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TECHNOLOGY IMPLEMENTATION ACCEPTANCE LEVEL AND THE ASSOCIATIONS OF THESE LEVELS TO THEIR SOCIO-DEMOGRAPHIC: A STUDY ON EMPLOYEES OF PRIMARY COOPERATIVE CREDIT SOCIETIES IN IDUKKI DISTRICT

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ABSTRACT

This research article is an extract of Ph.D. thesis research work. The present research paper explores the level of acceptance to technology implementation and the associations of these levels to their socio-demographic among the employees of primary cooperative credit societies in Idukki District. The study reveals that, 49.1 percent of the bank employees have technology implementation acceptance above average; among them, the number of male employees was more than that of women employees. And, the study concludes that the profile variables of the respondents that were considered for the present study, namely; the gender dimension of the respondents, the age of the respondents, their educational qualifications, the marital status of the respondents, the designation of the respondents, training undergone by the bank employees, average monthly income of the respondents' family, and the type of the respondents' family, have a significant association with the acceptance of technology change in the workplace.

KEY WORDS: *Acceptance to technology implementation, Employees, Idukki District*

1. INTRODUCTION

Banks are vital financial institutions in an economic system. They are the predominant source of financial support to the community. Banks offer more important sources of short-term working capital for commercial enterprises and are more and more active in recent years in extending long-term commercial enterprise loans for plants and equipment. Banks have been under tremendous pressure to achieve their objectives in preserving loans & investments and providing services to customers while complying with the government regulations. The Commercial Banks are certainly commercial enterprises organized to maximize the value of shareholder's wealth invested within the Bank at an acceptable level of risk. The regional Rural Banks and Co-operative banks are also to working on the same way for survival though they are non profit organizations . The aggressive pursuit of such goal calls for the banking organizations lead them to a constant search for new opportunities , greater efficiency, and effective planning and control. Therefore, banks, like other organizations in the economy, are out to focus on the human resources being the key factors towards the way to progress.

2. STATEMENT OF THE PROBLEM

The demanding situations on this millennium for the banking sector are enormous. The technology and banking sector reforms collectively lifting the competitive intensity of the banking business. The

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banking system across the globe is in the midst of a technological revolution, which has an effect in 3 ways: Firstly, by providing efficient and effective delivery channels, Secondly, the dramatical influence of its miles in the patron profile which leads to the third change which is human resource management. As a service industry, it requires a shift in the mindset of the employees that might have a beneficial impact on customers.

3. JUSTIFICATION OF THE PRESENT STUDY

This study assumes significance due to the subsequent reasons. This study pursuit in figuring out the level of emotional intelligence among the bank employees, which will help to create awareness in the need for personal development &training. Secondly, the study of the profile (includes personality traits also) of the bank employees with the level of emotional intelligence will always throw light on identifying the type of individuals who normally possess high level emotional intelligence. Thirdly, the study of the relationship among the level of emotional intelligence and their managerial performance will provide more insight into the importance of emotional intelligence amongst the respondents. Thus, an attempt is made by the researcher to pick out the level of emotional intelligence among the employees of the Bank and the numerous determinants of emotional intelligence required for a balanced state of emotion in a demanding, complicated, and ambiguous place of work.

4. OBJECTIVES OF THE STUDY

The objectives of study are to explore the level of acceptance to technology implementation and the associations of these levels to their socio-demographic among the employees of primary cooperative credit societies in Idukki District.

5. SCOPE OF THE STUDY

The present study is to determine the level of acceptance to technology implementation and the associations of these levels to the age of the respondents, the gender dimension of the respondents, marital status of the respondents, their educational qualifications, their working experience, the designation of the respondents, training undergone by the bank employees, the type of the respondents' family, average monthly income of the respondents' family, and the number of dependents the respondents.

6. DESIGN OF THE STUDY

6.1. Review of Existing Literature

Several authors and researchers have contributed a lot of literature on emotional intelligence and acceptance of technology among employees. The relevant studies were perused to identify issues, problems, ideas that the current research addresses and the specific need for the present study are spelled out.

6.2. Selection of the Study Area

The Idukki District Cooperative Bank (IDCB), the apex bank for the Primary Agricultural Credit Societies (PACS) in Kerala, and the Institute for Development and Research in Banking Technology (IDRBT) Hyderabad jointly implemented the Core Banking System (CBS) in 54 Primary Agricultural credit Societies with 143 branches in Idukki district, Kerala, and having a total number of 725 employees. This project was the first of its kind in India, where PACS are becoming part of technology up-gradation. Hence, the present research area was selected purposefully for the current research.

6.3. The Sampling Framework

The present study has followed a stratified sampling method: **Stratum I:** Employing the online sample size calculator at a confident level of 95 percent with the population size of 725 employees engaged in 213 branches, the minimum sample size required is 252 samples, **Stratum II:** However, to ensure more accuracy, the researcher circulated the structured questionnaire to 400 employees who were able to reach out employed in 143 branches of Primary Agricultural Credit Societies (PACS) in the Idukki District Kerala, and **Stratum III:** Out of which 318 respondents returned the filled-in structured questionnaire at the rate of 79.5 percent to the researcher. Of which 46 respondents were the Secretaries, 62 respondents were the Branch Managers, 74 respondents were the Accountants, 84 respondents were the Clerks, and 52 were the Cashiers of the Primary Agricultural Credit Societies (PACS) under the Primary Cooperative Credit Societies in the Idukki district, Kerala. Hence, 318 samples consisted of the current research work.

6.4. Sources of Data

The present work is descriptive method research; primary and secondary data were gathered and analyzed to draw inferences and report research results.

6.5. Methods of Data Collection

The study employed a combination of methods, such as field survey using a pre-tested questionnaire schedule adopting the Likert Scale method and discussions with the Primary Agricultural Credit Societies (PACS) employees, meetings with key informants, and review of secondary data sources.

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6.6. Primary data

The primary data were gathered from the employees of Primary Agricultural Credit Societies (PACS) employees that comes under the Primary Cooperative Credit Societies in Idukki District by contacting them personally and reaching out to them through e-mail, Whatsapp during the period between December 2016 and February 2017 on a whole-time basis. The data were collected by administering a pre-tested questionnaire adopting the Likert Scale method consisting of three sections such as; (i) the socio-demographic characteristics, (ii) emotional intelligence elements of bank employees, and (iii) acceptance of technology implementations variables among the bank employees.

6.7. Secondary data

Besides the primary data, the study also utilized materials and information from various libraries sourced from different institutions, e-books, journals, magazines, and newspapers.

6.8. Data Analysis

The primary data collected regarding the present work adopting the Likert scale method was analyzed employing percentage analysis, index analysis and ANOVA using SPSS.

6.9. Reference period

The study covers five financial years between 2015 and 2020.

7. TECHNOLOGY IMPLEMENTATION ACCEPTANCE LEVEL BY GENDER

The technology implementation acceptance index of the bank employees by gender in the study area is presented in table 1. The study reveals that 36.2 percent of the study area bank employees have a technology implementation acceptance level between 60 and 80, of which 21.2 percent are men, and 15.1 percent are women. Those employees with a technology implementation acceptance level between 40 and 60 accounted for 18.2 percent; 11.6 percent male employees and 6.6 percent female employees.

Additionally, 28 percent of the study area's bank employees have technology implementation acceptance levels less than 20; 17 percent are men, and 11 percent were women. The bank employees who have technology implementation acceptance between 20 and 40 accounted for 4.7 percent; they were 2.8 percent female and 1.9 percent male. The employees with maximum technology implementation acceptance (80 and above) accounted for 12.9 percent; 7.2 percent male and 5.7 percent female.

Consequently, in the study area, 49.1 percent of the bank employees have technology implementation acceptance above average; among them, the number of male employees was more than that of women employees. The bank employees with moderate technology implementation acceptance accounted for 18.2 percent; 11.6 percent male and 6.6 percent female. And, 32.7 percent of the employees were having technology implementation acceptance below average, of which 18.9 percent were men and 13.8 percent were women.

Accordingly, the study area banks need to increase the technology implementation acceptance of 32.7 percent of the employees who are having technology implementation acceptance below average. Also, banks must pay attention to increase women's technology implementation acceptance as male employees have more than women in accepting technology implementation in the study area.

Table 1
Respondents' Acceptance on Technology Implementation Index by Gender

Technology Implementation Acceptance Index	GENDER		Total
	Male	Female	
Less than 20	54 (17)	35 (11)	89 (28)
20 to 40	6 (1.9)	9 (2.8)	15 (4.7)
40 to 60	37 (11.6)	21 (6.6)	58 (18.2)
60 to 80	67 (21.1)	48 (15.1)	115 (36.2)
80 and above	23 (7.2)	18 (5.7)	41 (12.9)
TOTAL	187 (58.8)	131 (41.2)	318 (100)

Source: *Computed from primary data.* ***Note:*** *Figures in parenthesis represent the percentage of the total respondents.*

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8. ASSOCIATION BETWEEN PROFILE AND TECHNOLOGY IMPLEMENTATION ACCEPTANCE INDEX

The present study test the association of the general profile of the study area bank employees and their acceptance towards the implementation of technology, conducting a one-way analysis of variance (ANOVA). The variables of the available profile of the respondents for the present study are, namely, the age of the respondents, the gender dimension of the respondents, marital status of the respondents, their educational qualifications, their working experience, the designation of the respondents, training undergone by the bank employees, the type of the respondents' family, average monthly income of the respondents' family, and the number of dependents the respondents. Consequently, the result of the one-way analysis of variance (ANOVA) is presented in table 2.

An analysis of variance test on the association of the respondents' age with their emotional intelligence level deduced that the calculated value of the ratio of variance F(3,314) is 2.213, which reaches significance with a p-value of 0.043. Therefore, it is concluded that there was a significant association between the respondents' age and their acceptance of technology change in the workplace (0.043<0.05).

Also, there was a significant association between the bank employees' gender and their acceptance of technology change in the workplace since the calculated ratio of variance (F) for 1 and 316 degrees of freedom at a 5 percent level of significance was 2.162 p=0.042<0.05.

There was also a significant association between the employees' marital status and their acceptance of technology change in the workplace since the calculated ratio of variance (F) for 1 and 316 degree of freedom at 5 percent level of significance was 2.417 and p=0.039>0.05.

On the analysis of variance test, for there was an association between the educational qualification and their acceptance of technology change in the workplace, it was found that F(2,315)=2.002 and p=0.052. Hence, it was close to significant association between the educational qualification and their acceptance of technology change in the workplace (p>0.05) among the bank employees in the study area.

Further, an analysis of variance test indicates that the calculated value of the ratio of variance F(2,315) is 2.029 and significant (p) at 0.055>0.05 for the working experience of the bank employees in the study area. Hence, it was close to significant association between the employees' working experience and their acceptance of technology change in the workplace (p>0.05) among the bank employees in the study area.

Statistically, it follows a significant association between the employees' working experience and their acceptance of technology change in the workplace since ANOVA $F(2,315) = 2.461$ and $p = 0.046 < 0.05$.

The relationship between the education streams of the bank employee respondents and their acceptance of technology change in the workplace was not significant in the study area since the calculated ratio of variance (F) for 2 and 315 degrees of freedom at a 5 percent level of significance was 1.162 p=0.393>0.05.

An analysis of variance test on the association of the respondents' training underwent while in service and their acceptance of technology change in the workplace deduced that the calculated value of the ratio of variance F(1,316) is 2.632, which reaches significance with a p-value of 0.032. Therefore, it is concluded that there was a significant association between the respondents' training underwent while in service and their acceptance of technology change in the workplace (0.032<0.05).

Also, an association of the bank employees' average monthly income with their acceptance of technology change in the workplace was conducted with the analysis of variance test and found that F(3,314)=0.2571 and p=0.028. Hence, there was a significant association between the bank employees' average monthly income with their acceptance of technology change in the workplace (p>0.05).

There was also a significant association between the employees' type of family, and their acceptance of technology change in the workplace since the calculated ratio of variance (F) for 1 and 316 degrees of freedom at a 5 percent level of significance was 2.895 p=0.024>0.05.

And, it was close to significant association between the employees' number of dependent in their family with their acceptance of technology change in the workplace since the calculated ratio of variance (F) for 2 and 315 degree of freedom at 5 percent level of significance was 2.011 and p=0.054>0.05.

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Table 4.4
ASSOCIATION BETWEEN PROFILE AND TECHNOLOGY IMPLEMENTATION ACCEPTANCE INDEX

ANOVA						
RESPONDENTS' PROFILE		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
GENDER	Between Groups	.146	1	.146	2.162	.042*
	Within Groups	649.804	316	2.056		
	Total	649.950	317			
AGE	Between Groups	8.745	3	2.915	2.213	.043*
	Within Groups	641.205	314	2.042		
	Total	649.950	317			
MARITAL STATUS	Between Groups	1.332	1	1.332	2.417	.039*
	Within Groups	648.618	316	2.053		
	Total	649.950	317			
EDUCATIONAL QUALIFICATION	Between Groups	2.032	2	1.016	2.002	.052
	Within Groups	647.917	315	2.057		
	Total	649.950	317			
WORKING EXPERIENCE	Between Groups	2.227	2	1.113	2.029	.055
	Within Groups	469.952	315	1.492		
	Total	472.179	317			
DESIGNATION	Between Groups	4.732	2	2.366	2.461	.046*
	Within Groups	467.447	315	1.484		
	Total	472.179	317			
EDUCATION STREAMS	Between Groups	.304	2	.152	1.162	.393
	Within Groups	649.645	315	2.062		
	Total	649.950	317			
TRAINING UNDERGONE	Between Groups	.514	1	.514	2.632	.032*
	Within Groups	649.436	316	2.055		
	Total	649.950	317			
AVERAGE MONTHLY FAMILY INCOME	Between Groups	4.280	3	1.427	.2571	.028*
	Within Groups	467.899	314	1.490		
	Total	472.179	317			
TYPE OF FAMILY	Between	.509	1	.509	2.895	.024*

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	Groups					
	Within Groups	649.441	316	2.055		
	Total	649.950	317			
NUMBER OF DEPENDENT(S)	Between Groups	.597	2	.299	2.011	.054
	Within Groups	471.582	315	1.497		
	Total	472.179	317			

Source: *Computed from primary data.* ***Note:*** ** Significant at 5 % level*

CONCLUDING REMARKS

The study concludes that from the variables of the available profile of the respondents that were considered for the present study, namely; the gender dimension of the respondents, the age of the respondents, their educational qualifications, the marital status of the respondents, the designation of the respondents, training undergone by the bank employees, average monthly income of the respondents' family, and the type of the respondents' family, have a significant association with the acceptance of technology change in the workplace. And, the study area banks need to increase the technology implementation acceptance of 32.7 percent of the employees who are having technology implementation acceptance below average. Also, banks must pay attention to increase women's technology implementation acceptance as male employees have more than women in accepting technology implementation in the study area.

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