

A Comparative Analysis Of E-Banking Service Quality In Select Public And Private Sector Banks - The Case Of Kalaburagi City

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Abstract

Service quality, customer retention, satisfaction, loyalty and delight are currently the key concerns confronting the banking industry. In the banking industry, service quality is critical for the satisfaction of the customer. The present study makes a comparison of e-banking service quality between public and private sector banks. To carry out the study structured questionnaire was randomly distributed among respondents and the sample so chosen for the study is 628 respondents of Kalaburagi City. The statistical tools used for the study are the chi-square test, independent t-test and paired t-test. The study concludes that though public sector banks are providing e-banking services few customers' of public sector banks are using e-banking services so the public sector banks have to provide quality service by filling the service quality gap.

Keywords: E-Banking, Service quality, Comparison, Expectation, Perception.

Introduction:

The banking sector plays an important role in the development of the economy. The banking sector is an evolving and developing service sector. Service quality is considered as a significant issue in service sector industries. Delivering appropriate service plays an increasingly important role in the banking sector. The high and unique quality of service is the way to win confidence of the customers' and make them satisfied, retain and loyal for a long period.

The proliferation of internet applications during the past few years has impacted significantly the banking sector. Nowadays, customers' are using more self-service options, which are more convenient, easy and fast. In addition, the advent and use of the Internet has changed considerably the daily activities of most people, such as shopping and banking. The popularity of e-banking is increasing in recent years. With the change in customer behaviour, the competition in the banking sector has increased as a consequence providing quality service has become an important part. Most customers' now prefer technology-based services like using a debit card, credit card, internet banking,

mobile banking etc. for their banking transactions. Thus, the e-banking service provider needs to study customer expectations, customer perceptions and attributes. Customers' have their own expectations about e-banking service and post service they judge whether the provided service is satisfactory or not. The banks providing e-banking services should find out the gap of satisfaction and fill the gap by improving the service quality of e-banking services.

Literature Review:

Internet-based service quality enables the bank to effectively prioritize quality improvement in terms of various service attributes (Chian-Son Yu, 2008). Change in e-service quality factor significantly impact on relationships among e-service quality, satisfaction and loyalty (GjokoStamenkov & Zamir Dika, 2016). Simon Gyasi Nimako, Nana Kwame Gyamfi, Abdil Mumuni Moro Wandaogou (2013) highlight that customers' of the two banks studied by them are dissatisfied with the promptness of reception of responses to customer requests, the ability to be guided online to resolve problems, offering of preferentially lower fees/ rates and charges, and reasonability of the transaction fee

for online banking transactions, but are very less satisfied with the speed of web pages loading when using online banking transactions. D.Sidhardha and P.Purna Chandra Rao (2018) say that there is a clear divide between the expectations and perceptions of the customers' among private and public sector banks. Perceived e-service quality has more influence on customer satisfaction and use of e-banking, which suggests that greater quality of e-service, has the potential to enhance satisfaction and consequently results in more use of e-banking (Charles k. Ayo, AderonkeAtinuke Oni, Oyerinde J. Adewoye, Ibukun O. Eweoya, 2016). Frederic Marimon, Luc HonorePetnji Yaya & Marti Casadesus Fa (2012) observed that the efficiency of a website and responsiveness to complaints has a positive influence on e-loyalty. Perceived online service quality increases customer e-satisfaction and their e-loyalty towards the bank. Similarly, e-trust mediates the relationship between e-satisfaction and e-loyalty (Muhammad Mohsin Butt, Muhammad Aftab, 2013). Chih-Chin Liang & Wu Pei-Ching (2015) opine that service quality has a significant and direct positive effect on customer satisfaction; customer satisfaction has a significant and direct positive effect on customer loyalty, and therefore service quality has a significant but indirect positive effect on customer loyalty via customer satisfaction. E-service quality does not seem to be an effective lever for influencing customer channel behaviour; however, it is a key driver of e-loyalty intentions (Rui Sousa & Chris Voss, 2012).Ajimon George, G. S. Gireesh Kumar (2014) emphasise the need for banks to possess a pool of highly responsive bank employees who can respond quickly to all the requirements and complaints of customers'. Proper care should be taken to fulfil the service promises of internet banking and the privacy of the customers'' informational data (Sukanya Kundu, Saroj Kumar Datta, 2015). IliasSantouridis, Panagiotis Trivellas& Panagiotis Reklitis (2009) say that empathy and web assistance, play a vital role in customers'' willingness to recommend the service to other people. Service quality has a significant effect on customer satisfaction (Miran Ismail Hussien, Rasha Abd El Aziz, 2013) Yu-Lung Wu, Yu-Hui Tao & Pei-Chi Yang (2012) made an effort to present a holistic E-Banking Service Quality Assessment in Public and Private Sectors Banks in Kalaburagi City 3045 view of

e-service quality for e-banking with embedded cultural factors and to provide a rigorous measurement scale development procedure applicable areas other than e-banking.Bauer, Hammerschmidt, Tomas (2004)say that continuously measuring quality in e-banking fosters appropriate improvements as one of the dimensions falls below a tolerable level.Felix R (2017) says that there is a significant and positive relationship between service quality and customer satisfaction while comparing dimensions like customer loyalty with reliability, responsiveness and assurance.

Objectives:

Following are the objectives of the study.

1. To study the customer perception and their expectation levels about e-banking.
2. To identify the service quality gap of e-banking.
3. To compare the service quality of select private and public sector banks.
4. To suggest measures for improvement of e-banking services.

Research Methodology:

Primary and secondary data have been used for carrying out the study. Primary data have been collected through structured questionnaires from the existing bank customers' and the secondary data have been collected from the previous publications. In this paper, an attempt has been made to carry out the descriptive study. The sample chosen for the study is 628 respondents of Kalaburagi City. Data collected was analysed with the help of statistical tools such as the chi-square test, independent sample t-test and paired t-test.

Bank	Customers'' Strength
State Bank of India	170
Bank of Baroda	52
Canara Bank	102
AXIS Bank	74
ICICI Bank	121
HDFC Bank	109
Total	628
Source: Field Survey, 2021	

Hypothesis Testing:

1. Difference between customers' perceptions about e-banking services across banks.
2. Comparative Analysis of Service Quality between Public Sector banks and Private Sector banks.
3. Comparative analysis of Overall Service Quality Gap among dimensions.

Data Analysis and Findings:**Demographic Profile of the Respondents**

The demographic data is statistical data collected about the characteristics of the population, to determine whether the researcher reaching the target audience and gathering the information. The demographic profile of the respondents is analyzed based on their Age, Gender, Marital status, Education, Occupation and Income.

Table 1.2 Demographic Profile of the Respondents

		Frequency	Per cent
Age	18 to 24	76	12.1
	25 to 34	279	44.4
	35 to 44	200	31.8
	45 to 54	56	8.9
	55 to 64	8	1.3
	65 to 74	9	1.4
	Total	628	100.0
Gender	Male	425	67.7
	Female	203	32.3
	Total	628	100.0
Marital Status	Married	437	69.6
	Unmarried	191	30.4
	Total	628	100.0
Education	Under Graduate	61	9.7
	Graduate	210	33.4
	Post Graduate	273	43.5
	Professional	48	7.6
	Others	36	5.7
	Total	628	100.0
Occupation	Service	224	35.7
	Business	58	9.2
	Professional	196	31.2
	Student	77	12.3
	Agriculture	15	2.4
	Others	58	9.2
	Total	628	100.0
Monthly Income	Below Rs.10000	151	24.0
	Rs. 10001 – 20000	111	17.7
	Rs. 20001 – 30000	125	19.9
	Rs. 30001 – 40000	78	12.4
	Rs. 40001 – 50000	48	7.6
	Above Rs. 50001	113	18.0
	Total	628	100.0

Source: Primary Data

Table 1.2 reveals the demographic profile of the respondents of select public and private sector bank customers' in Kalaburagi City. The

predominant group of the respondents i.e 44.4% are distributed in the age group of 25 to 34 years. A good number of the respondents i.e

31.8% are distributed in the age group of 35 to 44 years, 12.1%, 8.9%, 1.4% and 1.3% are distributed in the age group of 18 to 24 years, 45 to 54 years, 65 to 74 years and 55 to 64 years respectively. The male respondents are more i.e. 67.7% than female i.e. 32.3%. Out of 628 respondents, 69.6% are married and 30.4% are unmarried. The qualification of the respondents having Post Graduation is highest, which is 43.5%, Graduates are 33.4%, Under Graduates are 9.7%, Professionals are 7.6% and other qualifications of the respondents are 5.7%, which is least. Occupational information of respondents shows Service sector has remarkable number i.e. 35.7%, a good majority of the respondents are Professionals i.e. 31.2% and Agricultural sector respondents are least, which is 2.4%. The monthly income of the respondents is below Rs. 10,000 represents the highest number of respondents, which is 24% and the least number of respondents i.e. 7.8%, belongs to Rs. 40,001 to Rs. 50,000.

Discussion of Hypothesis Test Results:

1. Difference between customers' perceptions about e-banking services across banks.

Table 1.3 H₀₁: There is no significant difference between customers' perception about factors that influence to opt e-banking services across banks

Factors	Bank Sector		Total	Chi-square value	P-value	Result
	Public Sector	Private Sector				
Convenience	132	176	308	18.468 ^a	0.000	Rejected
Quick services	164	183	347	5.822 ^a	0.016	Rejected
Easy access	97	190	287	67.013 ^a	0.000	Rejected
Time-saving	157	184	341	9.207 ^a	0.002	Rejected
Less cost	21	41	62	8.650 ^a	0.003	Rejected

Source: Primary Data

Table – 1.3 shows the difference between the factors which influence to opt for e-banking services across banks and customers' perceptions. The computed value for convenience, quick services, easy access, time-saving and less cost is 18.468, 5.822, 67.013, 9.207 and 8.650 respectively and the p-value is 0.000, 0.016, 0.000, 0.002 and 0.003 respectively, which is less than 0.05 hence, the null hypothesis is rejected and alternate hypothesis is accepted and it is concluded that there is a significant difference between customers' perception about factors which

H₀: There is no significant difference between customers' perception of e-banking service across banks.

Sub Hypotheses:

H₀₁: There is no significant difference between customers' perception about factors that influence to opt e-banking services across banks

H₀₂: There is no significant difference between customers' availing e-banking services across banks

H₀₃: There is no significant difference between customers' primary purpose to use e-banking services across banks

H₀₄: There is no significant difference between customers' perception of problems encountered across banks

H₀₅: There is no significant difference between customers' perception about charges levied by banks across banks

influence to opt e-banking services across banks.

It is clear from the data that factors which influence to opt for e-banking services in public and private sector banks are different. The factors such as convenience, quick services, easy access, time savings and lower cost are the factors that influence more in private sector banks compared to public sector banks. Among all the factors quick service is the highest which influences most in public sector banks and easy access is the highest

factor that influences most in private sector banks.

Table 1.4 H₀₂: There is no significant difference between customer perception and customers' availing e-banking services across banks

Services Availed	Bank Sector		Total	Chi-square value	P-value	Result
	Public Sector	Private Sector				
Internet banking	224	245	469	10.887 ^a	0.001	Rejected
Mobile banking services	264	298	562	45.648 ^a	0.000	Rejected
Phone banking services	124	150	274	7.816 ^a	0.005	Rejected
ATM facility	242	221	463	.322 ^a	0.570	Accepted
Credit card facility	74	185	259	93.536 ^a	0.000	Rejected
Debit card facility	292	275	567	.020 ^a	0.887	Accepted
NEFT	116	151	267	12.343 ^a	0.000	Rejected
RTGS	88	147	235	30.087 ^a	0.000	Rejected
Others	12	36	48	14.716 ^a	0.000	Rejected

Source: Primary Data

Table – 1.4 shows the difference between customers' perception and customers' availing e-banking services across banks. The computed value for internet banking, mobile banking services, phone banking services, credit card facility, NEFT, RTGS and other services is 10.887, 45.648, 7.816, 93.536, 12.343, 30.087 and 14.716 respectively and the p-value is 0.001, 0.000, 0.005, 0.000, 0.000, 0.000 and 0.000 respectively, which is less than 0.05 hence, the null hypothesis is rejected and alternate hypothesis is accepted and it is concluded that there is a significant difference between customers' perception and e-banking service across banks.

For ATM facility and debit card facility computed value is 0.322 and 0.020 respectively and the p-value is 0.570 and 0.887 respectively

at a 5% level of significance hence, the null hypothesis is accepted and it is concluded that there is no significant difference between customer perception and ATM facility across banks.

Data collected reveals that there is a difference in perception of customer service availed in public and private sector banks. Internet banking, mobile banking services, phone banking services, credit card facility, NEFT, RTGS and other services are mostly availed by private sector banks wherein ATM facility and Debit card facility is most availed by public sector banks. Thus, it concludes that private sector banks are availing more e-banking services compared to public sector banks.

Table 1.5 H₀₃: There is no significant difference between customers' primary purpose to use e-banking services across banks

The primary purpose for using e-banking service	Bank Sector		Total	Chi-square value	P-value	Result
	Public Sector	Private Sector				
Statement of Accounts	193	218	411	10.226 ^a	0.001	Rejected
Utility Payments	124	174	298	22.624 ^a	0.000	Rejected
Bus & Railway ticket booking	130	153	283	6.598 ^a	0.010	Rejected
Insurance Premium	53	112	165	33.974 ^a	0.000	Rejected
Online shopping	201	244	445	25.232 ^a	0.000	Rejected
Mobile recharge	208	229	437	9.183 ^a	0.002	Rejected

DTH recharge	115	95	210	1.269 ^a	0.260	Accepted
Others	28	31	59	.446 ^a	0.504	Accepted

Source: Primary Data

Table – 1.5 shows the difference between customers' primary purpose to use e-banking services across banks. The computed value of the statement of accounts, utility payments, bus and railway ticket booking, insurance premium, online shopping and mobile recharge is 10.226, 22.624, 6.598, 33.974, 25.232 and 9.183 respectively and the p-value is 0.001, 0.000, 0.010, 0.000, 0.000 and 0.002 respectively which is less than 0.05 hence, the null hypothesis is rejected and alternate hypothesis is accepted and it is concluded that there is a significant difference between customers' primary purpose to use e-banking service across banks.

The computed value for DTH service and other services is 1.269 and 0.446 respectively and the p-value is 0.260 and 0.504

respectively which is more than 0.05 at a 5% level of significance hence, the null hypothesis is accepted and it is concluded that there is no significant difference between primary purpose to use e-banking services across banks.

The result assumes that the primary purposes for using e-banking services are different in public and private sector banks. The services such as a statement of accounts, utility payments, bus and railway ticket booking, insurance premium, online shopping mobile recharge are e-banking primary services used by private sector banks is highest wherein DTH recharge and other services are used most by public sector banks. Thus it concludes that the usage of e-banking services is highest in private sector banks when compared to public sector banks.

Table 1.6 H₀₄: There is no significant difference between customers' perception of problems encountered across banks

Problems encountered during access of E-Banking services	Bank Sector		Total	Chi-square value	P-value	Result
	Public Sector	Private Sector				
Server down	137	123	260	.215 ^a	0.643	Accepted
ATM not working properly	69	73	142	.662 ^a	0.416	Accepted
Problem in Deposit of cash/cheque	12	32	44	11.205 ^a	0.001	Rejected
Risk of loss of credit/debit card	12	30	42	9.551 ^a	0.002	Rejected
Employees not attending the phone call properly	32	30	62	.000 ^a	0.997	Accepted
Delay in services	32	46	78	3.982 ^a	0.046	Rejected
Availability of required currency in ATM	32	55	87	8.870 ^a	0.003	Rejected
Untrained personnel	3	15	18	9.051 ^a	0.003	Rejected
Too many steps in processing transaction	16	39	55	12.221 ^a	0.000	Rejected
Other Problems	5	9	14	1.445 ^a	0.229	Accepted

Source: Primary Data

Table – 1.6 shows the difference between customers' perceptions about problems encountered across banks. The computed value of server down the problem, ATM not working properly, employees not attending the phone call properly and other problems is 0.215, 0.662, 0.000 and 1.445 respectively and the p-value is 0.643, 0.416, 0.997 and 0.229 respectively, which is more

than 0.05. Hence null hypothesis is accepted and it is concluded that there is no significant difference between customers' perception about problems encountered across banks.

The computed value of the problem in the deposit of cash/cheque, risk of loss of credit/debit card, delay in service, availability of required currency in ATM, untrained

personnel and too many steps in processing transaction is 11.205, 9.551, 3.982, 8.870, 9.051 and 12.221 respectively and the p-value is 0.001, 0.002, 0.046, 0.003 and 0.000 respectively which is less than 0.05. Hence null hypothesis is rejected and it is concluded that there is a significant difference between customers' perception about problems encountered across banks.

The result exhibits that the problems such as server down, ATM not working

Table 1.7 H₀₅: There is no significant difference between customers' perception about charges levied by banks across banks

Charges levied by the Bank	Bank Sector		Total	Chi-square value	P-value	Result
	Public Sector	Private Sector				
Yes	222	179	401	19.119 ^a	0.000	Rejected
No	86	122	208			
No Response	16	3	19			
Total	324	304	628			

Source: Primary Data

Table – 1.7 shows the difference between customers' perceptions about charges levied across banks. The computed value is 19.119 and $p = 0.00$ which is less than 0.05. Hence, null hypothesis is rejected and it is concluded that there is a significant difference between customers' perception about server charges levied across banks.

properly, employees not attending the phone calls, and other problems are not different in public and private sector banks but problems like problem in the deposit of cash/cheque, risk of loss of credit/debit card, delay in services, availability of required currency in ATM, untrained personnel and too many steps in processing transaction differ in public and private sector banks, and private sector banks are more prone to face such problems than public sector banks.

The result assumes that there is a difference in charges levied by banks in public and private sector banks. The charges levied by the public sector banks are more than private sector banks when compared.

2. Comparative Analysis of Service Quality between Public Sector banks and Private Sector banks

Table 1.8 H₀: There is no significant difference between service quality and public and private sector banks

Service Quality		N	Mean	Std. Deviation	T value	P-value	Result
Tangible Expectation	Public Sector	324	4.24	0.7882	-1.865	0.063	Accepted
	Private Sector	304	4.3569	0.7825			
Tangible Actual Delivery	Public Sector	324	3.7855	0.7013	-4.485	0.000	Rejected
	Private Sector	304	4.0288	0.6552			
Reliability Expectation	Public Sector	324	4.2052	0.8599	-0.998	0.318	Accepted
	Private Sector	304	4.2722	0.8178			

Reliability Actual Delivery	Public Sector	324	3.9205	0.6866	-0.521	0.602	Accepted
	Private Sector	304	3.9474	0.5968			
Responsiveness Expectation	Public Sector	324	4.2685	0.8267	-0.057	0.954	Accepted
	Private Sector	304	4.2722	0.7815			
Responsiveness Actual Delivery	Public Sector	324	3.8094	0.7889	-1.776	0.076	Accepted
	Private Sector	304	3.9087	0.5909			
Assurance Expectation	Public Sector	324	4.1968	0.8705	-1.095	0.274	Accepted
	Private Sector	304	4.2706	0.8151			
Assurance Actual Delivery	Public Sector	324	3.7724	0.7798	-2.631	0.009	Rejected
	Private Sector	304	3.9186	0.5937			
Empathy Expectation	Public Sector	324	4.1968	0.8526	-1.45	0.148	Accepted
	Private Sector	304	4.2936	0.8187			
Empathy Actual Delivery	Public Sector	324	3.6991	0.7931	-1.156	0.248	Accepted
	Private Sector	304	3.7689	0.7154			

Source: Primary Data

The result of the independent sample t-test shows (table – 1.8) that the t value for tangible actual delivery and assurance actual delivery are -4.485 and 2.631 respectively. The p-value for tangible actual delivery and assurance actual delivery are 0.000 and 0.009 respectively which is lower than 0.05. Therefore, the null hypothesis has been rejected for these dimensions. Thus, it can be concluded that there is a significant difference between service quality and public and private sector banks. The t value for tangible expectation, reliability expectation, reliability actual delivery, responsiveness expectation, responsiveness actual delivery, assurance expectation, empathy expectation and empathy actual delivery are -1.865, -0.998, -0.521, -

0.057, -1.776, -1.095, -1.45 and -1.156 respectively and the p-value of the same are 0.063, 0.318, 0.602, 0.954, 0.076, 0.274, 0.148 and 0.248 respectively which is more than 0.05, therefore the null hypothesis have been accepted for these dimensions. Thus, it can be concluded that there is no significant difference between service quality of public and private sector banks for these dimensions.

3. Comparative analysis of Overall Service Quality Gap among dimensions

Table 1.9 H₀: There is no significant difference between customers' expectations and the actual delivery of service quality dimensions

Dimensions	Mean	Std. Deviation	T value	P-value	Result
Tangible Gap	0.39331	0.94810	10.396	0.000	Rejected
Reliability Gap	0.30414	0.94001	8.108	0.000	Rejected
Responsiveness Gap	0.41282	0.98739	10.477	0.000	Rejected
Assurance Gap	0.38933	0.97379	10.019	0.000	Rejected
Empathy Gap	0.51075	1.06936	11.969	0.000	Rejected

Source: Primary Data

Table – 1.9 exhibits the difference between customers’ expectations and the actual delivery of service quality dimensions. The computed value of tangible gap, reliability gap, responsiveness gap, assurance gap and empathy gap is 10.396, 8.108, 10.477, 10.019 and 11.969 respectively and the p-value is 0.000 for all the dimensions which are less than 0.05 hence, the null hypothesis is rejected and concludes that there is a significant difference between customer expectation and the actual delivery of service quality dimension.

The result reveals that the Empathy gap means score (0.51075) is highest among all the dimensions which fail bankers dealing with e-banking in a caring fashion. The reliability gap means score (0.30414) is the least among all the dimensions which result in customers’ dependency on e-banking services provided by banks.

Conclusion:

Empirical findings of the study indicate, factors like convience, quick service, easy access, time-saving and lower cost influence more private sector bank customers’ than public sector bank customers’. Among all factors quick service influences more for the private sector and easy access influence more for public sector bank customers’. Most of the services of e-banking are availed by private sector banks but public sector bank customers’ avail themselves more ATM and Debit card facilities, which means e-banking services are mostly availed by private sector banks than public sector banks. Problems encountered during access of e-banking services are the same for both the sector banks but problem in the deposit of cash, risk of loss of smart cards, delay in service, availability of currency in ATM, untrained personnel and too many steps in processing transaction is most encountered by private sector banks, which banks have to overcome by attending the phone call of

customers’ properly, providing quick service and providing training to the employees. Charges levied by public sector banks are more than private sector banks as per the study, so the public sector has to reduce the quantum of service charge. There is no much difference in expectation of the public and private sector bank customer but there is a difference in the actual delivery of e-banking service with respect to tangible and assurance dimensions across public and private sector banks. There is more gap for empathy factor which fail banker dealing with e-banking in a caring fashion, so the employees have to give individual attention to the customer to reduce the service quality gap. Reliability gap, mean score is least among all the dimensions which mean customers’ rely on e-banking services provided by banks.

The result concludes that though public sector banks are providing e-banking services few customers’ of public sector banks are using e-banking services so, the public sector banks have to provide quality service by filling the service quality gap. Thus, it is clear that private sector banks are providing better e-services than public sector banks. Although the overall service quality obtained shows that customers’ are satisfied with the e-banking service quality still there is a requirement to improve the quality to retain existing customers’ and to attract new customers’.

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