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Chapter 12

Management of Educational Needs of Employees in the Electronics Industry Using English e-Learning Website Programs

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Additional information is available at the end of the chapter

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Abstract

This chapter explores whether customer satisfaction is achieved by English e-learning websites by investigating the views of the employees of Taiwanese electronics corporations who have taken English e-learning training courses. The service quality model of Parasuraman, Zeithaml, and Berry and the technology acceptance model (TAM) were adopted to examine their satisfaction levels. First, in order to provide indicators for perceived ease of use (PEOU) and perceived usefulness (PU) in the TAM, five elements of intangible service quality were utilized, namely reliability, assurance, tangibles, empathy, and responsiveness, indicated in the SERVQUAL model. Second, in order to measure PEOU, PU, and behavioral intention to use under the TAM, a survey was distributed among electronics industry workers at Taiwan's Hsinchu Science and Industrial Park. The survey data yielded the following key findings: the users' PU was significantly influenced by PEOU, tangibles, and responsiveness; their PEOU was significantly impacted by assurance, tangibles, and reliability; their PU and behavioral intention to use were significantly influenced by PEOU; their system usage and behavioral intention to use were significantly influenced by PU; and their system usage was significantly impacted by their behavioral intention to use. Overall, the study proposed 13 hypotheses, of which 10 were supported.

Keywords: on-the-job training, curriculum for mechanical engineer, need analysis, English for science and technology, satisfaction

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1. Introduction

English has become the common language of the world due to trade and politics, which have also promoted the popularity of English usage. The broad usage of English enables a true single market regarding knowledge and ideas [1].

Because Internet technology has become increasingly developed in the twenty-first century, the Internet plays an essential role in our lives. Using the Internet to learn languages is more common than ever before. As Internet technology advances, learning English is not limited to classrooms, and it is more popular to use the Internet to learn English. Through use of the Internet, people can learn English from any location. Instructors can teach English through the Internet instead of traditional teaching methods. E-teaching not only has many advantages and benefits for teaching and learning environments but also provides new directions and new modes of thinking.

1.1. E-learning of English learners in Taiwan

Training is often divided into preservice training and on-the-job training. Most training currently uses the Internet to achieve learning objectives and focuses on language in one of the involved courses. Over the last decade, online learning or e-learning has become an important part of the education agenda around the world. E-learning is becoming an important factor in higher education [2]. Advances in computing and information technology have changed the modes of learning. The development of information technology has influenced the learning flow and reduced the life cycle of learning material as well as learning activities [3]. Information technology is also dramatically affecting the means by which people teach and learn. IT helps people meet, talk, and work together outside of traditional meeting and office spaces. E-learning is the product of digital technology and turns traditional courses into virtual courses. The concept of an online course is the use of virtual environments to replace a part of physical classrooms [4]. E-learning has enabled universities to expand their current geographical reach, to capitalize on new prospective students and to establish themselves as global educational providers [5].

1.2. Motivation of research

1. To understand the differences between e-service marketing and language educational e-training.
2. To understand the differences between on-the-job training and preservice training.

1.3. Purposes of the study

This study aimed to address the need for up-to-date knowledge by focusing on the following objectives:

1. To apply the theory of reasoned action (TRA) and the technology acceptance model (TAM) to investigate their online learning satisfaction.

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2. To understand their online English learning satisfaction.
3. To examine the Parasuraman, Zeithaml, and Berry (PZB) and TAM models.
4. To understand electronics corporation employees' basic criteria and demands for excellent English e-learning websites.
5. To understand Taiwanese electronics corporation employees' basic demands for English e-learning website programs.

Broadly, there are two e-learning modes:

1. Computer-assisted instruction
2. Distance learning.

E-learning represents a new generation of electronic teaching methods. By connecting to the network, teachers and learners can experience interactive learning on the Internet. In addition to being a new instruction media, e-learning is a new tool and a completely new learning environment; it also overcomes the limitations of traditional teaching environments.

Table 1 lists the benefits and drawbacks of traditional classroom learning and e-learning.

Researchers have identified many benefits of e-learning:

Web-based learning has been deemed equivalent to traditional methods regarding learners' knowledge achievements. Of the two studies evaluating learning efficiency, only one provided evidence that more efficient learning occurred through web-based instruction [7].

E-learning is highly accessible, which refers to a user's ability to find what is needed immediately.

	Traditional classroom learning	**E-learning**
Benefits	*Instantaneous feedback *Well-known by both students and teachers *Provides students with motivation *Cultivates a community of learners	*Student-centered and student-paced *Flexible regarding location and time *More affordable for learners *Potentially accessible to a worldwide audience *Provides knowledge without limitations *Capacity for archiving allows reuse and sharing of knowledge
Drawbacks	*Teacher-centered *Location and time limitations *More costly to provide	*Lacks instantaneous feedback for asynchronous e-learning *Requires greater preparation time of instructor *Causes discomfort in some learners *Can cause greater confusion, frustration, and anxiety

Table 1. Traditional classroom learning versus e-learning [6].

Internet technologies facilitate the widespread distribution of digital content to many users simultaneously, anytime and anywhere.

Learners have control over the content, learning sequence, pace of learning, time, and media, enabling them to tailor their experience to meet personal learning objectives. E-learning provides a challenging learning environment and individual support to motivate learners and stimulate their curiosity [8].

E-learning provides a challenging learning environment and individual support to motivate learners and stimulate their curiosity [8].

Updating electronic content is easier than updating printed material, and e-learning technologies allow educators to revise their content easily and efficiently. Improved access to educational materials is crucial because learning is often an unplanned experience.

The experience of learning is a personal one, such that an e-learning system that has been effectively designed can inspire learners to engage with the learning content in a more active manner [9].

1.4. Motivation to learn

According to a study by Gardner and Lambert [10], the success in learning a second language depends on both the motivation and aptitude of the learner. In a later study [11], the same scholars suggested that the motivation to engage in language learning can be subdivided into intrinsic-extrinsic motivation and integrative-instrumental motivation. Relatedly, it should be noted that e-learning has been found to assist in enhancing learner motivation, such that accumulating evidence clearly demonstrates that the value of online communication goes beyond that of merely being a useful teaching tool.

1.5. Self-directed learning and its relationship with learning attitudes

Learner-centered methods of learning must be psychologically adapted to by those learners who are more used to teacher-centered approaches. In the view of Holec [13], it is counterproductive to teach learners how to implement self-directed learning because that learning itself would then not actually be self-directed. As such, learners must, according to Holec, teach themselves how to learn in a self-directed manner. In other words, while they may receive some support from their teachers or fellow learners, any training of learner should itself be founded on the method of self-directed learning. In this respect, self-direction can be seen as the cornerstone of both learning *how* to learn languages and the actual learning of languages itself.

In the most basic terms, self-directed learning consists of learning in which the learners themselves determine the specific goals, progress, and means of evaluating the learning. The related concept of self-access learning has come to be viewed as synonymous with technology-based learning, and autonomy has come to be seen as particularly critical in the context of computer-assisted language learning.

Self-access resource centers and the notion of learner training are among the key innovations in the field of self-directed language learning. For example, scholars from the Centre

de Recherches et d'Applications Pédagogiques en Langue in France have asserted that skills related to self-assessment, self-management, and self-monitoring must be developed by adult learners if they are to effectively engage in self-directed learning. In that view, learner training is seen as something akin to self-access, with such training initiated as a means of supporting self-directed learning [12, 13]. Relatedly, learners who receive computer-based instruction have been found to learn in a more efficient manner and to exhibit higher knowledge retention.

1.6. Research model background

1.6.1. The theory of reasoned action

The TRA, which was first proposed by Fishbein and Ajzen [14], is an extensively studied model of intention that has been shown to be effective in explaining and predicting behaviors across a variety of domains. More specifically, as explained by Davis et al. [15, 16], the TRA is a social psychology model that focuses on the factors that determine all consciously intended behaviors [17, 14]. Because the model is a general one, it does not seek to specify whatever beliefs underlie a given behavior. However, in order to apply the TRA model effectively, it is necessary to identify those beliefs that are seen as relevant by the individuals undertaking the behaviors under investigation. In this connection, the method of conducting free response interviews with individuals who represent the population of interest in order to identify five to nine of their relevant beliefs has been suggested by Fishbein and Ajzen [14, 17] and [15, 16]. At the fundamental level, the conceptual framework of the TRA relies upon understanding the various distinctions among attitudes, intentions, beliefs, and behaviors (**Figure 1**).

1.6.2. Technology acceptance model

The TAM, which was developed and introduced by Davis et al. [15, 16], is essentially an extension of the TRA that has come to be highly influential. Fundamentally, this model addresses the question of how a technology becomes accepted and used by its users. According to the TAM, when a new or unfamiliar technology is introduced to users, they are effectively presented with two specific variables, namely perceived ease of use (PEOU) and perceived usefulness (PU), that are in turn hypothesized to be the key factors in determining whether the technology is accepted by the users [15, 16]. The TRA is used by the TAM as the theoretical basis by which causal associations between these two key factors of PU and PEOU and

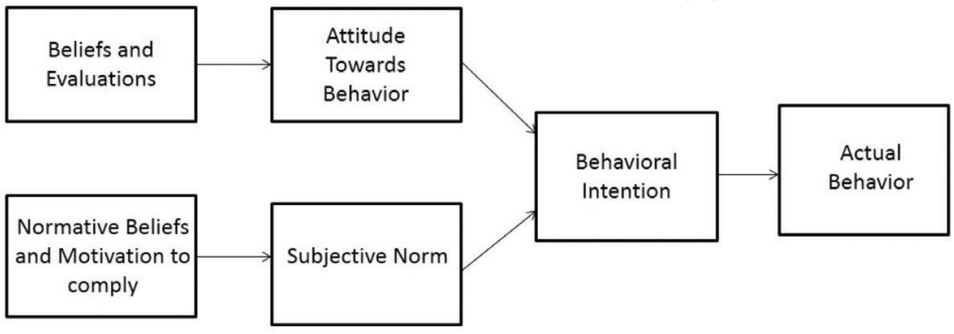


Figure 1. Theory of reasoned action (TRA) [17].

users' intentions, attitudes, and actual computer adoption behaviors are specified (**Figure 2**). Relatedly, the TAM has a much more discrete focus than the TRA because, in spite of the shared use of the term "technology" in their names, the TAM was actually designed to be applied to computer usage behaviors only [15, 16]. That said, it can, in fact, be applied to various types of technology in general.

How PU affects acceptance:

1. According to the TAM, PU can be defined as the extent to which using a particular technology is seen by a given person as a means of enhancing that person's job performance [15, 16]. In other words, it refers to the user's perception of how valuable the technology will be in to performing various job duties, whether by decreasing the time required to complete a given task or enhancing the user's accuracy.
2. The degree to which people use a given application is dependent on the degree to which they think it will enhance their job performance [15, 16].
3. According to Phillips et al. [18], PU can be defined as "the prospective adopter's subjective probability that applying the new technology from foreign sources will be beneficial to his personal and/or the adopting company's well-being."
4. A number of diverse lines of research have demonstrated the theoretical importance of PU and PEOU as factors determining user behaviors [15, 16].
5. Davis et al. [15, 16] ascertained that, overall, the correlation of PU with system usage is significantly stronger than that of PEOU, with subsequent regression analysis indicating that PEOU may, in fact, be an antecedent of PU as opposed to being a direct determinant of system usage. In other words, PEOU only affects technology acceptance in an indirect manner via its effects on PU [19].
6. The TAM hypothesizes that the acceptance of information technology is predicted by PEOU and PU [19].
7. The TAM was specifically designed to show the acceptance of information technology among users. The model's primary aim is to provide, by discerning the effects of external variables on internal attitudes, beliefs, and intentions, an explanation of the factors determining computer acceptance [15, 16, 18].
8. The TAM constitutes a useful means of predicting technology-related usage, attitudes, and satisfaction on the basis of user beliefs and external variables [20].

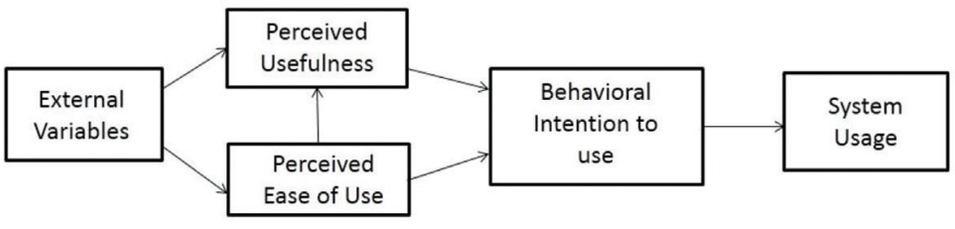


Figure 2. Technology acceptance model (TAM) [15, 16].

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How PEOU affects acceptance:

1. According to the TAM, PEOU can be defined as to the extent to which using a particular technology is seen by a given person as effortless or effortful [15, 16].
2. It is possible for users to see a given application as both useful and excessively difficult to use, such that the benefits of using it are overwhelmed by the exertion necessary to use it [15, 16].
3. According to Phillips et al. [18], PEOU can be defined as "the degree to which the prospective adopter expects the new technology adopted from a foreign company to be free of effort regarding its transfer and utilization."

1.6.3. Service quality gap model

The so-called quality revolution that occurred in the 1980s was not limited exclusively to manufacturing; rather, it also influenced various services, organizations, and governmental agencies. The relative importance with which quality management has been viewed since then can thus be easily deduced [21].

The PZB model, which is also known as the service quality gap model, was first proposed by Parasuraman et al. [22]. According to this model, the highest priority of companies with respect to their service outcomes is quality, with quality being directly related to the high expectations of their clients. In this view, the service expectations set by clients are founded upon a company's behavioral decisions or performance [23]. Relatedly, Parasuraman et al. [22] identified 10 criteria that can be used to undertake an evaluation of a service's initial quality, with said quality being defined, essentially, as the difference between the service a customer expected to receive and the service the customer actually received. Those 10 evaluation criteria are (1) understanding (2) reliability (3) responsiveness (4) tangibles (5) courtesy (6) communication (7) competence (8) access (9) credibility, and (10) security. It is noteworthy that these criteria incorporate the five key elements for anticipating, delivering, and measuring the services of a company, namely assurance, empathy, reliability, responsiveness, and tangibility. Relatedly, the SERVQUAL model was developed by applying these criteria and the PZB model, allowing the SERVQUAL model, which is commonly referenced in literature on marketing, to measure the discrepancies between expected and perceived service quality [24]. In fact, usage of both the SERVQUAL and PZB models is currently still widespread in the industry.

The PZB model has five gaps, which are illustrated in **Figure 3**; Bronn [21] also described all five gaps. Notably, respondents with different demographics may have different PU and PEOU due to the five gaps.

In the current study, five factors relating to intangible service quality from the SERVQUAL and PZB models (namely assurance, empathy, reliability, responsiveness, and tangibles) were utilized to establish indicators for PEOU and PU in the TAM. Thereafter, people employed in the electronics industry by companies located at the Hsinchu Science and Industrial Park in Taiwan received a questionnaire designed to measure their PEOU, PU, and behavioral intention to use within the TAM.

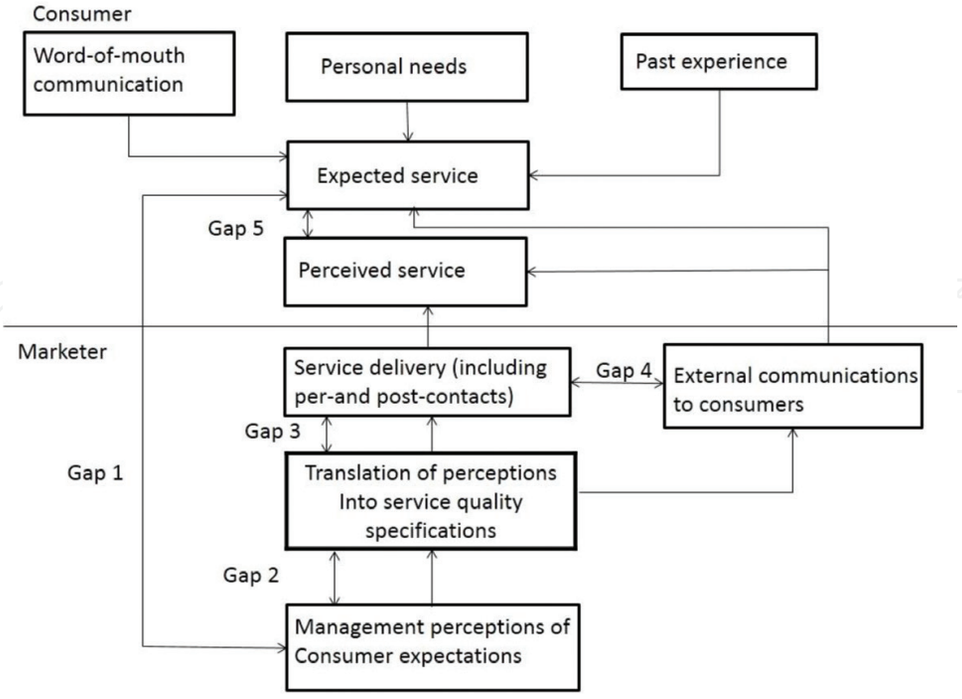


Figure 3. Service quality gap model (PZB model) [22].

2. Method

2.1. Hypotheses

The specific focus of this study was on investigating the satisfaction and motivation of the aforementioned Taiwanese electronics company employees with respect to their use of English e-learning websites. As part of the study, a literature review was performed, and the TAM and PZB models were used to expand upon the five elements of assurance, empathy, reliability, responsiveness, and tangibles. Relatedly, a five-part survey was administered in order to determine the kind of user interfaces preferred by the respondents, to measure the reliability of the English e-learning website services used by the respondents, to determine the specific types of services on the English e-learning websites that were used by the respondents, to investigate the security of said websites, and to measure how satisfied the respondents were with the sites.

Table 2 and **Figures 3-5** present the specific research model and hypotheses that were used in this study.

2.2. Participants

Through the combination of a literature review and a questionnaire survey, this study gathered data from 350 respondents working at 10 different companies. The primary

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NO.	Hypothesis
H1	The PU of e-users is positively affected by tangibles.
H2	The PU of e-users is positively affected by reliability.
H3	The PU of e-users is positively affected by responsiveness.
H4	The PU of e-users is positively affected by assurance.
H5	The PEOU of e-users is positively affected by tangibles.
H6	The PEOU of e-users is positively affected by reliability.
H7	The PEOU of e-users is positively affected by responsiveness.
H8	The PEOU of e-users is positively affected by assurance.
H9	The PU of e-users is positively affected by PEOU.
H10	The learning attitude of e-users is positively affected by PEOU.
H11	The learning attitude of e-users is positively affected by PU.
H12	The learning satisfaction of e-users is positively affected by PU.
H13	The learning satisfaction of e-users is positively affected by learning attitude.

Note: PU = perceived usefulness; PEOU = perceived ease of use.

Table 2. Hypotheses.

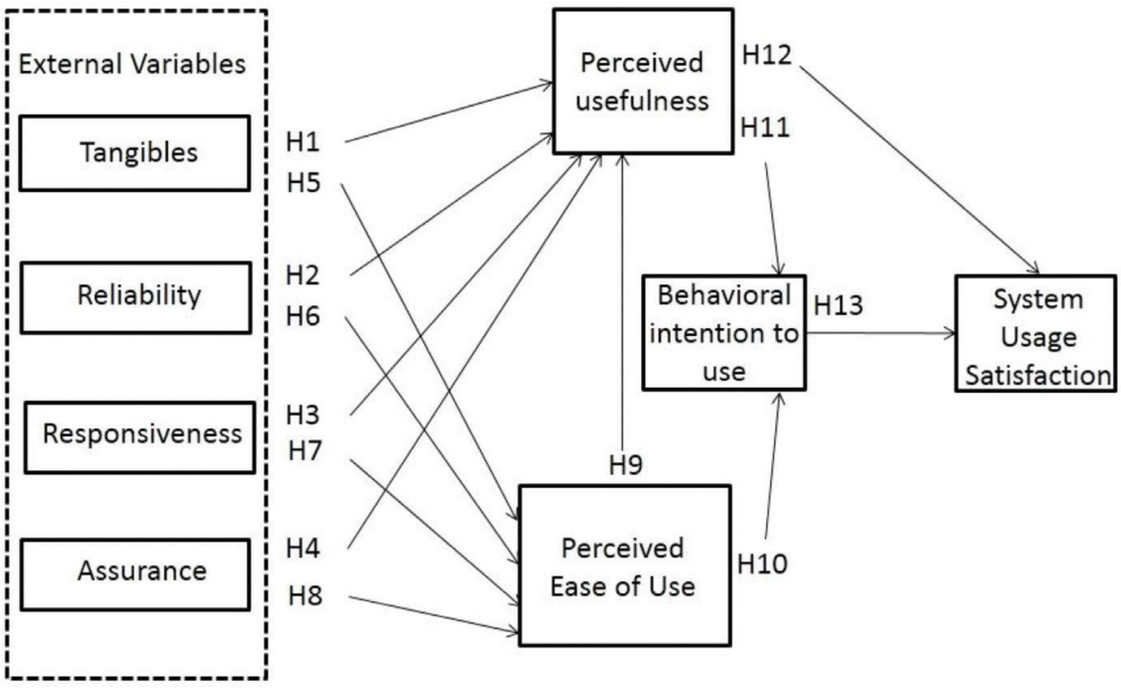


Figure 4. Research model. Note: PU = perceived usefulness; PEOU = perceived ease of use.

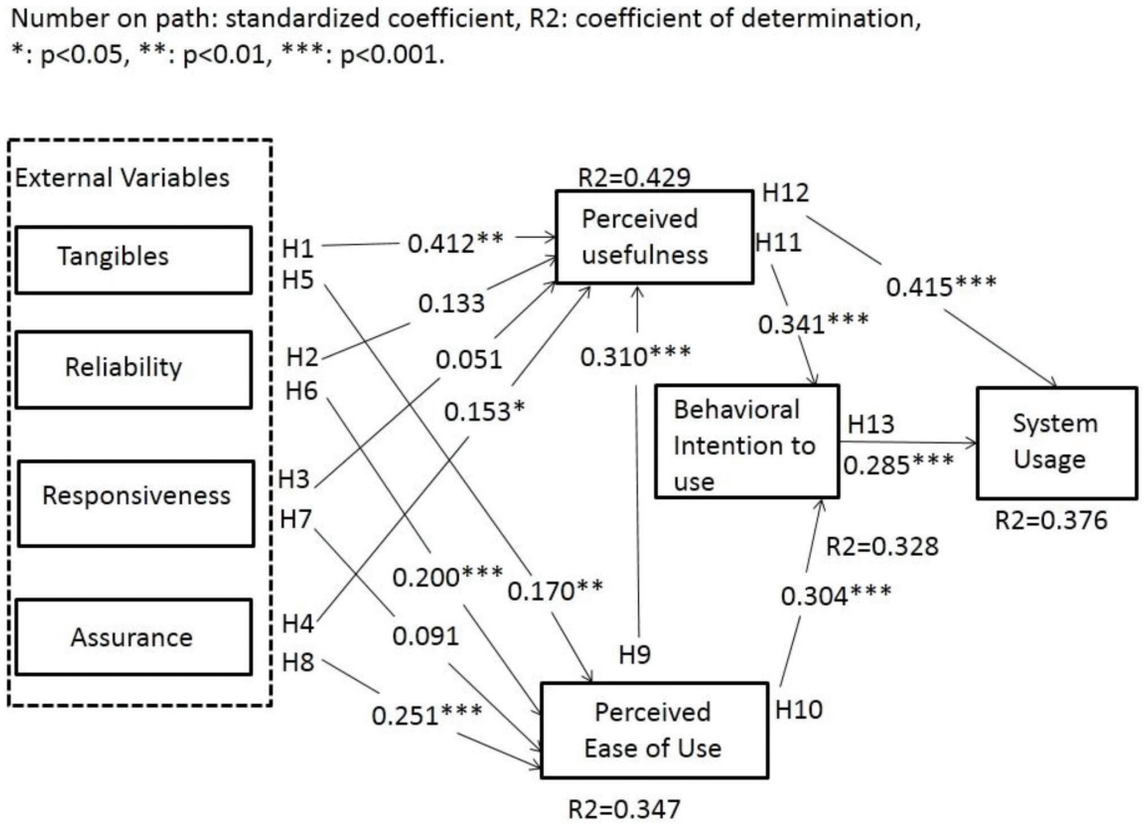


Figure 5. The research model.

aim in doing so was to investigate those Taiwanese electronics corporation employees' perceptions regarding English e-learning educational courses taken during the course of their employment.

3. Results

This study investigated employees' satisfaction with their use of English e-learning websites in Taiwanese electronics corporations. We conducted a literature review and described the five main themes of service quality (tangibles, reliability, responsiveness, assurance, and empathy) to produce a 20-question survey. Specifically, we used the SPSS to examine whether a significant difference exists between employee satisfaction and the age, gender, education, company location, years of work, and work experience of employees.

3.1. Questionnaire results

In total, 500 questionnaires were distributed to the employees, and 357 (71.4%) were returned. Seven of these completed questionnaires were invalid; hence, we only examined 350 of them. Several analysis methods were adopted, including frequency and descriptive one-way analysis of variance (ANOVA), to understand the responses to the questionnaires. The results were divided into three parts and are discussed in the following sections.

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3.2. Basic information

Frequency and descriptive analyses were used to obtain statistics regarding the background of the employees. The age, gender, education, company location, years of work, and work experience of the employees are described as follows (**Table 3**).

Male and female respondents accounted for 72 and 28% of the sample, respectively. The respondents were aged between 20 and 70 years; in total, 46.9% of them were 20–30 years old, 35.7% were 31–40 years old, 12.6% were 41–50 years old, 4% were 51–60 years old, and 0.9% were 61–70 years old. Hence, employees aged 20–30 and 31–40 years made up the majority of the companies that we investigated. The studied companies are located in Northern Taiwan (19.7%), Central Taiwan (45.7%), Southern Taiwan (32.9%), and Eastern Taiwan (1.7%). The respondents also had a range of education levels: 7.7% completed senior high school, 8.6% completed junior college, 44.6% had received a Bachelor's degree, 38% had received a Master's degree, and 1.1% had received a PhD. In addition, 18.9% of respondents had worked for less than 1 year, 35.1% had worked for 1–3 years, 22% had worked for 4–6 years, 11.7% had worked for 7–9 years, and 12.3% had worked for 10 or more years.

3.3. Reliability and content (expert) validity

Content validity is a subjective test method developed by C. H. Lawshe [25] and is generally used to review items that comprise questionnaires. Specifically, agreement among raters or judges regarding the need to include a particular item in a survey is gaged. Lawshe [25] suggested that the expert subject matter raters on a panel of judges should each reply to the following question with regard to each individual questionnaire item: "Is the skill or knowledge measured by this item 'essential', 'useful but not essential', or 'not necessary' to the performance of the construct?" A given item would then be considered to have at least a degree of content validity if over half of the raters respond that the item is essential (**Table 4**) [25].

In the present study, four relevant experts were consulted and provided advice regarding the selection of the survey content in light of the study's research objectives. These experts' opinions regarding the validity of the measured items were also requested to make certain that the study questionnaire possessed expert validity.

Sample demographics									
Gender		Age		Work areas		Education		Years of work experience	
Male	72%	20–30	46.9%	Northern region	19.7%	Senior high school	7.7%	> 1	18.9
Female	28%	31–40	35.7%	Central region	45.7%	Junior college	8.6%	1–3	35.1
		41–50	12.6%	Southern region	32.9%	Bachelor's degree	44.6%	4–6	22.0
		51–60	4.0%	Eastern region	1.7%	Master's degree	38.0%	7–9	11.7
		61–70	.9%			PhD	1.1%	< 10	12.3

Table 3. Respondent demographics.

Alpha coefficients exceeding 0.70 indicate that the measured items have an appropriate internal consistency (**Table 5**) [26].

The analysis results show that PU and behavioral intention for system use have a variation of 37.6%; PU and PEOU for behavioral intention to use have a variation of 32.8%; tangibles, reliability, responsiveness, assurance, and PEOU for PU have a variation of 42.9%; and tangibles, reliability, responsiveness, and assurance for PEOU have a variation of 34.7%.

Relationship paths	Standardized coefficients (β)	Sig.	Coefficient of determination
H12 PU → System usage	0.415	***	0.376
H13 Behavioral intention to use → System usage	0.285	***	
H11 PU → Behavioral intention to use	0.341	***	0.328
H10 PEOU → Behavioral intention to use	0.304	***	
H1 Tangibles → PU	0.142	**	0.429
H2 Reliability → PU	0.133	—	
H3 Responsiveness → PU	0.051	—	
H4 Assurance → PU	0.153	*	
H9 PEOU → PU	0.310	***	
H5 Tangibles → PEOU	0.170	**	0.347
H6 Reliability → PEOU	0.200	**	
H7 Responsiveness → PEOU	0.091	—	
H8 Assurance → PEOU	0.251	***	

*p < 0.05, **p < 0.01, ***p < 0.001. Note: PU = perceived usefulness; PEOU = perceived ease of use.

Table 4. Relationship paths.

Item	Cronbach's alpha	Number of item
Tangibles	0.761	4
Reliability	0.806	4
Responsiveness	0.792	4
Assurance	0.792	4
Empathy	0.793	4
Satisfaction	0.819	4
Total	0.942	24

Table 5. Reliability statistics.

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		Sum of squares	df	Mean square	F	Sig.
The English e-learning website is neat and appealing.	Between group	6.295	4	1.574	2.775	.027
	Within group	195.659	345	.567		
	Total	201.954	349			
The services on a remarkable website are presented in a way that is visually appealing.	Between group	12.112	4	3.028	5.599	.000
	Within group	186.563	345	.541		
	Total	198.674	349			
The English e-learning website has an up-to-date information technology service.	Between group	11.393	4	2.848	4.834	.001
	Within group	203.295	345	.589		
	Total	214.689	349			
The appearance of the physical services on the English e-learning website is consistent with the types of services provided to clients.	Between group	15.312	4	3.828	6.526	.000
	Within group	202.357	345	.587		
	Total	217.669	349			

Table 6. Relationship between age and tangibles.

		Sum of squares	df	Mean square	F	Sig.
The English e-learning website provides services at the promised time.	Between group	11.802	4	2.950	4.896	.001
	Within group	207.912	345	.603		
	Total	219.714	349			
The English e-learning website performs the service correctly the first time.	Between group	26.070	4	6.518	9.994	.000
	Within group	224.984	345	.652		
	Total	251.054	349			
When you have a problem, the English e-learning website shows a sincere interest in solving it.	Between group	30.518	4	7.629	11.014	.000
	Within group	238.980	345	.693		
	Total	269.497	349			
The English e-learning website uses specific English e-content and error-free hardware.	Between group	13.643	4	3.411	4.564	.001
	Within group	257.811	345	.747		
	Total	271.454	349			

Table 7. Relationship between age and reliability.

		Sum of squares	df	Mean square	F	Sig.
The English e-learning website serves clients precisely when English programs are performed.	Between group	4.516	4	1.129	1.455	.216
	Within group	267.738	345	.776		
	Total	272.254	349			
The English e-learning website provides rapid service.	Between group	11.896	4	2.974	4.800	.001
	Within group	213.764	345	.620		
	Total	225.660	349			
The English e-learning website is never too busy to respond to requests and provides 24-h service.	Between group	20.995	4	5.249	8.198	.000
	Within group	220.880	345	.640		
	Total	241.874	349			
The English e-learning website is always willing to help.	Between group	18.771	4	4.693	7.546	.000
	Within group	214.546	345	.622		
	Total	233.317	349			

Table 8. Relationship between age and responsiveness.

		Sum of squares	df	Mean square	F	Sig.
The English e-learning website has specific knowledge to answer employees' questions.	Between group	8.505	4	2.126 .695	3.059	.017
	Within group	239.852	345			
	Total	248.357	349			
The English e-learning website is consistently courteous.	Between group	12.072	4	3.018	4.744	.001
	Within group	219.496	345	.636		
	Total	231.569	349			
The behavior of the English e-learning website instills confidence in employees.(functioning)	Between group	12.083	4	3.021	4.157	.003
	Within group	250.685	345	.727		
	Total	262.769	349			
Employees feel safe when interacting with a remarkable English e-learning website.	Between group	11.382	4	2.846	4.023	.003
	Within group	244.046	345	.707		
	Total	255.429	349			

Table 9. Relationship between age and assurance.

		Sum of squares	df	Mean square	F	Sig.
The English e-learning website gives clients individual attention.	Between group	7.203	4	1.801	2.866	.023
	Within group	216.765	345	.628		
	Total	223.969	349			
The English e-learning website is focused on your best interests.	Between group	13.532	4	3.383	5.077	.001
	Within group	229.885	345	.666		
	Total	243.417	349			
The English e-learning website understands your specific needs.	Between group	17.267	4	4.317	6.699	.000
	Within group	222.322	345	.644		
	Total	239.589	349			
The English e-learning website motivates your interest.	Between group	13.230	4	3.308	4.567	.001
	Within group	249.867	345	.724		
	Total	263.097	349			

Table 10. Relationship between age and empathy.

3.4. One-way ANOVA

We used a one-way ANOVA to determine the relationship between the questionnaire items and the demographic characteristics of the employees. The questionnaire comprised 24 questions regarding tangibles, reliability, responsiveness, assurance, empathy, and satisfaction, and each item had 4 questions. The results of our analysis are detailed in **Tables 6–10**.

3.5. Conclusion

The following key findings were indicated by the data collected:

- Hypothesis 2 was not supported.
- Hypothesis 3 was not supported.
- Consistent with results previously reported by Tan [27], Hypothesis 7 was also not supported.
- Most of the respondents in the study consisted of men aged 20 to 40 years old.

In this study, research hypotheses were derived and tested by examining past studies and results from the statistical analysis of empirical data. The primary focus of the study is the learning satisfaction of students in digital technical English courses, and the antecedent variable in this case is service quality. The study examined English e-learning educational training courses to determine whether English e-learning websites provide customer satisfaction. In contrast to most tangible learning approaches, learners who participate in digital learning come from a more diverse range of backgrounds. The employees of a technology company can receive training via professional digital courses and achieve customer satisfaction through digitized learning.

This study verified the relevance of the technology acceptance and PZB models to digital learning research. When digital learners perceived that the digital learning system did not require time and effort to understand, and was also easy to master and use, they started to feel that the use of the system could help them to gain the knowledge that they were seeking and to believe that the system was useful. When users perceived that the digital learning system was useful, they started to adopt a positive attitude toward the system, which led to a willingness among users to continue using the system. When digital learners perceived that the digital learning system was easy to use, they started to adopt a more positive attitude toward the system, which led to a willingness among learners to continue using the system. Overall, the attitude of users with respect to the use of the digital learning system was influenced by their subjective perceptions of the system. This study did not uncover any significant relationship between reliability and perceived usefulness, or between responsiveness and perceived ease of use and perceived usefulness. The study proposes the prioritization of a simple and clear design during the planning stage of the digital learning system [28]. This should cover the design of the interface and the provision of clear instructions to users in order to increase the system's ease of use. As discussed above, company employees who participate in digital learning have to develop solutions that take into account the customer's point of view. These employees need to respond to the demands of customers enthusiastically. Through the digital learning interface, employees can interact with customers and guide them on the use of the interface, thus making it easier for these customers to familiarize themselves with the interface. Through these two approaches, the implementation of professional English education and training courses can be further improved [29].

4. Suggestions

4.1. Suggestions for web designers

Web designers should develop websites that are easy to use and that provide service information immediately as it is updated [27]. Clients are also interested in personal security and privacy, which should be protected. Many adults do not understand how to use a computer; however, because these people are also target customers, a teaching plan for using a company's website should be provided to them. Moreover, an optimal website must be well-designed [27, 29].

4.2. Suggestions for future researchers

English e-learning websites have become important tools for companies across the globe. However, the English e-learning quality must be improved for users. Current learning strategies not only utilize traditional education methods but also use English e-learning websites. The following suggestions are for future researchers:

(1) Thoroughly research clients' satisfaction with the crucial factors of English e-learning websites.

(2) Seek to understand employees of electronics corporations regarding their use of English e-learning websites and provide solutions when problems are encountered.

(3) Investigate whether English e-learning websites are effective and satisfactory for learners.

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