E-Learning as A Tool for Corporate Training in Manufacturing and Service Sectors

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ABSTRACT

Quick changes in technology will significantly impact training strategies for manufacturing and service sector workers. Employers must identify a concrete business reason for choosing technology-based training alone or in combination with classroom training, which focuses on rich-skills development, collaborative exercises, and peer interaction building upon the information received online. This research paper attempts to find out the effects of E-learning as a tool for corporate training in manufacturing and service sector. The employees from the manufacturing and service sector were conveniently selected in order to evaluate the effect of E-Learning as a tool for corporate training. The primary data source is the questionnaire that was distributed to the employees of manufacturing and service sector. Data were then analyzed using SPSS. Findings conformed that age, qualification, designation of employees were taken to influence the effects of E-learning in manufacturing and service sector as well as to organizations in implementing successful E-learning systems.

Keywords: E-learning as a tool for corporate training, manufacturing sector and service sector, Designation, Qualification, Age.

INTRODUCTION:

Information technology penetration is continuously growing especially due to the apprentice technologies and is introducing various online opportunities for corporations. Meanwhile, increasing number of corporations are offering trainings for their new personnel and current employees to endow with significant insights and skills that can facilitate them perform their jobs more successfully (Kramer, 2007).

Considering the developments in the training sector, two main concerns have aroused in large companies related to their corporate training programs: the convolution in choosing appropriate subject areas of training and the complicatedness in choosing appropriate ICT tools to be used during these trainings if supplied by e-learning. Nebolsky et al. (2003) have particularly that trainings that focus on the development of communication, management and leadership skills throughout collaborative problem solving are the most multifaceted training areas whereas according to Newton and Doonga (2007), the most admired subject areas are ICT training, followed by soft skills, business, management and technical skills. Formerly, Bonk (2002) has found out that the most favoured topics for training are computer applications and software skills, technical skills, job-related skill development, communication skills, computer systems or programming skills, management or supervisory experience, and customer services. Although e-learning is used in a variety of corporate training programs, it should be noted that learning is mostly human rather than mechanistic in nature; that is the primary activity is concerned with the behaviour and skills of people rather than machines. Therefore, ICT should be evaluated with awareness to establish best practices, and effective educational human computer interaction should be considered to develop a learning design that provides access to an educational information system that is easy to
use and is offering a protected environment for knowledge and cognitive skill development that supports the joy for learning (Strother, 2002).

Rapid changes in technology are affecting every aspect of a person's life, with the most spectacular changes taking place in the workplace. To instruct employees to work with new technology in mechanized manufacturing facilities, employers must successfully use the same technology in their training programs. The use of new technology, such as computers and the Internet, to provide instruction began the "e-learning" revolution. Formerly, employer provided training programs used leader-led group or classroom instruction, one-on-one instruction (commonly referred to as on-the-job-training), and individual self-study instruction to train manufacturing workers. Employers comprehend that new technology will have a great impact on their training strategies and want to use the new technology to create an finest training program for their manufacturing workers. Recent training and development journals and magazines reveal strong reviews about positive and pessimistic experiences using e-learning. Some employers have replaced more costly training delivery methods, such as classroom courses or seminars, with online courses that can be completed at an employee's counter. Other employers have integrated e-learning into their current training strategy in addition to traditional delivery methods. The purpose is to widen a training program which benefits from instructor-led, one-on-one, self-study, and electronic training programs.

LITERATURE REVIEW:

Jakobsone and Cakula (2015) aimed to get a new perception on knowledge sharing process, and superior comprehend the future of automated learning support system involving the use of new technological opportunities. The foremost study question was how the programmed learning support system could develop the efficiency and quality of further knowledge flow and offer sustainable cooperation between educational institutions and entrepreneurs. The researchers found that the analysis of the information system as an online learning support platform, improved quality of knowledge flow, and recommendations for advancing work-based learning besides the encouragement of competent knowledge management technologies. Moreover, innovations in the learning process needs to be real and simple to help adults find how to solve their problems; preparation of training is needed following a definite employer required and knowledge sharing has to be equally enthusiastic on both interested sides; and needs have to be obtained; and precise content and quality must be presented according to merchant’s projections. Mothibi (2015) examined the association between e-learning and students’ academic triumph in higher education. The researcher found that ICT had a statistically momentous positive influence on e-learning based students’ academic achievements. The results also indicated that ICT had a significant positive influence on students’ educational overall academic achievements. Newton and Donga (2007) provided employers’ perspectives and rationalizations for corporate involvement in E-Learning. These include increases in knowledge, efficiency and productivity of employees, ease of execution, time-flexible savings, and cost savings. Other benefits of E-Training are the capacity to deliver E-Training anywhere, anytime, and to anyone; just-in time training; personalized training leading to higher content preservation by learners; effective delivery compliance training; higher association and interactivity; better monitoring system on employees’ performance and progress; and customized and personalized training options. With speedily changing learning technologies, E-Training functioning is not simply just purchasing complicated learning management systems. It also requires training employees appropriately to use the new technologies. As E-Training is a growing international business, it is essential for employees to be updated to provide an effective and proficient functioning environment (Newton, & Doonga, 2007). The key driver to speedy E-Training development is the knowledge economy and workers; and the key weakness is the corporation not aligning corporate business objectives to E-Training to track performance and profitability. Without proper evaluation tools to analyze the quality of E-Learning in corporations, justification of continued growth in E-Training is questionable.

OBJECTIVES:

1. To Study the Employees Perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to Designation level.
2. To study the Employees Perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to Qualification.
3. To study the Employees Perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to Age.

HYPOTHESIS:

H₀₁: There is no significant difference of employee’s perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to designation level.
H₀₂: There is no significant difference of employee’s perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to qualification.
H₀₃: There is no significant difference of employee’s perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to age.

RESEARCH METHODOLOGY:

- **Research design:** The present study is descriptive research based on Survey Method.
- **Research Plan:** Demographic analysis of manufacturing and service sector.
- **Purpose of the Research:** Research was carried out to gather the opinion of the employee’s to evaluate and investigate the effects of E-learning as a tool for corporate training in manufacturing and service sector.
- **Data Type Used:** For the study primary data was used.
- **Data Collection Method: Primary** Data was used for through questionnaire method a developed scale - “Measuring E-Learning systems success in an organizational context: Scale development and validation” Developed by Yi-Shun Wang, Hsiu-Yuan Wang, and Daniel Y. (2007), Taiwan and the normality .242 and Reliability .09668 which is greater than significance value .05 that were used for the purpose of Data Collection.
- **Sampling Plan**
  - **Population:** The respondents are Employees in manufacturing and service sector.
  - **Sampling Method:** Convenient Sampling.
- **Size of Sample:** The sample size of 500 respondents is used from Manufacturing and service sector.
- **Tools Used for Data Analysis:** T-Test and One way ANOVA

NORMALITY TEST:

As the subsequent experiments required assumption of normal distribution of the same as the pre-requisite for the analysis, it become necessary to test the veracity of the assumption of normal distribution of collected data. “Normality test statistics by ‘kolmogorov- Smirnov test’ assesses that whether a particular distribution differs significantly from normal distribution (Carver & Nash, 2006)”. Thus the responses were tested for veracity of the assumption of normal distribution by K-S test for the total score on E-Learning as a tool for corporate training in India. The normality test rejects the hypothesis of normality when the p-value is less than or equal to 0.05. Failing the normality test allows to state with 95% confidence the data does not the normal distribution.

NORMALITY TEST:

| One-Sample Kolmogorov-Smirnov Test (Manufacturing sector) | VAR00001 |
|----------------------------------------------------------|----------|
| N                                                       | 228      |
| Normal Parametersa                                      |          |
| Mean                                                    | 179.5395 |
| Std. Deviation                                          | 13.42636 |
| Most Extreme Differences                                |          |
| Absolute                                                | .068     |
| Positive                                                | .058     |
| Negative                                                | -.068    |
| Kolmogorov-Smirnov Z                                    | 1.027    |
| Asymp. Sig. (2-tailed)                                   | .242     |

a. Test distribution is Normal
Table 1 b: Normality of Service Sector

| One-Sample Kolmogorov-Smirnov Test(Service Sector) | VAR00001 |
|--------------------------------------------------|----------|
| N                                                | 272      |
| Normal Parameters<sup>a</sup>                     |          |
| Mean                                             | 179.7868 |
| Std. Deviation                                   | 13.63894 |
| Most Extreme Differences                         |          |
| Absolute                                          | .100     |
| Positive                                          | .068     |
| Negative                                          | -.100    |
| Kolmogorov-Smirnov Z                             | 1.646    |
| Asymp. Sig. (2-tailed)                            | 0.09     |

<sup>a</sup> Test distribution is Normal.

Result:
The Asymp.sig value (2-tailed) for K-S test was found to be .242 which is greater than 0.05 (see Table 1a) for Manufacturing sector and for Service sector was found to be .009, which is greater than 0.05 (see Table 1b). This indicated that the distribution of final points does not differ significantly from normal distribution. This inferred that the assumption of normality with respect to the sample chosen was valid.

RELIABILITY TEST:
Cronbach’s Alpha:
Manufacturing Sector Reliability Statistics:

| Table 2 a: Reliability test |
|-----------------------------|
| Reliability Statistics      |
| Cronbach’s Alpha            | .769    |
| N of Items                  | 36      |

Service Sector Reliability Statistics:

| Table 2 b: Reliability test |
|-----------------------------|
| Reliability Statistics      |
| Cronbach’s Alpha            | .806    |
| N of Items                  | 36      |

Result:
Cronbach’s Alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. Cronbach’s alpha is not a statistical test – it is a coefficient of reliability (or consistency). It is considered a measure of scale reliability. The reliability test has been made for testing the reliability of employees’ perceptions of Manufacturing sector and Service sector, with the help of coefficient (Cronbach’s Alpha), the reliability of data for Manufacturing sector is .769 (see Table 2 a) and for the Service sector .806 (see Table 2 b) hence, the scale used here is said to be reliable and can be used for analysis (Note that a reliability coefficient of .70 or higher is considered “acceptable” in most social science research situations).

Manufacturing and service sector comparative analysis:
3 a: Basis of Demographic variables:

| Table 3 a: Comparison Chart on the basis of Demographic Variable |
|---------------------------------------------------------------|
| Demographic variables | Manufacturing sector | Service sector |
|-----------------------|----------------------|----------------|
|                       | P-Value   | Result             | P-Value   | Result             |
| Designation           | .434      | No significant difference | .401      | No significant difference |
| Qualification         | .028      | Significant difference | .772      | No significant difference |
| Age                   | .880      | No significant difference | .263      | No significant difference |

*null hypothesis is rejected when $p<.05$ and not rejected when $p>.05$
RESULT ANALYSIS ON THE BASIS OF DEMOGRAPHIC VARIABLES:

Designation:
The p-value for designation was found to be .434 for manufacturing sector and .401 for the service sector (Table 3 a), which greater than the significant value of .05. The result shows that the null hypothesis is accepted. There is no significant difference in Employees Perception of E-Learning as a tool for corporate training in manufacturing sector and service sector. It means that the Employees Perception of E-Learning as a tool for corporate training with respect to designation level does not differentiated on the basis of various level of designation in both manufacturing and service sector.

Qualification:
The p-value for designation was found to be .028 for manufacturing sector which is less than significant value of .05 and .772 for the service sector (Table 3 a), which greater than the significant value of .05. The result shows that in manufacturing sector null hypothesis are rejected which mean there is significant difference with respect to qualification level are different perception regarding Employees Perception of E-Learning as a tool for corporate training in manufacturing sector. On the other hand we have analysed on service sector employees so the result shows that the null hypothesis is accepted. There is no significant difference in Employees Perception of E-Learning as a tool for corporate training in service sector. It means that the Employees Perception of E-Learning as a tool for corporate training with respect to qualification level does not differentiated on the basis of various level of qualification in service sector.

Age:
The p-value for designation was found to be .880 for manufacturing sector and .263 for the service sector (Table 3 a), which greater than the significant value of .05. The result shows that the null hypothesis is accepted. There is no significant difference in Employees Perception of E-Learning as a tool for corporate training in manufacturing sector and service sector. It means that the Employees Perception of E-Learning as a tool for corporate training with respect to age does not differentiated on the basis of various level of designation in both manufacturing and service sector.

CONCLUSION:
The study has resulted into the identification of Employees perception of E-learning as a tool for corporate training in manufacturing and service sector with respect to designation level, qualification and age of employee in manufacturing and service sector. The value of significant was found in designation, qualification, age was greater than the significant value which was supports acceptance of null hypothesis therefore it may be concluded that E-Learning is an effective tool for maintaining employees on the basis of their current knowledge, skills, and abilities. Organizations that learn to effectively offer E-Learning can support a variety of corporate trainings at a reduced cost and at the employee's convenience. But, an effective E-Learning program does not happen by chance rather through strategic development of courses and learning programs.

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