Corporate e-learning—hygiene factor or motivator factor

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Abstract- *While many past studies have focused on the use of e-learning, little is known about the attitude of employees toward corporate e-learning (ACE) and the relationship between ACE and job factors (job satisfaction or dissatisfaction) in the financial industry. Individual factors (IDFs) are introduced to discover ACE. Individual factors include self-esteem (SE) and need for cognition (NC). Herzberg's motivation-hygiene theory was also applied in this study to explore the relationship between ACE and job factors (JBFs). Job hygiene factor (JHF) and job motivator factor (JMF) are the only two JBFs in this study. Structure Equation Model is used to test the relationships among the aforementioned factors. Our findings showed that ACE is one of the motivator factors rather than a hygiene factor in the financial industry. From a practical perspective, our findings give the corporate e-learning promoter an insight into employee attitudes toward corporate e-learning and provide organizations with important insights into human capital investment.*

Keywords: Corporate e-learning, Job factors, Individual factors.

1. Introduction

The chance the individual has of handling demands for an increase or a change in competence depends on how great an influence the employee has over his/her own work, together with opportunities to maintain and develop knowledge [1]. Wang and Wang [2] state that employee participation in learning interventions is an important issue for business practice as well as theory building in human resource development (HRD). The use of network technology to deliver training is the latest trend in the training and development industry and has been heralded as the 'e-learning revolution' [3]. Schippmann *et al*. [4] also studied what e-learning is and how it is being used by organizations. Why are organizations using e-learning [3]? What are the potential drawbacks of using e-learning? What has empirical research found regarding e-learning effectiveness, efficiency, attrition, and appeal to learners?

There are four important financial markets in the financial industry: banks, stock exchanges, insurance, and the money market. Employees in the four markets need professional knowledge and skills to serve customers. Many studies show that the impact of e-learning technology, which delivers educational materials electronically via the Internet, has been widely used in both academic education and corporate training [5]. Anyone involved in human-resource management or training believes that a competitive corporate network can provide performance support information, data, maps, algorithms, documentation, and so on where and when they are needed [6]. In addition, intense job-relevant and useful course content appears to be a sufficient incentive for learners. In contrast, it seems that if courses are perceived to be optional or have little impact on the learner, lower completion rates are likely to occur [3].

Economies of magnitude and the provision of learning materials at the workplace are considered to contribute significantly to the return on

investment. It is of possible interest to note that financial business cases of e-learning featured in almost all interviews as a primary driver for the migration to electronic systems. Studying the subject and identifying the influencing factors and their relationships through theory building may provide organizations with important insights into human capital investment. Knowing the patterns of learning participation and the factors determining the participation behaviour, organizations will be able to develop policies and strategies to effectively encourage, motivate, and support employees' active participation [2].

Myriad factors may influence negative feedback from trainees, including lack of interest in the topic, distraction by personal problems, resentment of the time the training takes, or even the fact of required participation [7]. Among the barriers to the diffusion of distance learning, human factors, in particular psychological factors, may play a prominent role [8]. Wang and Wang [2] studied the relationships among studied subjects and four clusters: individual, learning process, organizational and environmental factors through theory building.

In this study, individual factors (IDFs) were surveyed to explore the employees' attitudes toward corporate e-learning (ACE) in the aforementioned financial markets in Taiwan. Self-esteem and need for cognition are directly related to expectations for success [9]. People with high esteem, for instance, believe that they possess the requisite ability to succeed at work. Self-esteem and individual need for cognition were included in IDFs in this study.

Herzberg's motivation-hygiene theory [20] was also applied in this study to explore the relationships among ACE, job hygiene factors (JHFs), and job motivator factors (JMFs). Factors examined in previous studies are included in our research framework. The five factors in this study are self-esteem (SE), need for cognition (NC), ACE, JHFs, and JMFs. Based on antecedent studies, the proposed model examined in this research is shown in figure 1 and figure 2. The research questions we attempt to answer in this paper are first, what are the relationships between IDFs and ACE? Second, is ACE a JMF or a JHF?

2. Conceptual Framework and Factors

Employees' individual responsibilities are reflected in the strategy concerned with providing competence. In addition, individual employees must propose a plan aligned with the overall competence strategy of the company. In Taiwan, there are rules or laws stipulating that most employees working in financial industries need to pass different examinations held by an institution appointed by government and to acquire different specialist certificates. Also, training effectiveness must be evaluated by considering several organizational, individual, and training-related variables that may affect outcome, including the evaluator's knowledge of and preparation for the training topic [10]. Studying the subject and finding the influencing factors and their relationships through theory building may provide organizations with important insights into human capital investment. Like any training program, a corporate e-learning also faces the challenge of attracting participants, satisfying learners and of keeping them engaged until the completion of the program [2].

With the aid of information and communication technology, we believe that corporate e-learning is easier for the employees. The ACE is explored within this conceptual framework. Some antecedent studies have shown that individual factors (IDFs) like SE and NC had impacts on ACE. However, the relationships among those factors and ACE for employees in the financial industry have not been explored yet. Moreover, we want to know the relationship between ACE and job factors (JBFs): JHFs and JMFs. The relationship between ACE and JMFs is presented in figure 1 (Model M) and the relationship between ACE and JHFs is presented in figure 2 (Model H). For study purpose, we choose employees of Taiwan's financial companies as our survey participants.

2.1. Individual factors (IDFs)

2.1.1. Self-esteem (SE). It is probably safe to say that the best-known approach to motivation is Abraham Maslow's hierarchy of needs theory [11]. Maslow's theory hypothesized that within every human being there exists a hierarchy of five needs. These are physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. The need hierarchy is well known and undoubtedly used by many managers as a guide to motivating their employees.

Derouin *et al*. [12] reported that workplace e-learners have different needs and motivations than other types of learners, so learner-controlled training may need to be designed differently in order to be successful. Their article was based on findings from educational, industrial, and military settings and focused on findings that are most relevant for workplace learning. Some researchers also found that high self-esteem is directly related to the need to learn [13].

Self-esteem is a key personality attribute. Esteem needs include internal factors such as self-respect, autonomy, and achievement, and external factors such as status, recognition, and attention. Research finds that self-esteem is directly related to expectations of success. People with high esteem, for instance, believe that they possess the ability to succeed at work. Learners possess the potential for self-esteem; recognizing the validity of learners' views and those of others can help learners interpret experience in a constructive manner and enhance learning through their own emotional engagement [13].

2.1.2. Need for cognition (NC). Wilson and Beard [13] explored the meaning of experiential learning and related this to the nature of cognition through the development of an experiential learning model based on information processing. Liu [14] also defined what is meant by organizational learning, and explained how it can be measured through assessment of an individual's perceived change in both inner status (cognition) and observable facts (behaviour and performance). Individual learning is defined as personal changes in cognition, behaviour, and performance through the process of information sharing and exchange, and communication and interaction. Luor et.al [15] argued that NC has positive effect on ACE.

2.1.3. Attitude toward corporate e-learning (ACE) A corporate e-learning planner or installer should be interested in their learners' ACE because attitudes influence behaviour. Satisfied learners, for instance, have lower rates of turnover and absenteeism than dissatisfied learners. The theory of reasoned action (TRA) and the theory of planned behaviour (TPB) are applied to explore ACE. The two theories assume that practical behaviour is strengthened by intentions to act [16,17]. Many studies have shown that a key determinant of intention, in turn, is an actor's attitude towards the behaviour. TRA and TPB have been evaluated and supported when exploring IT usage behavior [18]. According to TRA, we hypothesize that an employee's intention to use e-learning is preceded by the employee's ACE. We also hypothesize that people with high esteem believe that they need to learn more in order to succeed at work. Therefore, we have the following three hypotheses:

H1: Higher SE will increase NC for employees in the financial industry.

H2: Higher NC will improve ACE for employees in the financial industry.

H3: Higher SE will increase ACE for employees in the financial industry.

2.2. Job factors (JBFs)

Organizations with climates that encourage employee participation, empowerment, and autonomy may find it easier to implement learner-controlled training programs [19].

Employees tend to prefer jobs that give them opportunities to use their skills and abilities and offer a variety of tasks, freedom, and feedback on their performance. Therefore, satisfying experiences in e-learning are often affected by certain factors, perhaps e-learners' internal factors. Dissatisfying experiences may be caused by certain factors as well, possibly environmental variables of the e-learning system.

The motivation-hygiene theory was proposed by Frederick Herzberg et al. [20]. The goal of training is to produce a motivated user who has the basic skills needed to apply what has been learned and then to continue to learn on the job. Herzberg's motivation-hygiene theory, which suggests that different factors influence extreme satisfaction and extreme dissatisfaction on the job, was applied in our conceptual framework.

2.2.1. Job motivator factors (JMFs). With regard to Maslow's hierarchy, motivation to learn plays an active role rather than a passive one. For example, traditional motivation theories are examined in light of new data to explore their effectiveness in explaining the relationship between job factors and the attitudes of the older worker.

Herzberg's motivation-hygiene theory suggests that hygiene factors, when adequate, will prevent people from being dissatisfied, but neither will they be satisfied. To motivate people in their jobs, Herzberg suggested emphasizing factors related to the work itself or to outcomes directly resulting from it, such as opportunities for promotion, personal growth, responsibility, recognition, and achievement. Lord [21] also developed a framework for worker motivation to assist in the understanding of the relationships and interactions of traditional motivation theories and the independent and dependent variables associated with them.

2.2.2 Job hygiene factors (JHFs). Hygiene factors include conditions surrounding the job such as quality of supervision, pay, company policies, physical working conditions, relations with others, and job security. Board [22] also examined job factors, personal characteristics, and work characteristics of mental health personnel who had

the major responsibility for service to the chronically mentally ill in community mental health settings. In examining these factors, information about professional growth (i.e. staff development), need fulfillment, and intrinsic job satisfaction was revealed. The investigation also provided a process by which mental health service planners can better assess worker utilization.

2.2.3 Relationships between ACE and JBFs. Tsai and Tai [23] found that as trainees became more aware of the importance of training to the success of organizational objectives, they also reported being more motivated to participate in training. Learner-controlled training has the potential to be more highly motivating if, before and during training, trainees are reminded of the purpose of training and the ways in which it contributes to organizational goal achievement. A recent meta-analysis by Colquitt *et al*. [24] found that the valence of the return was highly correlated with training motivation, reactions to training, and training transfer.

Taiwan was rated as a country with high-performance orientation—the degree to which a society encourages and rewards group members for performance improvement and excellence [25]. Because employees of financial industries need to pass examinations and acquire certificates or licenses as financial specialists or consultants, most of the financial intuitions in Taiwan provide incentives—bonuses or promotions as motivational mechanisms to encourage employees to acquire professional knowledge and pass examinations. Additionally, many e-learning programmes are on the Internet or installed on personal computers to assist the employees to pass those tests. Therefore, we hypothesize:

H4: Higher positive ACE has a direct effect on JMFs for employees in the financial industry.
H5: Higher positive ACE has a direct effect on JHFs for employees in financial industry.

3. Methodology—measurement and analysis

For assessing the research models (figures 1 and 2), we conducted a questionnaire-based survey to collect data from groups of individual investors in Taiwan's banks, stock exchange, insurance companies and money market. Each participant was asked to complete a questionnaire that included measures of self-esteem (SE), need for cognition (NC), job hygiene factors (JHFs) and job motivator factors (JMFs), and ACE.

There were 273 participants in our survey. Scales to measure each of the factors in our models were based on previous studies. Five-point Likert scales (1 = strongly disagree to 5 = strongly agree) were used to measure the degree of variables.

4. Results and Discussion

Table 1 summarizes the correlation coefficients among research variables. For all participants, SE, NC, and JMFs are significantly and positively correlated with ACE. Cronbach's alphas for each variable are also shown in the diagonals of Table 1. LISREL 8.3 was used to test the research model. Figures 1 and 2 show path coefficients of the research Models M and H for all samples, respectively.

The outcome of this study is presented in figures 1 and 2. From these findings, we may obtain insights into the ACE and JBFs.

4.1. SE, NC, and JMF are significantly and positively correlated with ACE

Table 1 indicates that correlations between ACE and all variables except JHF are significantly positive. Not surprisingly given their source, both the individual factors of SE and NC were significantly correlated with ACE. This implied that individual factors have a greater positive impact than job factors.

4.2. IDFs have a positive impact on ACE

On the IDF side, both figures 1 and 2 show that higher SE will increase NC and higher NC will improve ACE for employees in the financial industry (H1 and H2 are not rejected). In both figures 1 and 2, the hypothesis that higher SE has a direct effect on ACE for employees in the financial industry is rejected (H3 rejected). However, we conclude that NC mediates the relationships between SE and ACE and creates a larger total effect on ACE in both figure 1 and figure 2.

4.3. The result shows no direct effect from ACE on JHF and the total effect of Model M is higher than Model H, which implies that ACE is one motivator factor

From figure 1 and figure 2, the results show that positive ACE will have a positive impact on JMFs (H4 is not rejected), but ACE will not cause a positive impact on JHFs (H5 is rejected).

5. Conclusion

An organization employee can be the impetus for innovation and change or they can be a major

stumbling block. The challenge of applying a corporate e-learning system is to stimulate employee creativity and tolerance for change. In this paper, we presented relevant concepts and theories that can help to explain and predict attitudes toward corporate e-learning. We analyse the impact of individual factors (IDFs) on attitudes toward corporate e-learning (ACE) and find that corporate e-learning is one motivator factor. Our study showed that SE, NC and JMFs are significantly and positively correlated with ACE. The results also show that the total effect value of Model M, which hypothesizes that ACE has a positive impact on JMFs, is higher than that of Model H. Therefore, we conclude that ACE is a motivator factor.

One way for organizations to actively train and develop their employees, to keep them current and motivate individuals to become champions of change, is by corporate e-learning. However, not everyone is motivated by money. Not everyone wants a challenging job. The needs of single men and women, the elderly, the young, and others from diverse groups are not the same. If a company is going to optimize employees' ACEs it must understand and respond to this diversity. It must be ready to design work schedules, benefits and the like to reflect employees' needs for corporate e-learning. Our study concludes that adopting corporate e-learning to motivate people can create better communication and teams that are more effective. From a practical perspective, this result gives the corporate e-learning promoter an insight into employee attitudes toward corporate e-learning. Employees in the financial industry perceive that IDFs have a significant positive effect on ACE. This paper provides organizations with important insights into human capital investment.

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Table 1. Correlation matrix for the variables and attitude toward e-learning for all participants

	SE	NC	JHF	JMF	ACE
SE	α = 0.73	0.34(**)	0.30 (**)	0.40 (**)	0.12 (*)
NC		α = 0.80	0.30 (**)	0.40(**)	0.26 (**)
JHF			α = 0.74	0.66(**)	0.09
JMF				α = 0.78	0.13 (*)
ACE					α = 0.90

** Correlation is significant at the 0.01 level (1-tailed)
* Correlation is significant at the 0.05 level (1-tailed)

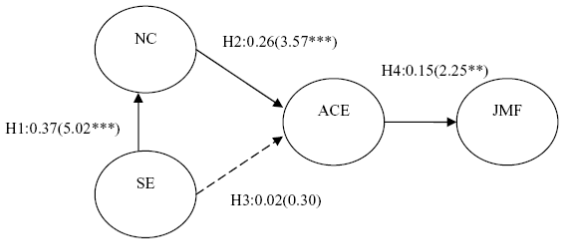

Figure 1. Path coefficient (t-value) of Research Model M.
(Coefficients are marked as *** if significant at the 0.001 level.
Coefficients are marked as ** if significant at the 0.01 level.)

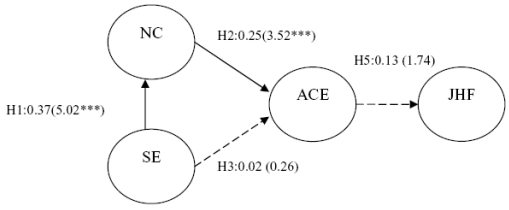

Figure 2. Path coefficient (t-value) of Research Model H.
(Coefficients are marked as *** if significant at the 0.001 level.)