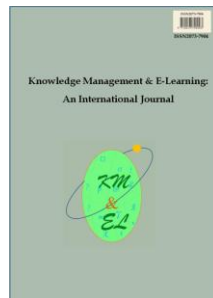


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### **Gender still matters: Employees' acceptance levels towards e-learning in the workplaces of South Korea**

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## Gender still matters: Employees' acceptance levels towards e-learning in the workplaces of South Korea

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**Abstract:** To facilitate the integration of virtual training and development in workplace learning, this study examined technology acceptance level differences towards e-learning between genders in the South Korean workplace. This study is one of the first to examine this issue in the workplace of South Korea, and it was situated in a food service company in South Korea due to its high training needs and dispersed workplaces. Of the 172 valid datasets (112 female employees and 60 male employees) analyzed, the study found that males have a higher performance expectancy, effort expectancy, and intention to use e-learning than females in integrating e-learning. In addition, males were more strongly affected by social influences than females. The findings reaffirm the importance of considering gender differences when integrating e-learning into learning in the workplace.

**Keywords:** e-Learning; Gender; Technology acceptance; Workplace; South Korea

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## **1. Introduction**

Due to the development of information and communications technology and the Internet, e-learning has become a prominent venue to advance human resource development (HRD) research and practice. One of HRD's main goals in organizations is to accommodate the changing needs of workplace learning and performance. Among a variety of digital applications that enable HRD activities, e-Learning is a highly regarded choice for training and development in workplaces. Many organizations have utilized e-learning as delivery mechanisms for their training (Moe & Blodget, 2000), which offers more opportunities for improving problem-solving capabilities, enhancing higher order thinking skills, and achieving learning effectiveness (Chen, Lee, & Chen, 2005; Liaw, 2004). Not all organizations, however, have been successful at implementing e-learning, which delivers training materials through strategic implementation of technology (Rosenberg, 2001). The needs of the growing number of employees and organizations that have adopted e-learning, therefore, require more empirical research in order to develop best practices at work (Bennett, 2009).

Learner's acceptance is an important factor that affects the successful implementation of e-learning (Keil, 1995) although current literature has presented two areas of deficiency. First, previous studies have shown inconclusive results, particularly in gender differences, when it comes to e-learning implementation. Some studies showed that males have more positive acceptance levels toward e-learning system than females (Enoch & Soker, 2006; Hoskins & Van Hooff, 2005; Ong & Lai, 2006); other studies suggested that there were no gender differences in either gender's perceived acceptances (Davis & Davis, 2007; Zhang, 2005). If employees were offered equal opportunities to participate in e-learning and yet female employees participated less, this imbalance could impact the overall organizational performance derived from the e-learning system. Second, gender-based studies conducted in international contexts are lacking, which has inevitably limited the advancement of e-learning implementation in countries other than the United States. Therefore, combining both concerns, this study examined whether or not there is a difference between employees' acceptance levels towards e-learning in a South Korean workplace based on gender.

## 2. Literature review

### 2.1. *e-Learning in the workplace*

e-Learning has been emerging as a popular learning approach in organizations (Jia, Wang, Ran, Yang, Liao, & Chiu, 2011), due to several benefits such as just-in-time delivery, flexibility to access, cost-effectiveness, and capabilities of integrating learning into work (Cheng, Wang, Yang, Kinshuk, & Peng, 2011; David, Salled, & Iahad, 2012; Rosenberg, 2006; Sambrook, 2003). Currently e-learning accounts for a significant proportion of corporate investments in training and development (Salas, Kosarzycki, Burke, Fiore, & Stone, 2002).

e-Learning covers a wide spectrum of Information Communication and Technology (ICT)-based learning, including the delivery of content via the Internet, intranet, extranet, satellite broadcasts, and CD-ROM. David, Salled, and Iahad (2012) argued that e-learning is an approach that facilitates and enhances learning through computer and communication technology. Rosenberg (2006) referred to e-learning as a use of computer network technology, primarily by the Internet, to deliver a broad array of solutions that enhance knowledge and performance in an enterprise context. In the HRD literature, e-learning is focused on fostering changes in workplace behaviors or performances through the providing of online contents (Cheng et al., 2011; Wang, Ran, Liao, & Yang, 2010). This present study defines e-learning as online courses that deliver learning contents via the Internet or intranet to improve employees' job performance. These online courses, as a critical part of the company's HRD system, are provided through the Learning Management System (LMS).

According to the American Society for Training and Development (ASTD, 2013), 37.3% of the training programs in companies have been delivered through technology and the growth rate is growing exponentially in the United States. Similarly, e-learning has also become a prevalent means to enhance employees' competency in South Korea due to the increasing reliability of the infrastructure and government policies (Lee, Yoon, & Lee, 2009; National Internet Development Agency of Korea, 2008). Based on a recent survey of the e-learning industry in South Korea, the proportion of e-learning utilization in companies that have over 300 employees is about 64%, a rate that has been ever-increasing since 2006 (National IT Industry Promotion Agency, 2012).

### 2.2. *Technology acceptance toward e-learning*

Although organizations have invested in advanced technology to support employees' learning and performance, it will not be worthwhile if users do not accept and use them in the workplace (Venkatesh, Morris, Davis, & Davis, 2003). While many organizations believe that technology systems will be used by employees once organizations make them available (Lee, Yoon, & Lee, 2009; Rosenberg, 2006), offering technology alone does not always guarantee people using it (Gorard, Selwyn, Madden, & Furlong, 2002). Many individual and organizational factors need to be considered.

Situated in South Korea, Lee, Yoon, and Lee (2009) revealed that the success of e-learning was affected by instructor characteristics, teaching materials, perceived usefulness, playfulness and perceived ease of use. These results seem to be consistent with previous studies about e-learning in other countries. Several researchers agreed that the learner's attitude is an important factor that affects the successful implementation of e-learning (Liaw, Huang, & Chen, 2007; Selim, 2007). Ho, Kuo, and Lin (2010) argued

that organizations could improve employees' e-learning outcomes by facilitating positive acceptances. With a holistic viewpoint, the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003) has synthesized eight existing theories to explain the intention to use technology, which integrates the Theory of Reasoned Action (TRA), the Motivational Model (MM), the Theory of Planned Behavior (TPB), the Technology Acceptance Model (TAM), a combined TAM and TPB model, the Model of PC utilization, the Innovation Diffusion Theory, and the Social Cognition Theory. Consequently UTAUT consists of four core constructs to predict users' behavioral intentions: performance expectancy, effort expectancy, social influence, facilitating conditions, and two other conditioning constructs: anxiety and attitude towards using technology (Venkatesh, Morris, Davis, & Davis, 2003).

The UTAUT has been applied to examine the acceptance levels toward e-learning (Borotis, & Poulymenakou, 2009; Lee, Yoon, & Lee, 2009; Lee, Hsieh, & Ma, 2011; Park, 2009). However, most studies have focused on students in higher education settings, while few to no studies have examined employees in the workplace. Therefore, a study about employees' acceptance to use technology systems needs to be conducted and particularly, with a focus on gender differences considering their historical role in promoting as well as impeding the adoption of computer-based systems.

### *2.3. Gender differences of e-learning acceptance*

Gender differences in using computer-based system, such as the Internet, have been pervasive since the early days of personal computing and the Internet boom. Much research has addressed the fact that males tended to use the Internet more than females (Durndell & Thomson, 1997; Joiner et al., 2005; Whitely, 1997). Researchers have also identified that males use the Internet more to search for information and to seek entertainment, while females use the Internet to communicate with others (Jackson, Ervin, Gardner, & Schmitt, 2001; Li & Kirkup, 2007; Morahan-Martin, 1998; Odell, Korgen, Schumacher, & Delucchi, 2000; Sherman et al., 2000). The cause of such difference has been attributed to females' less positive attitudes toward technology in general (Sanders, 2005). Females have also been perceived to possess less competence in using the Internet than males (Li, Kirkup, & Hodgson, 2001; Sherman et al., 2000; Selwyn, 2006, 2007). With today's widening access to social media, gender difference remains to be an observable factor impacting the utilization level of technology and e-learning (Huang, Hood, & Yoo, 2013).

In the context of e-learning that bears formal training or educational purposes, Ausburn (2004) suggested that aspects of technology use, such as users' attitudes, acceptances, or behaviors, have been influenced by experiences and expectations based on gender. Previous studies also examined factors of UTAUT that affect employees' acceptances toward e-learning based on gender. Studies reported that perceived usefulness motivates males' intention to use technology while perceived ease of use influences female's intention to use technology (Ong & Lai, 2006; Sun & Zhang, 2006; Venkatesh & Morris, 2000). Similarly, female students showed more positive attitudes toward Web-based learning than males in terms of helpfulness (Yukselturk & Bulut, 2009). Another study found that female students accept ICT use more readily than their male counterparts (Egbo, Okoyeuzu, Ifeanchio, & Onwumere, 2011). On the other hand, some researchers have claimed that there are no differences based on gender in e-learning (Cheung, Lee, & Chen, 2002; Eynon & Helsper, 2010; Yuen & Ma, 2002).

In summary, current findings regarding the effect of gender difference on e-learning acceptance levels is inconclusive. Understanding gender differences in the usage and acceptance towards e-learning remains a critical step for designing and developing effective e-learning experiences for all users. The following section presents the methodology of the study grounded in the UTAUT framework.

### 3. Methodology

#### 3.1. Research setting and procedures

This survey study targeted a food service company in South Korea, which has adopted e-learning programs for training and development for years. The food service industry generally needs to train employees who are sent to work in isolated franchise stores and female employees are given preference in the food service industry. e-Learning allows the food service company employees to access the content no matter where they are. The company requires employees to take at least two e-learning courses per year based on their positions. e-Learning courses include basic service, leadership, and learning the company's values. e-Learning courses are Internet-based and may consist of several modules per course. These online modules also afford learner's interactivity with intended contents such as drag and drop, input learner's opinion, and complete quizzes. The e-learning courses allow learners to stop and then resume lessons without starting from the beginning. To pass an e-learning course, learners have to meet certain minimum requirements such as task completion accuracy, test scores, level of accessing intended content, or the participation rate for activities. It takes between 30 minutes to 16 hours for employees to complete the e-learning courses.

The data were collected within three weeks and the online survey link was distributed to 1,000 employees by the human resource development staff of the company via email and company intranet. All data were collected via voluntary participation and the employees were assured of confidentiality by both the research team and the organization's management.

#### 3.2. Instrumentation

The data collection instrument consisted of two components: (1) UTAUT and (2) employee's demographic information, including their e-learning experiences. The UTAUT instrument consists of seven categories: performance expectancy (4 items), effort expectancy (4 items), social influence (4 items), facilitating conditions (3 items), anxiety (3 items), attitude towards using technology (4 items) and behavioral intention (3 items). The reliabilities of all constructs were found to be acceptable and highly consistent ( $\text{Alpha} > .80$ ) (Venkatesh, Morris, Davis, & Davis, 2003). In addition, the cross-cultural validity of the UTAUT instrument was also examined. The results clearly showed that this tool is robust enough to be used cross-culturally (Oshlyansky, Cairns, & Thimbleby, 2007). This study used a 7-point Likert scale for all UTAUT items (See Appendix 1).

The demographic information survey questions include participants' gender, age, job positions, and geographic locations as these variables could influence their acceptance toward e-learning. Since the purpose of this study was to investigate the acceptance levels of employees towards e-learning based on gender, it was important to collect data from employees in the different locations that implemented e-learning. The

company has branches in seven locations in South Korea. All seven locations were included intentionally in order to include all employee representations in the sample. In addition, the data may present variations in the types of technology used within each location. These variations may affect the attitudes of employees towards e-learning. Seoul, the capital of South Korea, in particular, possesses a technology infrastructure that surpasses that of other provinces even within the same company. However, despite the variations in infrastructure, employees working in these different geographic locations are homogeneous in their qualifications and competencies due to the company's uniformity in the hiring process. Finally, previous e-learning experiences are included in the survey.

The questionnaire was first translated into Korean by the research team. Then two currently practicing human resource development professionals in South Korea were asked to review and comment on the appropriateness of the translation. Minor revisions were made based on the comments.

### 3.3. Data analysis

Based on the research questions, this study used both descriptive and inferential statistics for data analysis. First, the data from both instruments were examined for their validity and reliability. Second, the UTAUT instrument was examined using descriptive statistics. Third, inferential statistics (i.e., a two-tailed *t*-test) was conducted to identify the differences between participants' acceptance levels based on gender. After checking the normal distribution of the data, interactional effects were analyzed to scrutinize the potential effects of demographic variables (age, position held, location, prior e-learning experiences) on gender differences.

## 4. Results

### 4.1. Participants

Among 1,000 participation invitations, 261 were returned, giving us a final response rate of 26.1%. Furthermore, only 183 out of 261 data sets were analyzed due to incomplete survey responses. A list-wise removal method was used to deal with missing data in the dataset. Of the 183 completed surveys, 60 were completed by males (33.8%), 112 (65.1%) by females and 11 (6.0%) were missing. Finally, 172 valid datasets were analyzed to examine gender differences of employees' acceptance towards e-learning. Participants' demographics are shown in Table 1.

**Table 1**  
Descriptive statistics of participant demographic information

		Frequency	Percent	Valid Percentage	Cumulative Percent
Gender	Male	60	32.8	34.9	34.9
	Female	112	61.2	65.1	100.0
	Missing	11	6.0		
Age	20-29	127	69.4	73.8	73.8
	30-39	44	24.0	25.6	99.4
	40-49	1	0.5		100.0
	Missing	11	6.0		
Position	Employee	64	35.0	37.4	37.4

	Manager	76	41.5	44.4	81.9
	Store manager	31	16.9	18.1	100.0
	Missing	12	6.6		
e-Learning	Experienced	87	47.5	48.6	48.6
Experience	Inexperienced	92	50.3	51.4	100.0
	Missing	4	2.2		
Location	Seoul	98	53.6	57.3	57.3
	Gyeonggi	15	8.2	8.8	66.1
	Daejeon	13	7.1	7.6	73.7
	Busan	35	19.1	20.5	94.2
	Chungcheong	4	2.2	2.3	96.5
	Gyeongsang	3	1.6	1.8	98.2
	Jeolla	3	1.6	1.8	100.0
	Missing	12	6.6		
	Total	183	100.0		

**Table 2**  
Factor loadings and squared multiple correlations of items

Technology Acceptances toward e-learning	Item	Factor loadings	Squared multiple correlations
Performance expectancy	PE1	.851	.701
	PE2	.905	.783
	PE3	.935	.819
	PE4	.763	.537
Effort expectancy	EE1	.667	.645
	EE2	.888	.669
	EE3	.878	.654
	EE4	.851	.744
Attitude	AT1	.852	.791
	AT2	.948	.860
	AT3	.929	.829
	AT4	.903	.784
Social influence	SI1	.864	.721
	SI2	.843	.720
	SI3	.836	.699
	SI4	.748	.779
Facilitating condition	FC1	.900	.736
	FC2	.921	.829
	FC3	.774	.494
Anxiety	AX1	.920	.732
	AX2	.910	.738
	AX3	.932	.756
Behavioral Intention	IU1	.944	.820
	IU2	.973	.912
	IU3	.968	.910

#### 4.2. Validity and reliability

The data were first examined with factor analysis. This study used confirmatory factor analysis (CFA) to verify the convergent validity of the UTAUT. Convergent validity is often used to confirm the construct validity by examining the factor loadings and squared multiple correlations. Table 2 shows the factor loadings and squared multiple correlations. A factor loading greater than 0.50 can be considered to be significant (Hair, Anderson, Tatham, & Black, 1992). Also, squared multiple correlations between the individual items and their a priori factors were high ( $> .20$ ) (Hooper, Coughlan, & Mullen, 2008).



In terms of reliability, the overall reliability (Cronbach's Alpha) of the UTAUT questionnaire was 0.906, while the internal consistencies of the seven dimensions varied from 0.832 to 0.960 (Table 3). Therefore, the analysis concluded that all factors had proper convergent validity and the instrument was reliable for further data analysis.

**Table 3**

The reliability of the acceptance of employees towards e-learning

UTAUT	items	Cronbach Alpha
Performance Expectancy	4	0.887
Effort Expectancy	4	0.842
Attitude	4	0.929
Social Influence	4	0.838
Facilitating Condition	3	0.832
Anxiety	3	0.907
Behavioral Intention	3	0.960
Overall Reliability	24	0.906

**Table 4**

Gender and the acceptance of employees towards e-learning (t-test)

	Gender	N	Mean	Std. Deviation	t	df	Sig (2-tailed)
Performance Expectancy	Male	60	4.74	1.01	2.634	94.246	.010*
	Female	112	4.35	0.74			
Effort Expectancy	Male	60	4.74	0.95	2.259	170	.010*
	Female	112	4.39	0.79			
Attitude	Male	60	4.85	1.01	2.258	170	.012*
	Female	112	4.48	0.85			
Social Influence	Male	60	4.94	0.97	3.738	99.053	.000**
	Female	112	4.39	0.79			
Facilitating Condition	Male	60	4.93	1.07	2.974	170	.003**
	Female	112	4.46	0.97			
Anxiety	Male	60	2.87	1.05	-4.127	170	.000**
	Female	112	3.48	0.85			
Behavioral Intention	Male	60	5.09	1.23	3.418	98.732	.000**
	Female	112	4.46	0.96			

(\* $p < .05$  \*\* $p < .01$ )

#### 4.3. Inferential statistics

Table 4 shows significant differences between gender and e-learning acceptance levels. In terms of gender differences, females reported a higher anxiety level associated with using e-learning. Males had relatively less anxiety in using e-learning ( $t = -4.127$ ,  $df = 170$ ,  $p < .05$ ). Males demonstrated a positive attitude towards e-learning ( $t = 2.258$ ,  $df = 170$ ,  $p < .05$ ) and reported that using e-learning was good for their performance compared to females ( $t = 2.634$ ,  $df = 94.246$ ,  $p < .05$ ). Males thought that using e-learning was easier than females ( $t = 2.259$ ,  $df = 170$ ,  $p < .05$ ) and they had a higher intention to use e-learning ( $t = 3.418$ ,  $df = 98.732$ ,  $p < .05$ ).

#### 4.4. Interactional effects

In terms of the potential effects of demographic variables (age, position held, location, prior e-learning experiences) on gender differences, the study found a mix of interactional effect results (see Table 5). The first finding showed that there were no interactional effects of gender and age towards acceptance of e-learning on performance expectancy, effort expectancy, attitude, social influence, facilitating condition, and behavioral intention. However, the interactional effect between gender and age on anxiety was found ( $F=4.009$ ,  $df=1,166$ ,  $p < .05$ ). Second, there were no interactional effects between gender and position on e-learning acceptance levels. Similarly the interaction between gender and location of employees towards e-learning acceptance levels was not significant. The interaction between gender and e-learning experience towards Social Influence and Facilitating Condition among e-learning acceptance levels, however, were significant ( $F=7.057$ ,  $df=1, 164$ ,  $p < .05$ ;  $F=5.813$ ,  $df=1, 164$ ,  $p < .05$ ).

**Table 5**  
Two-way ANOVA

Interaction effect	Variable	F	Df	Sig (2-tailed)	Partial Eta Squared
Gender*Age	Anxiety	4.009	1,166	.047*	.024
Gender*Position				n.s.	
Gender*location				n.s.	
Gender*e-learning experience	Social Influence	7.057	1,164	.009*	.041
	Facilitating Condition	5.813	1,164	.017*	.034

## 5. Discussion

This study reported that there are significant gender differences between the acceptances of employees towards e-learning in a South Korean workplace, which is consistent with a large body of research (Chou, 2003; Gonzalez-Gomez, Guardiola, Rodriguez, & Alonso, 2011; Ong & Lai, 2006; Padilla-Melendéz, del Aguila-Obra, & Garrido-Moreno, 2012; Wang & Wang, 2010). In particular, based on UTAUT, this present study showed that there are gender differences on performance expectancy, effort expectancy, attitudes, social influence, anxiety, and intention to use e-learning.

The study by Ong and Lai (2006) showed the same results as our study. They found that female employees' ratings on perceived usefulness (performance expectancy), perceived ease of use (effort expectancy), and behavioral intention to use e-learning were all lower than males' from six international companies in Taiwan. Another study (Vandenbroeck, Verschelden, & Boonaert, 2008) showed that female employees who work in a family day care provider in Belgium have less access to a personal computer (PC), as well as perceived PC skills. Interestingly, they found that motivation and anxiety are critical factors that affect their intention to use e-learning. They suggested that questions about the gender gap in computer use may be answered by investigating whether female employees have young children or not. Female employees in our study were almost all in their twenties or thirties. Thus, there might be a need for further investigation considering their domestic situations. In addition, the food service company in our study has a high female employee turnover rate due to the seasonal nature of the industry in South Korea. Therefore, social influence from supervisors or colleagues in the workplace might not affect female employees' acceptance levels towards e-learning as strongly as workplaces with low employee turnover rates. In the food service industry,

females often would hold lower positions than their male counterparts in the company. Promotion opportunities for female employees are rare. Furthermore, female employees' intention to use the e-learning may be low due to their expectation that they would not stay on the job in one organization very long and they will move to another company soon for better pay.

In addition, female employees' anxiety towards using technology was much higher than their male counterparts in this study. Their anxiety may affect other factors such as performance expectancy, effort expectancy, attitudes, and intention to use e-learning in the workplace because anxiety was one of the critical factors that influence users' computer access and skills (Vandenbroeck, Verschelden, & Boonaert, 2008). Broos (2005) revealed that gender has a significant effect in affecting attitudes toward new information technologies, and the extent of computer use. When males find a new medium, they seem to react to it enthusiastically and immediately and their attitudes become more positive, while females need more time to appreciate a new medium and take more time to become positive about computers or the Internet. Similarly Zhou and Xu (2007) found that female faculty and instructors at a large Canadian university showed lower confidence and less experience in the use of computers in teaching. They identified that female faculty and instructors seemed to prefer to learn how to use technology from others, while males were more likely to learn from their own experiences. They suggested that information technology professional development activities for female employees must consider offering various types of interventions, such as showcasing or training sessions. Terzis and Economides (2011) investigated the gender differences in perceptions and acceptance of computer based assessments. Males' ratings of perceptions regarding perceived usefulness and computer self-efficacy were higher than females. On the other hand, the rating of females' perceptions towards facilitating conditions was higher than males. The result of their study showed that facilitating conditions may be more important for women than men in order to overcome their computer anxiety. Finally, our study showed a significant interactional effect between gender and prior e-learning experiences on Facilitating conditions. As Zhou and Xu (2007) reported, female employees prefer to learn through various types of resources or training sessions when they face e-learning difficulties. Female employees who have prior experience with e-learning may realize how important assistance from a specific person (or group) or resources is necessary when they use e-learning in the workplace.

## **6. Conclusion**

Our study provides empirical evidence in considering employees' gender when integrating e-learning into the workplace of South Korea. From the perspective of organizational learning, it is important for HRD professionals to consider factors that impact female employees' acceptance levels towards e-learning in order to promote e-learning in the workplace. As our findings revealed, organizations should not employ a "cookie cutter" approach when integrating e-learning as part of the training delivery mechanism. The implementation of e-learning in the workplace should be tailored to the intrinsic and extrinsic needs of employees (Eynon & Helsper, 2010). Among various individual factors that can impact the efficacy of e-learning among employees, this study has clearly identified gender difference as one variable that must be considered. Future research needs to identify the empirical relationships between e-learning attributes and their effects on gender-based perceptions. With this understanding, HRD professionals can devise corresponding implementation strategies to facilitate the integration of e-learning in an organization.

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## Appendix 1. Employees' Acceptance Levels towards E-Learning

### (1) UTAUT

#### Performance expectancy

- 1: I would find e-learning useful in my job.
- 2: Using e-learning enables me to accomplish tasks more quickly.
- 3: Using e-learning increases my productivity.
- 4: If I use e-learning, I will increase my chances of getting a raise.

#### Effort expectancy

- 5: My interaction with e-learning would be clear and understandable.
- 6: It would be easy for me to become skillful at using e-learning.
- 7: I would find e-learning easy to use.
- 8: Learning to operate e-learning is easy for me.

#### Attitude towards using technology

- 9: Using e-learning is a good idea.
- 10: e-learning makes work more interesting.
- 11: Working with e-learning is fun.
- 12: I like working with e-learning.

#### Social influence

- 13: People who influence my behavior think that I should use e-learning.
- 14: People who are important to me think that I should use e-learning.
- 15: The senior management of this business has been helpful in the use of e-learning.
- 16: In general, the organization has supported the use of e-learning.

#### Anxiety

- 17: I feel apprehensive about using e-learning.
- 18: E-Learning is somewhat intimidating to me.

#### Facilitating conditions

- 19: I have the resources necessary to use e-learning.
- 20: I have the knowledge necessary to use e-learning.
- 21: e-learning is not compatible with other systems I use.
- 22: A specific person (or group) is available for assistance with e-learning difficulties.

#### Behavioral intention to use

- 23: I intend to take e-learning in the next 6 months.
- 24: I plan to take e-learning in the next 6 months.
- 25: I predict I would take e-learning in the next 6 months.

### (2) Demographics

- 26. Gender: Male    female
- 27. Your age: 10 – 19    20 – 29    30-39    40-49    50-59    60 or more
- 28. Your job position: Employee/specialist    Manager    Store Manager
- 29. Workplace Location:  
Seoul    Gyeonggi    Daejeon    Busan    Chungcheong    Gyeongsang    Jeolla
- 30. e-learning experience: Yes    No