

Comparison of customer satisfaction in public, private and co-operative banks in Rajkot city

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Abstract

The goal of present research paper was to compare the customer satisfaction in public, private and co-operative banks. The number of participants was 300 people (217 male and 83 female). To analyze data, we applied independent two sample t -test and one way ANOVA. The analysis showed that customer satisfaction between private bank & public bank (P -value < 0.05) and Private bank & co-operative bank (P -value < 0.05) were significantly different, but customer satisfaction between public bank & co-operative bank was not significantly different (P -value > 0.05). The customer satisfaction in private bank is more as compare to public and co-operative bank.

Keywords: Bank, Satisfaction, Customer, t -test, ANOVA

1. Introduction

In Indian economy, the banking sector has important place in nation's economy. Banks are dealing with many customers every day and give various types of services to its customer. The most important asset of any bank is its customers. Customer's experience of a service is multifaceted and hence it is hard to measure. It needs to be measure individually to get an accurate total picture of customer satisfaction. Customer satisfaction of bank is a term that measures how services supplied by a bank meet a customer's expectation. Jayant Kumar H.P *et al.* (2012) studied about expectation and perception of customers across the Public and Private Bank sectors. Customer satisfaction is crucial concern to bank. It is depends on many factors such as availability of ATMs, phone and net banking along with availability of service right at the customer's doorstep. The survival of bank is depending upon degree of customer satisfaction. Dr. Harinder Singh Gill *et al.* (2013) compared the satisfaction level of public and private bank and their study revealed that public sector banks bit behind in technology compare to private banks. Nirmaljeet Virk *et al.* (2012) also compared the customer satisfaction in Public and Private Sector Banks in India. Their result shows that private sector banks are more preferred by customers as compared to public sector banks. Dutta *et al.* (2009) carried out a study to investigate perception of expectations of customers across all the banks in India and their study suggest that foreign banks were the most preferred banks followed by private banks and public banks. The purpose of current study is to measure the customer satisfaction in Private, Public and Co-operative banks.

2. The Research Methodology

In this study, we have collected data of 300 respondents living in Rajkot city. This study is based on questionnaire methods. We have covered customers from private, public and co-operative banks. The data collection took place from January to February 2016. The Statistical techniques t -test and ANOVA are used. The analysis has been done in SPSS software.

3. Statistical Analysis

In this study, we have given ten questions to respondents to calculate score of customer satisfaction. Each Question of about satisfaction is coded Highly Dissatisfied (1), Dissatisfied (2), Neutral (3), Satisfied (4), Highly Satisfied (5). After adding ten questions of satisfaction we get score of customer satisfaction. One of the assumption of t -test and ANOVA is dependent variable follows normal distribution. But in this study the dependent variable *customer satisfaction* does not follow normal distribution. The normality has been checked by using Kolmogorov-Smirnov test. Square transformation of dependent variable (customer satisfaction) satisfies the assumption of normality.

3.1 Independent two sample t -test

The Independent two sample t -test is used when we want to know whether there is a difference between two populations. Here Population referred as, population of male and female respondent, population of married and unmarried respondent etc.

Hypothesis

H₀: There is no significant difference between mean customer satisfactions of two populations.

Vs

H₁: There is significant difference between mean customer satisfactions of two populations.

Table 1 showing some basic descriptive, Out of 300 respondents 217 are male and 83 are female. Average customer satisfaction (squared) of male and female is 1385.1382 and 1369.6145 respectively. In this study, 192 respondents are married and 108 respondents are unmarried. Average customer satisfaction (squared) of married and unmarried respondents is 1408.4479 and 1331.7685 respectively. Average customer satisfaction (squared) of other independent variables is shown in table 1 respectively.

Table 1: Group Statistics

		N	Mean	Std. Deviation	
Customer satisfaction (squared)	Gender	Male	217	1385.1382	408.55983
		Female	83	1369.6145	357.71964
	Marital Status	Married	192	1408.4479	386.83343
		Unmarried	108	1331.7685	405.27781
	Status of account	active	267	1444.9176	355.14206
		not active	33	862.4242	308.61313
	Banking needs fulfill by your bank	Yes	238	1478.4496	346.95059
		No	62	1006.1613	340.25613
	Bank provides advisory services	Yes	208	1499.2067	353.05034
		No	92	1113.2391	351.74049
	Satisfies with the ATM service	Yes	235	1398.2681	397.10467
		No	65	1317.8462	381.87773
	Bank provides information by telephone	Yes	158	1530.9367	364.10786
		No	142	1213.8380	359.55360
	Bank provides information by message	Yes	273	1399.2674	396.86474
		No	27	1194.5556	321.79381
	Bank provides information by mail	Yes	94	1485.0106	470.26397
		No	206	1333.3107	345.77760
Bank provides information by post	Yes	58	1531.4655	490.35233	
	No	242	1344.7438	359.95517	

Note: we have taken square of customer satisfaction because of normality assumption.

In table 2, for the variable gender *P*-value is greater than 0.05, hence we accept null hypothesis .i.e. There is no significant difference between customer satisfaction of male and female. Marital status of respondent doesn't shows significant difference in customer satisfaction (*P*-value >0.05) i.e. there is

no significant difference between customer satisfaction of married and unmarried respondents. The variable *Satisfies with the ATM service* doesn't shows significant difference in customer satisfaction in their two groups (*P*-value >0.05).

Table 2: t-test for Equality of Means

Dependent variable	Independent variables	t	df	Sig. (2-tailed)
Customer satisfaction (squared)	Gender	0.304	298	0.761
	Marital Status	1.620	298	0.106
	Status of account	9.008	298	0.000
	Banking needs fulfil by your bank	9.584	298	0.000
	Bank provides advisory services	8.741	298	0.000
	Satisfies with the ATM service	1.457	298	0.146
	Bank provides information by telephone	7.576	298	0.000
	Bank provides information by message	2.596	298	0.010
	Bank provides information by mail	3.134	298	0.002
	Bank provides information by post	3.289	298	0.001

In variable *Status of account*, *P*-value < 0.05. Hence we can say that, there is a significant difference between customer satisfactions of respondent whose account is active and respondent whose account is not active.

The *Banking needs fulfil by your bank*, *Bank provides advisory services*, *Bank provides information by telephone*, *Bank provides information by message*, *Bank provides information by mail* and *Bank provides information by post* variable also shows the significant difference in customer satisfaction in their two groups (*P*-value < 0.05).

3.2 One way analysis of variance

Analysis of variance is collection of statistical models used in order to analyze the differences between group means and their associated procedure (such as "variation" among and between groups). One Way ANOVA is useful in comparing three or more population means.

Hypothesis

H₀: There is no significant difference between mean customer satisfactions of three or more populations.

V_s

H₁: There is significant difference between mean customer satisfactions of three or more populations.

The descriptive table 3 provides the total number of cases (N) and mean of customer satisfaction (squared) for each category for variable occupation, annual income, bank sector, account type and education. The respondents who are doing private job have more satisfaction mean. The respondents annual income belongs to 5-10lakh have more satisfaction mean. The private bank sector has more satisfaction mean as compare to public and co-operative bank sectors. The customers have loan account type are more satisfaction mean. The post graduate customers have more satisfaction mean as compare to other education categories.

Table 3: Descriptive

		N	Mean	
Customer satisfaction (squared)	Occupation	Business	62	1417.7742
		Private Job	66	1485.7273
		Government Job	49	1371.3469
		House Wife	42	1341.0238
		Retired	10	1434.3000
		Student	71	1273.6761
	Annual income	0-1 Lakh	125	1311.4480
		1-2 Lakh	40	1422.7750
		2-5 Lakh	125	1396.4080
		5-10 Lakh	10	1886.0000
	Bank sector	Private	48	1812.4792
		Public	226	1287.6637
		Co-operative	26	1393.9231
	Account Type	Current	37	1533.7838
		Saving	256	1354.1172
		Loan	7	1549.8571
	Education	Primary	7	1231.0000
		Secondary	14	1111.8571
Higher Secondary		45	1301.6444	
Graduate		188	1400.6330	
Post Graduate		43	1503.0233	
	PhD	3	1182.3333	

Table 4 shows the output of ANOVA for variables occupation, annual income, bank sector, account type and education. We can see that *P*-value for all five variables is less than 0.05, hence we reject the null hypothesis. Thus we can conclude that there is significant difference between mean customer satisfaction of six groups of occupation, four groups of annual

income, three groups of bank sector, three groups of account type and six group of education. After rejection of null hypothesis of one way ANOVA next task is to find which of the specific groups differs. Hence we have to go for the multiple comparison test which is known as Tukey test shown in table 5.

Table 4: One way ANOVA Table

Dependent Variable: Customer satisfaction (squared)

		Sum of Squares	df	Mean Square	F	Sig.
Occupation	Between Groups	1725615.980	5	345123.196	2.263	.048
	Within Groups	44836811.657	294	152506.162		
	Total	46562427.637	299			
Annual Income	Between Groups	3254409.558	3	1084803.186	7.414	.000
	Within Groups	43308018.079	296	146310.872		
	Total	46562427.637	299			
Bank sector	Between Groups	10909535.369	2	5454767.684	45.440	.000
	Within Groups	35652892.268	297	120043.408		
	Total	46562427.637	299			
Account Type	Between Groups	1248276.025	2	624138.012	4.091	.018
	Within Groups	45314151.612	297	152572.901		
	Total	46562427.637	299			
Education	Between Groups	2286128.292	5	457225.658	3.036	.011
	Within Groups	44276299.344	294	150599.658		
	Total	46562427.637	299			

Multiple Comparisons table 5 shows which groups differed from each other for variable occupation, annual income, bank sector, account type and education. The Tukey Post-Hoc is generally the preferred test for corresponding Post-Hoc tests on a one-way ANOVA. In occupation variable, there is significant difference in mean customer satisfaction between the groups private job & student (*P*-value = 0.015). In annual income variable, there is significant difference in mean customer satisfaction between the groups 0-1 lakh and 5-10 lakh (*P*-value = 0.000), 1-2 lakh and 5-10 lakh (*P*-value = 0.004), 2-5 lakh and 5-10 lakh (*P*-value = 0.001). In bank sector variable,

there is significant difference in mean customer satisfaction between the groups Private bank and Public bank (*P*-value = 0.000), Private bank and Co-operative bank (*P*-value = 0.000). In account type variable, there is significant difference in mean customer satisfaction between the groups current account type and saving account type (*P*-value = 0.025). In education variable, that there is significant difference in customer satisfaction between the groups secondary & post graduate (*P*-value = 0.015). However there is no differences between the groups which has *P*-value greater than 0.05.

Table 5: Multiple Comparisons

Dependent Variable: Customer satisfaction (squared)

	I	J	Mean Difference (I-J)	Std. Error	Sig.
Occupation	Business	Private Job	-67.95308	69.06863	.923
		Government Job	46.42725	74.64682	.989
		House Wife	76.75038	78.04406	.923
		Retired	-16.52581	133.08040	1.000
		Student	144.09814	67.88042	.278
	Private Job	Government Job	114.38033	73.64150	.630
		House Wife	144.70346	77.08306	.418
		Retired	51.42727	132.51911	.999
		Student	212.05122*	66.77330	.020
	Government Job	House Wife	30.32313	82.11863	.999
		Retired	-62.95306	135.51010	.997
		Student	97.67088	72.52823	.759
	House Wife	Retired	-93.27619	137.41075	.984
		Student	67.34775	76.02022	.950
	Retired	Student	160.62394	131.90372	.828
	Annual Income	0-1 Lakh	1-2 Lakh	-111.32700	69.48567
2-5 Lakh			-84.96000	48.38361	.297
5-10 Lakh			-574.55200*	125.70431	.000
1-2 Lakh		2-5 Lakh	26.36700	69.48567	.981
		5-10 Lakh	-463.22500*	135.23631	.004
2-5 Lakh		5-10 Lakh	-489.59200*	125.70431	.001
Bank sector	Private	Public	524.81545*	55.06423	.000
		Co-operative	418.55609*	84.36799	.000
	Public	Co-operative	-106.25936	71.75110	.302
Account Type	Current	Saving	179.66660*	68.69920	.025
		Loan	-16.07336	160.99603	.995
	Saving	Loan	-195.73996	149.63996	.392
Education	Primary	Secondary	119.14286	179.64230	.986
		Higher Secondary	-70.64444	157.67338	.998
		Graduate	-169.63298	149.38306	.866
		Post Graduate	-272.02326	158.16622	.520
		PhD	48.66667	267.79493	1.000
	Secondary	Higher Secondary	-189.78730	118.75933	.600
		Graduate	-288.77584	107.50898	.081
		Post Graduate	-391.16611*	119.41288	.015
		PhD	-70.47619	246.89472	1.000
	Higher Secondary	Graduate	-98.98853	64.40280	.641
		Post Graduate	-201.37881	82.75854	.148
		PhD	119.31111	231.40126	.996
	Graduate	Post Graduate	-102.39028	65.60015	.625
		PhD	218.29965	225.83389	.928
	Post Graduate	PhD	320.68992	231.73736	.737

*. The mean difference is significant at the 0.05 level.

4. Conclusion

The result of study showed that the customer have more satisfaction if bank fulfil the customers all banking needs, provides advisory service, provides necessary information by telephone, provides necessary information by message, provide necessary information by mail and provides necessary information by post. The customer who are doing private job has more satisfaction as compare to other occupation. The higher annual income customers have more satisfaction as compared to lower annual income customers. The customers have loan account type have more satisfaction as compared to saving and current account type. Post graduate customers have more satisfaction as compared to other education category. The customer satisfaction in private bank is more as compare to public and co-operative bank.

5. References

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