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Effectiveness of Virtual Training for Information Technology Sector Employees

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ABSTRACT

The use of virtual training has become increasingly popular in recent years, as it provides a cost-effective and flexible alternative to traditional classroom training. In the information technology (IT) sector, where employees need to continuously upgrade their skills to keep up with rapidly changing technologies, virtual training offers a practical solution to meet the training needs of employees. This study aims to investigate the effectiveness of virtual training for information technology (IT) sector employees. The respondents of this study were IT sector employees who have undergone virtual training. Data has been gathered from 200 employees of IT companies in Kolkata. In the present research, the researcher utilized the method of Pearson correlation, employing simple analysis to examine the different variables across all pairs of data series. The study found that IT sector employees generally have positive attitudes and perceptions towards virtual training. The study also found that effectiveness of virtual trainings has positive impact on improvement of communication, providing high speed information, encourage team efforts, progress in the career and professional enrichment.

Keywords: *Virtual training, IT sector, Correlation, Communication, High speed information, Career and Professional enrichment.*

INTRODUCTION

In the current scenario, the progress of data technology has led to a transformative and fundamental change in virtual training. The exponential growth in the need for training within IT companies has reached maturity, enabling employees to receive simulated virtual training instead of traditional brick-

and-mortar sessions; Ramayah (2012). In recent years, the popularity of virtual training has grown significantly due to its cost-effective and flexible nature, making it a favored alternative to traditional classroom training. In the information technology (IT) sector, where employees need to continuously upgrade their skills to keep up with rapidly changing technologies, virtual training offers a practical solution to meet the training needs of employees; Kumar & Sharma (2021).

The IT Companies are always dealing with new technology, so re frame of knowledge for every employee are always required for sustaining into the domain and in emerging areas. Training is always a very important part for them. The level of efficiency and creativity depends on training only by enhancing their skill. The IT employees developed may online 2 training tools for their customers on behalf of their companies. Due to its global accessibility and reach, Virtual Training is considered the preferred learning channel, allowing it to take place anywhere with just a click of a mouse over the internet (Ellis & Kuznia, 2014).

The development of knowledge technology has brought about an evolutionary and paradigmatic change in the current state of virtual training. The increasing demand for corporate training has paved the way for providing employees with simulated virtual training as an alternative to traditional in-person instruction. Businesses have been employing technology to increase the efficiency of their daily operations for more than ten years. Organizations leveraging technology to deliver training to their staff enjoy several benefits, such as cost savings on travel expenses and training time, flexibility in coaching delivery, accessibility to a wide range of content, continuous utilization of corporate resources, and enhanced worker productivity, among others.

The goal of training activities at the micro level is to help employees of a firm or organisation become more competent in their jobs and improves how well they accomplish the tasks that have been given to them. As a result, everyone participates in training of some kind in order to survive and thrive in the corporate world. Without physically meeting, virtual training is a fantastic opportunity for employees to improve their talents. Although virtual training can be difficult, it also gives staff members the chance to improve their learning process thanks to ease, flexibility, and technical innovation. Making the most of the virtual possibilities depends on your ability to comprehend this training style and some of its possible advantages, whether you're designing, leading, or taking part in a virtual training session.

SIGNIFICANCE OF THE STUDY

Since human resources are the most adaptable component of the production system, it is necessary to regularly educate human workers about new and evolving technological developments. This necessitates the introduction of fresh knowledge-delivery and skill-transfer strategies. To keep up with the latest innovations, one needs a cutting-edge training programme. The most practical answer to today's problems of keeping up with technological advancements might be thought of as virtual training. Accepting the reality that training has numerous advantages for both personnel and the organisation as a whole is noteworthy. Employees become more active, self-assured, and encouraging of one another. Additionally, as a result of training, personnel grow in morale, which helps them perform better. Employees benefit from this aspect's impact in terms of their personal, professional, and occupational knowledge. Employees who receive training that may be customised to their needs are more committed to attaining performance goals, forge close relationships with the company, and work there for a longer period of time. The importance of virtual training activities holds great significance for all businesses operating within the manufacturing sector. Training practices have the potential to enhance service levels in the industry, prompting organizations to assess the costs, benefits, and effectiveness of training initiatives. In the IT sector and other industries, employees face mounting pressure to work efficiently, effectively, and adapt rapidly to changes. Trainers now go beyond the traditional focus on skill development. Along with the significant changes in roles and accountability, strategic planning for the company is increasingly including effective training and development practices. Therefore, the research study is entitled "EFFECTIVENESS OF VIRTUAL TRAINING FOR INFORMATION TECHNOLOGY SECTOR EMPLOYEES".

REVIEW OF LITERATURE

Yunus Kathawala and Andreas Wilgen's (2004) emphasized on E-Learning, which is evaluating from an organisational perspective. They looked at advantages including cost-effectiveness, increased productivity, personalised instruction, quicker learning with higher retention, risk-free interaction and community development, traceability, IT skills, and storage of content and knowledge, among other advantages. In-depth critical analysis of the advantages, strategies, and evaluation procedures used in employee training and development in a business is done by Henry Ongori and Jennifer Chishamiso Nzonzo (2011). A selection of 61 managers from diverse organizations was made. The authors uncovered that investing in staff training and development enhances competitiveness and

organizational effectiveness. Ultimately, the study aims to convince managers from various backgrounds to recognize the importance of staff development and training within their respective firms. In her study, Amita Maxwell (2012) looked at the effects of information and communication technologies (ICT) and the emergence of electronic learning, which is now widely acknowledged as having transformed training and education. The training market is also impacted by some of the new innovations, much like the other IT sector divisions that have been severely affected by the revolutionary advances in technology. The author discovered that in order for the firms to utilise the most recent training method, they must weigh the costs and benefits. The adoption and use of two video-conferencing methods for training are virtual video conferencing and distant video conferencing. These were examined by Bernard Galleries *et al.* (2013). During actual training sessions, they looked at the perceptions, attitudes, and behaviours of 60 employees. The author discovered that virtual classes were more satisfying than remote classes. The findings indicated that virtual training is seen as being significantly more useful. Kulkarni (2013) studied the function, value, and benefits of training as well as its favourable effects on the advancement of the organisation. Additionally, they put a lot of emphasis on training that promotes positive organisational goals for the greatest possible improvement in the quality of the workers' working lives. Programs for training and development assist in raising employee morale and enhance their behaviour and attitude toward their work. The findings of the study show that a training and development programme improves workers' quality of life at work.

It highlights the benefits of virtual training, such as its flexibility, cost-effectiveness, and ability to deliver customized training programs. The review also points out the importance of using interactive and engaging training content and technologies to enhance the effectiveness of virtual training (Baldwin & Walters (2018). Alotaibi (2020) suggests that IT employees generally have positive attitudes towards virtual training, as it provides them with flexibility, convenience, and accessibility. The review also highlights the importance of providing engaging and interactive virtual training content to enhance the motivation and engagement of learners. Mohamad *et al.* (2020) suggest that in order to gain a deeper understanding of how specific similarities and differences impact the effectiveness of online training programs. It is crucial to examine several significant organizational features, such as, department and online training resources; and employee characteristics, such as, gender, age, education, position, and tenure. Furthermore, if future research aims at establishing causal relationships between the variables of interest, the longitudinal analysis should be considered as an alternative research approach. Lastly, to comprehensively understand the impact of online training, content should be on job motivation. Future studies should consider comparing two or more types of organizations.

Bhattacharya & Sharma (2021) identified several factors, such as, the quality of the virtual training content, the technology used in delivering the training, the support provided by trainers and peers, and the motivation and engagement of learners. The review suggests that addressing these factors can improve the effectiveness of virtual training for IT employees.

OBJECTIVE OF RESEARCH

Objective of the research is to assess the efficacy of virtual training for employees in the information technology sector.

METHODOLOGICAL FRAMEWORK

Research Design

The researcher employed the descriptive survey research method in the present study to assess the effectiveness of virtual training for employees in the information technology sector.

Type of Samples/Sample Design

Sample is taken from the target population. A sample is the part of population which is studied with a purpose to make inferences concerning the whole population. In the present study, researcher used simple random sampling to collect the information from different respondents. The employees of selected IT Companies in Kolkata (West Bengal) are considered as respondents for the present study.

Sample Size

200 Employees employed in IT Sectors are taken as respondents.

Research Area

City of Kolkata.

Collection of Data

Primary Data: Data has been collected from 200 employees working in IT companies located in Kolkata.

Secondary data: Secondary data have been collected by examining research papers, journals, article reviews, and other relevant sources.

RESEARCH INSTRUMENT

For the present study, a questionnaire method has been used to obtain primary data. The responses to the questions were rated with the use of Likert Scale questions based on objective of the study.

ANALYSIS OF DATA

The data obtained from questionnaires sheets completed by the IT sector employees were analyzed and interpreted with the use of pie charts.

TOOLS/ STATISTICAL TECHNIQUE USED IN THE STUDY

In the current research, the researcher has employed simple analysis and correlations, using the Pearson method, to examine various aspects such as the effectiveness of virtual trainings, improvement of communication, provision of high-speed information, promotion of team efforts, career advancement, and professional enrichment.

RESEARCH HYPOTHESIS

Hypothesis 1:

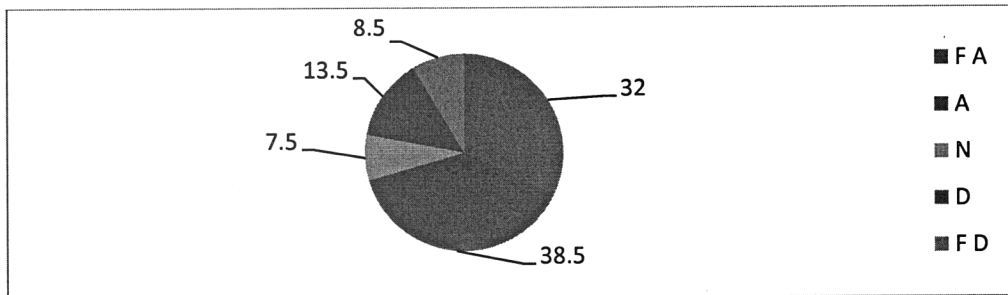
Ho: There is no significant correlation between components regarding effectiveness of virtual training for information technology sector employees.

H₁: There is significant correlation between components regarding effectiveness of virtual training for information technology sector employees.

DATA ANALYSIS IN RESPECT TO EFFECTIVENESS OF VIRTUAL TRAINING FOR INFORMATION TECHNOLOGY SECTOR EMPLOYEES

Table 1: In response to the question “Do you agree that virtual trainings are effective in improve your communication?”

S. No.	Components	No. of Respondents	Per cent
1	F A	64	32
2	A	77	38.5
3	N	15	7.5
4	D	27	13.5
5	F D	17	8.5
	Total	200	100



FA: Fully Agree, A: Agree, N: Neutral, D: Disagree, FD: Fully Disagree

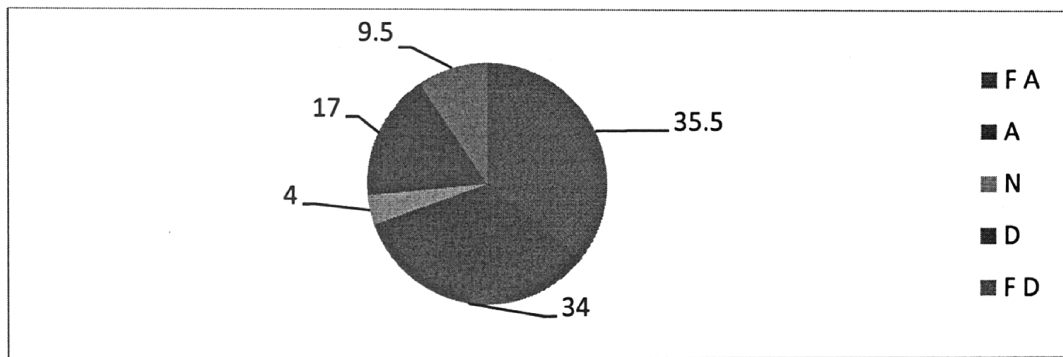
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Figure 1: In response to the question “Do you agree that virtual trainings are effective in improve your communication?”

Analysis: Of all respondents, 32% fully agreed, 38.5% agreed, 7.5% were neutral, 13.5% disagreed, and 8.5% fully disagreed that virtual trainings are effective in improve your communication.

Table 2: In response to the question “Do you agree that virtual trainings are effective in encourage team efforts?”

S. No.	Components	No. of Respondents	Per cent
1	F A	71	35.5
2	A	68	34
3	N	8	4
4	D	34	17
5	F D	19	9.5
	Total	200	100



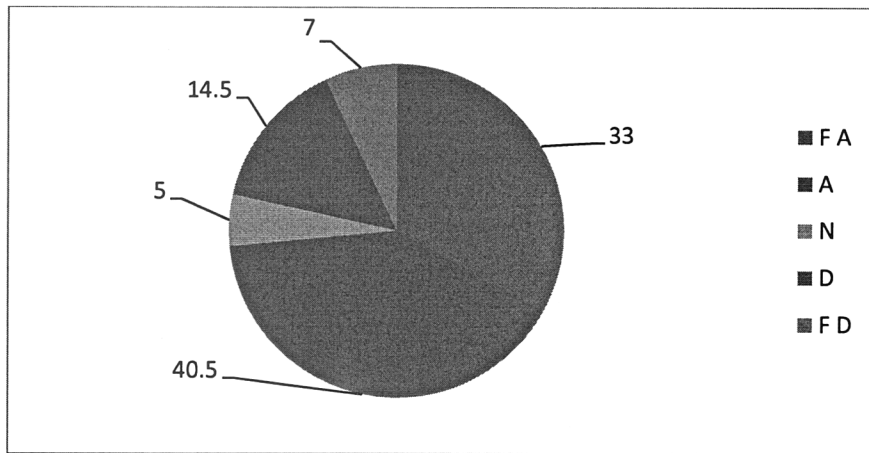
FA: Fully Agree, A: Agree, N: Neutral, D: Disagree, FD: Fully Disagree

Figure 2: In response to the question “Do you agree that virtual trainings are effective in encourage team efforts?”

Analysis: Of all respondents, 35.5% highly agreed, 34 % agreed, just 4% were neutral, 17% opposed, and only 9.5% strongly objected that virtual trainings are effective in improve your communication. The vast majority of respondents so agreed that virtual trainings are effective in encourage team efforts.

Table 3: In response to the question “Do you agree that virtual trainings are effective in provide high speed information?”

S. No.	Components	No. of Respondents	Per cent
1	F A	66	33
2	A	81	40.5
3	N	10	5
4	D	27	14.5
5	F D	14	7
	Total	200	100



FA: Fully Agree, A: Agree, N: Neutral, D: Disagree, FD: Fully Disagree

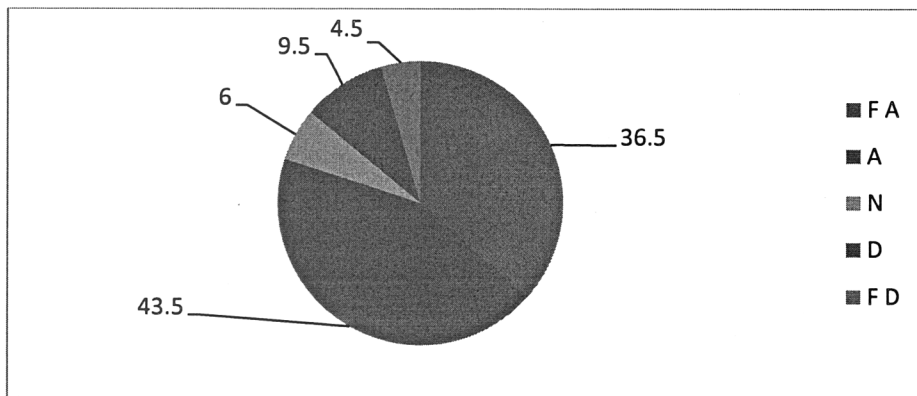
Figure 3: In response to the question “Do you agree that virtual trainings are effective in provide high speed information?”

Analysis: Only 5% of respondents were in different, 14.5% disagreed, and only 7% fully disagreed that virtual trainings are effective in provide high speed information. Of all respondents, 33% fully agreed, 40.5% agreed. The overwhelming majority of respondents agreed that virtual trainings are effective in provide high speed information.

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Table 4: In response to the question “Do you agree that virtual trainings are effective in progress of your career?”

S. No.	Components	No. of Respondents	Per cent
1	F A	73	36.5
2	A	87	43.5
3	N	12	6
4	D	19	9.5
5	F D	9	4.5
	Total	200	100



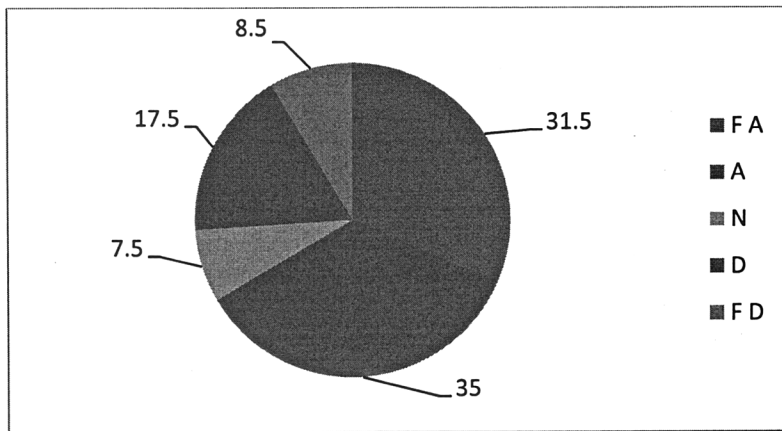
FA: Fully Agree, A: Agree, N: Neutral, D: Disagree, FD: Fully Disagree

Figure 4: In response to the question “Do you agree that virtual trainings are effective in progress of your career?”

Analysis: All respondents indicated that virtual trainings are effective in progress of your career, with 36.5% strongly agreeing, 43.5% agreeing, 6% neutral, 9.5% disagreeing, and just 4.5% severely disagreeing. The vast majority of respondents stated that they would be helpful from the virtual trainings to progress in their career.

Table 5: In response to the question “Do you agree that virtual trainings are effective in your professional enrichment?”

S. No.	Components	No. of Respondents	Per cent
1	F A	63	31.5
2	A	70	35
3	N	15	7.5
4	D	35	17.5
5	F D	17	8.5
	Total	200	100



FA: Fully Agree, A: Agree, N: Neutral, D: Disagree, FD: Fully Disagree

Figure 5: In response to the question “Do you agree that virtual trainings are effective in your professional enrichment?”

Analysis: Among all respondents, 31.5% fully agreeing, 35.5% agreeing, 7.5% neutral, 17.5% disagreeing, and just 8.5% fully disagreeing. In order to virtual training effectiveness for professional enrichment nearly two thirds of respondents said they typically prefer virtual trainings.

HYPOTHESIS TESTING

H_0 There is no significant correlation between components regarding effectiveness of virtual training for information technology sector employees.

H_1 : There is significant correlation between components regarding effectiveness of virtual training for information technology sector employees.

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Table 6: Correlations for all pairs of data series (method=pearson)					
	A	b	C	d	E
A	1	0.964	0.998	0.996	0.987
B	0.964	1	0.972	0.951	0.985
C	0.998	0.972	1	0.989	0.994
D	0.996	0.951	0.989	1	0.975
E	0.987	0.985	0.994	0.975	1

Table 7: Correlations for all pairs of data series with p-values			
Pair	Pearson r	Spearman rho	Kendall tau
a;b	0.9644	0.9	0.8
p-value	(0.008)	(0.0833)	(0.0833)
a;c	0.9978	1	1
p-value	(1e-04)	(0.0167)	(0.0167)
a;d	0.9961	0.9	0.8
p-value	(3e-04)	(0.0833)	(0.0833)
a;e	0.9868	1	1
p-value	(0.0018)	(0.0167)	(0.0167)
b;c	0.972	0.9	0.8
p-value	(0.0056)	(0.0833)	(0.0833)
b;d	0.9509	0.8	0.6
p-value	(0.013)	(0.1333)	(0.2333)
b;e	0.985	0.9	0.8
p-value	(0.0022)	(0.0833)	(0.0833)
c;d	0.9887	0.9	0.8
p-value	(0.0014)	(0.0833)	(0.0833)
c;e	0.9937	1	1
p-value	(6e-04)	(0.0167)	(0.0167)
d;e	0.9749	0.9	0.8
p-value	(0.0047)	(0.0833)	(0.0833)

Result: Based on the analysis above, it is evident that there exists a strong correlation among all components of the present research, including the effectiveness of virtual trainings, improvement of communication, provision of high-speed information, promotion of team efforts, career advancement, and professional enrichment. So, from the correlation analysis it is clear that H_0 is rejected which means there is significant correlation between components regarding effectiveness of virtual training for information technology sector employees.

CONCLUSION AND FINDINGS

Without physically meeting, virtual training is a fantastic opportunity for employees to improve their talents. Although virtual training can be difficult, it also gives staff members the chance to improve their learning process thanks to ease, flexibility, and technical innovation. Making the most of the virtual possibilities depends on your ability to comprehend this training style and some of its possible advantages, whether you're designing, leading, or taking part in a virtual training session.

The findings of the study include:

1. The research study found that among all respondents, 32% fully agreed, 38.5% agreed, 7.5% were neutral, 13.5% disagreed, and 8.5% fully disagreed that virtual trainings are effective in improve your communication.
2. Of all respondents, 35.5% highly agreed, 34 % agreed, just 4% were neutral, 17% opposed, and only 9.5% strongly objected that virtual trainings are effective in improve your communication. The vast majority of respondents so agreed that virtual trainings are effective in improve your communication.
3. Only 5% of respondents were indifferent, 14.5% disagreed, and only 7% fully disagreed that virtual trainings are effective in provide high speed information. Of all respondents, 33% fully agreed, 40.5% agreed. The overwhelming majority of respondents agreed that virtual trainings are effective in provide high speed information.
4. All respondents indicated that virtual trainings are effective in progress of your career, with 36.5% strongly agreeing, 43.5% agreeing, 6% neutral, 9.5% disagreeing, and just 4.5% severely disagreeing. The vast majority of respondents stated that they would be helpful from the virtual trainings to progress in their career.
5. Among all respondents, 31.5% fully agreeing, 35.5% agreeing, 7.5% neutral, 17.5% disagreeing, and just 8.5% fully disagreeing. In order to virtual training effectiveness for professional enrichment nearly two thirds of respondents said they typically prefer virtual trainings.

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