DOI : 10.18843/ijms/v6i2(2)/14
DOI URL :http://dx.doi.org/10.18843/ijms/v6i2(2)/14

Effect of Information Technology Competence on Bank Employees' Productivity of Udaipur (Rajasthan)

Santosh Kumar C. S.,
Research Scholar,
Pacific Academy of Higher Education and Research University, Udaipur, India.

Dr. Ashish Adholiya,
Assistant Professor,
Pacific Institute of Management,
Pacific Academy of Higher Education and Research University, Udaipur, India.

ABSTRACT

Banking and Financial Service sector is one of those sectors which are continuously facing ever-increasing reasonable pressure of earn compatible acquaintance with global banking development, globalization, rapidly varying customer demand pertaining to technological advancement has led into a big challenge to the banks and require for upgrading banking competence of employees to ensure better quality for the customers, improved productivity and cost reduction with the effective IT tools and practices incorporation. For the aforesaid challenges and upgrading in banking employees are at the core, and for that information technology competence, skill and knowledge set enabled employees are leveraging variable. Specifically the main objective is to measure the bank employees' Information Technology (IT) competence and effect of information technology competence on their overall productivity. Employee information technology competence effect on the job productivity is a considerable variable to measure the overall organizations' performance and also confirms sustainability in the intense competition, as technology competence improve operational and functional capacity of an employee for the job and related processes (Obeng, Boachie, 2018). The sampled banks and their employee population chosen for the study purpose are of Udaipur district of Rajasthan. Primary data was collected through a well structured questionnaire survey tool. Stratified random sampling and random probability procedures were proffered for the selection of the banks and employees as the sample. The results of the statistical analysis revealed that information technology competence in private bank employees is comparatively higher than the public sector bank employees and employees of both the banks are agreeing that information technology competence influence their overall productivity in banking operations. It was also identified that demographic characteristics such as educational, gender, job scale, marital status, locality and age significantly influence the IT competence of the bank employee. A significant and positive correlation was found between the employee technology competence and job related productivity. For the sampled bank employees' good and significant IT competence was observed for banking software and hardware and other hardware of information technology system of banks.

Keywords: Information Technology, Competence, Bank, Employee.

INTRODUCTION:

Indian banking industry is constantly tested by the information and communication technology innovation insurgency due to global banking pressure of advanced banking and customer expectations for safe, convenient, any time and reliable banking at the worldwide banking system. So, in order to attain potential and obvious differences in the Indian and global banking pertaining to the technology, banks need to procure the IT skilled professionals or experts, which can take guarantee and same can be actualized at all the baking standards in

their banks very successfully and can get the upper hand over the competitive banks. It is additionally basic to build up the IT skill and competence among existing professionals which should be adjusted to the global innovations happening inside the bank operational and functional structure with the goal that operational capacity is improved in the age of the artificially enabled machine system. Getting and persistently dynamic IT competency is the most critical challenge for banks, particularly for Public Sector banks where all the arrangement and practices for sorting out the worker training sessions experiences complex organizational ladder for the final confirmation.

With the advancing information and communication technology application in the banking, both public and private banks may get several chances to lead and on opposite side need to confront some dangers that have been controlled by the expanding instability issues in Information technology advancement either illumination of hacking, phishing, and so forth. Reinforcing the workers' IT competency and way to deal with manage complex issues is the main conceivable arrangement by which the banks can decide its future development prospects. Since competency as an individual characteristic is always useful to accomplish the high level of standards between people just as associations. Nonetheless, pursuing together this methodology does not ensure acknowledgment of a vital objective except if the activities are end user-centric that viably address the requirements of end clients. Employees need to adapt with the inventive technological reforms to perform productive activities because of services offering that adds value to customer satisfaction. Universal banks are improving their profitability through technological developments; others are yet to understand the normal advantages of such advancements (Ameme and Wireko, 2016).

Since, banks in India recruits qualified knowledgeable representatives or employees however it is the need of hour to enlist the IT competent or skilled professionals for the banks. In this way, it is right to be said that banking job or service is a knowledge-driven job, so this industry now is demanding for the IT practices and process competent employee set. Singh and Kaur (2011) confirmed that employees directly associated with the core banking operations play significant role to enhance overall productivity of banking system and success of the bans as well. So, it is imperative to improve and develop job specific skills and competence in the employees that can ultimately result into improved responsiveness and customer satisfaction. The same is opined by Obeng and Mkhize (2017) with reference to the employees of the bank that banking industry is offering high end technology enabled quality outputs which can improve total satisfaction level of bank employees and ultimately boost the overall productivity of employees. The aggressiveness of banks depends basically on the intellectual capacity of the employees, IT intensity, HR aggressiveness, infrastructural and technological advancement, client experience valuation and the degree of utilizing all propositions by the bank directors or HRs. To build up and contend with different banks successfully, banks need IT experts with the fundamental aptitudes and capability not just in the vital and the managements' practices and exercises, yet additionally for specialized and operational backgrounds also.

So, it is very significant and imperative to examine the effect of information and communication technology competence in the bank employees and the effect of information technology competence on the overall productivity of a bank employee. The present research work will focus on the statistical assessment of sampled bank employees' opinion or feedback for the effect on advanced and improving information and technology practices and processes on their IT competence and overall productivity and association between the participation variable with reference to the demographic differences of the sampled bank employees. The geographical scope and locale of the present research work is public and private sector bank branches of Udaipur district of Rajasthan.

REVIEW OF LITERATURE:

Franklin et. al. (2014) opined that training and development programs help to improve the overall productivity of the employees by acting as a competency enabler. In their study they recommended that client oriented and technology based training program improves the competence level of bank employees and result into improved organizational productivity.

Sanyal and Hisam (2015) opined that training and development programs have noteworthy association with bank professionals or representatives' performance in the technologically rich banking environment. The examination additionally affirmed that training and development programs help to get a few potential points of interest through the employee capability and ability to play out certain particular technology based tasks and result into improved hierarchical performance. The study affirms the centrality of training and development programs in banks to amplify the performance of representative through their technical skills based empowered skill level. The research affirmed the need of the surrounding condition joining nonstop training and

development programs in improving employees' performance.
Obeng and Mkhize (2017) in their study opined that in the age of technologically advanced banking system and infrastructure, banks in order to offer the ease and convenience to their clients offering quality output. This quality output result into the enriched customer satisfaction, but depends on overall productivity of the employees. So, the study recommended that in order to attain the good level of customer satisfaction banks should focus on overall competence development through training and development program of their employees.
Alegre et. al. (2011) in their study over the information technology competency on firms' performance opined that IT competence of employee plays very significant and vital role in employees' knowledge management, performance and that all result into improved organizational productivity. But, the study statistics not confirmed any significant and direct relationship between the IT competence and firms' performance. Study confirmed relationship between IT competence and performance mediated by knowledge management.

RESEARCH OBJECTIVES AND HYPOTHESES:

The research work is an attempt to assess the information technology competence in the bank employee of Udaipur district of Rajasthan. In the success of the mapping the information technology competence research work also focus on assessing the impact of information technology competence on productivity of the employee and demographic drivers which can influence the information technology competence of an employee. Above stated studies of researchers confirmed that there is imperative relationship between the information technology competence and productivity of an employee especially with reference to the banking sector which is fully automated and depends on automated services regulated and driven by information technology processes and practices. So, the present research work is intended to assess the selected bank employees' opinion about the information technology competence within them and overall effect on the competence on their productivity. So, the study has following research questions and objectives:
Research Question 1: Do you found your information technology competence good and satisfactory according to the global banking standards.
Research Question 2: Are your agreeing that information technology competence influences your overall banking productivity.
Research Question 3: Some of your demographic variables may influence your information technology competence.

1. To study the respondents' opinion for their information technology competence.
2. To study respondents' opinion for information technology competence effect on their overall banking productivity.
3. To study respondents' opinion for demographic variables effect on their information technology competence.

Geographical Scope of the Study: The geographical location scope of the research work for studying the effect of information technology competence on bank employees' productivity is Udaipur district of Rajasthan. Udaipur is known as a place of rich cultural heritage and a famous tourist destination (also famous for destination marriages) district of Rajasthan state with rich and good mix of socio-economic composition of the rural, urban and semi-urban locality people, and also having good numbers of branches of banks. For the study purpose both public and private sector bank employees were chosen to assess their IT competencies. Bank employees of 2 branches of SBI, 1 branch of Vijaya bank, 2 branches of ICICI, 1 branch of Yes Bank, 2 branches of Canara bank and 3 branches of IDBI were chosen for the study purpose.
Research Plan: The present research work is intended to assess the opinion of employees' of selected banks for information technology competence, their own information technology competence and level of competence they found appropriate to realize the contemporary technological innovations in banking industry including the assessment of the respondents' opinion for the effect of their information technology competency on their banking job productivity. For the execution of the aforesaid study objectives, a well structured questionnaire was devised to the selected bank employees as the respondents of the study. The present research work nature is descriptive and analytical to reach the significant results and discussions.
Sampling Plan: For finding the exact idea about the effect of information technology competence on the employees' productivity, bank employees with the minimal understanding of the need of research and information technology competence were chosen for the study purpose. Convenience sampling method was followed for the selection of the bank employees and due to procure duly filled questionnaire the success ratio of the questionnaire received was only 85%. In total 120 questionnaire were distributed among the 11 bank branches (both public and private banks of Udaipur) and 102 questionnaires were finally chosen for the statistical analysis purpose.

RESEARCH HYPOTHESES FOR EXAMINATION:

H_{01}: Demographic characteristics of bank employee respondents do not affect their information technology competence.
H_{a1}: Demographic characteristics of bank employee respondents significantly affect their information technology competence.
H_{02}: Information technology competence of bank employees do not influences their overall job productivity in banks.
H_{a2}: Information technology competence of bank employees significantly influences their overall job productivity in banks.

DATA ANALYSIS ON FEEDBACK GIVEN BY BANK EMPLOYEES ON INFORMATION TECHNOLOGY COMPETENCE:

Reliability Analysis:
In order to assess the validity of the data set encoded from the feedbacks given by sampled bank employees in form of duly filled questionnaire Cronbach's alpha (α) test was performed. The threshold value or score of the test is 0.7 and if α statistic is found lower to 0.7, then it is to be ensured that reliability should be improved.

Table 1: Reliability Test Statistics

Reliability Statistics		
Cronbach's α Value	**Cronbach's α based on Standardized Items**	**N Items**
0.759	.822	67

Source: Primary Data

Reliability test statistics presented in Table 1 it was concluded that for the encoded dataset produced from the feedback given by the bank employees for 67 different data points produced through questions, Cronbach's alpha (α) value is 0.759 and Cronbach's α based on Standardized Items is 0.822, and both are found greater than threshold value 0.7 and confirms the goodness of high level of internal consistency of data. So, the dataset values can be used or applied over other statistical tests.

Percentage (%) Distribution Analysis of Demographic Variables of Sampled Bank Employees:

Table 2: Demographic Percentage Distribution for Sampled Bank Employees

Variables	Categories	Frequency	Percentage
Gender	Male	60	0.588235294
	Female	42	0.411764706
Age	Under 30 years	9	0.088235294
	30 – 40 years	47	0.460784314
	40 – 50 years	35	0.343137255
	50 + years	11	0.107843137
Job Scale	Executive Scale	8	0.078431373
	Manager Scale	16	0.156862745
	Officer Scale	20	0.196078431
	Clerical / Operational Scale	32	0.31372549
	Others	26	0.254901961
Monthly Income	Below 25,000	15	0.147058824
	25,000 – 40,000	62	0.607843137
	40,000 +	25	0.245098039
Qualification	General Graduate	28	0.274509804
	Technical Graduate	36	0.352941176
	Professionally Qualified	22	0.215686275
	Others	16	0.156862745
Marital Status	Married	78	0.764705882
	Unmarried	24	0.235294118

Variables	Categories	Frequency	Percentage
Locality	Urban	46	0.450980392
	Semi Urban	36	0.352941176
	Rural	20	0.196078431

Source: Primary Data

Table 2 of demographic distribution of the sampled bank employees presented class wise frequency and percentage distribution of the participants. Statistics of the Table 2 revealed that out of total sample population of 102 sampled bank employee of Udaipur, male employees were 60 (58.82%) and remaining 42 (41.18%) were female employees, it confirms good mix of male and female respondent combination and helps to conclude that inference would not be gender biased. Out of the 102 sampled bank employee population for age as demographic variables it was found that 9 (8.82%) employees were of below 30 year age group, 47 (46.07%) were in between 30 to 40 years, 35 (34.31%) sampled bank employee were in between 40-50 years, and only 11 (10.78%) employees were of more than 50 years of age. For job scale based percentage distribution it was found that 8 (7.84%) bank employees were of executive scale, 16 (15.69%) were of manager scale, 20 (19.61%) employees were of officer scale, 32 (31.37%) employees were of clerical/ operational scale, and 26 (24.49%) employees were of different other scales. For monthly income based classification it was found that 15 (14.70%) sampled bank employee' monthly income was lesser to Rs. 25000 per month, 62 (60.78%) sampled bank employee' monthly income was in between Rs. 25000-Rs. 40000 per month, and 25 (24.51%) sampled bank employee' monthly salary was more than Rs. 40000 per month.

From the qualification point of view 28 (27.45%) sampled bank employee were general graduate, 36 (35.29%) sampled bank employee were technical graduate, and 22 (21.56%) sampled bank employee were professionally qualified. Out of the sampled population 78 (76.47%) sampled bank employee were married, and remaining 24 (23.53%) sampled bank employee were unmarried. According to the locality to which respondent belongs it was found that 46 (45.09%) sampled bank employee were of urban area, 36 (35.29%) sampled bank employee were of semi urban area and remaining 20 (19.60%) sampled bank employee were from the rural part of Udaipur.

So, good combination of demographics variables' class wise participation of the sampled bank employee was observed for the study and it result into good quality of data for further statistical analysis.

T-Test to Measure IT Competence of Bank Employees:

This section of the research paper will present the assessment of information technology competence of the sampled bank employees. Paired sample T- Test was performed between the overall mean score calculated from the feedback given by the respondents for all type of IT competence parameters and the particular competence level.

Table 3: T-Test to Measure IT Competence of Sampled Bank Employees

IT Competency Variables	Present Competence Mean Score	Expected Competence Mean Score	T	Sig.
Software Skills	4.36	3.16	6.180	.000
Hardware Skills	4.40	3.20	9.89	.000
Banking Technology Skills	3.16	3.36	-2.26	.031
Web Technology Skills	2.90	3.76	-4.70	.000
Bank Hardware Skills	4.26	2.80	7.47	.000
Competitive System Skills	2.60	4.10	-8.43	.000

Source: Primary Data

From the Paired Sample T-test statistics of bank employees' information technology competency assessment it could conclude that for software skills expected mean score was 3.16 and calculated mean score was 4.36 which result into positive and significant T score (6.180, .000), For hardware skills expected mean score was 3.20 and calculated mean score was 4.40 which result into positive and significant T score (9.89, .000) and confirmed that sampled bank employees software skills are good and satisfactory, for bank hardware skills expected mean score was 2.80 and calculated mean score was 4.26 which result into positive and significant T score (7.47, .000) and confirmed that sampled bank employees software skills are good and satisfactory. So, it could conclude that sampled bank employees' competence for banking related software, hardware, and for other hardware tools is found satisfactory and good.

For remaining IT competence parameters such as for banking technology skills expected mean score was 3.36 and calculated mean score was 3.16 which result into negative and significant T score (-2.26, .031), for web technology skills expected mean score was 3.76 and calculated mean score was 2.90 which result into negative and significant T score (-4.70, .000), and for competitive system skills expected mean score was 4.10 and calculated mean score was 2.60 which result into negative and significant T score (-8.43, .000) and confirmed that sampled bank employees software skills score is not good and not satisfactory. So, bank administration should work over improving competence of bank employee especially for banking technology, web technology and competitive system.

ANOVA Analysis to Assess Demographic Variables Effect on Information Technology Competence of Sampled Employees of Banks:

Demographic variables like gender, age, job scale, monthly income, qualification, marital status, and locality of sampled bank employees affects their information technology competence or not, to measure the significance of the difference in the mean score values of different classes of particular demographic variables in all the possible combinations of groups of the demographic variables of the bank employees. The significance of comparative value F is measured by P-value.

H_{01}: Demographic characteristics of bank employee respondents do not affect their information technology competence.

H_{a1}: Demographic characteristics of bank employee respondents significantly affect their information technology competence.

Table 4: ANOVA Test to Assess Demographic Variables Effect on Information Technology Competence of Sampled Employees of Banks

Demographics Variables	F	Sig.	Null Hypothesis Result
Gender	14.211	.000	Rejected
Age	15.116	.000	Rejected
Job Scale	17.135	.000	Rejected
Monthly Income	17.145	.000	Rejected
Qualification	16.352	.000	Rejected
Marital Status	15.224	.000	Rejected
Locality	16.641	.000	Rejected

Source: Primary Data

So, from the statistics of the ANOVA test to assess demographic variables effect on information technology competence of sampled employees of banks as presented in Table 4 helped to conclude on the basis of F value and significance value that for demographic characteristics such as gender (14.211, .000), age (15.116, .000), job scale (17.135, .000), monthly income (17.145, .000), qualification (16.352, .000), marital status (15.224, .000) and for locality (16.641, .000) sampled bank employee respondents are significantly agreeing that all the aforementioned demographic characteristics of bank employees significantly affect information technology competence it is because for all demographics variables' significance values were found lesser to the 0.05 which confirmed the significance of differences in the mean score of respondents' opinion in between the classes of demographics. So, it could conclude that H_{a1} must be accepted that demographic characteristics of bank employee respondents significantly affect their information technology competence.

Correlation Analysis to Measure the Relationship between Bank Employees' Information Technology Competence and Productivity in Job:

In order to assess the information technology competence (Software Skills, Hardware Skills, Banking Technology Skills, Web Technology Skills, Bank Hardware Skills, and Competitive System Skills) effect on the overall productivity of sampled bank employees' bank job performance Pearson correlation analysis was performed. Higher correlation value showed higher association between the participating variables. The related hypothesis is stated below here under:

H_{02}: Information technology competence of bank employees do not influences their overall job productivity in banks.

H_{a2}: Information technology competence of bank employees significantly influences their overall job productivity in banks.

Table 5: Correlation Test to Measure the Relationship between Bank Employees' Information Technology Competence and Productivity in Job

Correlations		Productivity in Job
Information Technology Competence	Pearson Correlation	.692**
	Sig. (2-tailed)	.000
	N	102
**. Correlation is significant at the 0.01 level (2-tailed).		

Source: Primary Data

Pearson Correlation test statistics of measuring the relationship between bank employees' information technology competence and productivity in job is presented in Table 5. The statistics of table revealed that Pearson Correlation value between Information Technology Competence level of the sampled bank employees and Overall productivity of employee in their job is .692**. The correlation value was found significant at 0.01 (2-tailed) levels. The higher and positive association between participating variables revealed that if competence would be improved then overall productivity of employee would be improved. So, it could conclude that H_{a2} must be accepted which ensured that Information technology competence of bank employees significantly influences their overall job productivity in banks.

RESULTS AND DISCUSSION:

Statistical conclusion created from the dataset generated as the result set of data encoding of feedbacks and opinion given by the sampled bank employee respondents it was observed that results were produced from the good quality and noteworthy combination of dissimilar classes/ segments of demographic/ personal variables of the bank employees, which resulted into good quality datasets with cronbach's alpha (α) value 0.759 and cronbach's α based on standardized items 0.822 and produced imperative results. The sampled bank employees were from the both public and private sector banks of Udaipur district of Rajasthan. 102 sampled bank employees showed good combination of demographics variables' class wise participation. The T-test analysis revealed that sampled bank employees' competence for banking related software, hardware, and for other hardware tools is found satisfactory and good. It was also identified that bank administration should work over improving competence of bank employee especially for banking technology, web technology and competitive system. ANOVA test revealed that demographic characteristics (gender, age, job scale, monthly income, academic qualification, marital status, and locality) of bank employee respondents significantly affect their information technology competence. The higher and positive association between participating variables (Information Technology Competence and Employee ob Productivity) revealed that if competence would be improved then overall productivity of employee would be improved.

REFERENCES:

Ameme, B. and Wireko, J. (2016). Impact of technological innovations on customers in the banking industry in developing countries, *The Business and Management Review*, Vol. 7, Issue 3, PP. 388–397.

Franklin D. K., Richard C., Anis Mahomed K (2014). The Impact of Training and Development on Employee Performance: A Case Study of ESCON Consulting, *Singaporean Journal of Business Economics and management studies*, 3(3), 72-105.

Obeng, A. Y., and Boachie E. (2018). The impact of IT-technological innovation on the productivity of a bank's employee, Cogent Business and Management, *Information and Technology Management*, 5: 1470449.

Obeng, A. Y., and Mkhize, P. L. (2017). An exploratory analysis of employees and customers' responses in determining the technological innovativeness of banks, *The Electronic Journal of Information Systems in Developing Countries*, Vol. 80, Issue 1, PP. 1–23.

Pérez-López, Susana & Vidal, Joaquín. (2012). Information technology competency, knowledge processes and firm performance, *Industrial Management & Data Systems*, 112. 644-662.

Sanyal S. and Hisam M.W. (2015). Impact of Training and Development on the Performance of Employees – A Comparative Study on Select Banks in Sultanate of Oman, *International Journal of Scientific Research and Management (IJSRM)*, Volume 06, Issue 03, PP. 191-198.

Singh J., and Kaur G. (2011). Customer satisfaction and universal banks: An empirical study, *International Journal of Commerce and Management*, Vol. 21, Issue 4, PP. 327– 348
