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A Study on Technology Stress Management

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Abstract: Technology stress management can be a challenging type of stress to experience, especially if you are not a geek or any type of technical wizard. It's the kind of stress experience when we are interacting with our sleek, newly-innovative technical gadgets, and *they* are getting the upper hand.

IT industry has been upgrading all its older version technologies to cloud based technologies like SAP Hana migration, Cloud CRM, In-house virtualization and so on. Through these technologies advancements, the technical employees might face technology stress management. Thus it is important to study about perception of employees towards the technology stress management and the identify the symptoms of technology stress management in IT industry. This will help the management to reduce the technology stress management and improve its productivity.

The primary objective of this project is to study the technology stress management level among the employees at IT industry. The secondary objectives are to analyse the attitude of employees towards the technological advancements, determine the level of personal life invasion among the employees through the technological migration process at IT industry and to know the effectiveness of training given for technical employees about the cloud migration process. It also includes identify the level of techno-security among the employees and to develop an actionable solutions to reduce the technology stress management level among the employees

Even though technology enables us to do many things at the same time, our brains become overloaded. We call this "Multitasking Madness" and we are seeing more and more of it every day. We have fallen into the trap of, "Because we can, we do." We can find ourselves unable to think clearly and we become forgetful and incapable of having a restful sleep as the stimulation from the overload keeps our brain working overtime.

The project includes determining the technology stress management level of all the employees at IT industry, Chennai. Based on the assessment, the distress level among the employees can be controlled using stress busters. Once the employee reaches the optimal stress level, they will be able to give their optimal performance and improve the productivity of the employees.

Keywords: *Stress Management, Kinds Of Stress, Improve Productivity, Analysis Attitude Of Employees.*

I. INTRODUCTION

We generally believe that the stress is caused by the external events and the dynamics of the environment. But we need to emphasis the fact that the Stress is caused by our reaction to the external environment. The manner in which we perceive and understand the changes or the particular event creates same event can bring happiness and cause Stress in two different people depending upon how they react to it. When students are asked to prepare a presentation, some may take it to be an opportunity to reveal their talents and to improve upon their weakness while the other students may be perturbed by it for the fear of his weakness. So, Stress is our reaction to external events and it can be positive or negative depending upon how we react. It is the general wear and tear of the body machine that takes place due to extra demands put on it.

We can define Stress as "body's non-specific response to any demand made on it". Stress is not by definition synonymous with nervous tension or anxiety. On one side Stress provides the means to express talents and energies and pursue happiness on the other side it can also cause exhaustion and illness, either physical or psychological. Stress is a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize. Organizational role stress is the stress arising out of the set of functions an individual performs in an organization.

There is no shortage of factors within the organization that can cause stress. Pressures to avoid errors or complete tasks in a limited time, work overload, a demanding and insensitive boss, and unpleasant coworkers are a few examples.

Technological stress is the negative psychological link between people and the introduction of new technologies. Where ergonomics is the study of how humans react to and physically fit with machines in their environment, technostress is a result of altered habits of work and collaboration that are being brought about due to the use of modern information technologies at office and home situations.

The causes of technological stress amount to:

- the quick pace of technological change
- lack of proper training
- an increased workload
- lack of standardization within technologies
- the reliability of hardware and software

Four Aspects of Technostress: 1. Physical aspects are eye strain, backaches, headaches, stiff shoulders, neck pain, joint pain, dry mouth and throat, muscle tension, stomach discomfort, keyboard related injuries, chest pain, rapid heart rate, irritable bowel syndrome, increased blood pressure, difficulty in breathing, and others. 2. Emotional aspects like irritability, loss of temper, having a high state of anxiety when separated from a computer monitor, feelings of indifference, frustration, lack of appreciation, depression, guilt, feeling fearful, paranoia that leads to avoiding computers, negative attitudes and others. 3. Behavioral aspects consists of feeling overly comfortable with computers, overspending on computers, insomnia, uncooperativeness and unwillingness, using computer terms in non-computer conversation, smoking, social withdrawal in favor of terminal time, cruising computer stores, drinking alcohol, and so on. 4. Psychological aspects are composed of information overload in order to find, analyze, evaluate, and apply it in right context with resources, underwork and routine jobs lead to frustrations when underemployed or when the work done involves only routine operations, job security, where people have a fear that computer may replace human roles, professional jealousy produced by technological competency, de-motivation due to

prolonged period of any technological activity, uncertainty about job role caused by an increased time working with technology.

There are five conditions that are classified as "technostress creators": “Techno-overload” describes situations where use of computers forces people to work more and work faster. “Techno-invasion” describes being “always exposed” where people can potentially be reached anywhere and anytime and feel the need to be constantly connected. The regular work-day is extended, office work is done at all sorts of hours, and it is almost impossible to "cut away". “Techno-complexity” describes situations where the complex computer systems used at work force people to spend time and effort in learning and understanding how to use new applications and to update their skills. People find the variety of applications, functions, and jargon intimidating and consequently feel stressed. “Techno-insecurity” is associated with situations where people feel threatened about losing their jobs to other people who have a better understanding of new gadgets and computing devices. “Techno-uncertainty” relates to short life cycles of computer systems. Continuing changes and upgrades do not give people a chance to acquire experience with a particular system. People find this unsettling because their knowledge becomes rapidly outdated and they are required to re-learn things very rapidly and often.

Technostress can be dealt with by:

- Getting adequate, user friendly software
- Creating better communication within the environment
- Creating a level of reassurance, patience, and stability within the environment
- Maintaining an ever-present system of training and education to new and old technologies
- Avoid using technology
- Fostering sharing of computer related knowledge within the organization
- A responsive and easily reached help-desk can allay managers’ anxiety and concerns, guide them in using and familiarizing with new computer applications and assure them in case of problems
- Keeping employees “involved” in the general scheme of things in the context of new computer systems. The more involved and familiar they are, the less techno - stressed they would be
- Encouraging people to “experiment” and innovate in the context of computer use
- Encouraging employees to communicate, discuss, and share their knowledge about computers

Ways to eliminate technostress are:

- Conducting stress management activities to lessen and eliminate the problem of technostress
- Exercises, like deep breathing, and yoga or tai chi
- Progressive muscle relaxation
- Staying healthy and having a proper diet
- Taking frequent breaks
- Listening to music
- Staying calm
- Maintaining a sense of humor
- Meditating
- Getting counseling
- Effective time management
- Job rotation
- Taking a technology time-out
- Establishing a teamwork relationship
- Balancing positive and negative thoughts
- Having an awareness of technostress
- Using positive self talk and recognize that technostress is natural

NEED FOR THE STUDY

Technology stress management can be a challenging type of stress to experience, especially if you are not a geek or any type of technical wizard. It’s the kind of stress experience when we are interacting with our sleek, newly-innovative technical gadgets, and *they* are getting the upper hand. It seems that we can’t get through a day without using these technical gadgets and computers.

IT industry has been upgrading all its older version technologies to cloud based technologies like SAP Hana migration, Cloud CRM, In-house virtualization and so on. Through these technologies advancements, the technical employees might face technology stress management. Thus it is important to study about perception of employees towards the technology stress management and the identify the symptoms of technology stress management in IT industry. This will help the management to reduce the technology stress management and improve its productivity.

SCOPE OF THE STUDY

Even though technology enables us to do many things at the same time, our brains become overloaded. We call this "Multitasking Madness" and we are seeing more and more of it every day. We have fallen into the trap of, "Because we can, we do." We can find ourselves unable to think clearly and we become forgetful and incapable of having a restful sleep as the stimulation from the overload keeps our brain working overtime.

The project includes determining the technology stress management level of all the employees at IT industry, Chennai. Based on the assessment, the distress level among the employees can be controlled using stress busters. Once the employee reaches the optimal stress level, they will be able to give their optimal performance and improve the productivity of the employees.

OBJECTIVES

PRIMARY OBJECTIVES:

A study on technology stress management level among the employees at IT industry

SECONDARY OBJECTIVES:

- To analyse the attitude of employees towards the technological advancements
- To determine the level of personal life invasion among the employees through the technological migration process at IT industry
- To know the effectiveness of training given for technical employees about the cloud migration process.
- To identify the level of techno-security among the employees

- To develop an actionable solutions to reduce the technology stress management level among the employees

II. REVIEW OF LITERATURE

Literature Review is basically a comprehensive view of the previous researches on the topic of study. It is characterized by a logical flow of ideas, appropriate referencing and use of terminology. A literature review brings background information into full scope and the scholar as well as reader gets to know the background of the study, the reasons for this particular topic and also what would the study lead to.

TRAINING:

Goldstein (2009) defines training as a systematic acquisition of skills, rules, concepts or attitudes that results in improved performance in another environment.

Flippo (2009) defines training as the act of increasing the knowledge and skills of an employee for doing a particular job. He further states that "no firm has a choice of whether to train or not; the only choice is that of method"

Hinrichs Bramley (2009) defines training as any organizationally initiated procedure, which is intended to foster learning among organizational members in a direction contributing for organizational effectiveness. The new training cycle which is an endless belt of training and development shows how validation is intrinsically linked to design and delivery, evaluation is linked to objectives and outcomes, and results linked to the organizational needs

A broader definition still focuses on the extent to which training "meets its objectives". Descy and Westphalen (2010) define this more precisely as training that "meets its objectives as defined by its funding body".

Although employee training has become more prevalent today than 15 years ago, many companies conduct training simply for appearance sake (Hughey & Mussnug, 2010), instead of focusing on adult learning and development (Wills, 2010; Hollenback & Ingols,

Burgoyne and Cooper (2013) and Snyder et al. (2013) discuss evaluation in terms of feedback and the resultant issue of control. A decision must be made about how and to whom evaluation feedback will be given. Evaluators are usually conversant with the purpose of the evaluation once they commence it, but this may be because they have a generalised view that the purpose of evaluation is to produce a certain set of data, or because they have determined what purpose the client wishes the evaluation to have. It is possible however that an evaluator may have no specific purpose. The identification of unanticipated side effects of the program may be an important evaluative purpose.

Marshall and Schriver (2015) suggested that many trainers misinterpreted the Kirkpatrick Model and believed that an evaluation for knowledge was the same as testing for skills. Because skills and knowledge were both included in level two of the Kirkpatrick Model, evaluators assumed skills were tested when only knowledge was tested. As a result, Marshall and Schriver recommended a five-step model that separated level two of the Kirkpatrick Model into two steps. The five-step model included the following:

- Measures of attitudes and feelings
- Paper and pencil measures of knowledge
- Performance demonstration measures of skills and knowledge
- Skills transfer, behavior modification measured by job observation
- Organizational impact measurement of cost savings, problems corrected, and other outcome measures

Bushnell (2015) also created a modification to the Kirkpatrick Model by identifying a four-step process of evaluation. Bushnell's model included evaluation of training from the development through the delivery and impact.

Step one involved the analysis of the System Performance Indicators that included the trainee's qualifications, instructor abilities, instructional materials, facilities, and training dollars.

Step two involved the evaluation of the development process that included the plan, design, Development, and delivery.

Step three involves trainees' reactions, knowledge and skills gained, and improved job performance.

Step four involves Outcomes which were defined as profits, customer satisfaction, and productivity.

With the advancement of training into the electronic age and the presentation of training programs electronically, evaluation of these types of programs is also necessary.

Although the Kirkpatrick Model has been applied for years to the traditional faceto-face educational and technical training, recently the model was applied to non- traditional electronic learning. Horton (2015) published *Evaluating E-Learning* in which he discussed the application of the Kirkpatrick Model to evaluate e-learning.

Bridger (2009), states that Technology stress management can be externalized and projected into social and environmental settings in an attempt to deny of avoid their comprehension and the essence of changed conditions on the other hand, the effort to understand their nature must be encouraged and developed if Technology stress management and conceptual forces are to be regulated and managed.

Katz and Khan (2009), Technology stress management is treated as a stimulus response to an environmental character, an individual attribute, an interaction between individuals his of her environment.

Robert. L. Veninga and James. P. Spradly (2010), Job reformers often include work Technology stress management in their frontal attack, the changes they seek go far beyond merely reducing Technology stress management. This spend a zealous campaign, complaining, organizing and urging others to join their cause. When they meet with resistance from other workers or management, they fight harder than grow discouraged. We found Technology stress management Managers in every occupation. Technology stress management managers cope with their job by identifying and controlling work Technology stress management.

Gore (quotedm, 2010), studied the reaction over a two-year period of middle-aged, blue-collar Men who had lost their job because of plant closing, for most of her indicators of Technology stress management She concluded that " the individuals more at risk were those who both experienced considerable unemployment and were inadequately supported". The field of Technology stress management Research permanently replete with competing terminologies Technology stress managementors. Without them Technology stress

management can become decisive and lead to ghost-term phenomena, Jacobs

An individual way of responding during times of Technology stress management is very important, **Peter. F. Drucker (2011),** an important thing to know about one performs is whether one perform well under Technology stress management, of whether one needs a highly structured and predictable environment. Few people work well in both ways. Again and again people who have been very successful in large organization flounder miserably when they move into small organization.

M.J.Mathew 2010, recent publications and survey indicates a majority of the firms offer some kind of formal Technology stress management management program for their workers. These Technology stress management program or less formal change in policies or procedures. The emphasizes is on attempting to communicate to the employee, through an extensive orientation programme what the person might expect in the new Job. The fact that Technology stress management itself is a main concern for management is itself a good sign.

Ladies Home Journal (201), it takes only a fraction of a second for Technology stress management, whether it's thinking about work or a loud noise, to set off a chain reaction that affects everything from our eyesight to the muscles in our legs. The response begins in the brain, where the hypothalamus releases a fight-or-flight chemical called Corticotrophin Releasing Hormone (CRH). CRH travels to our Pituitary gland, which secrets Adrenocorticotrophin Hormone (AVTH), which travels to the adrenal glands on top of our kidney. The result is adrenaline, a powerful stimulant. In an instant all those changes occur.

Kris Cole (2011), experiencing grinding teeth, clenched fists, forgetfulness or irritability, raised blood pressure, generalized anxiety; mood swings or rigid view cold be Technology stress managementes. Some Technology stress management is good for us it motivates us, makes us alive, and gives us the derive to succeed. It gives the 'get up and go' to 'get up and go'. Others Technology stress management is debilitating, draining and undermines our physical emotional welfare.

McGrath (2012) has shown that past experience (either in the form of familiarity with the situation due to past exposure or in the form of practice and training to cope with the situation) can significantly alter the level of subjectivity experienced Technology stress management and change relation to that Technology stress management. Various researches has shown that the level of perceived job related Technology stress management is associated with physical health.

III. RESEARCH METHODOLOGY

Fundamental to the success of any formal marketing research project is a sound research design. A good research design has the characteristics of problem definition, specific methods of data collection and analysis, time required for research project and estimate of expenses to be incurred. The function of a research design is to ensure that the require data are collected accurately and economically. A research design is purely and simply the framework or plan for an analysis of data. It is a blue print that is followed in completing a study. It resembles the architect`s blue-print (map) for constructing a house. It may be worthwhile to mention here that a research design is nothing more than the framework for the study ensures that the study will be relevant to the problem and the study will employ economical procedures.

Claire seltizetal defines Research Design as "Research design is a catalogue of the phases and facts relating to the formulation of a research effort. It is the arrangement of collection and analysis of data in a manner that aims to combine relevant to the research purpose with economy in procedure".

Three important about research design are

1. The design of investigation should stem from the problem
2. Whether the designs are productive in a given problem setting depends on how imaginatively they are applied. An understanding of the basic design is needed so that they can be modified to suit specific purpose
3. The three basic design are as follows
    i. Exploratory Research design
    ii. Descriptive Research design
    iii. Casual Research design

The Research design used in the study is descriptive research design

RESEARCH DESIGN

Descriptive research design is also called explanatory design. This is the one that simply describes something such as demographic characteristics. The descriptive study is typically concerned with determining frequency with which something occurs or how two variables vary together.

DATA SOURCES

After identifying and defining the research problem and determining specific information required to solve the problem, the researcher`s task is to look the type and sources of data which may yield the desired results. Data sources are of two types through which data is collected.

Data sources may be classified as

1. Primary data
2. Secondary data

PRIMARY DATA

Primary data is the original data collected by the researcher first hand. It is collected for the first time through field survey. These are those that are gathered specifically, for the problem at hand. The various sources for collecting primary data are questionnaire, observation, interview etc. The primary source used for the study is questionnaire.

SECONDARY DATA

Secondary data is the information which is already available in published or unpublished form. When the needed information is collected from the census of population available in a library means then it is a secondary data. It is also used for collecting historical data. The various sources of secondary data are books, periodicals, journals, directories, magazines, statistical data sources etc. The secondary source used for this study is company profile, scope, need, review of literature.

RESEARCH INSTRUMENTS

Research instrument are the instruments which is used for gathering or collecting information. The instruments used in the study are

1. Direct questions
2. Close end questions
3. Dichotomous questions
4. Multiple choice questions

DIRECT QUESTIONS

Direct questions are just what their names indicate. They explicitly ask for the desired data. However the directness of the question also relates to the way a response is interpreted.

CLOSE END QUESTIONS

Such questions are also called fixed alternative questions they refer to those questions in which the respondent is given a limited number of alternative response frame which he/she is to select one that most closely matches his/her opinion or attitude.

DICHOTOMOUS QUESTIONS

A dichotomous question refers to one which offers the respondent a choice between only two alternatives and reduces the issue to its simple terms. The fixed alternatives are of the type, yes/no, agree/disagree, true/false etc.

MULTIPLE CHOICE QUESTIONS

A multiple choice question refers to one which provides several set alternatives for its answers. Thus, it is a middle ground between free answers and dichotomous question.

SAMPLING

Collecting data about each and every unit of the population is called census method. The approach, where only a few units of population under study are considered for analysis is called sampling method. There are two main categories under which various sampling method can be put.

The two categories are

1. Probability sampling
2. Non-probability sampling

The sampling method adopted for the study is convenience sampling under non-probability sampling.

NON-PROBABILITY SAMPLING

In non-probability sampling, the chance of any particular unit in the population being selected is unknown, since randomness is not involved in the selection process. But this does not mean that the findings obtained from non-probability sampling are of questionable value. If properly conducted their findings can be accurate as those obtained from probability sampling. The three frequencies used non-probability designs are

1. Judgment sampling
2. Convenience sampling
3. Quota sampling

CONVENIENCE SAMPLING:

In this method, the sample units are chosen primarily on the basis of the convenience to the investigator. The units selected may be each person who comes across the investigator

SAMPLE FRAME:

A Sample frame may be defined as the listing of the general components of the individual units that comprise the defined population.

SAMPLE DESIGN

Sample design is the theoretical basis and the practice means by generalizing from characteristics of relatively few of the comprising population. It is the method by which the sample is chosen.

FINDINGS

- Most of the respondents are Male
- Most of the respondents are in the age between 20-25 & 25-30 years
- Most of the respondents education qualification is Under Graduate Level
- Most of the respondents are partially confident with the computer technologies
- Most of the respondents are in technical work
- Most of the respondents are single.
- 94% of the respondents spent a lot of time everyday reading an overwhelming amount of e-mail messages.
- 68% of the respondents are forced to change their work habits to adapt new technologies.
- 54% of the respondents are forced by the technology to do more work than they can handle.
- 44% of the respondent are forced by technology to work with very tight time schedule.
- Most of the respondents give extremely high importance for communication factor.
- Most of the respondents attended training for one day.
- Most of the respondents used external type of trainer.
- Most of the respondents say no that training programme not eases the SAP HANA DBMS migration process.
- Most of the respondents satisfactory in training programme organized in IT industry.

SUGGESTIONS

- Stress Management has gained good recognition among the individuals, but still the awareness level among all the employees should be increased
- Stress Management must be promoted among the employees by regularly conducting Stress Management training programme.
- The employees of the organization must develop emotional stability to ensure the physical and mental health of the self and that of the serving organization.
- Stress can be negatively affects the performance of the employees in the organization, to avoid this, personally the employees should have the mental stability.
- Proper communication need to be given prior to the technological migration process. This will enhance the morale of the employees towards the new database.
- Training duration of SAP HANA DBMS can be increase from 1 day to 1 week. This will create better awareness about the new technical features and ease the process of database migration

CONCLUSION

There are many signs of Technology stress management. For example, technology allows us to do many things simultaneously. If we work at home, we can cook our dinner in the microwave oven, talk on our cellular phone, send e-mail, do a load of laundry, and be printing a document all at the same time. However, even though technology enables us to do many things at the same time, our brains become overloaded.

We call this "Multitasking Madness" and we are seeing more and more of it every day. We have fallen into the trap of, "Because we can, we do." We can find ourselves unable to think clearly and we become forgetful and incapable of having a restful sleep as the stimulation from the overload keeps our brain working overtime.

This research project is not anti-technology, it is anti-technology stress management only. Through this study, the researcher has understood the various issues related to the technology stress management among the employees of IT industry. Based on the numerous findings, few valuable and actionable suggestions have been provided to the management of IT industry to reduce the technology stress management to enhance the overall productivity of the technical employees.

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