

Comparative Study between Private Sector and Public Sector Banks in the Adoption of Technology in Banking Services - Twin Cities

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Abstract: *The paper consists the study is to identify and analyze the factors influencing the customer adoption of technology in banking services in the twin cities. The impact of technology on banking operations. Also, a comparative study of banks in different regions to analyze ATM, Internet banking, Telephone banking, Mobile banking services used between users and problems of technology usage in that bank. The Paper is basically concerned and the customer aspect of technology in banking searching for customer satisfaction level and adoptions of banks are analyzed between using Statistical Tools through R-Programming. This is a comparative study of Public sector banks and Private Sector banks and finds out the majority of which kind of transaction in banks in Twin cities.*

Key words: *ATM, Internet banking, Telephone banking, Mobile banking.*

I. Introduction:

The bank of any country plays very important role in the economic development of the country. Finance is regarded as the oxygen of trade and industry. The development of banks in the country and develop through banks in the country has placed India amongst the top 5 fastest growing economics in the world. The whole of the world is looking towards India a prospective dominant player in the world's markets. The banks today have touched the lives of every citizen. Whether he has to keep his money at midnight from the bank, to keep is valuable safe; to book the tickets for rail and air journeys; to pay insurance premium, telephone bills, electricity bills; to purchase/sell securities from the capital market, to take a loan for business, for education, for a house or for consumer items, everywhere the bank is present.

Basically, the banks can be divided into two sectors commercial banks and co-operative banks. Banks, which have a national network and provide services are further divided into 2 sectors Public sector banks and private sector banks. Public sector banks are fully controlled by the government (i.e. central government) and private sector banks have private ownership.

The present research was conducted keeping in view the sharp difference between Private Sector and Public Sector Banks in the adoption of technology in banking services in Twin Cities.

Banking in India was generally fairly mature in terms of supply, product range and reach even though reach in rural India and to the poor still remains a challenge. The government has grown capability to address this through the State Bank of India expanding its branch network and through the National Bank for Agriculture and Rural Development with things like microfinance.

II. Review Of Literature:

Kumar (2006) he studied the bank nationalization in India marked a paradigm shift in the focus of banking as it was deliberated to shift the focus from class banking to mass banking. Internationally also efforts are being to study causes of financial inclusion of low-income group treating it both a business opportunity as well as a corporate social responsibility.

Singla (2008) examines that how financial management plays an important role industrialist growth of public and private banking. It is concerning and examined the profitability position of selected sixteen banks of banker index for a period of six years (2001-2006) the study reveals that the profitability situation was reasonable during the period of study when compared and the previous year. Banks in a better position to deal and absorb the economic constant over a period of time.

Prashanta Athma (2000), in his Ph.D. research submitted at Osmania University Hyderabad, "Performance of Public Sector Banks – A Case Study of State Bank of Hyderabad, made an attempt to evaluate the performance

of Public Sector Commercial Banks with special emphasis on State Bank of Hyderabad. The period of the study for assessment of performance is from 1980 to 1993-94, a little more than a decade.

V.N. Saxena(1978), analyzed that "Improvement in the systems and procedures of inspection of stocks, maintenance of stock register is required. Reforms should be initiated in the extension of sponsorship schemes, recovery, and consultancy". This can be supporting tools for banks.

Mumupilly (1980), examined the cost and profitability of commercial banks in India. The study provides an analytical view of the trends in the components of cost of earnings of different groups of Indians commercial banks since nationalization. The study mainly focuses on the cost and profitability of banking industry as whole rather than individual banks.

Gupta and Verma (2008), have Studied the improve paradigm in Indian banking and revealed that banking sector has been serving the crucial needs of the society even after undergoing various changes. With the passage of time, the wonderful resilience and adaptability of the banking sector to the changing needs of the society seem to have reached the threshold of the revolutionary era. ‘Anywhere and anytime banking’, ‘Telebanking’, ‘Internet Banking’, ‘Web Banking,’ ‘E-Banking’, ‘E-Commerce’, ‘E-business’ are all innovative offerings to their customers.

Objectives Of The Study:

1. Comparative study between Public sector banks and Private sector banks in ATM, Internet Banking, Telephone banking, Mobile Banking services.
2. Comparative study between Public sector banks and Private sector banks in ATM, Internet banking, Telephone banking, Mobile Banking problems of technology Usage.
3. To check the expectations and the satisfaction levels regarding the various services Quality dimensions between public and private sector banks.

III. Research Methodology:

The Primary data collected for the research has in the form of Questionnaire as well as verbal information. The information about the factors influencing the customer’s adoption of technology in banking services from 500 customers and analyzed between R-Programming.

We used a t-test to test the significant difference between Gender vs.Banking Services, Satisfaction on technology, Quality of various banking services.

Table 1: Gender vs. Banking Services, Satisfaction on technology, Quality of various banking services

Null Hypothesis H₀: There is no significant difference between Gender and Branch banking

Null Hypothesis H₀: There is no significant difference between Gender and Satisfaction on technology usage

Null Hypothesis H₀: There is no significant difference between Gender and Quality of various banking services

Banking Services vs Gender		
Comparison	P - Value	Inference
Branch banking vs Gender	0.6745	There is no significant difference between "Gender"and "Branch banking"
ATM vs Gender	0.2834	There is no significant difference between "Gender"and "ATM"
Internet Banking vs Gender	0.2284	There is no significant difference between "Gender"and "Internet Banking".
Telephone banking vs Gender	0.795	There is no significant difference between "Gender"and "Telephone banking".
Satisfaction on technology usage vs Gender		
Comparison	P - Value	Inference
ATM Service vs Gender	0.2337	There is no significant difference between "Gender"and "ATM Service".
Internet banking services vs Gender	0.9389	There is no significant difference between "Gender"and "Internet banking services".
Telephone Banking vs Gender	0.9748	There is no significant difference between "Gender"and "Telephone Banking services".
Quality of various banking services vs Gender		
Comparison	P - Value	Inference
Reliability vs Gender	0.3022	There is no significant difference between "Gender"and "Reliability".
Responsiveness vs Gender	0.7762	There is no significant difference between "Gender"and "Responsiveness".
Assurance vs Gender	0.1779	There is no significant difference between "Gender"and "Assurance".
Efficiency vs Gender	0.4705	There is no significant difference between "Gender"and "Efficiency".
Accuracy vs Gender	0.268	There is no significant difference between "Gender"and "Accuracy".
Security vs Gender	0.2792	There is no significant difference between "Gender"and "Security".
Easy and convenient banking vs Gender	0.8426	There is no significant difference between "Gender"and "Easy and convenient banking".
Customer Service vs Gender	0.1284	There is no significant difference between "Gender"and "Customer Service".

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From the above table, we conclude that there is No Significant difference between Gender Vs Banking Services, Satisfaction on technology and Quality of various banking services.

We used a t-test to test the significant difference between Banking Services vs advanced technology.

Table 2: Banking Services vs Public and Private Banks:

Null Hypothesis H₀: There is no significant difference between Public sector banks and Branch banking and There is no significant difference between Private sector banks and Branch banking.

Null Hypothesis H₀: There is no significant difference between Public sector Satisfaction on technology usage and There is no significant difference between Private sector banks and Satisfaction on technology usage.

Null Hypothesis H₀: There is no significant difference between Public sector Quality of various banking services and There is no significant difference between Private sector banks and Quality of various banking services.

Banking Services vs Public and Private banks		
Comparison	P - Value	Inference
Branch banking vs Public and Private banks	0.1968	There is no significant difference between Public and Private banks with respect to Branch banking
ATM vs Public and Private banks	0.7124	There is no significant difference between Public and Private banks with respect to ATM.
Internet Banking vs Public and Private banks	0.009385	There is a significant difference between Public and Private banks with respect to Internet Banking.
Telephone banking vs Public and Private banks	0.4897	There is no significant difference between Public and Private banks with respect to Telephone banking.
Satisfaction on technology usage vs Public and Private Banks		
Comparison	P - Value	Inference
ATM Service vs Public and Private Banks	0.4332	There is no significant difference between Public and Private banks with respect to ATM Service.
Internet banking services vs Public and Private Banks	0.07133	There is no significant difference between Public and Private banks with respect to Internet banking
Telephone Banking vs Public and Private Banks	0.65	There is no significant difference between Public and Private banks with respect to Telephone Banking
Mobile Banking Services vs Public and Private Banks	0.2241	There is no significant difference between Public and Private banks with respect to Mobile Banking .
Quality of various banking services vs Public and Private Banks		
Comparison	P - Value	Inference
Reliability vs Public and Private Banks	0.3022	There is no significant difference between Public and Private banks with respect to Reliability.
Responsiveness vs Public and Private Banks	0.7762	There is no significant difference between Public and Private banks with respect to Responsiveness.
Assurance vs Public and Private Banks	0.1779	There is no significant difference between Public and Private banks with respect to Assurance.
Efficiency vs Public and Private Banks	0.4705	There is no significant difference between Public and Private banks with respect to Efficiency.
Accuracy vs Public and Private Banks	0.268	There is no significant difference between Public and Private banks with respect to Accuracy.
Security vs Public and Private Banks	0.2792	There is no significant difference between Public and Private banks with respect to Security.
Easy and convenient banking vs Public and Private Banks	0.8426	There is no significant difference between Public and Private banks with respect to Easy and convenient banking.
Customer Service vs Public and Private Banks	0.1284	There is no significant difference between Public and Private banks with respect to Customer Service.

From the above tables, we conclude that there is no significant difference between Public and Private banks with respect to banking services, Satisfaction on technology usage, Quality of various banking services except the Internet Banking in banking services.

We used ANOVA to test the significant difference between Age vs Banking Services, Satisfaction on technology, Quality of various banking services.

Table 3: Age vs Banking Services, Satisfaction on technology, Quality of various banking services.

Null Hypothesis H₀: There is no significant difference between Age and Branch banking

Null Hypothesis H₀: There is no significant difference between Age and Satisfaction on technology usage

Null Hypothesis H₀: There is no significant difference between Age and Quality of various banking services

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Banking Services vs Age		
Comparison	P - Value	Inference
Branch banking vs Age	0.927	There is no significant difference between "Age" and "Branch banking"
ATM vs Age	0.857	There is no significant difference between "Age" and "ATM".
Internet Banking vs Age	0.00365	There is a significant difference between "Age" and "Internet Banking".
Telephone banking vs Age	0.768	There is no significant difference between "Age" and "Telephone banking".
Satisfaction on technology usage vs Age		
Comparison	P - Value	Inference
ATM Service vs Age	0.9	There is no significant difference between "Age" and "ATM Service".
Internet banking vs Age	0.752	There is no significant difference between "Age" and "Internet banking services".
Telephone Banking vs Age	0.00169	There is a significant difference between "Age" and "Telephone Banking services"
Quality of various banking services vs Age		
Comparison	P - Value	Inference
Reliability vs Age	0.38	There is no significant difference between "Age" and "Reliability".
Responsiveness vs Age	0.556	There is no significant difference between "Age" and "Responsiveness".
Assurance vs Age	0.672	There is no significant difference between "Age" and "Assurance".
Efficiency vs Age	0.786	There is no significant difference between "Age" and "Efficiency".
Accuracy vs Age	0.661	There is no significant difference between "Age" and "Accuracy".
Security vs Age	0.503	There is no significant difference between "Age" and "Security".
Easy and convenient banking vs Age	0.151	There is no significant difference between "Age" and "Easy and convenient banking".
Customer Service vs Age	0.11	There is no significant difference between "Age" and "Customer Service".

From the above table, we conclude that

There is No significant difference between Age Vs all Banking Services, Satisfaction on technology usage, Quality of various banking services except Internet Banking in banking services and Telephone Banking in Satisfaction on technology.

We used ANOVA to test the significant difference between Education vs Banking Services, Satisfaction on technology, and Quality of various banking services.

Table 4: Education vs Banking Services, Satisfaction on technology, Quality of various banking services.

Null Hypothesis H₀: There is no significant difference between Education and Branch banking

There is no significant difference between Education and Satisfaction on technology usage

There is no significant difference between Education and Quality of various banking services

Banking Services vs Education		
Comparison	P - Value	Inference
Branch banking vs Education	0.83	There is no significant difference between "Education" and "Branch banking"
ATM vs Education	0.256	There is no significant difference between "Education" and "ATM".
Internet Banking vs Education	0.00747	There is a significant difference between "Education" and "Internet Banking".
Telephone banking vs Education	0.83	There is no significant difference between "Education" and "Telephone banking".
Satisfaction on technology usage vs Education		
Comparison	P - Value	Inference
ATM Service vs Education	0.368	There is no significant difference between "Education" and "ATM Service".
Internet banking vs Education	0.135	There is no significant difference between "Education" and "Internet banking services".
Telephone Banking vs Education	0.116	There is no significant difference between "Education" and "Telephone Banking services"
Quality of various banking services vs Education		
Comparison	P - Value	Inference
Reliability vs Education	5.598	There is no significant difference between "Education" and "Reliability".
Responsiveness vs Education	0.508	There is no significant difference between "Education" and "Responsiveness".
Assurance vs Education	0.192	There is no significant difference between "Education" and "Assurance".
Efficiency vs Education	0.583	There is no significant difference between "Education" and "Efficiency".
Accuracy vs Education	0.574	There is no significant difference between "Education" and "Accuracy".
Security vs Education	0.148	There is no significant difference between "Education" and "Security".
Easy and convenient banking vs Education	0.0661	There is no significant difference between "Education" and "Easy and convenient banking".
Customer Service vs Education	0.67	There is no significant difference between "Education" and "Customer Service".

From the above tables, we conclude that there is no significant difference between Education Vs banking services, Satisfaction on technology and Quality of various banking services except the Internet Banking in banking services.

We used ANOVA to test the significant difference between Profession vs Banking Services, Satisfaction on technology and Quality of various banking services.

Table 5: Profession vs Banking Services, Satisfaction on technology and Quality of various banking services.

Null Hypothesis H₀: There is no significant difference between Profession and Branch banking

There is no significant difference between Profession and Satisfaction on technology usage

There is no significant difference between Profession and Quality of various banking services

Banking Services vs Profession		
Comparison	P - Value	Inference
Branch banking vs Profession	0.782	There is no significant difference between "Profession" and "Branch banking"
ATM vs Profession	0.146	There is no significant difference between "Profession" and "ATM".
Internet Banking vs Profession	0.0367	There is a significant difference between "Profession" and "Internet Banking".
Telephone banking vs Profession	0.957	There is no significant difference between "Profession" and "Telephone banking".
Satisfaction on technology usage vs Profession		
Comparison	P - Value	Inference
ATM Service vs Profession	0.901	There is no significant difference between "Profession" and "ATM Service".
Internet banking services vs Profession	0.535	There is no significant difference between "Profession" and "Internet banking services".
Telephone Banking vs Profession	0.037	There is a significant difference between "Profession" and "Telephone Banking services"
Quality of various banking services vs Profession		
Comparison	P - Value	Inference
Reliability vs Profession	0.731	There is no significant difference between "Profession" and "Reliability".
Responsiveness vs Profession	0.953	There is no significant difference between "Profession" and "Responsiveness".
Assurance vs Profession	0.754	There is no significant difference between "Profession" and "Assurance".
Comparison	P - Value	Inference
Efficiency vs Profession	0.0907	There is no significant difference between "Profession" and "Efficiency".
Accuracy vs Profession	0.279	There is no significant difference between "Profession" and "Accuracy".
Security vs Profession	0.566	There is no significant difference between "Profession" and "Security".
Easy and convenient banking vs Profession	0.419	There is no significant difference between "Profession" and "Easy and convenient banking".
Customer Service vs Profession	0.501	There is no significant difference between "Profession" and "Customer Service".

From the above tables, we conclude that there is no significant difference between Profession Vs banking services, Satisfaction on technology and Quality of various banking services except the Internet Banking in banking services and Telephone Banking in satisfaction on technology.

We used the Chi-square test to test the association between the contribution of new technology to the success of banks vs Gender, Age, Education, Profession, Monthly Income, Status of Usage, Advanced technology.

Table 6: New technology to the success of banks vs Gender, Age, Education, Profession, Monthly Income, Status of Usage, Public and Private Banks.

The contribution of new technology to the success of banks		
Comparison	P - Value	Inference
Gender	0.6835	There is no association between "Gender" and "The contribution of new technology to the success of banks "
Age	0.5055	There is no association between "Age" and "The contribution of new technology to the success of banks "
Education	6.75E-06	There is an association between "Education" and "The contribution of new technology to the success of banks "
Profession	0.03241	There is an association between "Profession" and "The contribution of new technology to the success of banks "
Monthly Income	0.2134	There is no association between "Monthly Income" and "The contribution of new technology to the success of banks "
Status of Usage	0.9379	There is no association between "Status of Usage" and "The contribution of new technology to the success of banks "
Public and Private banks	0.6509	There is no association between Public and private banks with respect to The contribution of new technology to the success of banks.

From the above table, we conclude that there is no association between the contribution of new technology to the success of banks Vs Gender, Age, Monthly Income, Status of Usage, Public and Private Banks except Education and Profession.

IV. Suggestions:

Private and Public Banks provide precious services to the general public and also to the industry. Not the only variety of services and profit are important, but simultaneously the quality of services, the cost of services and safety of public money is also important. During the course of research a lot of problems of financial nature and non-financial nature, have been emerged. The problem of depositors, the problems of borrowers, the problems of employees, the problem of management included among them. These problems are in detail at appropriate places.

1. All the banks must have ATM facilities. It will be better to have networking ATM system i.e. if it is not possible to install ATMs in all parts of the city there should be tied up and other banks. Presently, some banks are doing the same
2. There should be the suitable recruitment of more officers in the public sector banks so that the branches, which are really understaffed and overburdened, become systematically sufficient.
3. There should be the appropriate recruitment of more officers in the public sector banks so that the branches, which are really understaffed and overburdened, become systematically sufficient.

RESULT:

From the above analysis, we conclude that

1. There is a significant difference between Public and Private Banks with respect to Internet Banking.
2. There is a significant difference between "Age" and "Internet Banking".
3. There is a significant difference between "Age" and "Telephone Banking services"
4. There is a significant difference between "Education" and "Internet Banking"
5. There is a significant difference between "Profession" and "Internet Banking". Telephone banking vs Profession
6. There is a significant difference between "Profession" and "Telephone Banking services" Education
7. There is an association between "Education" and "The contribution of new technology to the success of banks"
8. There is an association between "Profession" and "The contribution of new technology to the success of banks"

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