International Journal of Innovative Research in Management Studies (IJIRMS)
Volume 1, Issue 10, November 2016. pp.1-8.

ATTITUDE OF EMPLOYEES IN IT COMPANIES TOWARDS VIRTUAL TRAINING AND ITS QUALITY ENHANCEMENT

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Abstract— *Virtual Trainings have become an integral part of the Training and Development of employees ad is perceived as an advanced and intelligent application to reach total quality in almost majority of the IT Companies, in order to cope up with the rapid technology trends and the increasing business needs. However there is still a dilemma as of how virtual training is being received as a solution for globalization by the employees and to what extent virtual trainings can be of help for the employees when there is not much time or space or the needed resource available to conduct conventional face to face trainings and to what extent the quality is not compromised. Thus, this paper checks if there is an attitude difference in case of technical and behavioral training with respect to virtual training and also recommends solutions to enhance the quality aspect of the virtual training with respect to the perception differences identified. The methodology adopted is questionnaire to measure the attitude of employees on virtual training with respect to both technical and behavioral training programs. A sample of 50 employees from IT companies was chosen for the study under the criterion that they should have undergone virtual training in their company. The findings reveal the favorable and unfavorable attitudes of the employees with respect to virtual trainings and suggestions to rectify the unfavorable attitudes that act as a hindrance to quality. Suggestions have been provided based on the findings.*

Keywords— *Virtual training, Employees, Satisfaction, attitude, IT company, Training and development, Quality.*

INTRODUCTION

Trends and development in IT industry is rocket soaring day by day in all the fields and needs constant update of competencies and skills by the human resource pool involved in order to cope up with the business needs and sustain in the industry. And one predominant solution identified to meet these rapid business needs is Virtual trainings. It helps the associate to meet their training needs be it, 'Anything, Anytime and Anywhere' which is the most required in our current scenario. Hence there is a compulsive need of making the option of virtual training available to the employees so that they can enhance their knowledge and cope up with the demands and trends. Virtual training is only an emerging mode in India and still there are some major pitfalls with respect to getting the same effectively and efficiently delivered so that there is significant impact with respect to the employee and also value addition to the organization. And there has not been any significant study or research made in the area of focusing the employee's level of dissatisfaction with respect to the ways virtual training is implemented in India. This paper will also focus on the satisfaction points and suggests them as best practices to be followed. Attitude can be defined as evaluation of ideas, objects, events or people. Attitude are generally positive or negative but they can also be uncertain at times. Every attitude has 3 important components that is represented as ABC model of attitude: Affective- Refers to emotional reaction one has towards an attitude object, Behavior- The way one behave when exposed to an attitude object and Cognitive- Thoughts and beliefs one has over an attitude object. This paper is hence, based on these 3 components to analyze the attitude of employees on virtual training and the suitable quality enhancements that can be made to create a positive attitude among the employees.

Quality Perspective

Organizations achieve strategic organization goals and results through quality best practices. By introduction of Quality concepts in the service delivery ROI, management relations, and effective communication can be achieved. Senior leaders achieve organization's growth based on five key focus areas:1. Financial 2. Customer growth and retention 3. Operational efficiency 4. Leveraging of current/future technology 5. Employee engagement. For defining a quality system, all the above 5 aspects has to be taken into consideration. Virtual training is one such future technology that can help in achieving all the above 5 dimensions and thus this study concentrates on how to imbibe some quality related best practices with respect to virtual training in order to achieve organization growth.

LITERATURE REVIEW

Virtual training facilitate just-in-time skill development by bringing the training to the employees, rather than vice versa (Herren, 1989). From a competitive standpoint, providing world-wide access to a wealth of educational and training materials, and combining this with real-time exchanges of experiences and best practices, is among the best ways to facilitate continuous organizational learning (Richards-Carpenter, 1991). According to Nisar (2002), e-learning allows an efficient response to the following specific objectives: (1) to identify and record training needs of workers, so as to facilitate the development of ad-hoc training processes; (2) to provide up-to-date training and support to workers who need it, allowing a personalized interaction between user and tutor; (3) to evaluate through digital technologies the established training objectives, via a process of continuous assessment in order to facilitate the assimilation of knowledge acquired by the worker; and, finally, (4) to establish a registry and record of training activity and of each participant's assessment. There are many studies that signify the benefits of virtual training (Carnoy, 2004; Wang et al., 2006; Hodges, 2009). These can be divided into four categories: cost reduction (Clarke et al., 2005; Shankar, 2007; Wurtmann & Galli-Debicella, 2008), flexibility (Clarke et al., 2005; Ashmalla et al., 2001; Grollman & Cannon, 2003; Shankar, 2007) and adaptability, permanent updating, and personalized attention. Pulley (2005) underlines that virtual training allows workers to take part in the training process from their workplace, including from different and distant geographical locations, in a synchronous or asynchronous way. Such asynchronous method makes access to learning resources possible 24 hours a day 365 days a year (Childs et al., 2005). Zhang and Nunamaker (2003) estimate that skills and knowledge used by a worker today will be obsolete in three to five years time, whereas corporate education using virtual trainings allows the worker to keep his/her skills continuously updated. Virtual training facilitates the customization of learning according to each worker's needs, choosing the most suitable learning materials and making continuous updating possible (Shankar, 2007) due to the fact that electronic content makes it possible for teachers to update content instantly and easily through the network (Grollman & Cannon, 2003).

Virtual training also has several hitches. There is a myth that the courses required for students to use physical skills or hands-on experience cannot rely on virtual training (Robert W. Taylor, 2002) and IT Companies also feel that technical trainings require hands - on experience. Bandwidth/browser limitations (Cifuentes (2001), high-fixed costs (Gary James, 2002), technological expertise issues (Bergiel et al., 2008; Powell et al., 2004), team members frequently lack the training necessary to cope up with virtual training (Bergiel et al., 2008). The absence of non-verbal cues and tacit knowledge transfer makes communication difficult (Bower et al., 2001; Lantz, 2001; Hill, 2000; Powell et al., 2004). These are some of the quality related cues that can be considered to enhance the quality of virtual training delivery. In psychology, an ***attitude*** is an expression of favor or disfavor toward a person, place, thing, or event (the ***attitude object***). The classic, tripartite view offered by (Rosenberg and Hovland, 1960)is that an attitude contains cognitive, affective(emotional), and behavioral components.

METHODOLOGY

This paper aims at looking into the attitude of employees when trainings are conducted by virtual mode and suggests quality related measures that can be adopted to create a positive attitude. It focuses mainly on identifying the favorable and unfavorable/ less favorable attitudes of employees on virtual trainings and how the gaps, if any, can be bridged upon by adopting suitable quality measures with respect to the unfavorable attitude areas. Primary data required for the study were collected from 100 employees working in IT companies that uses virtual mode for training delivery. Top 10 IT companies were identified from Chennai for conducting the survey. Questionnaire was developed for the purpose of data collection and it was circulated to the employees in IT companies. Companies were indentified on the basis judgment sampling, criteria being company should be providing virtual mode of training facility for their employees and the employees were chosen based on judgment sampling from each company under the criterion that they had participated in virtual trainings conducted by the company. The authors personally visited the companies and collected from the employees for the purpose of data collection. From the 75 responses collected, 58 were found complete and appropriate for the study.

The attitude has been measured under 3 parameters: Cognition (what they think or believe about virtual trainings), Behavior (their response to the virtual training) and Emotion (how they feel about virtual trainings). The profile indicators used were Age, Gender, Experience and Education. The questionnaire was circulated to the employees and the responses were recorded. The rating scale used in the questionnaire was a 5 point Likert scale (1- Strongly disagree, 2- Disagree, 3-Neither agree nor disagree, 4-Agree and 5-Strongly agree). The parameters to estimate the attitude of employees on virtual training are discussed below:

Cognitive— Under this parameter, the agreeability level with respect to what the employee think or believe on factors corresponding to post training impact, ROI, Business impact, Cost and synchronization of individual and training goals were analyzed.

Behavior— It focuses on the areas pertaining to response / behavior of employee towards virtual trainings. The factors focus on interaction level of participants, adaptability of training on culture of organization and individuals and feedback on the training.

Emotion— This parameter focuses on how employee feels about the virtual training. The factors include overall training experience, comfort level of employee, ensuring next- time registration and meeting requirements.

Statistical tools were used along with profile indicators and parameters of attitude to obtain suitable inferences.

Table 1: Represents the distribution of the various demographic indicators

Variables	*Classification*	*Frequency*	*Percentage %*
Age	<20	0	0
	20-30	25	43.1
	31-40	25	43.1
	41-50	7	12.1
	>50	1	1.7
Education	UG	29	50.0
	PG	16	27.6
	M.Phil	8	13.8
	Ph.D	5	8.6
Experience	<5 years	26	44.8
	5-10 years	20	34.5
	10-15 years	8	13.8
	15-20 years	4	6.9
	>20 years	0	0
Gender	Male	28	48.3
	Female	30	51.7

Result 1— About 43.1% of the employees are in the age of 20-30 years and 43.1% of the employees are in the age of 30-40 years. Thus the majority of the employees fall in the age group of 20 to 40.

Result 2— 50% of the employees have their Educational qualification as UG and 27% PG.

Result 3— About 45% of the employees fall under the cadre of <5 years of experience and 35% under 5-10 Years and nearly 20% under 10 -20 years of experience.

Result 4— There is nearly equal distribution of male and female in the group.

Table 2: Mean scores of the parameters of Attitude

Variable	*Mean Score*
Cognitive	3.31
Behavior	3.17
Emotional	3.20
Attitude	3.22

Result 5— It is inferred that Cognitive quotient of attitude is more favorable and Behavior quotient of attitude is least favorable. This infers as employees think about virtual training more favorably than what they respond about virtual trainings.

Table 3: Item-wise mean scores:

Parameter	*Items*	*Mean Scores*
Cognitive	CB1	3.24
	CB2	3.10
	CB3	3.06 *
	CB4	3.17
	CB5	3.41 **
	CB6	3.75 **
	CB7	3.37
	CB8	3.34
Behavior	BB1	3.31
	BB2	2.69 *
	BB3	2.97 *
	BB4	3.24
	BB5	3.62 **
	BB6	3.21
Emotion	EB1	3.14
	EB2	3.03 *
	EB3	3.03 *
	EB4	3.41**
	EB5	3.31
	EB6	3.28

Unfavorable/ less favorable attitude ** Favorable attitude

Result 6— From the item-wise mean it can be inferred that with respect to Cognitive, the favorable attitude is with respect to CB5 (belief on Training Cost reduction) and CB6 (belief on Commutation cost reduction). Comparatively less favorable attitude is with respect to CB3 (belief on improvement w.r.t Business Impact). On Behavior, the favorable attitude is BB5 (Enhances the Culture of the organization) and unfavorable attitude is BB2 (Interaction level during training) and BB3 (Being able to connect with other participants). On Emotion, the favorable attitude is EB4 (Comfort level during training) and less favorable attitude is EB2 (Ensuring registration for next time) and EB3 (Experiencing demo or pilot run before training).

Table 4: Mean score for Gender

Dependent Variable: Attitude				
Gender	*Mean*	*Std. Error*	*95% Confidence Interval*	
			Lower Bound	*Upper Bound*
Male	3.216[a]	.209	2.791	3.641
Female	3.554[a]	.204	3.139	3.970

a. Based on modified population marginal mean.

Result 7— From the above Table 5, it can be inferred that only Gender has a significant value with respect to attitude. The mean scores in Table 4 for gender indicates that female employees have a more favorable attitude on virtual training compared to male employees.

Table 5: Univariate analysis between Attitude as a whole and demographic variables

Tests of Between-Subjects Effects					
Dependent Variable :Attitude					
Source	*Type III Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Corrected Model	21.835[a]	22	.993	1.229	.287
Intercept	198.005	1	198.005	245.103	.000
Age	.285	3	.095	.118	.949
Gender	5.976	1	5.976	7.397	.010*
Education	2.023	3	.674	.835	.484
Experience	2.058	1	2.058	2.547	.119

a. R Squared =. 436 (Adjusted R Squared =. 081)

Significant at 5% level of significance

Table 6: Mean scores for Gender with respect to 3 parameters of Attitude

Dependent Variable	*Gender*	*Mean*	*Std. Error*	*95% Confidence Interval*	
				Lower Bound	*Upper Bound*
Cognitive	Male	3.364[a]	0.238	2.881	3.847
	Female	3.660[a]	0.232	3.188	4.132
Behavior	Male	2.985[a]	0.188	2.603	3.367
	Female	3.487[a]	0.184	3.114	3.86
Emotion	Male	3.299[a]	0.221	2.849	3.749
	Female	3.517[a]	0.216	3.078	3.955

a. Based on modified population marginal mean.

Table 7: Mean scores for Experience with respect to 3 parameters of Attitude

Dependent Variable	*Experience*	*Mean*	*Std. Error*	*95% Confidence Interval*	
				Lower Bound	*Upper Bound*
Cognitive	<5	3.268[a]	0.24	2.78	3.756
	5-10	3.631[a]	0.274	3.074	4.188
	10-15	3.722[a]	0.393	2.924	4.521
	15-20	3.333[a]	0.539	2.24	4.427
Behavior	<5	3.193[a]	0.19	2.807	3.578
	5-10	3.546[a]	0.217	3.106	3.986
	10-15	3.056[a]	0.311	2.424	3.687
	15-20	2.889[a]	0.426	2.025	3.753
Emotion	<5	3.119[a]	0.224	2.665	3.573
	5-10	3.420[a]	0.255	2.902	3.938
	10-15	3.722[a]	0.366	2.979	4.465
	15-20	3.389[a]	0.501	2.372	4.406

a. Based on modified population marginal mean.

Table 8: Multivariate analysis on the 3 parameters of Attitude and demographic variables:

Source	*Dependent Variable*	*Type III Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Corrected Model	Cognitive	27.170[a]	22	1.235	1.182	0.321
	Behavior	21.113[b]	22	0.96	1.471	0.15
	Emotion	23.976[c]	22	1.09	1.206	0.303
Intercept	Cognitive	176.663	1	176.663	169.144	0
	Behavior	226.936	1	226.936	347.923	0
	Emotion	192.056	1	192.056	212.573	0
Age	Cognition	0.191	3	0.064	0.061	0.98
	Behavior	0.407	3	0.136	0.208	0.89
	Emotion	0.295	3	0.098	0.109	0.954
Gender	Cognition	6.24	1	6.24	5.974	0.020**
	Behavior	5.464	1	5.464	8.377	0.007**
	Emotion	6.24	1	6.24	6.907	0.013**
Education	Cognition	2.306	3	0.769	0.736	0.538
	Behavior	1.108	3	0.369	0.566	0.641
	Emotion	3.089	3	1.03	1.139	0.347
Experience	Cognition	2.102	1	2.102	2.012	0.165
	Behavior	2.175	1	2.175	3.334	0.076*
	Emotion	1.902	1	1.902	2.105	0.156
a. R Squared =. 426 (Adjusted R Squared =. 066)						
b. R Squared =. 480 (Adjusted R Squared =. 154)						
c. R Squared =. 431 (Adjusted R Squared =. 074)						

** Significant at 10% level of significance*
*** Significant at 5% level of significance*

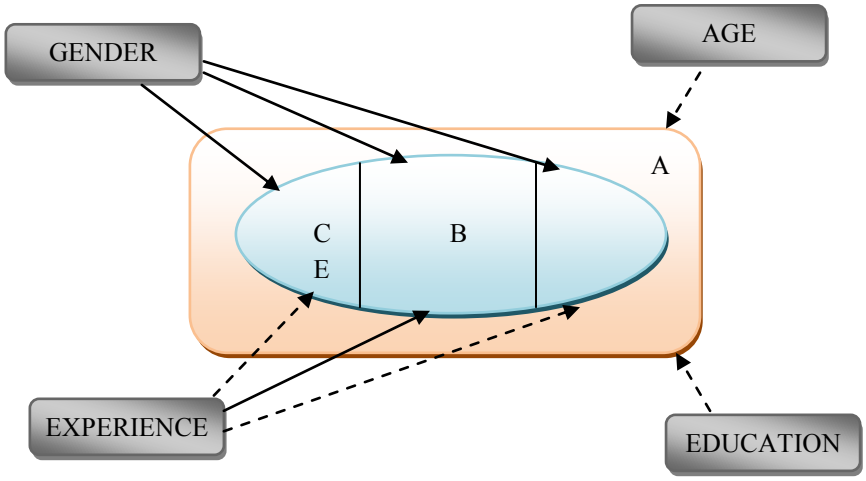
Result 8— It can be inferred that Gender has a significant difference with respect to all the 3 parameters of Attitude and Experience has a significant difference with respect to the Behavior component of the attitude. The mean scores in Table 6 for gender indicates that female employees have a more favorable attitude on virtual training compared to male employees on all the 3 parameters of Virtual Trainings. The mean scores in Table 7 for Experience with respect to the Behavior parameters reveals that 10-20 years of experience employees have a unfavorable attitude on behavior (response) and the most favorable for <5 years and 5-10 years of experience Virtual Trainings.

DISCUSSION

From the above results, a model has been derived with relation to the components of attitude and demographic variables:

The model explains that on an overall (Result 5), it can be inferred that Cognitive quotient of attitude is more favorable and Behavior quotient of attitude is least favorable (i.e) employees think or believe about virtual training more favorably than what they respond or react to virtual trainings. On this context, Gender and experience plays a major role with respect to the attitude of employees towards virtual trainings. From the analysis (Result 7), it can be inferred that Female employees have a more favorable attitude towards Virtual Training compared to male employees. Based on informal discussions with female employees by the researcher, the researcher concludes that, female employees feel that virtual training enables them to have a better work-life balance as they can take up the training at their convenient time and place. However, male employees feel that they need a face to face interaction. Hence the researcher suggests that, there are many tools like ***Poll, Annotation, Chat, Raise Hand, Screen sharing, Material distribution, Tests, Audio*** to allow verbal responses from participants and encourage open dialogue etc. that can ensure that the trainers are aware of the pulse of the participants and give opportunity for the participants to experience a live session. These are some of the quality related measures that can be adopted to ensure that virtual training can provide live experience to the employees. Secondly, with respect to the influence of experience (Result 8), it can be inferred that the entry level and middle level

employees with experience of <5 and 5-10 years are comfortable with Virtual trainings whereas the Top level employees (10-15 years and 15-20 years) resist virtual trainings. The researcher had interviewed employees in various levels and concludes with respect to the top level employees, most of the top level employees are not tech savvy and hence find some difficulty with respect to coping up with virtual trainings and moreover having been used to face- face training approach there is also a small attitudinal resistance to moving over to virtual training. The researcher suggests that the importance of virtual training has to be understood by top management and necessary training/knowledge updating on recent trends with respect of technical skills has to be periodically done. Using network support personals for supporting the smooth function of virtual trainings to ensure quality is being adopted in many companies too. Thus this signifies that a drastic attitudinal shift about virtual training is required from the top level management itself so that it can benefit the other lower level employees in the organization.



A- Attitude; C- Cognitive; B- Behavior; E- Emotion

Fig. 1: Model representation of influence of demographic variables on Attitude

Based on the item-wise mean scores, an overall picture about attitude of virtual training can be obtained. From Result 6, it is evident that Virtual training is one stop solution to reduce training & Commutation cost, enhance the culture of the organization and gives a comfort level for employees. However, employees think that they are still not able to measure the business impact. As a solution to this problem, readymade softwares like Gooddata or Metrics that matter (tools designed especially to measure online training effectiveness) that can aid in measuring business impact, learning effectiveness can be used. Secondly, the interaction level and connection with fellow participants are not satisfactory when virtual training is used. The trainer used during virtual training needs to put special efforts with respect to providing high interaction levels and ensuring the attention of participants (Cindy Huggett,2014). Thirdly, promoting virtual training on regular basis is getting difficult and also ensuring the people to attend demo or pilot before the training is not very successfully happening. For an effective virtual training, it is essential to have a defined process for logistics, include correct connection information in communications, share all information needed in advance of the session, insist on pre-session "tech checks", start 10 minutes early and also have back-up plans (Cindy Huggett, 2014). Though the significance of Virtual training has been realized by the IT companies, still there exist some major pitfalls with respect to getting the same effectively and efficiently delivered from the consultant's point of view (Poorani et al., 2014).

There is no significant difference between age and attitude towards virtual training because, IT industry demands tech – savvy people irrespective of their age and the employees are expected to be open and embrace any advancement in technology. Also, there is no significant difference between education and attitude towards virtual training because irrespective of their educational background, their experience supersede. "Education" with respect to IT companies is considered only during their course of joining. Later to joining, only the experience and performance of the employee matters.

CONCLUSION

In the current scenario where virtual training has become inevitable, the study reveals evidences that majority of employees (especially entry level and top level) are not open towards accepting virtual training. Secondly, males resist more than females with respect to accepting virtual training. On examination of the possible reasons for resistance, it is

found that most of the reasons are due to low infrastructure and attitudinal block towards moving to virtual trainings. Thus, on adoption of the suggested suitable quality measures, this temporary attitudinal block can be suppressed. The study also reveals that employees feel favorable with respect to the cost factor and enhancing culture of the organization that can help them cope up with globalization and increasing business needs.

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