Identification of Factors influencing Online Learning for Behavioural Competencies

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Abstract:

The world today consists of digital natives who are not only comfortable with the digital medium, but are naturally adept at using this medium for fulfillment of their many needs and requirements. It is not uncommon to see young learners use online medium for seeking directions, obtaining information, and communicating with their peers. Businesses and professional means of communication too have evolved to embrace the online medium for multifarious uses and benefits. So, this study aimed to identify the factors of online learning on the perceived impact on the users with respect to their behavioural competencies. An extensive literature in the form of books, articles, research papers were collected and reviewed. The findings of the study reveal the internal and external factors of online learning and also their impact on behavioural competencies amongst the users of behavioural learning programs. This conceptual paper may also be useful to the institutions which are offering online learning courses, to the learners. The discussion and findings of this conceptual paper will also be helpful to the various organizations which are encouraging their stakeholders to pursue these online courses. The researchers who are working in this area can find this to be a useful one.

Key Words: *Online Learning, Behavioural Competencies, online behavioural learning program*

Introduction:

With the advent of online media and the reach provided by the internet, trainers involved in imparting behavioural training are being encouraged periodically to modify and explore options of utilizing the online space for learning and development. Online learning has practically been replacing traditional, classroom based training programs due to focus on quick access to information. Practitioners involved in the content creation, delivery, impact management and execution of online behavioural training programs are challenged by the absence of a face-to-face interaction with their target audience in the online program. However, in tune with the demands of speed and the connectivity, they have been trying to adopt and adapt to online learning.

Online learning, including the technology used and the methods of delivery employed, is a favoured concept in the Learning and Development area due to convenience, reachability and cost benefits associated with it. This mode can use multiple media like video conferencing, web-based training, mobile-applications and online portals. These technologies help in the delivery of teaching which is "new, better, cheaper, and faster" than traditional classroom methods (Bardach, 1997; Taylor, 2001).

The benefits of online learning or e-learning have been widely discussed in the study. These include cost-effectiveness, timely content, and flexibility in access.

"E-learning has four advantages: (1) freedom to decide when each online lesson will be learned, (2) no time constraint, (3) freedom to express thoughts and (4) accessibility to the course's online materials" (Bouhnik & Marcus, 2006).

While the efficacy of online learning has been constantly under debate, it remains to be seen if the use of online media affects the deliverables specifically for training of behavioural competencies.

Objectives of the Study:

This paper is aimed at finding out various factors influencing online learning and on behavioural competencies of the learners after their participation in an online behavioural learning program.

1. To identify the internal factors of online learning on the perceived impact on behavioural competencies amongst users of online behavioural learning programs.

2. To identify the external factors of online learning on the perceived impact on behavioural competencies amongst users of online behavioural learning programs.

Literature Review:

In the past, there had been various studies that were conducted on online learning and training for behavioural competencies. However, there seemed to be a gap when it came to studying the combination of both online learning and behavioural competencies specifically for employees in IT organizations in India. Previous studies have outlined constructs such as "Self-efficacy", "Motivation to learn", "Organization support", and "Management support". All these studies have been conducted individually and they did not help in establishing a relationship amongst the variables. Lack of sufficient information on the correlation between the variables and their impact (exclusively on online learning for behavioural competencies for employees in IT organizations) gave rise to a need for a hypothetical representation which could help in growing the extent of the study.

The digital revolution has successfully created a wellconnected environment, wherein information dissemination and understanding is facilitated comfortably using telecommunication technology. The successes of many online programs offered in platforms such as MOOC (Massive online open courses) have entailed users across the world to gain access to cross-national sources of knowledge, enabling a truly global outreach for any training program. For today's networked world, which reflects diversity of thinking, the information for learning should not be just from one source but should be assembled from many sources. It should also be delivered in a multi-channel system with different communication mediums to enable optimal learning (Mukhopadhyay & Parhar, 2001).

The internet has today created a global classroom. With multiple sources of information (mobile devices, computers, video-conferences etc.), it has become important to understand what constitutes online learning. Different terminologies used for online learning have also impacted the understanding of online learning. This has made it difficult to arrive at a generic definition for online learning. Online learning is often interchangeably used with terms such as "e-

learning", "Internet learning", "distributed learning", "networked learning", "telelearning", "virtual learning", "computer-assisted learning", "web-based learning" and "distance learning".

It is identified that all these terms implied that the learner is at a distance from the tutor or instructor. It also indicated that this distance was bridged by the use of "technology" or by communication devices so that the learner can access the content, interact with the instructor, engage in peer interaction, and gain access to troubleshooting in case of problems during usage (Ally, 2008). Hence, it is clear that in an Online learning mechanism, the learner and tutor are distanced from each other, with technology being an enabler in closing this distance.

Self-efficacy:

One of the earliest definitions for Self-efficacy provided by studies was "People's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1982).

Self-efficacy is the self-belief that one has the capability to perform a particular behavior.

However, studies have also indicated that self-efficacy perceptions influence decisions about what behaviours to undertake (Bandura, Adams, & Beyer, 1977). A research study reinstated the relationship between the learners' belief on their capability and their decisions on whether to undertake a behavior (Betz & Hackett, 1981). Many studies have also elaborated on the effort exerted by the learners and their persistence in trying those behaviours (Brown & Inouye, 1978; Barling & Beattie, 1983).

Online learning programs demand a learner to be adept with the usage of a computer. The interface needs to be clear and the learner needs to feel that he is capable of using this interface. Computer self-efficacy, then, refers to a belief of one's capability to use a computer.

This dimension consists of three distinct but interrelated measures: "Magnitude", "Strength", and "Generalizability" (Compeau & Higgins, 1995).

The "Magnitude" of computer self-efficacy is the level of capability to use the computer, as expected by the learner. The "Strength" referred to how confident the learner maybe regarding his or her ability to perform various computer related tasks. The "Generalizability" of computer self-efficacy reflected the degree to which the capability judgment of the learner is limited to a particular domain of hardware and software configurations. Individuals with higher computer self-efficacy generalizability would be expected to be able to efficiently use multiple softwares

and different computer systems, while those with lower computer self-efficacy generalizability would be capable of using only particular softwares or computer systems.

Hence, the first factor identified for this study, in relevance to the fact that online learning uses technology and computer applications, was "Self-efficacy" of the learner. This construct was measured through the dimensions of "Magnitude", "Strength", and "Generalizability", of the self-efficacy of the learner; and the scales were adapted from the study by Compeau and Higgins.

Motivation to Learn:

Motivation is a well-researched concept that spans the domains of marketing, behavioural science and social psychology. There exists considerable evidence in the behavioural science literature to indicate that an individual's performance is influenced not only by his ability, but also by how motivated he/she is to perform (Porter & Lawler, 1968). Choice and independence enjoyed by the learners in the selection of training programs becomes an important indicator of motivation. It was emphasized through studies that trainees who perceived that they had more freedom to attend a training program reported better reactions after their training (Hicks & Klimoski, 1987).

Behavioural training programs lead to perceptible shifts in an individual's reactions and relationships with people around them. For a learner, the drive to go through an external stimulus towards changing their pre-learnt behaviours possibly needs much more effort than learning any other skill or attribute (Wexley & Latham, 1981). A probable determinant for this motivation may be the choice provided to the learner for the uptake of the program. The aspect of Trainee choice can manifest in two forms. One is the presence or absence of the provision of trainee choice. Secondly, even in cases where the choice is given to a trainee, organizational settings may indicate whether this choice is actually provided to the trainee (Martocchio & Dulebohn, 1994).

The aspect of choice was investigated through a conceptual framework of "procedural justice", and it was found that learning outcomes could be different on the basis of the nature of choice provided to the learner, as well as on the reception or rejection of that choice (Folger & Greenberg, 1985).

Another study called this as the "Fair price effect" where it was noticed that learners tend to accept decisions and their consequences if they have participated in making these decisions.

Likewise, when the outcomes are not favorable, in spite of their participation in decisionmaking, the effect was termed as the "Frustration effect" (Folger, Rosenfield, Grove, & Cokran, 1979). Hence, from an organizational training perspective, the factor of trainee choice and participation has significant implications.

From the above studies, the following dimensions have been identified as determinants for "Motivation to learn" amongst the users of online programs for behavioural competencies.

The dimensions are: "Trainee choice provided", "Trainee choice met" (Martocchio & Dulebohn, 1994) and perceived benefits from the program, reflected as "Personal benefits",

"Career benefits" and "Job benefits" (Baldwin, Magjuka, & Loher, 1991).

 Ease of Use:

This dimension refers to "the degree to which a person believes that using a particular system would be free of effort." This is derived from the definition of "ease"- which is the "freedom from difficulty" or great effort.

"Effort" is a term denoting a finite resource that "a person may allocate to the various activities for which he or she is responsible" (Radner & Rothschild, 1975). When an application is perceived to be easier to use, it is more likely to be accepted by the user. (Davis, 1989).

Extensive research on self-efficacy supported the significance of the perceived "ease of use". It is defined as "judgments of how well one can execute courses of action required to deal with prospective situations"(Bandura, 1982).

A string relationship was found between "Ease of use" and "Ease of learning" and was hence concluded to be congruent (Whiteside, Jones, Levy, & Wixon, 1985). Studies on how people learn new systems suggested that learning and using were not separate, disjoint activities.

Learners are motivated when they perform the actual work directly and try to "learn by doing" as against learning with the help of manuals or tutorials (Carroll &Carrithers, 1984; Carroll & McKendree, 1987).

Davis' scale for "Ease of use" is adapted for this study since these are "developed, refined, and streamlined in a several-step process followed by a theoretical analysis from a variety of perspectives, including: expectancy theory; self-efficacy theory; behavioural decision theory; diffusion of innovations; marketing; and human-computer interaction, etc." (Davis, 1989). The scale consists of three dimensions: "Ease", "Quickness" and "Mental effort".

Content of the Program:

The contents of any program are different from just the information available in the program. The knowledge content for online programs need to be correct, integral, logical, easy to read, and practicable, to encourage learners to use the online programs (Duffy, 2001).

The DeLone and McLean's Information System Success Model touched on six dimensions of system success which include System quality (ability of the system to provide highly interactive system which is available anytime for the user) and Information quality (the ability of the online learning program to provide appropriate information that addresses the need of the user) which together affect both use and user satisfaction of any IS system (Wang, Wang, & Shee, 2007).

The scale was further developed under the dimensions of Information quality and Service quality. This adaptation has been done specifically for the online medium. Information quality is further elaborated as Information quality needs of the learner, Relevance to job, and Up-to date content. System quality is elaborated as Interactivity & High anytime availability. This scale has been adapted for this study (Wang, Wang, & Shee, 2007).

Management Support and Organizational Support:

Research has proven that training climate and organizational environment are important factors that guide the learner's perception and effectiveness during learning. The environment for learning and development in an IT organization is veered towards two important constructs: "Management support" and "Organization support". Though inter related, both these constructs offer distinct areas of measurement for the developer of the online program.

The dimension of "Management Support" is the support given by the management for formal and informal training and development activities. Management support measures the extent to which managers encourage on-the-job learning, innovation, learning of new skills and provide recognition to employees when they engage in these learning activities (Tracey & Tews, 2005).

"Organization support" includes the policies, procedures, and practices that an organization deploys for its employees such as reward systems and resources to acquire and apply newly learned and upgraded skills and knowledge thus supporting and giving importance to learning and development efforts & activities (Tracey & Tews, 2005).

Tracey and Tews (2005) in their study developed a scale consisting of three items for management support and four items for organization support. The items for management support capture areas such as encouragement by superiors, recognition, and skill acquisition.

Likewise, the items for organization support capture policies, reward systems and resources.

Figure 1.1. Factors of Online Learning
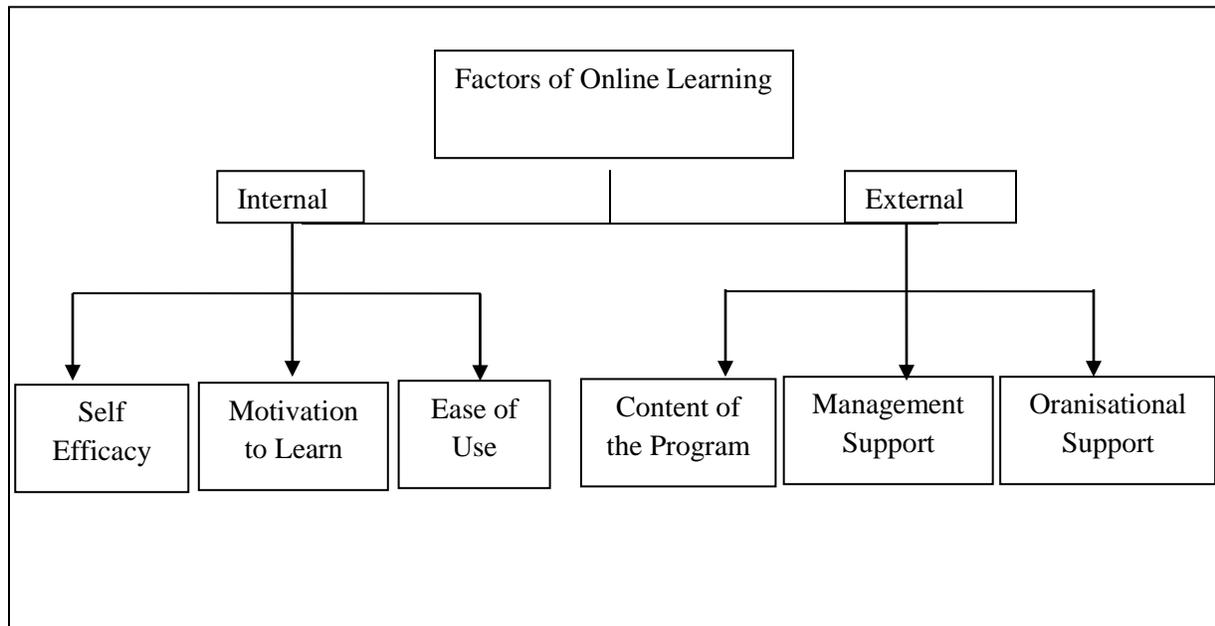
Source: Compiled by the Authors

All these factors together constitute one part of the research model for this study which is termed as "Factors of online learning", as indicated in the Figure above.

Discussion and Findings:

Oblective-1: Self-efficacy as a factor of an online behavioural program results in better perceived impact on their behavioural competencies. The literature found that there was a significant relationship between Self-efficacy for online learning on the perceived impact on behavioural competencies of the users taking a course. This means that when a user of online behavioural programs is confident of using even a difficult online program or has used a similar

program in the past, successfully, he/she would achieve better perceived impact in their behavioural competencies after going through the online behavioural program.

It was also identified that the learner's motivation to learn from an online learning program for behavioural competencies does not have a perceived effect on behavioural competencies of the user going through the online program.

It was also found through the literature review that Motivation to learn from online programs does not have any relationship with the perceived impact on behavioural competencies by the users taking the course. This means even if a learner is very keen and motivated to learn from an online behavioural program he/she may not achieve better perceived impact on his/her behavioural competencies after going through the program.

The factor of Ease of use does not impact either the effectiveness of online behavioural program or the behavioural competencies of the user going through the program. It was found that there was no significant relationship between Ease of use of online behavioural program on the perceived impact on behavioural competencies of the users taking the course. This means that even if an online behavioural program is very easy to use it may not necessarily create a perceived impact in the behavioural competencies of the user of the program.

Objective 2: To identify the external factors of online learning on the perceived impact on behavioural competencies amongst users of online behavioural learning programs.

The online program which has better content also results in better perceived impact on the behavioural competencies of the user. It was found through literature that the Content of online behavioural programs does not have any relationship with perceived impact on behavioural competencies of users taking course. This means that online programs for behavioural competencies with relevant and up-to-date content create higher perceived impact on the behavioural competencies of the user.

☐ Management support does not have any influence on online behavioural programs creating perceived impact on behavioural competencies of the learner who goes through the online program. The literature review shows that there was no significant relationship between

Management support for online learning and the perceived impact on behavioural competencies of users taking the course. This means that no amount of reward and recognition for learners to go through an online behavioural program successfully can guarantee an impact on their behavioural competencies.

☐ Organization support does not have any influence on online behavioural programs creating perceived impact on behavioural competencies of the learner who goes through the online program. It can be inferred that there was no significant relationship between Management support for online learning and the perceived impact on behavioural competencies of users taking the course. This means that no amount of supportive organizational policies and procedures for learners to go through an online behavioural program can guarantee an impact on their behavioural competencies.

Conclusion:

Online learning programs are here to stay for competency building in the IT industry. They bring with them a multitude of benefits. These online programs are being embraced by the behavioural space as well and are used frequently on account of the time, speed and efficiency advantages that they provide. Online behavioural programs can lead to increase of benefits in behavioural competencies of learners and will be utilized better when they are delivered with good information and service quality where learners can independently use the interfaces.

These online programs can also be utilized better when generated and implemented in an environment which creates good motivation to learn for the learner. It is important for all practitioners, developers, and implementers of online behavioural programs to develop and deliver programs that meet these parameters. Approaches of motivation by the organization or the management in terms of incentivising may not really interpret as effective uptake of online behavioural programs, as the learners, who are adults, need self-autonomy and self-motivation to take up such programs. In today's digital era, it is pertinent for content developers, programmers and facilitators of online behavioural programs to be equally involved in the creation and success of such programs.

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