector banks.

V. Data Analysis and Discussion

Mann-Whitney U Test is a nonparametric test similar to the independent samples/test that tests whether or not two sampled populations are equivalent. This test should be used if the dependent variable is ordinal or if the assumptions for the independent samples/test are markedly violated.

5.1 Demographic Profile of Bank Employees

Demographic profiles of 394 bank employees were selected for the study are given below in the table.

Table 5.1 Demographic Profile of Bank Customers

Variables	Categories	Frequency	Per cent	Cumulative per cent
Age (Years)	Less than 24	76	14.9	14.9
	25-34	219	42.9	57.7
	35-44	130	25.4	83.2
	45-54	17	3.3	86.5
	55 and above	69	13.5	100
Gender	Male	375	73.4	73.4
	Female	136	26.6	100
Occupation	Salaried	147	28.8	28.8
	Self-employed	74	14.5	43.2
	Professional	82	16	59.3
	Business	69	13.5	72.8
	Student	42	8.2	81
	Retired	42	8.2	89.2
	Housewife	35	6.8	96.1
	Others	20	3.9	100
Type of Bank	Public	236	46.2	46.2
	Private	275	53.8	100
Type of account	Current Account	46	9	9
	Savings Account	333	65.2	74.2
	Local Business Account	59	11.5	85.7
	Corporate Account	33	6.5	92.2
	Foreign Account	40	7.8	100

Source: Primary data

5.2 Measuring the Lifetime Value of the Customer in both Public and Private Sector Bank

The Mann-Whitney U test is the most popular of the two-independent samples tests. The Mann-Whitney Test is one of the most powerful of the nonparametric tests for comparing two populations. It is used to test the null hypothesis that two populations have identical distribution functions against the alternative hypothesis that the two distribution functions differ only with respect to location (median), if at all.

The Mann-Whitney test does not require the assumption that the differences between the two samples are normally distributed. In many applications, the Mann-Whitney Test is used in place of the two sample independent t-test when the normality assumption is questionable. This test can also be applied when the observations in a sample of data are ranks, that is, ordinal data rather than direct measurements. The most important factors (9 statements) are listed here to measure the lifetime value of the customer. The results are reported below:

Table 5.2 Descriptive Statistics on Measuring Lifetime value of the Customer by Bank

	Mean (n=511)	Std. Deviation
I would not change the loyalty to this bank for several years in my lifetime	4.51	.500
I am proud of being this bank's customer	4.18	.637
I would buy the products and services of this bank, through its advertisement	3.34	1.125
I would buy the new products and services of this bank due to this bank staffs' promotion	3.58	.975
I would recommend this bank to my friends	3.95	.739
I am willing to share my experiences of doing business with this bank to others	4.12	.810
Compared with other banks I ever do business with, I think it is worth to pay to this bank's products and services	4.11	.652
It is satisfied with the entire benefits provided by this bank	4.26	.665
The service provided by this bank is equal to the expense you had paid	4.10	.792

Source: Primary data

Table 5.3 Mean Ranks of Measuring Lifetime value of the Customer by Bank

Type of Bank		N	Mean Rank	Sum of Ranks
I would not change the loyalty to this bank for several years in my lifetime	Public	236	273.82	64621.50
	Private	275	240.71	66194.50
	Total	511		
I am proud of being this bank's customer	Public	236	216.58	51113.50
	Private	275	289.83	79702.50
	Total	511		
I would buy the products and services of this bank, through its advertisement	Public	236	258.22	60941.00
	Private	275	254.09	69875.00
	Total	511		
I would buy the new products and services of this bank due to this bank staffs' promotion	Public	236	224.17	52903.50
	Private	275	283.32	77912.50
	Total	511		
I would recommend this bank to my friends	Public	236	226.90	53549.50
	Private	275	280.97	77266.50
	Total	511		
I am willing to share my experiences of doing business with this bank to others	Public	236	257.54	60780.00
	Private	275	254.68	70036.00
	Total	511		
Compared with other banks I ever do business with, I think it is worth to pay to this bank's products and services	Public	236	230.70	54445.00
	Private	275	277.71	76371.00
	Total	511		
It is satisfied with the entire benefits provided by this bank	Public	236	258.79	61074.00
	Private	275	253.61	69742.00
	Total	511		
The service provided by this bank is equal to the expense you had paid	Public	236	256.98	60648.00
	Private	275	255.16	70168.00
	Total	511		

Source: Primary data

5.3 The hypothesis can be stated thus:

H0: There is no difference between public and private sector bank customers in their median responses on distribution of measuring lifetime value of a customer.

H1: There is difference between public and private sector bank customers in their median responses on distribution of measuring lifetime value of a customer.

Table 5.4 Mann-Whitney Test

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
I would not change the loyalty to this bank for several years in my lifetime	28244.500	66194.500	-2.919	.004*
I am proud of being this bank's customer	23147.500	51113.500	-6.290	.000*
I would buy the products and services of this bank, through its advertisement	31925.000	69875.000	-0.329	0.742
I would buy the new products and services of this bank due to this bank staffs' promotion	24937.500	52903.500	-4.747	.000*
I would recommend this bank to my friends	25583.500	53549.500	-4.519	.000*
I am willing to share my experiences of doing business with this bank to others	32086.000	70036.000	-0.238	0.812
Compared with other banks I ever do business with, I think it is worth to pay to this bank's products and services	26479.000	54445.000	-4.022	.000*
It is satisfied with the entire benefits provided by this bank	31792.000	69742.000	-0.436	0.663
The service provided by this bank is equal to the expense you had paid	32218.000	70168.000	-0.150	0.880

Source: Primary Data

*Significant at 5 per cent level of significance

Table of descriptive statistics shows that the statements of "I would buy the products and services of this bank, through its advertisement" (Mean = 3.34) are the most depended source of measuring lifetime value of a customer. The lower the ranks, the higher the preference. The mean rank Table presents that in public sector bank customers, the highest preferences are given to "I am proud of being this bank's customer" (lowest mean rank value 216.58), "I would buy the new products and services of this bank due to this staffs' promotion" (lowest mean rank value 224.17), "I would recommend this bank to my friends" (lowest mean rank value 226.90) and "compared with other banks I ever do business with, I think it is worth to pay to this bank's products and services" (lowest mean rank value 230.70) respectively. While "I would not change the loyalty to this bank for several years in my lifetime" (lowest mean rank value 240.71) in the case of private sector bank customers. While the hypotheses for above said distributions are rejected as the respective p values are **0.000, 0.000, 0.000, 0.000** and **0.004** respectively ($p < .05$), the hypotheses for other distributions are not rejected as the p values are 0.742, 0.812, 0.663 and 0.880 ($p > 0.05$).

VI. Findings

1. The majority of the customers (43 per cent) belongs to the age group of 25-34.
2. The gender-wise classification shows that males constitutes 73.4 per cent and females come to 26.6 per cent.
3. The classification of the sample based on their occupation shows that the majority of the selected customers belong to salaried (28.8 per cent), followed by professionals (16 per cent), self-employed (14.5 per cent), business (13.5 per cent), retired (8.2 per cent), students (8.2 per cent), while the group of others constitutes 10.7 per cent, comprising house wives, daily wage earners.
4. It is observed that out of the 511 customers, the majority (53.8 per cent) of the customers have account in the private sector banks than in the public sector banks (46.2 per cent).
5. The account-wise classification observed that out of the 511 customers, majority (65.2 per cent) of the customers have savings accounts in their banks. This was followed by local business account (11.5 per cent), current account (9 per cent), foreign account (7.8 per cent) and corporate account (6.5 per cent) respectively.
6. This hypothesis is tested with the Mann-Whitney U Test, respective p values are **0.000, 0.000, 0.000, 0.000** and **0.004** respectively ($p < .05$) which is statistically significant at 5 per cent level of significance (Table 3). It is clearly depicted in Mean Ranks (Table 2) that in the case of public sector bank customers, the highest preferences are given to "I am proud of being this bank's customer" (lowest mean rank value 216.58), "I would buy the new products and services of this bank due to this staffs' promotion" (lowest mean rank value 224.17), "I would recommend this bank to my friends" (lowest mean rank value 226.90) and "compared with other banks I ever do business with, I think it is worth to pay to this bank's products and services" (lowest mean rank value 230.70) respectively. While "I would not change the loyalty to this bank for several years in my lifetime" (lowest mean rank value 240.71) in the case of private sector bank customers.

VII. Conclusion

In the current scenario, the importance of Relationship Marketing is increasing day by day. Banks need to maintain relations with the loyal customers. The customer loyalty has been achieved only through by increasing their lifetime value of the customer. The present study aims to identify the various factors are helps to measure the lifetime value of the customer in both public and private sector banks. It is revealed that in case of public sector bank customers are given highest preference to these following statements i.e., "I am proud of being this bank's customer", "I would buy the new products and services of this bank due to this staffs' promotion", "I would recommend this bank to my

friends” and “compared with other banks I ever do business with, I think it is worth to pay to this bank’s products and services” respectively. While the statement “I would not change the loyalty to this bank for several years in my lifetime” in the case of private sector bank customers.

References

- [1] Berger, P. D. and Nasr, N. I. 1998. “Customer lifetime value: marketing models and applications”. *Journal of Interactive Marketing*, 12(1): 17-30.
- [2] Jackson, D. R. 1994. “Strategic application of customer lifetime value in the direct marketing environment”. *Journal of Targeting Measurement and Analysis for Marketing*, 3(1): 9-17.
- [3] Jain, D. and Singh, S. S. 2002. “Customer lifetime value research in marketing: a review and future directions”. *Journal of Interactive Marketing*, 16(2): 34-45.
- [4] Malthouse, E. C. and Blattberg, R. C. 2004. “Can We Predict Customer Lifetime Value”. *Journal of Interactive Marketing*, 19 (1): 2-16.
- [5] Nancy L. Leech, Karen C. Barrett and George A. Morgan. 2005. *SPSS for Intermediate Statistics; Use and Interpretation*, 2nd Edition, Lawrence Erlbaum Associates. London.
- [6] Sohrabi, B. and Khanlari, A. 2007. “Customer Lifetime Value Measurement Based on RFM Model”. *Iranian Accounting and Auditing Review*, 14(47): 7-20.

