

Role of Demographics in Social Acceptance of Technological Innovation in Society

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Abstract

The impact of demographic variables on individual's perception and adoption of technological innovation in workplace has been investigated. Data has been collected from banks of Punjab. The results show that employees' favorable attitude towards an innovation leads to its adoption in work place. The findings depicts that training is the strongest predictor of both perception and usage of innovation followed by the education level of employees. Thus findings imply that development of a positive attitude in employees is crucial in getting an innovation acceptable to employees. The level of education has also an impact upon the building of favorable attitude of employees towards an innovation. However, this favorable attitude does not translate into actual acceptance of an innovation for workplace usage. Thus the results of the paper are important for the effective management and implementation of an innovation at the organizational levels.

Keywords: Age Level, Education Level, Training, Attitude toward Technological Innovation, Technology Acceptance Behavior.

Introduction

Technological innovations are the result of the rapid scientific growth of the today's world. Continuous adoption and use of such innovation is considered vital for a dynamic organization as it contributes to improved organization performance in terms of boosting employee's efficiency and productivity. Since organizations are run and nurtured by employees, employees' willingness to accept and apply innovation in their workplace is a crucial factor in making the innovation effective. Therefore, the potential users of an innovation are the focal point in making technological innovations a success. An understanding of the individual users' perception of an innovation and their subsequent behavior would therefore be useful in assessing the contributions that a technological innovation can make to the achievement of organizational objectives. An individual employee's interests and actions in relation to a technological innovation is likely to be shaped by a number of factors including their demographic profile. Therefore, a close look at the demographic variables of users of technological innovation may provide a useful insight into how those demographic characteristics may influence their perception of and decision to adopt and practice a particular technological innovation. The demographic background of potential users of a technological innovation can therefore be considered a lens through which the innovation adoption process can be viewed. In a broader context, understanding the factors influencing user acceptance of innovation in the workplace has long been a concern of scholars and practitioners Sherif.K (2006) Furthermore, the successful introduction of an innovation into an organization requires its employees to adjust their attitude and behavior to embrace the innovation. In the absence of such behavioral adjustment, organizational plans to establish a technological innovation may fail to reach desired outcomes as employees may either refuse to adopt it, or not use it to its full potential Nelson(1990). Although innovation adoption in general has been studied extensively, the drivers of adoption and research on individual innovation acceptance have not been adequately addressed Frambach (2002). In particular, the impact of employees' demographic characteristics on their perception and adoption of technological innovation has remained a comparatively unexplored topic in the literature. In view of this back drop, this paper examines the possible impact of demographic characteristics (both acquired and inherent) of employees on their perception of and adoption behavior towards technological innovation in their workplace.

Objectives of the study

The main objectives of the study are three fold:

1. To examine the impact of demographic variables on employees' attitudes towards technological innovations.
2. To explore the impact of employees' attitudes towards technological innovation on their technology acceptance behavior.
3. To examine the impact of demographic variables of employees on their acceptance behavior in relation to technological innovation.

Research motivation

The principal motivation for this research paper comes from an apparent gap in the literature with regard to the impact of demographic characteristics of users of a technological innovation on their perception and usage behavior. In particular, a clear research gap exists in the area of innovation management with regard to its association with the demographical background of the adopters. A number of prior researches identified the above gap in the literature and suggested this as a potential area of future research Ajzen.I (1980),Frambach (2002). This paper has considered these suggestions of prior researchers as a rationale for undertaking the current research to deepen and broaden the understanding of the issues and complexities associated with the possible nexus between the variables examined in the paper.

Literature Review and The Hypotheses

The following section discusses literature relating to the demographic profiles of individual employees as drivers of perception, the acceptance behavior of technological innovation and the relevant hypotheses flowing from discussion of the literature. The demographic characteristics have been classified into inherent and acquired features. Inherent characteristics are those that are intrinsic in nature and the accomplishment of which do not require any effort or resources such as age while acquired are educational qualification and training.

Demographic characteristics (Inherent)**Age**

There is a common perception that innovation adaptors are quite young in age. Therefore, age is a significant factor to consider in determining how innovation users select their preferred technological innovation. Research has found that older people aged between 50 and above prefer to use their innovation skills significantly less than those aged between 20 to 29 and 40 using computers and the internet than their younger counterparts, it is likely that learning to use innovation would create an anxiety provoking situation amongst the potential users Porter (2006). In contrast, the study conducted by Lerouge, Newton and Blanton (2005) did not find that innovation usage was significantly influenced by people in this age group. Thus, the above literature does not provide a clear direction as to the impact of age on perception and usage of innovation. In order to resolve this stalemate the following hypotheses would be worth investigating:

H1

There is a significant relationship between employees' level of age and attitude towards acceptance of technological innovation.

H2

There is a significant relationship between employees' level of age and usage level of technological innovation.

Demographic Characteristics (Acquired)

Acquired characteristics are defined as those human attributes that are to be gained through personal initiatives requiring energy and resources.

Education Level

Education is another important demographic variable determining the use of innovation. Education enables users to operate and appreciate innovation use. According to Porter (2006), the decision to adopt a new technology is related to the amount of knowledge one has regarding how to use the technology appropriately. Early adopters of new technologies tend to have higher educational levels and better knowledge, perhaps reflecting their ability to understand more quickly than those with less education Rogers (2003). Less educated individuals may feel they have insufficient knowledge and suffer from more computer anxiety and have less sophisticated cognitive structures that impede their ability to learn Porter (2006). Against this backdrop, the following hypotheses are proposed:

H3

There is a positive relationship between employees' level of education and attitude toward acceptance of technological innovation.

H4

There is a significant relationship between employees' level of education and usage level of technological innovation.

Training Status

This refers to the extent of training that is provided to individual employees in an organization. This training would contribute to the increase of their knowledge and expertise in using a new system Al Gahtani (1999). Training also increases user confidence in terms of their ability to learn and use the innovation. Furthermore, training enhances individual user's skills and abilities to perform innovation related tasks Lee .S(2006). According to Igbaria, Zinatelli, Cragg and Cavaye, training promotes greater understanding, favourable attitude, more frequent use, and more diverse use of applications. Several studies have reported that training encourages an individual to adopt innovation Izbaria M (1996). Such training decreases anxiety and increases favorable perceptions about the innovation and consequently influences its adoption Izbaria (1993). A review of the relevant literature suggests that adoption of innovation is directly affected by specialized instructions, guidance, coaching and consulting with the potential adopters Yuan.Y.Fulk (2005). With training, education and provision of assistance to employees when they encounter difficulties, some of the potential barriers to adoption can be reduced or eliminated Edwards (2005). Individual adoption of innovation is positively influenced by the amount of relevant formal training

an employee receives. Such training enhances an individual's belief, possession of skills and knowledge that permits successful task performance Ligon J (2000). Instructional procedures that are more individualized and focus on the relative amount of learning and progress are likely to enhance the adoption process Ford (1990). So, the following hypotheses are presented for testing:

Hypothesis 5

There is a significant relationship between employees' level of training and attitude toward acceptance of technological innovation.

Hypothesis 6

There is a significant relationship between employees' level of training and the level of usage of a technological innovation.

Attitudes toward Technological Innovation

There are various definitions of attitude. For example, Ajzen and Fishbein (1980) define attitude as a pre-disposition to respond favorably or unfavorably to an object, person, event or institution.

Ajzen and Fishbein (1980) state that attitude is the function of behavioral beliefs and evaluation of outcomes. According to Lam, Cho and Qu (2007) attitude is an individual's feeling of the

favorableness or un-favorableness of his or her performance of the behavior. They explain that behavioral belief is one's belief in performing a specific behavior that will lead to a specific

consequences, and evaluation of outcome is one's assessment of that specific consequence Lam (2007). Attitudes toward innovation have been extensively studied in the past. For instance,

Liao and Landry (2000) assert that employees' attitudes toward the acceptance of innovation would affect the intention of the innovation adoption Lam (2007). According to Pavlou and Fygenson (2005) attitude has been shown to influence behavioral intentions and this relationship has received substantial empirical support. Based on the work of Ajzen and Fishbein (1980), Davis (1989) developed an attitude construct scale. The instruments ask individuals to rate five items according to how they felt about using the innovation on a five-point scale Taylor's (1995). Employees may behave differently when their attitude toward a certain type of behavior has changed. Specifically, employees are more likely to perform a behavior if they possess a positive attitude and are more likely not to perform a behavior when they possess a negative attitude Kwok.S (2006). Attitude toward innovation adoption is an aggregate belief of organizational, individual and social factors in the

proposed enhanced research model. A favorable attitude is likely to encourage individual employees to adopt and use the innovation. Hence, the following hypothesis would be

H7

There is a significant relationship between employees' attitude toward technological innovation and its acceptance.

In order to provide a synthesis of the relevant literature pertaining to the above hypotheses and research objectives, a summary of the literature is presented in Table 1.

Theoretical framework

A number of established theories have been used as the theoretical frame for this paper. These are the theory of reasoned action (TRA) Fishbein (1980), the technology acceptance model (TAM) Davis (1989) and individual technology acceptance model (ITAM) Frambach (2002), Ajzen and Fishbein (1980) pioneered the notion of reasoned action which posits that the intention of an individual leading to any particular behavior is influenced by the individual's attitude toward that behavior and their subjective norms. This theory has been widely applied because of its high predictability in explaining behavior in a variety of contexts. Ajzen and Fishbein (1980) recognized the possible impact of demographic variables such as age, sex, occupation, socioeconomic status, religion and education on behavior but the authors did not include these demographics in their model for testing. Therefore, demographic characteristics of users of technological innovation are included in our theoretical model. Following the general assumption of TRA, technology acceptance model introduced in 1986 discarded the subjective norms as they were found to be insignificant. The theory emphasized two key elements- usefulness and ease of use in technology acceptance behavior. However, like TRA, TAM also excluded the demographics of individuals in the technology adaptation process. Interestingly, the individual technology acceptance model proposed by Frambach and Schillewaert, (2002) recognized the relevance of training, social persuasion and various personal characteristics such as demographics to individual adoption of an innovation. In view of the above discussion on the theoretical development in the topic area of this research, we have explored the proposed hypotheses to broaden our understanding of the impact of demographic characteristics of individual adopters on their perception and adoption behavior of technological innovation.

Table 1:

A Summary of Literature Review of Demographics of Employees Demographics Context of Research Authors

Demographics	Context of Research	Authors
Inherent Demographics		
Age	<p>Younger people are more inclined to accept an Innovative technology.</p> <p>Older people are less interested in adopting a technological innovation as they experience higher levels of anxiety in using a new technology</p> <p>Younger people are more enthusiastic in trying an innovation because of their natural attraction to new technology</p> <p>Age in general does not affect the level of usage of technological innovation</p>	<p>Lerouge C,Newton (2005)</p> <p>Porter c (2006)</p> <p>Porter c (2006)</p> <p>Lerouge C,Newton (2005)</p>
Acquired Characteristics		
Educational Background	<p>People with a higher level of Education background has a tendency to quickly adopt innovative technologies.</p> <p>People with a low level of education tend to have higher levels of uncertainty in accepting a technological innovation because of their less sophisticated cognitive structures.</p>	<p>Rogers(2003)</p> <p>Lerouge C,Newton (2005)</p> <p>Porter c(2006)</p>
Training Status	<p>Training increases the knowledge and ability of an individual to use a technological innovation.</p> <p>Training contributes to the enhancement of confidence in the ability to learn and use the innovation.</p> <p>Training leads to a positive attitude and frequent use and practice of an innovation</p> <p>Training boosts encouragement amongst employees to adopt an innovation</p> <p>The decision to adopt a new technology is related to the amount of knowledge one has regarding how to use the technology appropriately</p>	<p>Al Gahtani (1999)</p> <p>King M(1999)</p> <p>Lee S (2006)</p> <p>Igbaria M (1993)</p> <p>Ligon J(2007)</p> <p>Igbaria M (1993)</p> <p>Jasperson(2005)</p> <p>Porter c(2006)</p>

The Research Model

The following research model is presented for empirical testing in this paper. The structure of the model has been developed keeping in mind the relevant literature and the theoretical perspectives detailed earlier in the paper. The model has three fields - employee demographics, employee perceptions of innovation and employee innovation acceptance behavior. A total of five boxes are included within these three fields. Three of the boxes contain the demographic characteristics as the independent variables that are classified into inherent and acquired demographics. The fourth box is about employees' perception of a technological innovation as a dependent variable

in relation to demographic characteristics. At the same time this box is also as an independent

variable to the fifth box concerned with technology acceptance behavior. Finally, the fifth box is a dependent variable in relation to the fourth box (employees' perception of a technological innovation). The research model is presented in figure 1.

Constructs and Variable Measurement

The constructs were measured using multiple items for attitudes, behavior and training. Average mean scores were used as the basis of analysis. Continuous scales were used for measuring age and education level. Attitude toward technological innovation were measured through five items on a 5 point Likert scale with 1 representing strongly disagree to 5 representing strongly agree. The items comprised of perceived importance of technological innovation in terms of its relevant to jobs, usefulness, practicality and likability King.M (1999). Technological

acceptance behavior was operationalized through self-reported measures of actual system usage level by five indicators including actual amount of time spent, frequency of use, usage level, number of applications used, sophistication level of application used Izbaria.M (996).

Demographics were measured as follows

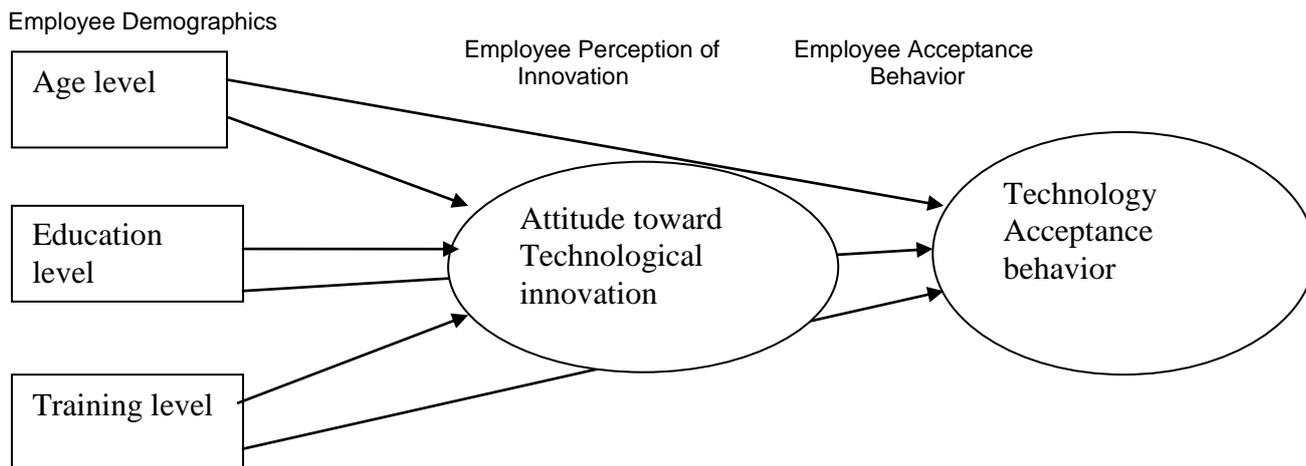
Level of training was measured in terms of five items representing such themes as the actual internal training provided, training courses offered, and availability of individual support, online access to special instructions and availability of general guidance with regard to use of a technological innovation King M(1999). Level of age was measured using a continuous scale. Level of education was measured using five point scales ranging from primary to doctoral level.

Methods

The data for this paper was collected from the professional and management personnel of the banks of Amritsar city. The entire population of the bank in the above category of personnel was

surveyed. This decision was made to maximize the response rate. A questionnaire was administered to collect the data for this study. The study focused on the new system of online fund transferring. The initial stage involved obtaining experts' opinions and comments regarding the structure relevant to the types of questions and technical aspects of the questionnaire. The study instruments were pre-tested to identify and modify the items that the respondents tended to misinterpret, skip over or respond to improperly. An online questionnaire was then distributed to 50 staff members. A total of 24 respondents completed the survey yielding a response rate of over 49 percent which is deemed acceptable given the nature of the topic. A variety of statistical techniques were employed to analyze the data for this study including correlation and regression analyses. Correlation matrices were used to identify if there were any relationships existing between the variables examined. The results of the correlation analyses were then used as the basis of multiple regression analyses.

FIGURE 1: Links between demographics profiles of users and their attitude towards and behavior of technology acceptance



Result and Discussions

Demographic Characteristics of The Respondents

Descriptive data constitutes an important source of information about employees' adoption of innovation in an organizational context. The study elaborates on the description of respondents' profiles in order to identify their basic characteristics concerning the adoption of innovation. Demographic data collected from the questionnaire provides information on the personal and organizational characteristics of the respondents. The respondents'

demographics include gender, age, division, classification (academic and administrative), position (employed as full-time or part-time) and academic qualifications. Data shows that female respondents (64%) are higher than that of male (36%). Over 55% of respondents are between the age group of 41-60.. A great majority of respondents are clerical staff and an overwhelming majority (78%) of the respondents is full-time employees. A majority of respondents (51%) have a post graduate level of qualification. Thus, demographic profiles of respondents show

TABLE 2: Inter-Correlations among Study Variables

Study Variables	Age	Education	Training	Attitude	Acceptance behavior
Age	1				
Education	-.347**	1			
Training	.133*	.100	1		
Attitude	-.106	.167**	.255**	1	
Acceptance behavior	-.060	.082	.195**	.729**	1

Note: n=24; ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Table 3: Regression Model for Demographics and Attitude Towards An Innovation

Variables						
Variables	Unstand. Coef. B	Stand. Coef. β	t	R Square	F	Sig
				.133	9.110	.000
(Constant)	.237		6.770			.000
Age	-.0123	-.013	-.233			.070
Education level	.076	.112	1.832			.809
training	.230	.234	4.558			.000

Dependent Variable: Attitude

Table 4: Regression Model for Attitude and Acceptance Behavior

Variables	Unstand. Coef. B	Stand. Coef. β	t	R Square	F	Sig.
				.529	306.613	.000
(Constant)	-.349		-1.825			.069
Attitude	.882	.727	17.510			.000

Dependent variable: acceptance behavior

Table 5: Regression Model for Demographics and Acceptance Behavior of Innovation

Variables	Unstand. Coef. B	Stand. Coef. B	t	R Square	F	Sig
				.052	4.416	.000
(Constant)	.229					.000
Age	-.008	-.009	-.115			.907
Education level	.045	.056	.873			.400
Training	.231	.213	3.342			.001

Note: Dependent variable: acceptance behavior

That most of them are middle aged, moderate to highly educated, academic staff and employed full-time. The analyses indicated that the sample is representative of the research population regarding gender and academic divisions. Such information may prove significant when the adoption and usage level of these respondents are investigated.

Results of Hypothesis Testing

Correlation analysis was performed as the first step to identify the relationships between the variables followed by regression analysis to identify the causal relationships between the variables examined in the paper. The results of the Pearson correlation are presented in Table 2.

The table shows that attitude is significantly and positively related to the level of education (r=.167, p<.01) and training (r=.255, p<.01). Acceptance behavior is also significantly and positively associated with training (r=.195, p<.01) and attitude (r=.729, p<.01). These results suggest that there is strong relationship between the training orientation of employees and their perception and acceptance behavior of technological innovation. Furthermore, level of education and employees' attitudes towards innovation is also moderately correlated. The results of multi-co linearity tests confirmed that there was no multi-co linearity problem amongst the variables (Table 2). Regression analysis was performed for demographic factors with attitude as the dependent variable and the result of the regression model is shown in Table 3. The model explained 13.2% of the variance in attitude and its associated F statistics indicated that it was significant at the p<0.001 level. Gender and training are shown as significant at the p<0.01 level. However, education was significant at the p<0.07 level. Training was found to be the most important predictor of attitudes towards an innovation (p<0.01) followed by education (p<0.07). The model

implies that training is the most important driver of perception of a technological innovation. Regression analysis was also carried out for attitude with usage as the dependent variable and the result of the model is shown in Table 4. The result of the regression model explained 52.9% of the variance in usage (acceptance behavior) and its associated F statistics indicated that it was significant at the p<0.001 level. The model implies that attitude towards a technological innovation is a pre-condition for an employee to accept that innovation for use in their workplaces. This finding supports the point of view of established theories presented earlier in this paper. Regression analysis was also performed for demographic factors with usage (acceptance behavior) as the dependent variable and the result of the regression model is shown in Table 5. The model explained .052% of the variance in usage and its associated F statistics indicated that it was significant at the p<0.001 level. However, training was shown as significant at one percent level (p<0.01) As in the case of perception of an innovation, again training emerged as the most important predictor variable in the model (p<0.01). To sum up, training has undoubtedly been identified as the most important predictor of not only the perception but also the acceptance behavior leading to the practice of a technological innovation in the workplace. In order to provide a clear picture of the status of the hypotheses tested in the paper, a table has been developed showing the results of the hypotheses testing as well as the relevant comments relating to the outcome of an individual hypothesis. The summary of the result of the hypothesis testing can be seen at table 6. The t values relating to hypothesis testing are presented in figure 2. The results of the study are presented in terms of the outcome of the hypothesis testing

Conclusion

This paper has attempted to empirically identify the demographic determinants of perception and acceptance behavior of users of a technological innovation. The demographic determinants have not been well established in the literature because of lack of extensive research in this area; of the three possible determinants (e.g. age, education and training) considered, two (training and educational qualification) were found to be positively associated with the perception of technological innovation. Training has also been found to be strongly linked with the acceptance behavior associated with a technological innovation. However, educational qualifications are not linked with the acceptance behavior of an innovation. The possible explanation of lack of nexus between educational qualification and acceptance behavior may be attributed to the fact that formal educational attainments is not usually instrumental in inducing an interest in an employee to practice an innovation. However, formal training relevant to the use of technology not only equips employees with the required skills but also boosts their confidence to practice the technology. In order to investigate if there are any relationships between the demographic characteristics of innovators and their acceptance behavior, the direct relationship path was also included in the model. Interestingly, training status was found to be significantly linked to both perception and acceptance behavior of technological innovation. This suggests that prior training plays an important role in the formation of a favorable attitude towards an innovation as well as increasing the propensity of the usage of innovative technology in the workplace. This finding is understandable given the fact that adaptation of any technologically oriented innovation requires necessary hands on skills as to its operation where training plays a pivotal role in preparing an employee to practice a technological innovation. Therefore, formal training makes people motivated and confident in embracing anything new and unknown to them. The other determinant having a significant nexus with the perception is the educational qualification of users of an innovation. Interestingly, age or physical maturity of adaptors has not been found to be significantly related to either perception or acceptance behavior of a technological innovation. These findings suggest that the acquired characteristics such as training and educational qualification, the development of which requires enormous effort and resources are vital considerations when developing a positive attitude in employees towards an innovation. The lack of significant relationships between inherent characteristics that people are born with (such as age) and perception as well as adoption of innovation is also understandable. People attain their age as a natural progression which may not necessarily make any proportionate contribution to the enhancement of their skills and individual capability and as such physical maturity are unlikely to be associated with

perception and adoption of an innovation. A specific explanation of this finding is that the respondents of this study represented cohorts of employees within a specific age group ranging from 40 to 50 years. These middle aged employees usually have a tendency to resist change that may arise from the introduction of new technology in the workplace. Consequently, people representing this particular age group are most likely to be indifferent and hence reluctant in their perception and acceptance of an innovation as it implies additional work for them. In summary, employees' adaptation of technological innovation is driven by their favorable perception of that technology. In theoretical terms, this finding implies that positive perception of an innovation is a pre-condition for its effective introduction and practice in an organization. The managerial implications of these findings is that the managers responsible for implementing any technological innovation in the workplace should be aware of the fact that developing and nurturing positive attitudes of employees are instrumental in making a technological innovation acceptable to employees in an organizational setting. This further implies that personnel managers need to take into consideration the demographic profiles of potential employees when making recruitment decisions as a highly qualified person with training background is likely to form a positive perception of an innovation leading to acceptance of a new technological innovation. Moreover, well trained employees are likely to encourage their peers to try new technologies, thus reducing the level of resistance to prompt acceptance of innovation in the workplace. This finding corroborates the finding of prior research in which training emerged as a strong predictor of innovation. In conclusion, training has emerged as the single most important determinant of attitude and usage of technologically driven innovation. This research has provided a new direction in terms of input and insights into the linkages between users' demographics and their perception of technological innovation as well as their technology acceptance behavior. More specifically, this research is an advancement over previous research in that it has established the emerging importance of the demographic background of users of technological innovation in explaining both perception usage behavior of technological innovation in the workplace setting. This was not explored in prior research in the context of innovation management. Furthermore, this research has confirmed that usage behavior of technology adopters is deeply rooted in the personal attributes of users and practitioners of advanced information technology. Therefore, the findings of this study points to new insights into the driving force shaping acceptance and perception of innovation within computer information systems in an organizational context. The findings of this research are likely to prompt further research into the frequently innovative and rapidly changing business world in the information age.

Table 6: Results of Hypothesis Testing at A Glance

Hypothesis	Results	Comments
H1: There is a significant relationship between employees' level of age	Not significant relationship is established	Not supported
H2: There is a significant relationship between employees' level of age and acceptance behavior of technological innovation.	Not significant relationship is established	Not supported
H3: There is a positive relationship between employees' level of education and attitude toward acceptance of technological innovation.	Significant positive relationship is established	Supported(at seven percent level of significance)
H4: There is a significant relationship between employees' level of education and acceptance behavior of technological innovation.	Not significant relationship is established	Not supported
H5: There is a significant relationship between employees' level of training and attitude toward acceptance of technological innovation	Significant positive relationship is established	Fully supported(at one percent level of significance)
H6: There is a significant relationship between employees' level of training and acceptance behavior of a technological innovation.	Significant positive relationship is established	Fully supported (at one percent level of significance)
H7: There is a significant relationship between employees' attitude toward technological innovation and its acceptance behavior	Significant positive relationship is established	Fully supported(at one percent level of significance)

Limitations and Future Research

Like any other paper this paper is also not free from limitations. Firstly, this paper is conducted in the context of a single organization which may affect the generalization of the results across other institutions. Future studies can be directed towards broadening the scope of the research by collecting data from a number of organizations representing the various regions of Punjab and beyond. Secondly, this study has focused on a specific technological innovation at a particular point in time. Future studies can focus on more advanced technologies to provide greater insights into the changing face of technology in workplaces. The findings will also prompt further studies in this area as demographic profiles of employees have emerged as predictive variables of employees' perception and practice of technological innovation. There is also a potential research venue in testing the model in multiple organizational settings. In order to further test the model structurally, future researchers can use SEM approach using a larger data set and collect from a wide range of industries across borders. It is also proposed that future studies can include gender as a demographic variable to identify if gender has any impact on the perception and acceptance behavior on technological innovation in an organizational context.

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