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A STUDY ON TECHNOLOGY DRIVEN INNOVATION PRACTICES IN BANKING SECTOR IN TIRUCHIRAPPALLI DISTRICT

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Abstract

Technology is one of the major parts of banking sector which decide the quality andeffectiveness of banking services. The topic is related with banking industry which is the backbone of socio-economic development of the country. When the banking services are channelized to all the people in the country, there will be a sustainable development. Inclusive banking services to un banked people will be possible only with the help of innovative business practices. With this view, this study will provide an output to understand the impact of innovative business practices of banking with respect to socio-economic development.With this view, this paper made an attempt to discuss technology driven innovation practices in banking sector in Tiruchirappalli District.

Keywords: Banking, Technology, Financial innovation, Financial Services, KYC, PMJDY

Introduction

Technology plays a key role not only in financial sector but also in social transformation activities with the help of innovative approaches and system. When the computerization was initiated in 1991 with the effect of new economic policy of the country, banking sector become multidimensional and comprehensive approach of innovative and informative services to all segment of the people. Establishment of ATMs and online banking provisions were made throughout the country to speed up, the banking and financial services to unbanked and unreached people in the country. Financial inclusion policy in 2016, made a remarkable contribution in inclusive financial services at free of cost or affordable cost to unreached people in the country. With this effect, no frill accounts were opened with zero balance and simplified KYC norms. Now it has been renamed in 2014 as PMJDY. In this PMJDY attracts aware than 30 crore bank account with Rs.80,000crore as balance which is possible only with the help of technology driven innovative practices of banking sector. Now almost all the bank accounts are computerized with digitalized manner which can be operated anywhere in the world. Technology in banking sectors leads to new dimension to the customer with simple and transparent transaction. In this view, this chapter consists of future of technology driven innovative practices of banking sector in Tiruchirappalli District.

Statement of Problem

Rapid growth of information and communication technology during 2000, banking sectors moving with online banking which facilitate all kinds of services at affordable and easy manner. During 2010, digitalisation transformed entire banking services into digitalized models with the help of internet and smart phone penetration in the country. Banking sector become digitalized transformation with the help of business innovation practices which is widely available due to information and communication technology. This research will bring valuable suggestions and recommendations towards new pathways for the commercial banks in the competitive environment. Innovative business practices in banking are one of the booming aspects due to the growth of information and communication technology. This study will help to understand the impact of innovative business practices such as digital banking, AI, cloud computing among the customers and general public. Bankers and other officials may update the latest banking technology based on this study. This study will be very useful to the policy makers for their effective implementation of innovative business practices in banking.

Objective of the Study

To explore the technology driven Innovative practices taken by the Indian banking industry for future sustainability and enhanced customer service

Research Methodology

The present research study is descriptive in nature by using both primary and secondary data. Primary data were collected with the help of questionnaire which were distributed to the sample respondents. Secondary data were collected from various sources such as published and unpublished reports, records, documents and periodicals. Stratified random sampling methods will be adopted to identify the sample respondents.

Sampling Design

Sampling is one of the major parts of the research study which help to justify its scientific implications and scholarliness.Disproportionate Stratified Random Sampling Method was adopted in this research study.Convenient sampling Techniques were used to select the sample respondents from the study area.

Data Collection

The present study required both primary and secondary data. Primary data were used for the purpose of understanding the perception, satisfaction of customers with respect to business innovation in banking sector in Tiruchirappalli District. Secondary data were used to understand the performance and progress of banking sectors in India, Tamil Nadu and Tiruchirappalli District. Some of the secondary data were used to find the conceptual background of banking innovation practices in the country also.

Tools and Techniques Used

Primary data was collected with the help of a structured interview schedule and secondary data was collected from various sources such as reports, records, documents and other published and unpublished sources.

Data Analysis

Collected data were analyzed with the help of adequate statistical tools such as T-Test, One way ANOVA, Chi Square Test.

Reliability

The reliability test was performed to measure the reliability of the questionnaire and it was found that Cronbach's Alpha value for all the 50 items is 0.954.

Review of Literature

AnkitGoel., & et al. (2016). Financial innovation is the need of the hour, and India is gaining its credibility and global presence with the help of IT. Technology is going to make a big difference in the future in the banking sector.

Malini.A.,&Dileep G Menon. (2017). The goal of the paper is to identify ten important innovative solutions in the banking sector and analyze them in the context of assumptions of the paradigm of relationships and features of product orientation with related to technology. Banking is a rapidly changing industry.

Seema Malik. (2014). Indian banking system touches the lives of millions of people and it is growing at a fast pace. Banking industry in India is facing number of challenges like changing needs and perceptions of customers, new regulations from time to time and great advances in technologies.

Lech Gąsiorkiewicz.,& et al. (2020). Financial systems worldwide are increasingly experiencing the mounting pressure of the technology-based financial innovations. Some of these developments are generating alternative financial structures existing parallels to the "old" ones, whereas some others are simply replacing the "old" ones.

Asara Yaw Obeng.,& et al. (2018). Banks discretionary devise technology-driven core strategies to leverage trends in information technology to pursue technological innovation in order to improve the productivity of employees.

Johan HenkMaarse., & Marcel Bogers. (2012). It particularly addresses how firms can practically use external technology commercialization, which is a type of open innovation that is not yet fully understood by academics and managers alike.

Mats Holmquist.,& Anna Johansson. (2019). This encouraged employee commitment and participation, and it provided the opportunity for them to innovate their own work. An experienced-based learning process was used in the stands, not only with respect to the method but also about the organization itself.

Audrey Paul Ndesaulwa., &, JarajiKikula. (2016). Technology in developing countries is challenged by the lack of deep pockets , by the nature of their organization still being innovative and by being in a rapidly changing environment.

Philips Kembaren., & et al. (2014). Design driven innovation has emerged to be an alternative way to generate sustainable competitive products or services. Previous research has recently revealed successful practices of design driven innovation in various industries.

Jatinder Kaur. (2020). technological innovation the entire Indian banking sector it emerged as a very firm banking industry in entire world not only in terms of capital but also in term of making and retaining customers.

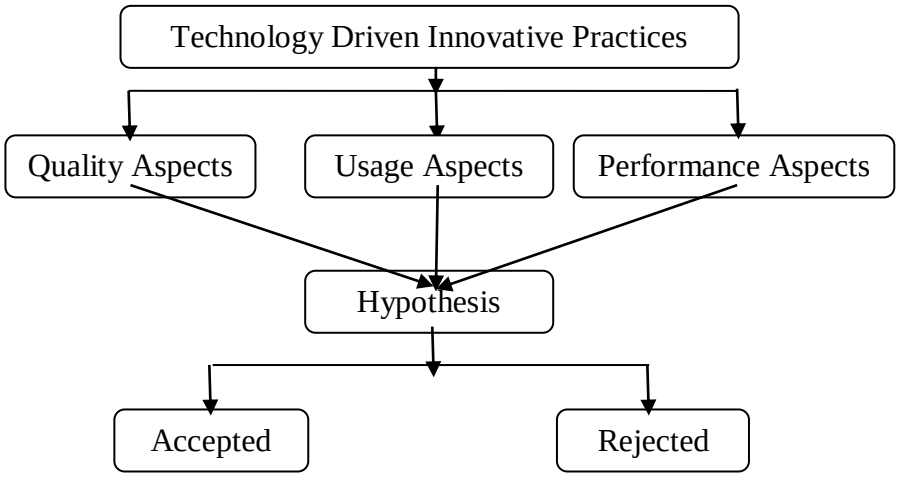

Table No – 1Service Provided – Quality aspects

Sl.No	Profile	Variables	Frequency	Percentage
1	**Quality EFT Service**	Not accepted	56	8.2
		Moderate accepted	170	25.0
		Accepted	141	20.7
		Highly accepted	143	21.0
		Very highly accepted	170	25.0
		Total	680	100.0
2	**Quality of fund management**	Not accepted	99	14.6
		Moderate accepted	114	16.8
		Accepted	141	20.7
		Highly accepted	183	26.9
		Very highly accepted	143	21.0
		Total	680	100.0
3	**Quality of telebanking**	Not accepted	112	16.5
		Moderate accepted	56	8.2
		Accepted	100	14.7
		Highly accepted	185	27.2
		Very highly accepted	227	33.4
		Total	680	100.0
4	**Quality of ATM**	Not accepted	70	10.3
		Moderate accepted	84	12.4
		Accepted	156	22.9
		Highly accepted	213	31.3
		Very highly accepted	157	23.1
		Total	680	100.0
5	**Confidence instilled by the bank**	Not accepted	71	10.4
		Moderate accepted	98	14.4
		Accepted	187	27.5
		Highly accepted	170	25.5
		Very highly accepted	154	22.6
		Total	680	100.0

Source: Primary Data

The table shows it reveals the awareness of technology driven innovative practices Quality EFT Service the respondents in the study area. Out of 680 respondents, 8.2 per cent belong to the Not Accepted, 25.0 per cent belong to the Very Highly Accepted.

As regards the Quality of fund management of the respondents, 14.6 per cent of the respondents belong to the of Not Accepted, 21.0 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Quality of telebanking of the respondents, 16.5 per cent of the respondents belong to the of Not Accepted, 33.4 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Quality of ATM of the respondents, 10.3 per cent of the respondents belong to the of Not Accepted, 23.1 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Confidence instilled by the bank of the respondents, 10.4 per cent of the respondents belong to the of Not Accepted, 22.6 per cent of the respondents belong to the of Very Highly Accepted.

Table No – 2Service Provided – Usage aspects

Sl.No	Profile	Variables	Frequency	Percentage
1	**Ability to pay bills**	Not accepted	99	14.6
		Moderate accepted	114	16.8
		Accepted	199	29.3
		Highly accepted	142	20.9
		Very highly accepted	126	18.5
		Total	680	100.0
2	**Range of services offered**	Not accepted	129	19.0
		Moderate accepted	102	15.0
		Accepted	141	20.7
		Highly accepted	140	20.6
		Very highly accepted	168	24.7
		Total	680	100.0
3	**Reasonableness of costs**	Not accepted	70	10.3
		Moderate accepted	84	12.4
		Accepted	186	27.4
		Highly accepted	185	27.2
		Very highly accepted	155	22.8
		Total	680	100.0
4	**Ease of using E-Banking**	Not accepted	85	12.5
		Moderate accepted	113	16.6
		Accepted	128	18.8
		Highly accepted	142	20.9
		Very highly accepted	212	31.2
		Total	680	100.0
5	**User friendliness of system**	Not accepted	98	14.4
		Moderate accepted	129	19.0
		Accepted	114	16.8
		Highly accepted	156	22.9
		Very highly accepted	183	26.9
		Total	680	100.0

Source: Primary Data

The table shows it reveals the awareness of technology driven innovative practices Ability to pay bills the respondents in the study area. Out of 680 respondents, 14.6 per cent belong to the Not Accepted, 18.5 per cent belong to the Very Highly Accepted.

As regards the Range of services offered of the respondents, 19.0 per cent of the respondents belong to the of Not Accepted, 24.7 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Reasonableness of costs of the respondents, 10.3 per cent of the respondents belong to the of Not Accepted, 22.8 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Ease of using E-Banking of the respondents, 12.5 per cent of the respondents belong to the of Not Accepted, 31.2 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the User friendliness of system of the respondents, 14.4 per cent of the respondents belong to the of Not Accepted, 26.9 per cent of the respondents belong to the of Very Highly Accepted.

Table No – 3Service Provided – performance aspect

Sl.No	Profile	Variables	Frequency	Percentage
1	**Security of transaction**	Not accepted	112	16.5
		Moderate accepted	128	18.8

		Accepted	171	25.1
		Highly accepted	127	18.7
		Very highly accepted	142	20.9
		Total	680	100.0
2	**Efficiency & correctness of financial status report**	Not accepted	70	10.3
		Moderate accepted	100	14.7
		Accepted	157	23.1
		Highly accepted	185	27.2
		Very highly accepted	168	24.7
		Total	680	100.0
3	**Efficiency & quality of multi reporting**	Not accepted	86	12.6
		Moderate accepted	156	22.9
		Accepted	128	18.8
		Highly accepted	127	18.7
		Very highly accepted	183	26.9
		Total	680	100.0
4	**Promptness in attending grievances**	Not accepted	87	12.8
		Moderate accepted	113	16.6
		Accepted	157	23.1
		Highly accepted	154	22.6
		Very highly accepted	169	24.9
		Total	680	100.0
5	**Banks concern for customers welfare**	Not accepted	113	16.6
		Moderate accepted	99	14.6
		Accepted	158	23.2
		Highly accepted	141	20.7
		Very highly accepted	169	24.9
		Total	680	100.0

Source: Primary Data

The table shows it reveals the awareness of technology driven innovative practices Security of transaction the respondents in the study area. Out of 680 respondents, 16.5 per cent belong to the Not Accepted, 20.9 per cent belong to the Very Highly Accepted.

As regards the Efficiency & correctness of financial status report of the respondents, 10.3 per cent of the respondents belong to the of Not Accepted, 24.7 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Efficiency & quality of multi reporting of the respondents, 12.6 per cent of the respondents belong to the of Not Accepted, 26.9 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Promptness in attending grievances of the respondents, 12.8 per cent of the respondents belong to the of Not Accepted, 24.9 per cent of the respondents belong to the of Very Highly Accepted.

The table shows the Banks concern for customers welfare of the respondents, 16.6 per cent of the respondents belong to the of Not Accepted, 24.9 per cent of the respondents belong to the of Very Highly Accepted.

T – Test

Table No – 4Group Statistics

	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Usage Aspects	Male	495	16.99	2.954	.133
	Female	185	16.39	1.783	.131
Quality Aspects	Male	495	16.72	3.075	.138
	Female	185	15.00	1.809	.133
Performance Aspects	Male	495	17.04	3.562	.160
	Female	185	14.88	3.410	.251

The table indicates that the group statistics for analyzing the gender of male and female with respect to business innovation practices of select public sector banks. The mean values of the variables range from 14.88 to 17.04 with consistent standard deviation. The standard error means are also found to be consistent for all the variables.

Table No –5Independent Samples Test

Hypothesis: There is no significant difference between Genders with respect to factors of technology driven innovation practices of select public sector banks.

		Levene's Test for Equality of Variance		t- test for Equality of Means			
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference
Usage Aspects	Equal variances assumed	48.661	.000	2.868	678	.004	.664
	Equal Variances not assumed			3.560	542.545	.000	.664
Quality Aspects	Equal variances assumed	63.998	.000	7.145	678	.000	1.717
	Equal Variances not assumed			8.952	555.055	.000	1.717
Performance Aspects	Equal variances assumed	.006	.940	7.115	678	.000	2.159
	Equal Variances not assumed			7.259	343.448	.000	2.159

*.Significance at 5% level

Levence's test on problems like Usage Aspects (F=48.661, p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Usage Aspects faced by respect to business innovation practices of select public sector banks of two group of Gender viz, male and female. It indicates p<0.05 significant (t=-.664, p<0.05). It shows that there exists no a significant difference among respect to Usage Aspects.

Quality Aspects (F=63.998, p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Quality Aspects faced by respect to business innovation practices of select public sector banks of two group of Gender viz, male and female. It indicates p<0.05 significant (t=-1.717, p<0.05). It shows that there exists a no significant difference among respect to Quality Aspects.

Performance Aspects (F=.006 p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Performance Aspects faced by respect to business innovation practices of select public sector banks of two group of Gender viz, male and female. It indicates p<0.05 significant (t=-2.159, p<0.05). It shows that there exists a no significant difference among respect to Performance Aspects.

T – Test

Table No – 6Group Statistics

	Marital Status	N	Mean	Std. Deviation	Std. Error Mean
Usage Aspects	Married	525	17.24	2.629	.115
	Unmarried	155	15.35	2.245	.195
Quality Aspects	Married	525	16.19	2.931	.128
	Unmarried	155	16.46	2.745	.220
Performance Aspects	Married	525	16.54	3.815	.166
	Unmarried	155	16.17	3.011	.242

The table indicates that the group statistics for analyzing the Marital Status of married and unmarried with respect to business innovation practices of select public sector banks. The mean values of the variables range from 15.35 to 17.24 with consistent standard deviation. The standard error means are also found to be consistent for all the variables.

Table No –7Independent Samples Test

Hypothesis: There is no significant difference between Marital Status with respect to factors of technology driven innovation practices of select public sector banks.

		Levene's Test for Equality of Variance		t- test for Equality of Means			
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference
Usage Aspects	Equal variances assumed	.004	.949	7.996	678	.000	1.889
	Equal Variances not assumed			8.356	269.923	.000	1.889
Quality Aspects	Equal variances assumed	4.653	.031	-1.052	678	.293	-.278
	Equal Variances not assumed			-1.090	266.244	.277	-.278
Performance Aspects	Equal variances assumed	11.969	.001	1.083	678	.279	.369

	Equal Variances not assumed			1.230	313.801	.220	.361

*.Significance at 5% level

Levence's test on problems like Usage Aspects (F=.004, p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Usage Aspects faced by respect to business innovation practices of select public sector banks of two group of Marital Status viz, married and unmarried. It indicates p<0.05 significant (t=-1.889, p<0.05). It shows that there exists a no significant difference among respect to Usage Aspects.

Quality Aspects (F=4.653, p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Quality Aspects faced by respect to business innovation practices of select public sector banks of two group of Marital Status viz, married and unmarried. It indicates p<0.05 significant (t=-.278, p<0.05). It shows that there exists a no significant difference among respect to Quality Aspects.

Performance Aspects (F=11.969 p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Performance Aspects faced by respect to business innovation practices of select public sector banks of two group of Marital Status viz, married and unmarried It indicates p<0.05 significant (t=.369, p<0.05). It shows that there exists a no significant difference among respect to Performance Aspects.

T – Test

Table No – 8Group Statistics

	Type of Account	N	Mean	Std. Deviation	Std. Error Mean
Usage Aspects	Savings	496	17.25	2.567	.115
	Current	184	15.64	2.709	.200
Quality Aspects	Savings	496	16.20	2.811	.126
	Current	184	16.39	3.096	.228
Performance Aspects	Savings	496	16.80	3.595	.161
	Current	184	15.52	3.635	.268

The table indicates that the group statistics for analyzing the type of account of savings and current with respect to business innovation practices of select public sector banks. The mean values of the variables range from 15.52 to 17.25 with consistent standard deviation. The standard error means are also found to be consistent for all the variables.

Table No –9Independent Samples Test

Hypothesis: There is no significant difference between types of account with respect to factors of technology driven innovation practices of select public sector banks.

		Levene's Test for Equality of Variance		t- test for Equality of Means			
		F	Sig	t	df	Sig. (2-tailed)	Mean Difference
Usage Aspects	Equal variances assumed	.005	.946	7.175	678	.000	1.614
	Equal Variances not assumed			7.001	312.488	.000	1.614
Quality Aspects	Equal variances assumed	7.077	.008	-.776	678	.438	-.194
	Equal Variances not assumed			-.743	301.672	.438	-.194
Performance Aspects	Equal variances assumed	1.805	.180	4.126	678	.000	1.284
	Equal Variances not assumed			4.105	324.121	.000	1.284

*.Significance at 5% level

Levence's test on problems like Usage Aspects (F=.005, p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Usage Aspects faced by respect to business innovation practices of select public sector banks of two group of type of account viz, savings and current. It indicates p<0.05 significant (t=-1.614, p<0.05). It shows that there exists a no significant difference among respect to Usage Aspects.

Quality Aspects (F=7.007, p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Quality Aspects faced by respect to business innovation practices of select public sector banks of two group of type of account viz, savings and current. It indicates p<0.05 significant (t=-.194, p<0.05). It shows that there exists a no significant difference among respect Quality Aspects.

Performance Aspects (F=1.805 p>0.05), has a probability greater than 0.05, it can be assumed that variances are relatively equal. Therefore, we can use the t-test and two-tail significance for the equal variance estimates to determine Performance Aspects faced by respect to business innovation practices of select public sector banks of two group of type of account viz, savings and current. It indicates p<0.05 significant (t=1.284, p<0.05). It shows that there exists a no significant difference among respect to Performance Aspects.

One way ANOVA

Table No – 10

Hypothesis: There is no significant differencebetween Occupation with respect to factors of technology driveninnovation practice of select public sector banks

		Sum of the Square	df	Mean Square	F	Sig.
Usage Aspects	Between Group	297.319	4	74.330	10.771	.000
	Within Group	4657.962	675	6.901		
	Total	4955.281	679			
Quality Aspects	Between Group	519.726	4	129.931	17.024	.000
	Within Group	5151.774	675	7.632		
	Total	5671.500	679			
Performance Aspects	Between Group	253.602	4	63.401	4.873	.000
	Within Group	8782.892	675	13.012		
	Total	9036.494	679			

*.Significance at 5% level, **.Significance at 1% level

One-way ANOVA was applied to find the significant mean difference between the business innovation practices of select public sector banks and the result showed that there is a no significant difference between Usage Aspects (F-value =10.771, p<0.05), Quality Aspects (F-value = 17.024, p<0.05), Performance Aspects (F-value = 4.873, p<0.01)

One way ANOVA

Table No – 11

Hypothesis: There is no significant differencebetween Annual Income with respect to factors of technology driveninnovation practice of select public sector banks

		Sum of the Square	df	Mean Square	F	Sig.
Usage Aspects	Between Group	210.278	3	70.093	9.986	.000
	Within Group	4745.003	676	7.019		
	Total	4955.281	679			
Quality Aspects	Between Group	330.825	3	110.275	13.958	.000
	Within Group	5340.675	676	7.900		
	Total	5671.500	679			
Performance Aspects	Between Group	210.594	3	70.198	5.377	.001
	Within Group	8825.900	676	13.056		
	Total	9036.494	679			

*.Significance at 5% level, **.Significance at 1% level

One-way ANOVA was applied to find the significant mean difference between the business innovation practices of select public sector banks and the result showed that there is a no significant difference between Usage Aspects (F-value =9.986, p<0.05), Quality Aspects (F-value = 13.958, p<0.05), Performance Aspects (F-value = 5.377, p<0.01)

One way ANOVA

Table No – 12

Hypothesis: There is no significant differencebetween Area of Residence with respect to factors of technology driveninnovation practice of select public sector banks

		Sum of the Square	df	Mean Square	F	Sig.
Usage Aspects	Between Group	352.707	2	176.353	25.940	.000
	Within Group	4602.574	677	6.798		
	Total	4955.281	679			
Quality Aspects	Between Group	332.548	2	166.274	21.084	.000

	Within Group	5338.952	677	7.886		
	Total	5671.500	679			
Performance Aspects	Between Group	245.043	2	122.521	9.435	.000
	Within Group	8791.451	677	12.986		
	Total	9036.494	679			

*.Significance at 5% level, **.Significance at 1% level

One-way ANOVA was applied to find the significant mean difference between the business innovation practices of select public sector banks and the result showed that there is a no significant difference between Usage Aspects (F-value =25.940, p<0.05), Quality Aspects (F-value = 21.084, p<0.05), Performance Aspects (F-value = 9.435, p<0.01)

Table No –

Chi – Square Tests

Table No – 13

Hypothesis: There is no significant association between age group and Usage Aspects of technology driven innovation practice of select public sector banks

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi – Square	54.853[a]	6	.000
Likelihood Ratio	54.023	6	.000
Linear – by – Linear Association	26.338	1	.000
N of Valid Cases	680		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 21.75.

Chi-square test was applied to test the association between age group and Usage Aspects Business Innovation practices of select public sector banks in Tiruchirappalli District. The test indicates that the calculated chi-square value is 54.853[a].p- value is .000 at 5 per cent level of significance. Since the p-value is less than 0.05 ($x^2$54.853[a],p< 0.05) the null hypothesis is rejected. Hence, there is a no significant association between age group and Usage Aspects Business Innovation practices of select public sector banks. It is clear that age group is one of the major parameters to measure the Usage Aspects Business Innovation practices of select public sector banks.

Chi – Square Tests

Table No – 14

Hypothesis: There is a significant association between age group and quality Aspects Business Innovation practices of select public sector banks

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi – Square	99.205[a]	6	.000
Likelihood Ratio	95.409	6	.000
Linear – by – Linear Association	12.752	1	.000
N of Valid Cases	680		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 25.20.

Chi-square test was applied to test the association between age group and quality Aspects Business Innovation practices of select public sector banks in Tiruchirappalli District. The test indicates that the calculated chi-square value is 99.205[a].p- value is .000 at 5 per cent level of significance. Since the p-value is less than 0.05 ($x^2$99.205[a], p< 0.05) the null hypothesis is rejected. Hence, there is a no significant association between age group and quality Aspects Business Innovation practices of select public sector banks. It is clear that age group is one of the major parameters to measure the quality Aspects Business Innovation practices of select public sector banks.

Chi – Square Tests

Table No – 15

Hypothesis: There is a significant association between age group and Performance Aspects Business Innovation practices of select public sector banks

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi – Square	60.604[a]	6	.000
Likelihood Ratio	64.650	6	.000
Linear – by – Linear Association	3.237	1	.072
N of Valid Cases	680		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.67.

Chi-square test was applied to test the association between age group and Performance Aspects business innovation practices of select public sector banks in Tiruchirappalli District. The test indicates that the calculated chi-square value is 60.604[a].p- value is .000 at 5 per cent level of significance. Since the p-value is less than 0.05 ($x^2$60.604[a],

p< 0.05) the null hypothesis is rejected. Hence, there is a no significant association between age group and Performance Aspects business innovation practices of select public sector banks. It is clear that age group is one of the major parameters to measure the Performance Aspects business innovation practices of select public sector banks.

Overall Hypothesis

Sl.No	Hypothesis	Test	Value	Sig.	Result
1	There is no significant difference between Genders with respect to factors of technology driven innovation practices of select public sector banks.	T - Test	.664	0.05	Rejected
2	There is no significant difference between Marital Status with respect to factors of technology driven innovation practices of select public sector banks.	T - Test	1.889	0.05	Rejected
3	There is no significant difference between Type of Account with respect to factors of technology driven innovation practices of select public sector banks.	T - Test	1.614	0.05	Rejected
4	There is no significant difference between Occupation with respect to factors of technology driven innovation practices of select public sector banks.	One way Anova	10.771	0.05	Rejected
5	There is no significant difference between Annual Income with respect to factors of technology driven innovation practices of select public sector banks.	One way Anova	9.986	0.05	Rejected
6	There is no significant difference between Area of Residence with respect to factors of technology driven innovation practices of select public sector banks.	One way Anova	25.940	0.05	Rejected
7	There is no significant difference between Age Group with respect to factors of technology driven innovation practices of select public sector banks.	Chi Square	60.604	0.05	Rejected

As per the above table of hypothesis all null hypothesis was rejected. Therefore, it is concluded that, there is a significant relationship between demographic profile and factors of technology driven of business innovation practices of select public sector banks in Tiruchirappalli District.

Findings

Levence's t-test shows that there is a no significance related to the variables in gender like male and female with usage aspects, quality aspects and performance aspects of technology driven innovation practice of select public sector banks. T-test shows that there is a no significance related to the variables in marital status like married and unmarried with usage aspects of technology driven innovation practice of select public sector banks. T-test shows that there is a no significant related the variables in type of account like savings and current with usage aspects, quality aspects and performance aspects of technology driven innovation practice of select public sector banks.

The ANOVA result shows that the demographic profile of occupation, Annual Income, Area of Residence significant difference as ($p<0.05$), ($p<0.01$) with respect to the perceptual factors of technology driven innovation practice of select public sector banks at 5 percent level of significance.

Chi-square test shows that there is a no significant association between age group and Usage Aspects, quality aspects and performance aspects of technology driven innovation practice of select public sector banks.

Suggestion

Future of technology driven innovation practices of select public sector banks in Tiruchirappalli District is a measurable aspect in the present day environment which is fully depends on technology and innovation. It has been divided into three major aspects such as quality aspects, usage aspects and performance aspects. These three aspects are having unique characters and importance with respects to innovative banking services to its customers. As regards to quality aspects, there are five variables that dominating such as Quality EFT services, Quality of fund management, Quality of telebanking, Quality of ATM and Confidence instilled by the bank, as regards to usage aspects, Ability to pay bills, Range of services offered, Reasonableness of costs, Ease of using E –banking and User friendliness of system are taken into account and as regards performance aspects, the following variables like Security of transactions,
Efficiency & correctness of financial status report, Efficiency & quality of multi reporting, Promptness in attending grievances and Bank's concern for customers welfare decide the future of technology is one of the unavoidable segments of banking sector which influence not only service efficiency but also increase the productivity of banking sectors.

Conclusion

Innovation is the term which is used in all aspects of human walk. Every change and development depends on innovative practices that lead to sustainable livelihood of human beings. When innovation is applied in business, it

becomes more powerful and considerable factors which increase the quality, productivity, efficiency and cost reduction. With this view, business innovation practices in banking sector become inevitable in operational and performance aspects. Banking technology transforms the conventional banking services into convinent and user friendly banking services to customers and public. Today is the technology oriented banking in the country with innovative and multidimensional services which are speedy and simple manner. When computerization process was initiated in our country, it involve lot of criticism and negative propaganda against computerization whereas now, became mandatory not only in banking but also in personnel life. During 2000, emerge of internet, revolution, banking sector were fully updated with information and communication technology for their business and services. During 2010, online banking becomes dominant part of banking sector that play a key role in financial inclusion strategy in India. Now banking sector is under fintech revolution stage with innovative technologies such as artificial intelligence, block chain technology, cloud based operation and virtual technology. Customer perception and satisfaction depends on how the banking sector provides quality service in a convinent manner. In this way, customer perception towards business innovation in banking practices are rapidly changed due to technological development related mindset of the customer. When the banks try to fulfill the expectation of customer, it will turn into customer satisfaction. Technology based services provided by public sector banks in the study area is consistently motivating customer to update digital banking practices. Now, it is also possible with the help of available infrastructure and internet penetration. India is one of the fast growing technologies driven innovation in banking sector with global competition. This is the need of the hour which facilitates the emerging of business innovation in banking practices in public sector banks in the study area.

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