Perception of Employees of Manufacturing and Services Sectors in Pakistan to Manage Work Stress Through eLearning

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Abstract: This is a cross sectional study conducted in Pakistan. Detailed questionnaire was used to collectthe data. Total sample size of 686 included 331 from manufacturing sector and 355 from services sector. Study revealed that use of eLearning for stress management is equally preferable by employees of manufacturing and services sectors. Our study proved that there is a positive correlation between Perception for eLearning for corporate training and perception for eLearning for Stress Management. Corporate training through eLearning is equally preferable in manufacturing and services sectors. Training for Stress Management through eLearning is also equally preferable in manufacturing and services sectors. The study also concluded using AMOS diagrams and Sobel test that eLearning for Corporate Training plays a mediating role between the eLearning advantages and eLearning for Stress management. Using AMOS path diagrams were prepared using Structured Equation Model (SEM) which further substantiates the results and validates the conclusions we made using different hypothesis. Our results were confirmed through this model for manufacturing as well as for services sectors.

Key words: eLearning · Work Stress · Stress Management · Manufacturing Sector · Services Sector

INTRODUCTION

Different disciplines like Health, Sociology, Management, Human Resource Management, Organizational Behavior and Psychology have dealt with stress, which reflects the importance of the stress. Stress, its causes, its impact on family life of employees, impact on the health of an individual; mental as well as physical health and behavior of an individual are the main areas of study for decades. Besides, impact on the profitability and productivity of an organization is equally important, which shows the importance of stress and its severe impacts.

Our study may or may not validate solutions required to cope with stress. The degree of stress, reasons of stress at different management levels, impact of stress (mental (psychological), physical or behavioral) can be different for different individuals even under the same working environment. Therefore, differenttype of strategies may be required to cope with the stress and help the employees even working in the same organization and even at the same level of hierarchy.

The term 'stress' "has so many different meanings that it is confusing, elusive and heard so often its meaning is frequently distorted and its implications taken for granted" [1]. Perceptions of stress vary across cultures and societies [2].

Cox [3] described that there is a growing consensus on the definition of stress as a psychological state with cognitive and emotional components and its effects on the health of both individual employees and their organizations.

Stress is a universal element experienced by employees around the globe. Stress has become major problem for employer particularly in developing nations where the employer does not realize the impact of stress on employee performance, which ultimately results in critical managerial dilemmas [4].

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Work-related stress is a pattern of physiological, emotional, cognitive and behavioral reactions to some extremely taxing aspects of work content, work organization and work environment. When people experience work-related stress, they often feel tense and distressed and feel they cannot cope. Due to globalization and changes in the nature of work, people in developing countries have to deal with increasing work-related stress [5].

Manufacturing and Services Sectors in Pakistan: Majorsectors contributing to the growth of the Manufacturing sector in Pakistan includes Textile, Cement, Dairy Products, Shoe Industry, Paper Industry, Sugar, Transportation, Hotel and Restaurants etc. The shift from a manufacturing-based economy to a service-based economy has also changed the conditions and characteristics of work and made it difficult.

The basic characteristic of services sector is the production of services instead of products. Services (also known as "intangible goods") include attention, advice, experience and discussion.

According to Giga *et al.* [6] Services (commerce; financial and professional services; media, culture, graphical industries; post and telecommunications; education; health; public services; utilities; hotels, catering and tourism), these sectors are vital in virtually all national economies.

Services sector is the largest and the fastest growing sector in the world economy, accounting largest share in total output and employment in most developed countries. The share of services sector in total GDP is 47 percent in low-income countries, 53 percent in middle-income countries and 73 percent in high-income countries.

It is expected that rising trend of services sector would continue, to gain more and more importance through advancement in the area of knowledge based and skill oriented activities. The rising consumer and business demand is steaming from service related activities in manufacturing firms and enhancing role of IT.

Bowen & Ford [7] suggested that managing employees in the service sector is different than managing employees in the manufacturing sector on several fronts: first, the process of delivering a service involves the customer in the production process; second, service employees must respond to each situation in a unique manner; third, "emotional labor" is an important part of the work in a service setting; and fourth, service employees not only perform work, they are required to manage the service delivery process. It is the human

element of service delivery that distinguishes management practice in a service setting from management practice in a manufacturing setting.

In case of Pakistan, the shares of services are increasing in all sectors of economy over the period. In fact, the growth rate of services sector is higher than the growth rate of agriculture and industrial sector. Services sector accounts for 54 percent of GDP of Pakistan and little over one-third of total employment. Services sector has strong linkages with other sectors of economy; it provides essential inputs to agriculture sector and manufacturing sector. Major sub-sectors are finance and insurance, transport and storage, wholesale and retail trade, public administration and defense.

eLearning: eLearning can be defined as the delivery oflearning through interactive electronic technology which may include any or combination of the following:

- Internet
- Intranets
- Extranets
- Satellite broadcasts
- Audio/video tapes
- Interactive TV and
- CD-ROM

Corporate sector world-wide keeps arranging trainings in-house and also keep sending its employees at different levels of hierarchy for training to different cities and countries but this involves a huge cost to them. This practice is very common in the corporate sector specially the big group of companies and multinational companies which arrange training as part of their policy to improve the working skills of their employees or we can call it as part of their Human Resource Development policy. All such trainings are conducted in-house by the seniors and experts or by the consultants hired for such purpose. In the developed countries there are many consultants/consulting groups who have the experts to arrange different kind of trainings and they have the capabilities to customize the training modules according to the specific requirements of their corporate clients.

Like traditional system of learning, eLearning have its advantages and disadvantages. Mainly, the learners have the advantage of flexibility, convenience, reduced time and cost. Learners can learn at any time, at any place and any pace according to his work and family requirements. Learners have the flexibility to select the course content according to their specific requirements.

eLearning is also a new concept in Pakistan and at an early stage of its introduction in academic institutes and at corporate level. How well it can be used to manage work stress in corporate sector and how the employees in manufacturing and services sector perceive it is an important area in our study. This will open new horizons of training in corporate sector.

These days stress is widely spread and common phenomenon. It affects not only the individuals, the companies, organizations, their personal families and last but not the least the whole society. We believe that reasons of stress may also be different in different societies and even the methods to cope with such situation may also differ.

eLearning and Stress Management: Due to the rapidchanges in technologies and research, professionals need to update themselves regarding the development taking place in the markets to keep themselves competitive. Learners now also face futures with multiple job changes. Therefore, corporate sector keeps on arranging different courses and also sends their executives for trainings abroad. These trainings are face-to-face as well as online. Recently, eLearning is becoming popular due to the advantages it offers to the corporate sector and also facilitates to the employees/learners. Besides, in order to remain competitive in the global market, the consultants and trainers need to develop efficient and effective learning systems to cater the requirements of the ever-changing and developing corporate sector.

Advances in the technology and technology-led changes in the society are creating new paradigms in the area of training. This study focused on the training of executives at all levels to manage stress. The researcher also studied the perception and opinion of the employees about their training. eLearning is not as common in Pakistan as in the developed countries.

Our study focused on the issues like:

- Whether the employees of corporate sector would like to have face-to-face training or online training.
- Whether organizations are ready and have the facilities available for eLearning and can afford to embark on eLearning delivery of content.
- What is the opinion of the employees of corporate sector and how do they assess and view the advantages of eLearning delivery of different course contents?
- Do the corporate employees think that eLearning is the suitable delivery method to manage work stress?

Literature Review

Work Stress: Cooper & Sutherland [8] described that research evidence indicates that a wide variety of workplace conditions cause stress, strain or pressure that are associated with a wide range of physical and psychological ill-health problems. However, for many people at work the changing nature of work environment is a potent source of stress and pressure.

In the UK alone, 97% of senior human resources professionals believe stress is the biggest threat to the future health of the workforce [9].

As discussed by Rahman & Zanzi [10] studies in organizational behavior support the position that organizational structure affects performance, employee satisfaction and job related Stress.

Occupational stress cannot be considered just an occasional, personal problem to be remedied with tranquilizers. It has become a global phenomenon, affecting all level of workers, all type of industries; whether manufacturing or service oriented, all workplaces and almost all the countries. However, the reasons and the level of stress and impact of stress may differ from industry to industry or even from country to country.

Harvey & Brown [11] argue that the major stressors in the workplace includes changes in technology, downsizing, sudden reorganization and unexpected changes in the work schedules, competition for promotional opportunities, lack of participation in the decision making and lack of employee empowerment.

Impact of Stress on Companies: Stress affects the employees' performance that indirectly fests the organization survival because if employees reduce their work efficiency and can't work best for their organizations, so this situation couldn't be only affected the organizational performance but also lost healthy shares in an increasingly competitive market and may even jeopardize their survival [12].

The International Labor Organization (ILO) reports that inefficiencies arising from occupational stress may cost up to 10 percent of a country's GNP [13].

The stress that workers face is related to 21st century economic realities. Researchers and social commentators have pointed out that the computer and communications revolutions have made companies more efficient and productivethan ever before [14].

According to European Foundation [15] work-related stress is a pattern of reactions that occurs when workers are presented with work demands that are not matched to their knowledge, skills or abilities and which challenge their ability to cope.

Pettinger [16] mentioned that cost incurred due to work stress include the following:

- The cost of having staff off sick for stress-related injuries and illness.
- The cost of paying compensation to those who can demonstrate and prove that their lives have been damaged or ruined as the result of stress at work.
- Costs in reputation and, invariably, business losses as the result of publicity surrounding specific media coverage in cases of accident, disaster, bullying, victimization, harassment and discrimination. These costs include customers taking business elsewhere when able to do so because no one likes to be associated with this kind of organization. Such organizations experience increased difficulties in recruiting and retaining high quality, expert staff, because nobody with any choice in the matter wishes to work for such a concern.
- Organization and managerial costs involved in investing and defending individual and collective complaints of stress and in remedying and resolving these.
- Costs involved in having to manage, address and resolve related issues, for example, where staff have turned to drink and drugs as a relief from stress.
- Wider humanitarian concerns that bring costs with them. Known, believed and perceived stress-related illnesses and injuries cause general damage to workplace and human morale and motivation.

The International Labour Organization (ILO) [17] report on stress trawled the following data:

- UK: financial cost of stress: £5.3bn (Confederation of British Industry)
- K, USA, Germany, Finland: 10 per cent of workers with depression, anxiety, stress
- UK: nearly 3 out of 10 employees experience mental health problems (5 per cent major depression)
- UK: stress levels – loss of 80m working days per annum 3-4 per cent of GNP spent on mental health problems in the European Union

Researchers are in general agreement that work stress is a serious problem in many contemporary organizations that requires management at individual and the organizational levels [18].

Study of the Sarwar, A. [19] revealed that work stress impacts not only the individual but also their families like their kids and social life in manufacturing as well as services sector, however, higher impact is on employees and their families in services sector.

According to World Health Organization (WHO) [20] for solutions in preventing or decreasing work-related stress may include improving workers' individual abilities, skills and coping capacity through training and education, such as courses in:

- Time management,
- Dealing with aggressive customers,
- Lifting heavy goods,
- Using appropriate machines or equipment,
- Stress management and assertiveness training,
- Seeking support from family, community and religion and spirituality.

Work stress has a considerable importance for the organization considering that it has a direct impact in employee's health and consequently impacts work performance [20].

Why Does Elearning Matter?: In this new knowledgebased economy, the gap between the existing knowledge of employees and what is necessary to know is growing day by day. However, with the growth of the internet, online education is accessible to more people than ever: people in corporations, schools and universities, government and other sectors profit from its growth.

Mobbs [21] defined terms related to eLearning as follows:

- IT is the computer infrastructure, hardware and software used to process data and deliver information.
- ICT (Information and Communication Technologies) is the combination of computing and communication technologies (including computer networks and telephone systems) that connects and enables systems such as the Internet.
- ILT (Information and Learning Technologies) is the use of information and communication technologies to support the core business of schools, colleges and Universities - the delivery and management of learning.

eLearning is not the only term used when referring to 'learning using the internet'. Related terms are sometimes broader in their meaning, sometimes not. According to Tsai & Machado [22] the terms "eLearning," "distance learning," "web-based learning" and "online learning" are often used interchangeably.

According to Tsai & Machado [22] eLearning is mostly associated with activities involving computers and interactive networks simultaneously. The computer does not need to be the central element of the activity or provide learning content. However, the computer and the network must hold a significant involvement in the learning activity.

Web-Based Learning: Is associated with learningmaterials delivered in a Web browser, including when the materials are packaged on CD-ROM or other media.

Online Learning: Is associated with content readilyaccessible on a computer. The content may be on the Web or the Internet, or simply installed on a CD-ROM or the computer hard disk.

Distance Learning: Involves interaction at a distancebetween instructor and learners and enables timely instructor reaction to learners. Simply posting or broadcasting learning materials to learners is not distance learning. Instructors must be involved in receiving feedback from learners.

Models of eLearning: There are two models of eLearningas mentioned below:

Synchronous eLearning (Instructor Facilitated): Meansthat all the eLearners and tutor are logged on at the same time and can communicate directly and indirectly. Synchronous eLearning may include web chat, chat rooms and application sharing.

Asynchronous eLearning (Self-Directed, Self-Pace): Means that tutor and eLearners are not logged on simultaneously, it means there is no fix time for any communication like synchronous eLearning. In this kind of model course content is server based and delivered on the demand of the learners work station. Course content is available to the eLearners, 24 hours 7 days a week and eLearners can connect to the content according to their own convenience and at their own pace. Both the models

can be used at the same time depending upon the type internet connection and availability of their eLearners schedule.

Types of eLearning Approaches: There are three differenttypes of approaches as mentioned below:

Enhanced Approach: eLearning solutions are used aspart of the face-to-face learning using web based technology.

Blended Approach: This kind of approach means thatmore than 75 % portion is online and for the remaining part learning is face-to-face.

Online Approach: This kind of learning is mainlydelivered through online. However, face-to face meetings are possible for activities like exams.

As mentioned by Anand [23] following are some of the ways in which eLearning is different from classroom training.

The Audience's Attitude & Skills Should Be Oriented Towards eLearning: The success of eLearning is oftendetermined by the attitude (maturity, internal motivation) and the skills (time-management, stress-management and technological competence) of the learners.

The Content Presentation Needs to Be More Engaging: In the absence of external bonds, the learner's attention could stray more easily in an Online/eLearning course. eLearning needs a conscious effort towards personalizing the eLearning content delivery.

Cognitive Dissonance Should Be Anticipated: In eLearning content creation, you need to project the worries that will assail your learners; and you will have to build the resolution of those issues in the course.

Accuracy in Content and Language Are More Important: You need to be much more careful while dealing with content and presenting it to your audience. In a classroom training program, you can correct your error easily and without fatal consequences – but in eLearning, your error may remain undetected for a long time. Also remember that language errors that aren't even noticed in an on-ground training program become monsters in eLearning.

Open Channel for Communication & Doubt Resolution Is Essential: Classroom trainings are characterized bydirect synchronous communication. This helps boost the learner's confidence. eLearning either has no two-way communication (CBTs) or it has asynchronous communication and doubt-resolution (I am not speaking of the virtual classrooms here.) Special attention has to be given to these details in eLearning.

Future of eLearning: As business world has also startedusing the eLearning considering its advantages and benefits to corporations, eLearning is here to stay and one can always expect to have more advanced techniques and more widely use of eLearning. eLearning will offer endless benefits and opportunities to corporations which use it wisely and will play vital role in reducing their cost and increasing the benefits to the employees and corporations in general.. It may be beyond our imagination that what a wonderfulfuture of eLearning is going to be and the benefits its users will be having in future.

eLearning is efficient as it eliminates distances and subsequent commutes. Distance is eliminated because the e-learning content is designed with media that can be accessed from properly equipped computer terminals and other means of Internet accessible technology.

Requirements for eLearning: According to Tai [24] inorder to develop eLearning, target audience, content, design, technology and infrastructure are factors that need to be considered. The content has to be relevant and learners should be able to apply what's learned at the workplace. Technology and infrastructure have to be suitable for delivery of content to learners.

As explained by Tai [24] corporations can develop eLearning internally, outsource it, or do it in partnership with another entity. For internal development, corporations need to assess if they have all the skill sets, technology, instructional system designs, graphics and content specialists required.

eLearning is not just about technology and delivery of content. It requires understanding what is going on with the learners and how to support them. What is the perception of the learners? One potential issue that corporations may face is a lack of motivation on the part of the learner [24].

eLearning and Corporate Trainings: According to Guri-Rosenblit [25] eLearning, is a relatively new phenomenon and relates to the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online.

Different from face to face learning, both the learners and tutors can resort to information technology to facilitate communication and information transfer.

eLearning is nonlinear i.e. learners determine how, what and when they access information. It is a dynamic process - transformed, personalized and customized on demand in response to learner and environmental variables. It is available on demand and just in time. The learner controls their own interaction with the content and presentation [26].

Corporate managers are constantly looking for more cost-effective ways to deliver training to their employees. eLearning is less expensive than traditional classroom instruction. In addition, many expenses – booking training facilities, travel costs for employees or trainers, plus employee time away from the job – are greatly reduced [27].

As mentioned by Capper [28] corporate eLearning is one of the fastest growing and most promising markets in the education industry. While the market is currently relatively small and early- stage, it is poised to explode. The on-line training market is expected to nearly double in size every year, reaching approximately $11.5 billion by 2003.

There is no doubt that corporations are increasing their emphasis on eLearning. Even so, more corporations are looking at such options as blended learning, using more than one method of delivery (e.g., eLearning plus traditional classroom delivery of content, to increase training effectiveness), even if it raises costs [27].

eLearning is a tool which is being used not only by the educational institutions but also by the corporate sector. As the availability of the internet facility will improve the potential for eLearning will also increase not only in the developed countries but also in then developing countries.

There are numerous names for online-learning activities including, eLearning, web-based learning (WBL), Web-based instructions (WBI), Web-based Training (WBT), Internet-based Training (IBT), Distributed Learning (DL), Advanced Distributed Learning (ADL), Distance Learning (DL), Online Learning, mobile learning (or m-learning), remote learning, off-site learning and a-learning (any time, any place, any pace, anywhere learning) [29].

Zornada [30] concluded his study as follows:

- Organisations are using eLearning as an increasing part of deliverring on the training strategy;
- Organisations using eLearning are substituting eLearning based delivery of training and content for what was previously classroom based training;
- eLearning is seen bymany oganisations as a low risk e-business initiative and can be used as a pilot to the deployment of more comprehensive business critical intranet of extranet portals;
- Many of the companies at the forefront of internet technologies, e. g. Motorola and Cisco, have been at the forefront of pursuing eLearning and have set aggressive targets for the proportion of overall training to be migrated to eLearning;
- There are real benefits to eLearning which suggest that in many training areas, it yields superior outcomes to classroom-based learning for the learner;
- eLearning offers real cost and productivity benefits for organisations;
- eLearning is not universally applicable to all learning areas or interest to corporates;
- The cost of developing and implementing an e-learning platform is significant and offers opportunities for independent, third party organisations to develop and deliver this functionality to corporate clients (as is the case with Hudson Learning Solutions and Qantas);
- The significant effort required to develop, update, convert and maintain content suggests that externally sourced content and out-sourced content management services will emerge as a key feature of effective corporate e-learning implementations, as was found in the cases reviewed.

As mentioned by Lee [31] there is no one-size-fits-all approach to eLearning program development. The purpose of corporate eLearning programs is very simple. These programs are designed to engender a change in people's ability to perform a job or professional function.

According to Sharma [32] eLearning services have gained attraction in the corporate sector because they play an instrumental role in educating corporate professionals and keeping their skills up to date. These are preferred by many organizations across the world over the standard classroom training sessions, since they are easier to host and can be customized for each group of learners. The companies they can opt for custom e-learning solutions for Marketing, Human Resources, Operations and other departments.

eLearning to Manage Work Stress in Corporate Sector:
Stress management is very important in corporations as it have serious impacts not only on the individual who is facing it but it also have serious impact on productivity, quality and profitability of the organization.

Stress is among the most common and harmful issues being faced by the people in the corporate sector. Stress is unique and personal to each individual. What is relaxing to one person can be stressful to another. Similarly different individuals may have different ways of relaxing.

Like any other area of training/knowledge Stress in corporate sector can also be managed through eLearning rather different consulting firms are offering customized solutions to corporate sector in different developed countries.

There is a possibility that online training courses will be available from anywhere employees may have internet access. This eLearning series may include all of the online training tutorials listed and is provided in an interactive, self-paced format. Employee can retake any or all of the training material for his training as often as he wants.

eLearning course helps managers, human resource professionals, supervisors, workers and individuals with an interest in:

- Managing job stress
- Enhancing productivity
- Improving work life balance

eLearning Courses:

- Are Cost effective way of training a large number of employees in different locations at the same time
- Encourage a collective vision among staff on stress management
- Are Used with minimum disturbance to an employee's daily work routine
- Saves time on out of office training
- Can be revised, updated and customized from time to time according to the particular requirements of the target organization.
- Can be accessed remotely across different geographical locations.
- Offers flexibility

- Can track and record data and evaluations
- Are also available off the shelf, can be used according to the requirements.
- Provide the flexibility to the employees that they can retake the Stress Management courses as many times as you like.
- eLearning courses are available on demand. The learner controls their own interaction with the content and presentation.

Last but the least, one of the key benefits facilitated by eLearning is that, despite of real geographical boundaries between and among societies, there are no real boundaries in learning environments.

Our study also tried to find out the attitude and perception of the employees working in the corporate sector of Pakistan, towards the usage of eLearning tools for training and specifically training related to managing work related stress. We may be able to highlight the differences that appear due to different socio-demographic and the type of organization they are working with. Whether they want to have eLearning tools or they prefer class room, face-to-face learning.

MATERIALS AND METHODS

Research Objectives
Researcher Find out The:

- Perception of Employees about e-learning to manage stress and their willingness to use eLearning to manage stress.
- Find out similarities and difference of all above in manufacturing and services sector of Pakistan.

Research Question: How eLearning is perceived by theemployees and what do they prefer for stress management.

Research Hypotheses: Different hypotheses which weretested from the data collected using different appropriate statistical techniques are as follows:

Hypotheses No. and Hypotheses Description

H_o1: There is no relation between the perception foreLearning for corporate Training and eLearning for stress management.

H_o2: Perception of eLearning is same in manufacturing andservices sectors

H_o3: Corporate training through eLearning is equallypreferable in manufacturing and services sectors

H_o4: Training for Stress Management through eLearningis equally preferable in manufacturing and services sectors

H_o5: eLearning for Corporate Training has no mediatingimpact on eLearning advantages and eLearning for stress management.

H_o6: eLearning for Corporate Training has no mediatingimpact on elearning perception and eLearning for stress management.

Research Instrument: Questionnaire was selected as atool for observation. From this tool, primary data was collected. Detailed Questionnaire was designed for the purpose of data collection. Response was measured on the likert scale (1 for strongly disagree and 5 for strongly agree).

Target Population: Target population for collecting thedata was the different level of managers working in the manufacturing and services sector public limited and private limited organizations in Pakistan. The target population for the study included managers working at different levels, married, male/female employees; having kid (s), in organizations having their setups/offices in and around Lahore City.

Duration of Study: Study was conducted during October2012 to February 2013 in Lahore, Pakistan. Study conducted was cross-sectional.

Location of Study: The data was collected from city ofLahore which is one of the main cities of Pakistan. Lahore is having Industrial estates and number of large industries established in and around Lahore. Large number of companies offering services also has their regional and head offices in Lahore.

Data Collection: Multi-stage sampling was used to collectthe data.

Stage 1: Selection of Public and Private Companies ineach sector having offices in and around Lahore.

Stage 2: Finding details of employees (male as well asfemales) working at different levels of management

Stage 3: Finding a contact person/HR manager to help tofill the questionnaires.

Stage 4: Data collected from employees (depending upontheir availability and willingness to participate in research study) working at different levels of management; married and having kid(s).

Questionnaires were handed over to HR managers and other concerned managers to help to fill the questionnaires from the managers working in their organizations. Around 1,100 questionnaires were distributed, whereas, total duly filled questionnaires received back were 686. So the response rate was almost 62.36 %.

Statistical Analysis: IBM SPSS, Microsoft Excel andAMOS were used for the data entry and to perform different type of statistical analysis. Different statistical techniques wereused to analyse the data.

Reliability Test of Questionnaire: To check the reliabilityof the data Cronbach's alpha was calculated. "Cronbach's alpha is a test for a model or survey's internal consistency, called a 'scale reliability coefficient sometimes.

Cronbach's Alpha score for all the major sections of the questionnaire and for the complete questionnaire was greater than 0.70. Results of Cronbach Alpha's score shows our questionnaire was reliable enough to be tested at any place. The scores mentioned in Table 1 show high level of reliability of our questionnaire.

Demographic Profile of Respondents: Table 2 containsthe details of the data which was gathered from 686 respondents. The analysis of demographic data represents the analysis of different characteristics of the participants of the study.

Both the sectors had almost equal representation as we had 52 % respondents from services sector and 48 % from manufacturing sector. From the demographic profile we can see that more than 90 % of our respondents were male. More than 80 % respondents were having more than 3 years' experience and fall between the age of 26 and 45 years. Highest number of respondents in services were from financial and telecommunication sectors. Others were from Courier and Logistic Services,

Table 1: Cronbach's Alpha Results

Parts of Questionnaire	Cronbach's Alpha	No. of Items
Perception of eLearning	0.879	11
eLearning for Corporate Training	0.905	16
eLearning for Stress Management	0.941	12

Table 2: Demographic Profile

Category		Frequency (%)
Gender	Male	621 (90.5)
	Female	65 (9.4)
Age	Under 26	69 (10)
	26-35	313 (45.6)
	36-45	176 (25.6)
	46-45	97 (14.1)
	56 +	31 (4.5)
Salary	Less than Rs.50,000	264 (38.4)
	Rs. 50001-Rs.100000	259 (37.7)
	Rs.100000-Rs.150000	87 (12.6)
	Rs.150001-Rs.200000	46 (6.7)
	More than 200000	30 (4.3)
Qualification	Less than Bachelor	36 (5.2)
	Bachelor	218 (31.7)
	Higher than Bachelor	432 (62.9)
Experience	=< 1 year	37 (5.3)
	>1 years and =< 3 years	86 (12.5)
	>3 years and =< 6 years	122 (17.7)
	> 6 Years and =< 9 Years	131 (19)
	> 9 years	310 (45.1)
Co Functions	Manufacturing	331 (48.2)
	Services	355 (51.7)
Industry Type	Textile	77 (11.2)
	Financial Sector	163 (23.7)
	Dairy & Beverages	22 (3.2)
	Leather & Foot wears	48 (6.9)
	Paints and Chemicals	48 (6.9)
	Paper & Packaging	37 (5.3)
	Automobile	21 (3)
	Telecommunication	77 (11.2)
	Electronic and Electronics	19 (2.7)
	Others	174 (25.3)
Computer Facility	Desktop with Internet	316 (46)
	Laptop with Network	130 (18.9)
	Laptop with Wi-Fi	240 (34.9)
Office Internet	Everyone with IP Address	299 (43.5)
	Selected Managers	195 (28.4)
	Wi-Fi for whole Office	192 (27.9)
Mgmt. Level	Senior Management	124 (18)
	Middle Management	384 (55.9)
	Lower Management	178 (25.9)

Software Houses and Internet Service Providers (ISP's) under the headof industry type. Highest numbers of respondents i.e. 66 % were from middle management level. Employees from Public and Private limited companies have a ratio of 65 % and 35 % respectively. Overall we had a good mix of respondents from both the sectors.

Data Analysis:

Hypotheses 1

	Pearson's Correlation		
H_o1: There is no relation between the perception for eLearning for corporate Training and eLearning for stress management			
H_A1: There is relation between the perception for eLearning for corporate Training and eLearning for stress management	0.572	686	0.000*

From the output, it is obvious that the correlation coefficient between perception of eLearning for Corporate training perception of eLearning for stress management was 0.572 and ($p<0.05$) so from these figures we can conclude that "there is a positive correlation between perception of eLearning for Corporate training and perception of eLearning for stress management."

*Significant Difference if $p<0.05$

Hypothesis 2:

H_o2: Perception of eLearning is same in manufacturing andservices sectors.

H_A2: Perception of eLearning is not same in manufacturingand services sectors.

As shown in the Table 3, p-values are greater than 0.05, which means we perception of eLearning is same among the employees in manufacturing and services sectors. Mean values of manufacturing and services sector are almost same.

Hypothesis 3:

H_o3: Corporate training through eLearning is equallypreferable in manufacturing and services sectors.

H_A3: Corporate training through eLearning is not equally preferable in manufacturing and services sectors.

As shown in the Table 4, p-values are greater than 0.05, therefore, it means that use of eLearning for corporate training is equally preferable among the employees in manufacturing and services sectors. Mean values of manufacturing and services sector are almost same.

Hypothesis 4:

H_o4: Training for Stress Management through eLearningis equally preferable in manufacturing and services sectors.

H_A4: Training for Stress Management through eLearningis not equally preferable in manufacturing and services sectors.

As shown in the Table 5, p-values are greater than 0.05, which means acceptance of null hypothesis and conclusion is that use of eLearning for stress management is equally preferable among the employees in manufacturing and services sectors. Mean values of manufacturing and services sector are almost same.

Hypothesis 5:

H_o5: Mediating Variable (eLearning for Corporate Training) has no mediating impact on eLearning advantages and eLearning for stress management.

H_A5: Mediating variable (eLearning for Corporate Training) has a significant impact as a mediator on eLearning advantages and eLearning for stress management.

Results of the above model in Figure 1 are mentioned in Table 8:

When eLearning_advantages goes up by 1, eLearning_corporate_training goes up by 0.713. When eLearning_corporate_training goes up by 1, eLearning_stress goes up by 0.426. When eLearning_advantages goes up by 1, eLearning_stress goes up by 0.24.

Mediation Impact Using Sobel Test (Using Preacher and Hayes (2004) Simple Mediation Script (Sobel Analysis): The same impact can be verifiedthrough Sobel Test. Results of Sobel tests are given in Table 7.

From the path diagram in Figure 1 and results of the Sobel test ($p < 0.05$), it is concluded that Mediating variable has a significant impact as a mediator on eLearning advantages and eLearning for stress management.

Table 3: Results of T-test

Perception of eLearning in Manufacturing and Services Sectors

	Co Functions	N	Mean	Std. Deviation	Standard Error Mean	P
Perception	Manufacturing	331	3.94	0.748	0.041	0.902
	Services	355	3.95	0.717	0.038	0.902

*Significant Difference if p<0.05

Table 4: Results of T-test

Preference of eLearning for Training in Corporate Sector

	Co Functions	N	Mean	Std. Deviation	Standard Error Mean	P
eLearning Corporate Training	Manufacturing	331	3.81	0.0636	0.035	0.281
	Services	355	3.86	0.702	0.038	0.279

*Significant Difference if p<0.05

Table 5: Results of T-test

Use of eLearning for Stress Management in Manufacturing and Services Sectors

	Co Functions	N	Mean	Std. Deviation	Standard Error Mean	P
eLearning for Stress Management	Manufacturing	331	3.71	0.632	0.035	0.665
	Services	355	3.69	0.704	0.039	0.663

*Significant Difference if p<0.05

Table 6: Results of Mediation Impact

Regression Weights: (Manufacturing and Services Sectors) - Default model

			Estimate	S.E.	C.R.	P
eLearning_corporate_training	<---	eLearning_advantages	0.713	0.028	25.155	0.000*
eLearning_stress	<---	elearning_corporate_training	0.426	0.044	9.728	0.000*
eLearning_stress	<---	eLearning_advantages	0.240	0.045	5.332	0.000*

*Significant Difference if p<0.05

Table 7: Results of Sobel Test

Indirect Effect and Significance Using Normal Distribution

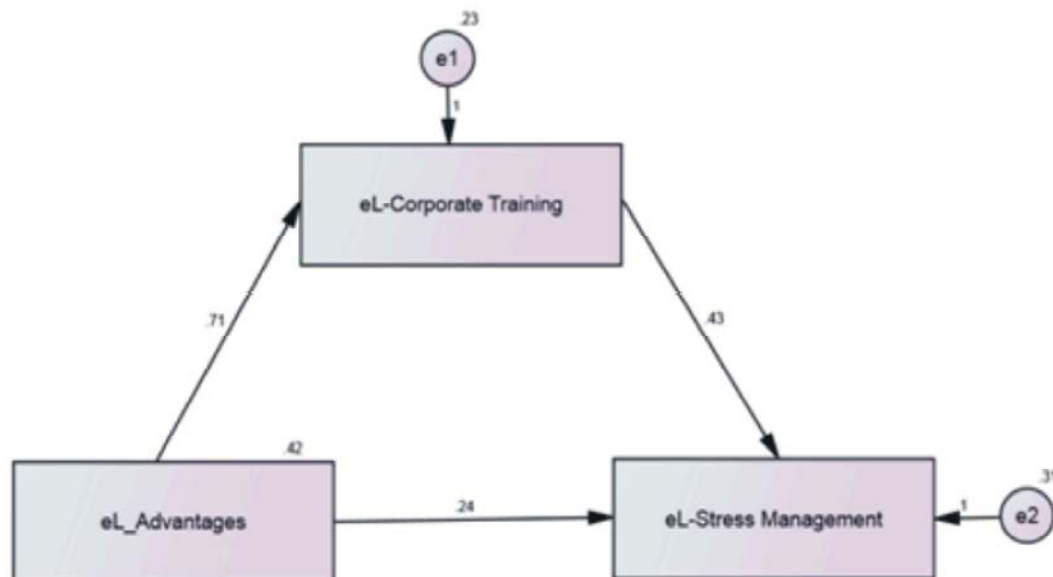|	Value	S.E.	LL95 CI	UL 95 CI	Z	P
Effect	0.3038	0.0336	0.238	0.3696	9.0542	0.0000*

*Significant Difference if p<0.05

Fig. 1: Mediation Analysis (eLearning for Corporate Training as Mediator) Manufacturing and Services Sectors (Both)

Table 8: Results of Mediation Impact

Regression Weights: (Manufacturing and Services Sectors) - Default model)

			Estimate	S.E.	C.R.	P
elearning_corporate_training	<---	perception	0.435	0.031	14.107	0.000*
elearning_stress Mgmt.	<---	elearning_corporate_training	0.510	0.036	14.148	0.000*
elearning_stress Mgmt.	<---	perception	0.150	0.033	4.529	0.000*

*Significant Difference if p<0.05

Table 9: Results of Sobel Test

Indirect Effect And Significance Using Normal Distribution

	Value	S.E.	LL95 CI	UL 95 CI	Z	P
Effect	0.222	0.0223	0.1783	0.2656	9.9662	0.0000*

*Significant Difference if p<0.05
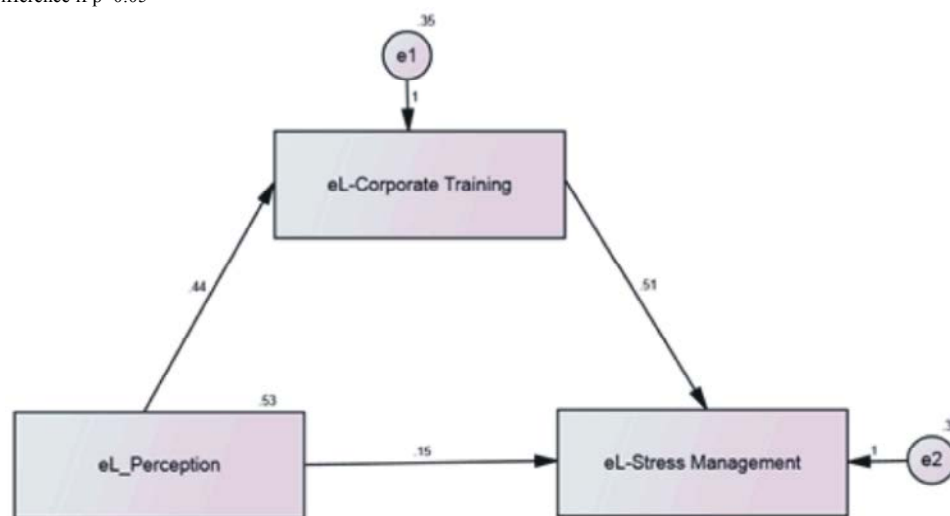
Fig. 2: Mediation Analysis (eLearning for Corporate Training as Mediator)
Manufacturing and Services Sectors (Both)

Hypothesis 6:

H_o6: Mediating Variable (eLearning for Corporate Training) has no mediating impact on eLearning perception and eLearning for stress management.

H_A6: Mediating variable (eLearning for Corporate Training) has a significant impact as a mediator on eLearning perception and eLearning for stress management.

Results of the model in Figure 2 are mentioned in Table 8.

When perception goes up by 1,e elearning_corporate_training goes up by 0.435. When elearning_corporate_training goes up by 1, elearning_stress goes up by 0.51. When perception goes up by 1, elearning_stress goes up by 0.15.

Mediation Impact Using Sobel Test (Using Preacher and Hayes (2004) Simple Mediation Script): The sameimpact can be verified through Sobel Test. Results of Sobel tests are given in Table 9.

From the path diagram given in Figure 2 and results of the Sobel test (p < 0.05) it is concluded that Mediating variable has a significant impact as a mediator on eLearning advantages and eLearning for stress management.

The unstandardized path coefficients for the Model in Figure 3 are reported in Table 10.

It is obvious from the path diagrams in Figure 3 that overall employees have positive perception to use eLearning for stress management.

The unstandardized path coefficients for the Model in Figure 4 are reported in Table 11:

It is obvious from the path diagram in Figure 4 that overall employees have positive perception to use
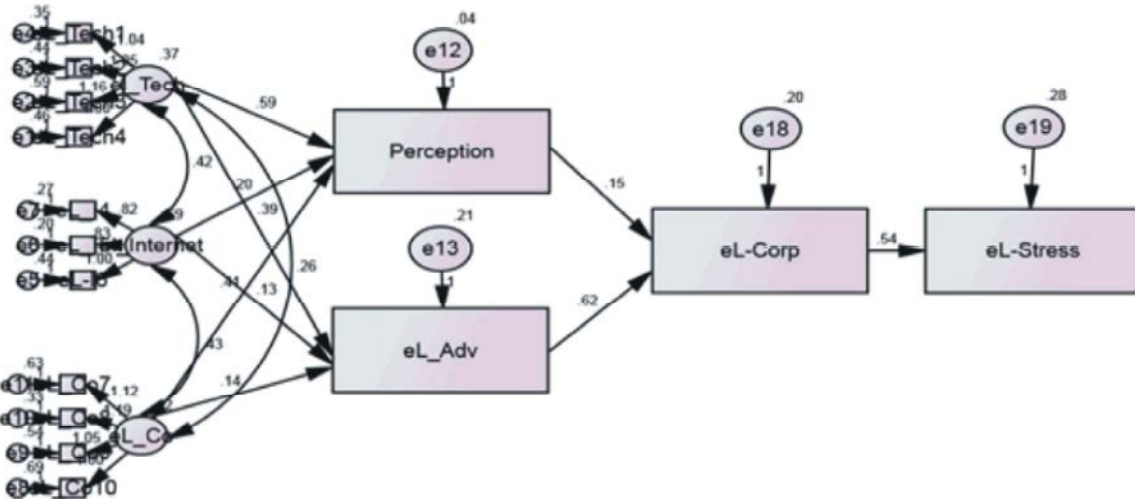
Fig. 3: Path Diagram (Showing Perception of Employees to Use eLearning for Stress Management) Manufacturing Sector

eL_Tech   = Personal Technology Orientation
eL_Internet   = Internet Understanding and Usage
eL_Co   = IT Orientation in Company
eL_Perception   = Perception of eLearning
eL_Advantages   = Awareness ofeLearning and its Advantages
eL_Corporate   = Perception of using eLearning for Corporate Training
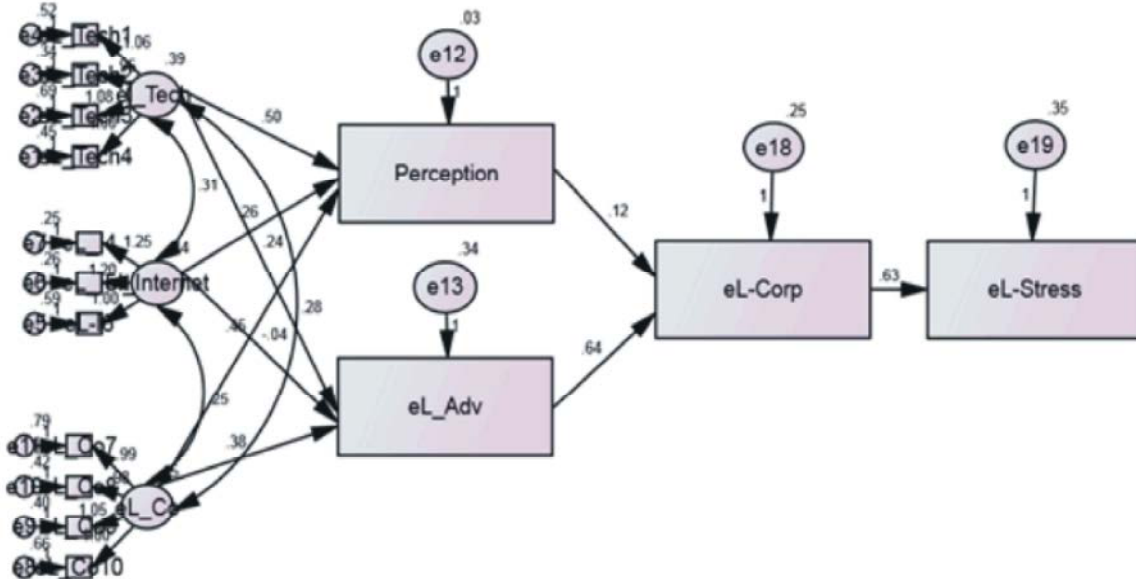eL_Stress   = Perception of using eLearning for Stress Management

Fig. 4: Path Diagram (Showing Perception of Employees to Use eLearning for Stress Management) Services Sector

eL_Tech   = Personal Technology Orientation
eL_Internet   = Internet Understanding and Usage
eL_Co   = IT Orientation in Company
eL_Perception   = Perception of eLearning
eL_Advantages   = Awareness ofeLearning and its Advantages
eL_Corporate   = Perception of using eLearning for Corporate Training
eL_Stress   = Perception of using eLearning for Stress Management

Table 10: Regression Weights: (Showing Perception of Employees to Use eLearning for Stress Management) Manufacturing Sector

			Estimate	S.E.	C.R.	P
eLearning_advantages	<---	el_Tech	0.389	0.118	3.3	0.000*
perception	<---	el_Tech	0.59	0.088	6.721	0.000*
perception	<---	el_Internet	0.2	0.076	2.63	0.009*
eLearning_advantages	<---	el_Internet	0.128	0.111	1.157	0.247
perception	<---	eL_Co	0.41	0.069	5.923	0
eLearning_advantages	<---	eL_Co	0.139	0.095	1.456	0.145
eLearning_corporate_training	<---	perception	0.145	0.042	3.443	0.000*
eLearning_corporate_training	<---	eLearning_advantages	0.62	0.052	12.032	0.000*
Per_eLearning_Technology4	<---	el_Tech	1			
Per_eLEarning_Technology3	<---	el_Tech	1.16	0.106	10.922	0.000*
Per_eLearning_Technology2	<---	el_Tech	1.049	0.094	11.149	0.000*
Per_eLearning_Technology1	<---	el_Tech	1.038	0.089	11.647	0.000*
Per_eLearning_Internet6	<---	el_Internet	1			
Per_eLearning_Internet5	<---	el_Internet	0.83	0.05	16.484	0.000*
Per_eLearning_Internet4	<---	el_Internet	0.82	0.053	15.427	0.000*
Per_eLearning_Company10	<---	eL_Co	1			
Per_eLearning_Company9	<---	eL_Co	1.055	0.106	9.984	0.000*
Per_eLearning_Company8	<---	eL_Co	1.192	0.107	11.192	0.000*
Per_eLearning_Company7	<---	eL_Co	1.122	0.113	9.927	0.000*

*Significant Difference if p<0.05

Table 11: Regression Weights: (Showing Perception of Employees to Use eLearning for Stress Management) Services Sector

Regression Weights: (Services - Default model)

			Estimate	S.E.	C.R.	P
eLearning_advantages	<---	el_Tech	0.245	0.123	1.981	0.048*
perception	<---	el_Tech	0.497	0.07	7.11	0.000*
perception	<---	el_Internet	0.265	0.051	5.148	0.000*
eLearning_advantages	<---	el_Internet	-0.044	0.095	-0.458	0.647
perception	<---	eL_Co	0.451	0.052	8.759	0.000*
eLearning_advantages	<---	eL_Co	0.382	0.087	4.373	0.000*
eLearning_corporate_training	<---	perception	0.125	0.042	2.94	0.003*
eLearning_corporate_training	<---	eLearning_advantages	0.643	0.044	14.524	0.000*
Per_eLearning_Technology4	<---	el_Tech	1			
Per_eLEarning_Technology3	<---	el_Tech	1.079	0.101	10.732	0.000*
Per_eLearning_Technology2	<---	el_Tech	0.953	0.079	12.049	0.000*
Per_eLearning_Technology1	<---	el_Tech	1.059	0.092	11.468	0.000*
Per_eLearning_Internet6	<---	el_Internet	1			
Per_eLearning_Internet5	<---	el_Internet	1.203	0.093	12.97	0.000*
Per_eLearning_Internet4	<---	el_Internet	1.25	0.095	13.097	0.000*
Per_eLearning_Company10	<---	eL_Co	1			
Per_eLearning_Company9	<---	eL_Co	1.047	0.093	11.315	0.000*
Per_eLearning_Company8	<---	eL_Co	0.98	0.089	10.995	0.000*

*Significant Difference if p<0.05

eLearning for stress management. Perception for using eLearning for corporate training and stress management basically depends upon the Technology orientation of the employees, understanding of using internet, IT orientation in the company and awareness of advantages of eLearning.

Employees in Services sector have better perception and more inclined to use eLearning for corporate training/stress management than employees of manufacturing to use eLearning for stress management.

CONCLUSIONS

Results of our study are summarized as follows:

- Reliability of the questionnaire using Cronbach Alpha: The score of this test was 0.962 > 0.70. This assured our questionnaire was reliable enough to be tested at any place. Besides, it means our test was 96.20 % reliable. This was a high level score showing the reliability of the questionnaire.

- According to the study we had 331 respondents from manufacturing sector and 355 respondents from the services sector. That means sample size is good enough to represent both the sectors.
- Our study proved that there is a positive correlation between Perception for eLearning for corporate training and perception for eLearning for Stress Management.
- Perception of eLearning is same among the employees in manufacturing and services sectors.
- Corporate training through eLearning is equally preferable in manufacturing and services sectors.
- Stress Management through eLearning is also equally preferable in manufacturing and services sectors.
- eLearning for Corporate Training plays a mediating role between the eLearning advantages and eLearning for Stress management.
- Path Diagrams prepared using Structured Equation Model (SEM) also substantiates the results and conclusions we have made using different hypothesis. Our results were confirmed through these models for manufacturing as well as for services sectors.

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