# CORPORATE ELEARNING IMPACT ON EMPLOYEES

Prince F. Ellis, Brown Mackie College - Cincinnati
Kevin D. Kuznia, Ashford University

## ABSTRACT

*This paper examines the impact of corporate eLearning on employees' productivity, job satisfaction, overall job performance, and organizational commitment. The theoretical framework proposed was to determine whether eLearning usage has any correlation with these variables. This discussion is supported by conducting an online survey from ten educational institutions and two international corporations. The results concluded that eLearning usage by employees had varying correlations with job productivity, job performance, job satisfaction and organizational commitment. It was determined that the use of technology alone will not yield desired results; corporations need to determine a balance between eLearning strategies and managerial support.*

**JEL:** D29, D93, I21, M53

**KEYWORDS:** Learning, Information and Knowledge, Analysis of Education, Training

## INTRODUCTION

The demand for alternative methods for learning is increasing exponentially. The use of corporate electronic learning (eLearning) is on the rise as many corporations have adopted eLearning for employee training and learning to create a collaborative learning environment. eLearning is a technique designed to provide learning solutions using technology. Chen (2008) defined eLearning as combining technology with learning, delivered using telecommunication and information technologies, and a type of training delivered on a computer supporting learning and organizational goals. eLearning can be grouped into several categories: purely online, blended, or hybrid. Other forms of eLearning include instructor-led group, self-study, self-study with subject matter expert, web-based, computer-based (CD-ROM), and video/audio tapes. eLearning can be delivered using print (e-text, eBooks, ezines), video (streaming video, video tape, satellite transmission, cable), audio (streaming audio, audio tape), reviews and exams (electronic, interactive, paper), and communication (asynchronous- listservs, threaded discussions, weblogs, forums) or synchronous-chat (videoconferencing, and teleconferencing).

According to Adkins (2011), the cost of corporate eLearning products and services in the United States are estimated to be $6.8 billion and by 2015, eLearning expenditures are expected to reach at least $7.1 billion. Adkins (2011) analyzed expenditures of small, medium, large, and enterprise companies and concluded that corporations will continue to demand eLearning products and services. Out of the total eLearning market in the United States, corporations account for 37.4%, the largest segment in 2010 of the US expenditure in the eLearning market (Adkins, 2011). The growth rate for corporate eLearning products and services varies depending on the industry sector. However, the summative growth rate is on the uptrend (Adkins, 2011). The global nature of business today has caused many corporations to rely on eLearning as the future because of its ability to reach large groups of people in different areas or countries, reducing costs, reducing the environmental impact of normal business travel, and efficient dissemination of information. eLearning has come to be the preferred learning method for many individuals due to its global reach and accessibility. With a click of the internet, eLearning can take place anywhere. Some of the benefits of eLearning include (1) reduction of training expenses by using virtual solution training; (2) customizable training solutions for employees; (3) ability to maintain detailed training records, personalized to track employee performance, training needs, and other pertinent information; (4) ability to produce custom-made training courseware to meet increasing training solutions; (5) accessibility to accurate and

current training resources is available through systematic examinations and updates of eLearning materials and information from subject matter experts (SMEs); and (6) choices between classroom-based training and online training.

eLearning has become a central scholastic and teaching instrument in the current business climate for the simple reason that corporations have adopted it as part of their business operations. There are advantages and disadvantages to corporate eLearning as a training and educational tool. Investments in training and learning have an impact on employee productivity. Dardar, Jusoh, and Rasli (2011) linked employee training with employee turnover and job satisfaction. Better-trained employees work harder, and in addition, they are willing to stay in one company longer. With lower turnover, employees are more likely to improve productivity and profitability. The reverse is true where lack of employee training can negatively influence both productivity and satisfaction. According to Clarke and Hermens (2001), different factors have stimulated extensive development in corporate eLearning. Some of these factors include an increase in demand for education and training, the need for higher bandwidth to access advanced technologies, and the use of digital convergence and adaptive technology. eLearning is becoming an alternative form of education and training for corporations because of higher demand for the latest technological innovations, the creation of sophisticated technology and communication systems, and industry dissatisfaction of the responsiveness of traditional modes of delivery. Increases in eLearning usage by corporate leaders affects the work environment, as corporate leaders have to make sure eLearning implementation is appropriate in terms of scalability, access, and timeliness.

Corporate leaders continue to see eLearning as a necessity in their efforts to meet the educational and training needs of their stakeholders and organizational strategies organizational strategies. eLearning assists in keeping employees' skills current to help bottom-line performance, and many organizations are looking to embrace eLearning as a means to ensure regulatory training. The cost of eLearning is seen as the most important concern for large organizations and Small Medium Size (SMS) organizations (Brown et al., 2006). Despite the importance of continuous learning in current times, no known research has examined the viability of eLearning as compared to more traditional techniques (Kuznia, Kerno, & Gilley, 2010). In this paper, we examine the use of eLearning and how it impacts various facets of employee attitudes and performance. We gathered and analyzed data on eLearning from 10 educational and 2 businesses in the United States. The results show not only is there is tangible evidence that eLearning is an effective and viable method of information transference, but it also influences employee attitudes toward the corporation. In addition, this paper discusses some limitations regarding eLearning. The next section describes the relevant literature related to eLearning and some of the benefits as well as drawbacks. Next, we will outline the data and methodology used in the study. The results are presented in the following section. The paper closes with some concluding comments.

**LITERATURE REVIEW**

This section summarizes the trends of eLearning and some of the challenges and benefits that can be attributed to eLearning. Due to the recent emergence of eLearning, the body of literature is very limited. Thus, we also review the literature on employee attitudes regarding eLearning. Chen (2008) defined eLearning as combining technology with learning, delivered using telecommunication and information technologies, and a type of training delivered on a computer supporting learning and organizational goals. The intent of corporate eLearning is to improve job performance and satisfaction, and to create a productive and competitive workforce. Corporate leaders typically embark on eLearning for different reasons, such as attempting to create a competitive advantage and the need for globalization. Other company leaders use eLearning to meet the demand for learning and reduce budget constraints. By gaining a competitive advantage, an organization's executives can align their employee needs with strategic organizational goals. With globalization, corporate leaders need highly developed communication tools such as the Internet and other eLearning tools to reach stakeholders anywhere in the world. eLearning is a cost-effective way to

reduce corporate budgets for both internal and external education. The ability to align eLearning with high-level business strategies along with the capacity to train entire workforces to support these strategies is one of the key reasons that eLearning is attractive to company executives. The first eLearning system was a teaching machine developed by Skinner in 1945 as a testing and answering model (Chen, 2008). The approach to learning changed from a cognitive to a more constructive model with such technological advances as the invention of the personal computer, computer-based training, and the evolution of the Internet.

The launch of Learning Management Systems (LMS) such as Blackboard, E-College, Sharable Content Object Reference Model (SCORM), Instructional Management Systems (IMS), and Aviation Industry Computer-Based Training Committee (AICC) would define the future of eLearning (Chen, 2008). The evolution of eLearning continued as communication and television technologies transformed learning and the development of personal computers and the evolution of the internet drastically moved learning to the next level by adding a dynamic feature to learning: learners could interact synchronously or asynchronously with each other in the learning process. eLearning has experienced explosive growth over the last couple of decades. There are several reasons for this. The current increase in eLearning usage is fueled by the commitment of businesses centering the development of their training programs in eLearning technology. External forces such as cultural acceptance of eLearning has contributed to eLearning usage for business purposes.

Both academia and businesses are embracing the advantages of eLearning. According to Schweizer (2004), at least 84% of colleges and universities offer some form of eLearning courses and there are high prospects for continual growth of eLearning in businesses. Schweizer's findings also suggested that there are no major differences between learning face-to-face and e-courses; there are high prospects for continual growth of eLearning in businesses (Schweizer, 2004). Bonk (2011) noted the emergence and increased use of online and blended learning, collaborative technology, digital books, open source software, and wireless and mobile learning. These learning trends in technology continue to transform eLearning, since many people who previously did not have access to online resources will be able to access learning materials with a click of the website from their mobile phones and computers. eLearning will be a driving force in business for educating and training employees in the workforce.

Some global companies use both Learning Management Systems (LMS) and a virtual corporate university platform to train stakeholders to ensure employees are knowledgeable with updated skills and information. With the use of LMS's, corporations can create and track individual training schedules. On the other hand, virtual corporate universities are more effective than LMS because they enable collaborative learning, facilitate the development of social training programs, allow interactive training, and support mobile learning. Bonk (2009) noted the emergence and increased use of online and blended learning, collaborative technology, digital books, open source software, and wireless and mobile learning. These learning trends in technology continue to transform eLearning, since many people who previously did not have access to online resources are now able to access learning materials with a click of a hyperlink from their mobile phones and computers. ELearning will be a driving force in business for educating and training employees in the workforce. Corporate managers' interests in this technology continue to grow due to just-in-time delivery and cost-effectiveness of e-courses (Schweizer, 2004).

The success of eLearning depends on how organizations support and train employees to use learning technologies. Other contributing forces enabling the use of eLearning include senior management commitment, user-friendly and effective courses, corporate investment in human capital, and organizational culture supporting innovations and changes (Schweizer, 2004). Honey (2000) states: "Ninety percent of users indicated that eLearning had been useful to them. Some 81% of providers and 66% of employers agreed that eLearning would bring 'huge advances' in an organization's capacity to learn. The top five preferred eLearning methods emerged as surfing the web (with 51% of users opting for this), following

specific courses (44%), reading information downloaded from the web (42%), using CD-ROMs (40%), and surfing an intranet (27%)" (p. 1). Overall, participants' comments and views toward eLearning were positive because of the convenience of learning coming to them. Nevertheless, motivation to learn and the assumption of self-learning are two lingering doubts about the effectiveness of eLearning. The lack of the motivation to learn and the inability to decipher one's individual preferred learning style make the use of eLearning as a mode of learning questionable.

The use of a virtual corporate university has proven to be cost effective because of its global reach, collaboration tools, and social learning. With shrinking corporate budgets, the virtual corporate university platform seems to be the preferred learning method over traditional ones because it provides an adaptable and engaging learning experience for employees. Businesses use virtual universities for new hire training, leadership and management development, continuing professional education, client training, sales training, and partner training. With 24/7 access to learning materials from a click of a PC or tablet, employees can access and track their assessment and course completion rates. According to Chen (2008):

> *Seventy-four percent of organizations surveyed used synchronous learning. The reason for its high usage is that in recent years technology has advanced dramatically allowing for a more seamlessly integrated online training approach. Synchronous learning coupled with technology allows for greater interaction between instructors and learners including the opportunity to develop ideas, solve complex problems, and develop critical thinking skills. This type of creative thinking produces a competitive advantage for companies who desire to develop these strategic types of skills within their employees. (p. 3)*

Schlag (2001) stated that employers, in their effort to switch from using manuals for training, created and implemented eLearning as an efficient and cost-effective way of providing training to employees. This was done by converting manuals to web format accessible to employees at all times. Schlag (2001) also stated that eLearning and eTraining are synonymous and that the success of eLearning has value to both customers and employees. To yield optimal results in eTraining, blended training has to be utilized, where eTraining is combined with traditional training.

eLearning trends continue to be positive because of the convenience of learning coming to people as opposed to people finding it. The global nature of eLearning has led to increased usage of online universities or virtual corporate universities as training platforms for employees. At the same time, without motivation from top management, these trends will not be implemented as part of corporate eLearning strategy. Newton and Donga (2007) provided employers' viewpoints and justifications for corporate involvement in eLearning. These include increases in knowledge, efficiency and productivity of employees, ease of implementation, time-flexible savings, and cost savings. Other benefits of eTraining are the ability to deliver eTraining anywhere, anytime, and to anyone; just-in-time training; personalized training leading to higher content retention by learners; effective delivery compliance training; higher collaboration and interactivity; better monitoring system on employees' performance and progress; and customized and personalized training options.

With rapidly changing learning technologies, eTraining implementation is not simply just purchasing sophisticated learning management systems. It also requires training employees properly to use the new technologies. As eTraining is a growing international business, it is critical for employees to be updated to provide an effective and efficient working environment (Newton, & Doonga, 2007). The key driver to rapid eTraining growth is the knowledge economy and workers; and the key weakness is the corporation not aligning corporate business objectives to eTraining to track performance and profitability. Without proper evaluation tools to analyze the quality of eLearning in corporations, justification of continued growth in eTraining is questionable. Top and Gider (2013) attempted to explain the relationship between job satisfaction and organizational commitment. What they found was that there was a significant and positive

relationship between job satisfaction and organizational commitment (Top & Gider, 2013). Kuznia (2006) argues that employees who receive proper training tend to show higher levels of organizational commitment and are willing to go the extra mile to support their teams and accept group goals. Ozturan and Kutlu (2010) examined employee satisfaction with corporate eLearning programs using regression analysis to determine the influence of gender, age, work experience, education level, job level, and eLearning interactivity level of the employees. When the predictor variables were tested using regression analysis, they were determined to be statistically significant, with job level having the highest maximum impact on employee satisfaction. Yap, Holmes, Hannan, and Cukier (2010) investigated the relationship between training and the effectiveness of organizational commitment and satisfaction and they revealed that employees who perceived training to be effective were more committed to their organizations than those who saw training as ineffective. The contributing factors of employees' satisfaction and commitment include physical environment, internal support, job level, training level, organizational support, and learning flow. Therefore, management should be privy to these factors and ensure that they are considered carefully so that the full benefits of eLearning and eTraining are realized.

Being that eLearning is an important tool for educational institutions and other industries, it is important to understand how employee productivity is impacted by eLearning. A study by Sarmento (2010) to analyze the use of eLearning in the hotel industry showed that eLearning increases productivity and production volumes. Moller, Foshay, and Huett (2008) stated that eLearning is both productive and unproductive. Most educational institutions saw the growth of distance learning and use eLearning to promote educational and training programs. However, the authors noted that people are finding it difficult to balance models of quality and growth of eLearning. eLearning is seen as a double-edged sword.

Some corporations benefit from eLearning as a cost containment and training tool. They use eLearning to develop and train their employees, reduce corporate training costs due to savings on training and travel expenses, and as a tool to drive sales and profitability. Some challenges with eLearning implementation include employees' resistance, high initial investment cost, and inconsistent eLearning evaluation methods. Management should work closely with employees and get their buy in so that they can transition and implement programs smoothly. The success drivers of eLearning depend on the quality of the learning experience and the level of technological advancement. It is suggested that an employees' level of satisfaction and commitment vary with eLearning implementation, but other factors such as physical environment, internal support, job level, training level, organizational support, and learning flow may also have an impact. Top management must be knowledgeable about these factors and ensure that they are present in the organizational culture for eLearning implementation to be a success.

In summary, eLearning continues to be a driving force in many organizations as learning and training tool. Technological advancements, especially the implementations of different learning management system (LMS) platforms, introduction of web 2.0, and technological innovations, have facilitated the need for eLearning usage in many organizations. It is important to understand the impact of eLearning from not only the financial aspect, but also from a humanistic perspective. Although it is used as educational and training tool for most corporations with numerous benefits, at the same time, most corporations continue to spend more money without knowing the impact on the learning environment, especially on employee satisfaction.

**DATA AND METHODOLOGY**

Until this research, there had not been a survey developed to measure the association of eLearning and employee satisfaction, employee commitment, and job performance. To develop this survey, the principle investigator reviewed all the available research on eLearning to look for common attributes related to eLearning and employee performance and satisfaction. These questions were then compiled into a 36 item Likert type scale using those attributes adapted from research on eLearning. All constructs within the

employee online survey were defined and most of the survey questions included a five-point Likert scale of (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. To be eligible to take part in the study, participants must have had at least used an eLearning management system or taken an eLearning course for employment training purposes, and be a participating corporate employee. The survey distribution included a sample size of 250 employees from each of two United States corporations that use eLearning for training and development. These corporations were ABC System of schools and XYZ International located in Cincinnati, Ohio area. Overall, 12 institutions took part in the study. One of the corporations that took part in the study had an international presence. This means that those companies have subsidiaries, do businesses in other countries, or serve some international customers. The corporations included met the participation requirement of having used eLearning as a tool for training and/or learning by employees. A memo was provided to corporate management to be passed on to potential participants that stated corporate approval of research participation, the nature of the study, and to inform employees that they will be contacted. Employees took the survey online using a survey link. The survey was open to participants for up to 14 days per company, and the survey was disseminated over a two-month period. Demographic information such as age, gender, employment status, educational experience, and work information were collected.

Data Processing and Analysis

The use of regression analysis helped to analyze employee productivity, job performance, and job satisfaction relating to eLearning. An Analysis of Variance (ANOVA) was run to test the means of the groups (part-time, fulltime, managers, and regular employees). By using ANOVA, comparisons were made by computing the F-test. Smaller F statistics showed a bigger difference between groups and a larger F statistics showed smaller differences between groups. The researchers expected the F statistic to be larger than 1 to accept the research hypothesis. By knowing the impact of these differences on corporate eLearning investments, the researchers were able to predict future eLearning investments impact on corporations. All the variables were allotted a value to help in coding the outcomes. This allowed performing quantified analysis using statistical analysis software. A five-point Likert Scale was used in summation of participant responses to quantify data with the assistance of PASW software. Data analysis was done using regression analysis and other appropriate measures to determine relationships between dependent variables (employee productivity, job satisfaction, and job performance) and the independent variable (eLearning). The use of the standard statistical analysis tool helped to examine groupings, associations, and cross-tabulations. Before applying any test, the researchers checked to see if the data were normally distributed using the Shaprio-Wilk test. This test works well with all sample sizes. To determine differences between full-time and part-time employees, an ANOVA test was used to compare the differences between the means. The researchers believed that full-time and part-time employees have eLearning differences and that could have impacted their productivity, performance, and job satisfaction. The ANOVA test helped sort out those differences.

Limitations

Potential threats to the success of this research included expenses in data collection and analysis, length of research, and the lack of technical knowledge of eLearning systems by participants. Some of the expenses in data collection and analysis included paying for a premium online survey account, and hiring a statistician. To ensure that participants completely understood the research study, definitions of terms of different eLearning tools and systems were elaborated in lay-man's terms. By educating participants on the study, data collected was more reliable and more participants were willing to take part in the study. To reduce costs, most of the research, the survey, and communication with participants and corporate managers were conducted using an online survey, phone calls, and emails. In addition to getting permission from corporations to take part in this research study, the cost of the research was reduced with the support from the corporations that authorized the research.

## RESULTS AND DISCUSSIONS

This research investigated the impact of eLearning on corporate employees. More specifically, the research explored how employees' productivity, job performance, and job satisfaction were impacted by using eLearning. Corporations use various forms of eLearning processes and applications, such as computer-based training (CBT), Internet-based training (IBT), web-based training (WBT), and many others. eLearning can be instructor-led, self-paced, or blended. For the purpose of the current study, the terms eLearning and eTraining were used interchangeably. This section presents the results of the eLearning survey analysis. Overall, 341 employees took the eLearning research survey. The demographics are shown on the table below.

Table 1: Demographic Factors

| Age | | | Gender | | | Emp Status | | | Mgr Status | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Value | Ct | % | Val | Ct | % | Val | Ct | % | Val | Ct | % |
| 18-24 | 8 | 2.7 | M | 108 | 35.8 | FT | 231 | 76.5 | Y | 105 | 34.8 |
| 25-34 | 60 | 20.1 | F | 194 | 64.2 | PT | 56 | 18.5 | N | 197 | 65.2 |
| 35-44 | 96 | 32.1 | | | | Oth | 15 | 5 | | | |
| 45-59 | 107 | 35.8 | | | | | | | | | |
| 60+ | 28 | 9.4 | | | | | | | | | |
| **Experience** | | | **Edu. Level** | | | **Company Size** | | | | | |
| Val | Ct | % | Val | Ct | % | Val | Ct | % | | | |
| <1 yr | 41 | 13.6 | Some college | 19 | 6.3 | <100 | 103 | 34.1 | | | |
| 1-5 yrs | 166 | 55 | HS | 7 | 2.3 | 101- 499 | 70 | 23.2 | | | |
| 6-10 yrs | 59 | 19.5 | Assoc Degree | 24 | 8 | 500- 1000 | 41 | 13.6 | | | |
| > 10 yrs | 36 | 11.9 | Bach. Degree | 80 | 26.5 | >1,000 | 88 | 29.1 | | | |
| | | | Grad Degree | 135 | 44.7 | | | | | | |
| | | | Prof Degree | 37 | 12.3 | | | | | | |

*This table shows the demographics of respondents to this study. Age is the respondent age in years. Gender is the respondent's reported gender. Emp Status is indication of fulltime employment, part time employment or other. Mgr Status is indication of role in the organization – managerial or non-managerial. Edu Level is the respondent's highest level of education completed. Company size is the number of employees in respondent's organization.*

The majority age of surveyed participants ranged from 25 to 34, 35 to 44, and 45 to 59, which accounted for 20.1%, 32.1%, and 36.8% respectively. The average age of participants surveyed was 39 years. Female participants accounted for 64.2%, whereas male participants accounted for 35.8%. The majority of participants were full-time employees, who accounted for 76.5% of responses. Part-time employees accounted for only 18.5%, whereas other employee groups amounted to 5%. Participants who said they were managers counted for 34.8% whereas non-managers accounted for 65.2%. In term of participants' eLearning experience shown on Table 1 above, 55% of participants had 1 to 5 years of eLearning experience, 19.5% of participants had 6 to 10 years, 11.9% participants had at least 10 years, and 13.6% employees surveyed had less than one year. As shown above, the educational level of participants varied: 6.3% had some college but had not completed their degrees, 2.3% had high school diplomas, 8% had associate degrees, 26.5% had bachelor's degrees, 44.7% had graduate degrees, and 12.3% had doctorate or professional degrees. Finally, from Table 1 above, corporations of at least 500 employees accounted for 42.7% (13.6% and 29.1% combined) of participants, while 57.3% (34.1% and 23.2% combined) of participants came from corporations with less than 500 employees.

With 41.9% of study participants saying their jobs have been easier and 63.5 % stating that eLearning has been beneficial to their work, it is important for corporations to rethink the way eLearning initiatives are

implemented in their organizations. eLearning continues to become a leading instructional method in workplaces across organizations of various sectors and of varying sizes (Kramer, 2007). How employees react to eLearning can affect the overall performance of the organization. Employee survey responses show that they are able to understand their job duties better and have had an increase in managing ability, efficiency, and job skills. According to Kramer (2007) in a study that used the Kirkpatrick Model to measure behavioral changes on the job, learning increases for participants that react favorably to eLearning, and job behavior increased if learning increased. Employees with higher levels of eLearning should show improvement in productivity and job performance, and a reduction in turnover, cost, and absenteeism. However, current eLearning structures are not always successful.  Some employees surveyed thought that the current work environment is not suitable for eLearning and they had to take extra time outside work to learn various eLearning tools, which causes inconvenience and stress.

The result of this study shows that the majority of employees had used eLearning at work.  At least 91.5% participants stated that they have used eLearning at work of some kind. Only 8.5% stated they have never used eLearning. The most common type of eLearning usage is a mix of both asynchronous and synchronous eLearning that represented 52.6% of participants. For those who have used eLearning, 40.2% were asynchronous eLearners as opposed to 18.9% participants who have used synchronous eLearning. For clarification, asynchronous eLearning is learning done at one's own pace and schedule. Synchronous eLearning involves a specific time enrolled in a class. Pertaining to eLearning modes used at work, 80.5% of participants have used Internet Based Training (IBT) or Web Based Training (WBT).  26.7% and 38% of respondents have used Computer-Based Training (CBT) and Distance Learning respectively.   The common information/communication/learning tools used at work by most participants were mobile devices (58.8%), followed by web conferencing (57.3%) and books/online libraries (51.9%). Social media and CD-ROM/DVD usage accounted for 28.7% and 23% respectively.

An overwhelming 97.9% of participants said that their companies supported eLearning. At the same time 71.3% mentioned that their companies provide eLearning support and materials to enhance their learning experience.  62.1% of participants faced difficulty when using eLearning whereas 37.9% have not experienced any significant difficulty. At least 82.2% had access to eLearning tools for training and development at work. However, only 41% used eLearning as a preference for training and development. 77.7% participants got eLearning support from their companies. 89.5% of employees surveyed have the technological skills needed to use eLearning tools. 56.4% of participants believed their career opportunities and advancement from eLearning have been enhanced by using eLearning. When it came to experiencing technical difficulties when using eLearning, 42% have faced technical difficulties and 36.5% have not. 69.1% of employees stated that their companies continue to invest in eLearning initiatives and 77.5% mentioned that eLearning is an effective tool for training and development. 39.2% of participants believed that eLearning technical issues are resolved quickly whereas 14% disagreed with statement. Lastly, 58.6% of employees were aware of eLearning trends that impact their jobs and 37% were not.

Elearning versus Employee Job Satisfaction

Overall, 74.9% of participants stated that eLearning leads to higher employee satisfaction as shown on Table 2 below. Only 25.2% stated that eLearning does not lead to higher employee satisfaction.
However, From Table 3, only 38.1% (combination of 28.9% and 9.2%) were more satisfied with their jobs due to eLearning usage, while 17.5% (combination of 3.8% and 13.7%) of participants were less satisfied with their jobs because of eLearning. An overwhelming 42.2% of participants answered neutral regarding how eLearning impacted their job satisfaction.

*ELearning versus Job Performance*:  41.9% (33.3% and 8.6% combined) of participants said their job responsibilities have been easier because of their eLearning experience. However, 19% (4.1% and 14.9% combined) disagreed with the above statement and nearly 36.5% of participants answered neutral to this

statement. In addition, 63.5% (16.8% and 46.7%) mentioned that eLearning has been beneficial to their work, 9.2% (1.9% and 7.3%) disagreed and 24.4% were neutral to statement. About 48.1% (38.2% and 9.9%) of participants stated that eLearning investments by their companies have enhanced their job performance. 11.8% (1.3% and 10.5%) disagreed with statement and 36.9% were neutral.

*ELearning versus Employee Productivity*: In answering the impact of eLearning on employee productivity, the researchers uncovered the following statistics. 72.8% of employees who took survey said that eLearning leads to higher employee productivity and 27.2% stated otherwise. However only 41.7% (30.9% and 10.8%) gained higher productivity by using eLearning, 39.2% answered neutral, and 16% (2.6% and 13.4%) did not gain higher productivity by using eLearning.

*ELearning versus Employee Organizational Commitment*: Overall, 66.5% of participants believed eLearning leads to higher employee organizational commitment whereas 33.5% stated otherwise. However from Table 3 below, only 32.5% (24.2% and 8.3%) of employees stated that they are more committed to their companies because of their eLearning experience, 23.6% (2.9% and 20.7%) disagree with this statement, and 40.5% of surveyed employees were neutral.

Summary Table (Job Satisfaction, Job Performance Employee Productivity, Organizational Commitment)

Table 2: Employees Perceptions on Elearning

| Value | Satisfaction | | Productivity | | Commitment | |
|---|---|---|---|---|---|---|
| | Count | Percent | Count | Percent | Count | Percent |
| Yes | 250 | 74.9% | 244 | 72.8% | 222 | 66.5% |
| No | 84 | 25.2% | 91 | 27.2% | 112 | 33.5% |

*This table shows employee perceptions of eLearning. Satisfaction is the indication of how employees perceived eLearning impacting their job satisfaction. Productivity is the indication of how employees perceived eLearning impacting their productivity. Commitment is the indication of how employees perceived eLearning impacting their job commitment.*

Table 3: Employees Attitudes Toward Elearning

| Value | Satisfaction | | Performance | | Productivity | | Commitment | |
|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | Percent |
| Strongly disagree | 12 | 3.8% | 13 | 4.1% | 8 | 2.6% | 9 | 2.9% |
| Disagree | 43 | 13.7% | 47 | 14.9% | 42 | 13.4% | 65 | 20.7% |
| Neutral | 133 | 42.2% | 115 | 36.5% | 123 | 39.2% | 127 | 40.5% |
| Agree | 91 | 28.9% | 105 | 33.3% | 97 | 30.9% | 76 | 24.2% |
| Strongly agree | 29 | 9.2% | 27 | 8.6% | 34 | 10.8% | 26 | 8.3% |
| N/A | 7 | 2.2% | 8 | 2.5% | 10 | 3.2% | 11 | 3.5% |

*This table shows employee attitudes toward eLearning. Satisfaction is the indication of employees' view of how satisfied they are at their jobs due to eLearning usage. Performance is the indication of employees' view of how their performance has been influenced as a result of eLearning investments by the organization. Productivity is the indication of employees' view of productivity changes by using eLearning. Commitment is the indication of employees' view of how committed they are to their organization as a result of their eLearning experiences.*

Pearson Correlations Summary of Key Variables

The Pearson correlations of the variablies for the study were computed to find relationships among the variables and are summarized on Table 4 below.

The summary above from Table 4 shows that there are both significant relationships between the independent and variable dependent variables. First, eLearning usage by employees has a weak negative

correlation on their job productivity and job performance. This means increases or decreases in eLearning usage cause decreases or increases in job productivity and job performance respectively. Furthermore, there are strong positive Pearson correlations ranging from 0.662 to 0.750 among all the dependent variables (job satisfaction, job productivity, job performance, and organizational commitment) as shown on Table 4.

Table 4: Pearson Correlation of Key Variables

|  | Q1 | Q16 | Q19 | Q23 | Q24 |
|---|---|---|---|---|---|
| How often do you use eLearning at work? Q1 | 1 | -0.099 | -0.135* | -0.115* | -0.002 |
| I have been more satisfied at my job due to eLearning usage. Q16 | -0.099 | 1 | 0.733** | 0.662** | 0.714** |
| I have gained higher productivity by using eLearning. Q19 | -0.135* | 0.733** | 1 | 0.750** | 0.713** |
| ELearning investments by my company have enhanced my job performance. Q23 | -0.115* | 0.662** | 0.750** | 1 | 0.701** |
| I am more committed to my company because of my eLearning experience. Q24 | -0.002 | 0.714** | 0.713** | 0.701** | 1 |
| *. Correlation is significant at the 0.05 level (2-tailed). |
| **. Correlation is significant at the 0.01 level (2-tailed). |

*This table shows the Pearson's r when comparing the variables that were studied.*

For instance, increases or decreases in one dependent variable will increase or decrease the other dependent variables significantly. There is a strong correlation between employee satisfaction and productivity, job performance, and organizational commitment as indicated above as 0.733, 0.622, and 0.714. This implies that when employees are satisfied, they become more productive, their job performance is enhanced, and they become more committed to their organizations. In addition, there is also a strong correlation among productivity versus job performance and organizational commitment, as indicated above as 0.750 and 0.713 respectively. Finally, the correlation between job performance and organizational commitment is very strong, as the Pearson's r is indicated as 0.701.

Corporate and General Elearning Issues

From the survey results, 97.4% of employees who participated mentioned that they got eLearning support from their companies. When employees were asked if they faced difficulties when using eLearning, 38.2% said no, whereas 61.8% said yes. 42.3% of employees experienced technical difficulties when using eLearning technology as opposed to 36.5% who did not and that 39.2% believed technical issues involving eLearning were resolved quickly. 82.2% of participants had access to eLearning tools for training and development at work, and 77.7% got support from eLearning. An overwhelming 89.5% of employees had the technical skills needed to use eLearning tools. In addition, 56.4% believed that their career opportunities and advancements from eLearning experience were enhanced and that 41% preferred using eLearning for training and development. A majority of employees, 71.3% stated that their companies provided eLearning support and materials to enhance their learning experience and 69.1% mentioned that their companies continue to invest in eLearning initiatives. 74.5% of survey participants stated that eLearning was an effective tool for training and development. With eLearning trends or changes, 58.6% were aware of eLearning trends or changes that affected their jobs.

The benefit of eLearning cannot be achieved in a vacuum. It needs commitment from top management, and end users should be part of the planning and implementation process of eLearning initiatives. The researchers believe that the more comfortable employees are with using eLearning systems and software, the easier it is for them to accept new changes in the organization. Acceptance of eLearning is also enhanced by confidence that upper management will provide the much-needed training and support for the new eLearning technology.With education and training using Information Communication Technologies (ICTs), employees are in a better position to broaden their technology skills and thrive in the 21st century as effective eLearners. Providing education to employees on ICTs will enable them to be more comfortable

and productive during training sections organized by their corporation managers.  Employees will continue to gain more positive attitudes toward their work because of the availability of personalized training. The overall benefit of eLearning is that it bridges the digital divide among employees.  The digitalization of education is shifting.  Teachers are now becoming Electronic Teachers, and the education system is being transformed to Electronic Education.  Corporate executives who provide more education and training to their employees have the ability to gain a competitive advantage because they will not only recruit, but will retain talented, skilled individuals. The success of a company relies on educated employees.  It is therefore important for upper management to involve all stakeholders when making decisions that affect all employees.  Employees are less likely to resist eLearning training programs when they know the reasons and significance of such trainings.Age, gender, employment status, managerial status, and company size had an insignificant impact on eLearning usage in this study.  However, the following findings are worth noting:

*The learning style for eLearners varies with different ages.  With 52.2% of employees in this study aged between 35-44 years, upper management should be cognizant of age differences when designing eLearning solutions for their employees.*

*With employment status, it is expected that full-time employees will spend more time using eLearning tools, systems, and programs; therefore, they have an advantage over part-time employees.  Because the majority of participants (over 76%), are considered to be full-time employees, it makes sense for initial eLearning investment strategies in corporations to first target the full-time employees and later target part-time employees.*

*It is expected that managers (35% of the respondents) should be able to train their employees on eLearning-related tasks, and corporate eLearning strategies should ensure that managers get the necessary training so that they can support their employees.*

Work-Related Elearning Responses and Implications

The importance of eLearning cannot be overemphasized.  With at least 91% of study participants using eLearning at work, corporate leaders should think strategically before making significant eLearning technology investments.  The future of global learning in higher education and corporations starts with eLearning.  With little or no geographical constraints, eLearning empowers employees to manage their own learning.  In addition, eLearning has a significant impact on an organization's bottom line.  Because everyone learns differently and a majority of employees use eLearning, the more comfortable employees are with different eLearning modes such as CBT, WBT, and distance learning, the less resistance there will be to technological changes in eLearning within organizations.

According to this study, a majority of employees use both asynchronous and synchronous eLearning, and WBT.  The most preferred learning tools are mobile devices, web conferencing, books, and online libraries. Corporate managers should focus more attention on these areas to ensure alignment with eLearning trends in the industry.  This can be done by increasing exposure to information communication technologies and learning tools by making them more available to employees at work. With increased exposure to eLearning technology, employees would be more likely to pick up on eLearning technologies and skills, making it easier to implement eLearning initiatives.  Corporations benefit from successful eLearning implementations.

Corporate Support and General Elearning Usage

From the study, it was clear that employees who received support from eLearning initiatives were aware of eLearning trends, had ready access to eLearning tools, had the technical skills to use eLearning, and had

enhanced career opportunities and advancements from eLearning experiences. Some employees also believed that their company leaders continued to invest in eLearning and that eLearning is an effective tool for training and development. However, employees continue to face difficulties when using eLearning. McCullough (2005) and Reich & Scheuermann (2003) stated some challenges of eLearning: managers are too busy, unaware or disinterested in eLearning; lack of appropriate infrastructure; they cannot justify the need; and/or they cannot identify their training needs. The lack of formalized training programs caused employees to have eLearning difficulties as reported in these studies (McCullough, 2005; Reich & Schumermann, 2003). Therefore, corporations should take the time to come up with formalized and structured training for any eLearning initiative or technology implementation.

When corporations delegate the implementation of training needs at local levels without a specific direction from upper management, this can cause problems for employees during eLearning implementation and threaten the overall success of eLearning programs. All necessary training should be available to managers, and there has to be training experts manager's can contact for help when needed. Without commitment from managers, even formalized training programs might not be productive.
Leary and Berge (2007) stated that managers' lack of commitment for eLearning is usually a challenge reported by small organizations. There is a wide array of issues involved with managers' preferences, decision-making, prioritizing, and awareness. Leary and Berge (2007) go on to state that if they have a different learning characteristic or if they are accustomed to more traditional learning methods, the adoption of eLearning receives more resistance (p. 1).

Most importantly, top management should justify the need for eLearning and should involve end-users during eLearning implementation. When employees are onboard early, they tend to do their best to support eLearning efforts. To overcome these eLearning disconnections, managers should have a clear organizational strategic plan, a tech-savvy staff, and a good training staff combined with committed managers. Our results showed the majority of employees (72.8%) stated that eLearning led to higher productivity. However, only 41.7% gained higher productivity at work. This implies that eLearning alone cannot lead to improved productivity. Managers should have effective systems to train employees on new eLearning system usage. Higher productivity and satisfaction usually occurs when employees are comfortable using any LMS. With proper training, employees would be more efficient, knowledgeable, and confident using different LMS.

The majority of employees surveyed (74 %) believed that eLearning leads to higher employee job satisfaction, but only 38% were satisfied with eLearning at their job. This disconnection is probably due to the lack of proper training and usage of eLearning systems and the fact that few employees use eLearning on a daily basis. Even those who use eLearning regularly are not properly equipped with the training needed to be effective and efficient. The researchers agreed with a study by Voce (2007), which reported that employees were not currently using eLearning, because they were not sure of eLearning possibilities, they did not have the time, and they thought eLearning was not relevant to their jobs. The current study found that there were employees who lacked confidence in, and disliked eLearning technology. Surveyed participants expressed dissatisfaction for the following reasons: poor quality of eLearning products, lack of accessories, lack of support in learning a new system, and poor Internet connectivity. According to the current study's results, such dissatisfaction has contributed to lower job satisfaction. However, the results also showed that there were satisfied employees who were able to enjoy current technology, because they learned at their own pace and had access to training opportunities that led to development. The impact of eLearning on job performance cannot be underestimated. eLearning continues to become a leading instructional method in workplaces across organizations of various sectors and of varying sizes (Kramer, 2007). With 41.9% of study participants saying their jobs have been easier, and 63.5% stating that eLearning has been beneficial to their work, it is important for corporate leaders to rethink the way eLearning initiatives are implemented in their organizations. How employees react to eLearning can affect the overall performance of the organization.

Employee survey responses show that they are able to understand their job duties better and have had an increase in managing ability, efficiency, and job skills.  According to Kramer (2007), in a study that used the Kirkpatrick Model to measure behavioral changes on the job, learning increased for participants who reacted favorably to eLearning, and job behavior increased if learning increased.  Employees with higher levels of eLearning should show improvement in productivity and job performance, and a reduction in turnover, cost, and absenteeism.  However, current eLearning structure is not always successful.  Some employees surveyed thought that the current work environment is not suitable for eLearning and they have to take extra time outside work to learn various eLearning tools, which causes inconvenience and stress. The study showed a strong positive correlation among job satisfaction, job productivity, job performance, and organizational commitment.  This implies that satisfied employees are likely to be more productive, be committed to their organizations, and work harder on eLearning initiatives to improve their job performances.  Managers should not only focus on technology to be successful.  Technology should be used as an enabler.  The focus should be on making sure employees feel supported.

Suggestions for Further Research

The researchers suggest future researchers explore a larger sample size and increase the number of organizations used in the study to cover different industries. Data collection and analysis should be computed on each company to get a more reflective result that represents a specific company instead of general results representing different companies. In doing so, correlation can be done of individual corporate habits as well as comparison with other corporations. Additionally, there should be inclusion of additional demographic factors not explored in this research such as race, marital status, type of eLearning, and others. With over 91% of surveyed employees using eLearning at work, the researchers believe that different learning styles will impact the effective use of eLearning and successful implementation of eLearning systems and programs. Future researchers should include how learning styles impact the success of eLearning usage and its impact on employee productivity and overall job satisfaction. Furthermore, the outcome of the study will be different if the survey was conducted in other corporations in different industries such primary, secondary, tertiary, and quaternary. For future research, more corporations from different industries should be used in the study. The researchers believe that the more technology-based any industry is the more likely employees are likely to benefit from eLearning.

**CONCLUDING COMMENTS**

This study explored how the use of eLearning in employee training impacts employee satisfaction, productivity, and job performance. The theoretical framework proposed to determine whether eLearning usage correlates with organizational commitment of employees. Study results showed that out of 341 participants surveyed, approximately 38% were satisfied with their jobs, 42% mentioned that job responsibilities have been easier, 48% saw improved job performance, and nearly 42% increased productivity. Approximately 32.5% were more committed to their organizations because of eLearning experience. The most difficult limitation to overcome when implementing eLearning is resistance. eLearning will not be successful in a company culture that is opposed to change. Organizations can lead change by creating climate for change, engaging and establishing the organizations, and implementing and sustaining the change. Kotter (2007) stated that leaders must do eight things right in order to successfully transform their organizations. These eight steps in Kotter's change model are increase urgency of change, build a team for change, develop a clear vision, communicate and share the vision, empower people to clear obstacles, create short-term goals or wins, show persistence, and make the change permanent (Kotter, 2007). Future studies might use other methodologies to further quantify the differences noted here.

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## BIOGRAPHY

Prince Ellis is Program Chair/Director of Information Technology at Brown Mackie College, Cincinnati. He has experience in Higher Education, Information Technology, Business Administration and Financial Services.  He is also the founder & president of PERN eLearning Solutions, an Information Technology consulting company that specializes in technology training, eLearning, and consulting services. He can be reached at pellis@edmc.edu.

Kevin D. Kuznia is an Assistant Professor of Finance at the Forbes School of Business at Ashford University.  His research appears in journals such as Performance Improvement Quarterly. He can be reached at Kevin.Kuznia@Faculty.Ashford.edu.