

The Relative Importance of Computer Self-efficacy, Perceived Ease-of-Use and Reducing Search Cost in Determining Consumers' Online Group-buying Intention

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Abstract—In order to shop in the online group-buying (OGB) websites, consumers should have a certain ability to utilize computer and the Internet. Therefore, this study explores the relative importance of computer self-efficacy and perceived ease-of-use in determining consumers' OGB intention. Moreover, different from the direct online shopping, OGB would allow the group of consumers to get a special discount, and incentives for saving money are more likely to characterize the major concern of consumers' engaging in OGB. This study thus further explains the effect of reducing search cost on OGB intention. The result shows that computer self-efficacy has an indirect influence on customers' intention to use OGB through the mediation of perceived ease-of-use; while, reducing search cost is an important factor that directly affects customer' intention to use OGB. This approach provides valuable suggestions that allow OGB vendors to enhance customers' OGB intention.

Keywords—*reducing search cost; computer self-efficacy; perceived ease-of-use; online group-buying intention*

I. INTRODUCTION

Due to advances in the Internet and mobile devices, consumption patterns have gradually shifted to an online context, with online group-buying (OGB) being one popular form of such commerce. Using this method consumers are able to pool their purchasing power in order

to bargain and get a better price, assisted by the market-making efforts of the online retailer itself [1, 2]. OGB is a particular number of consumers who gather together through the Internet so that they can purchase the product they desire with a certain amount of discount [3]. It means that OGB organized customers in different locations via Internet of which will increase their bargaining power against the sellers so that they will get a lower price. Different from the direct online shopping, OGB would allow the group of consumers to get a special discount [4]. Taking an OGB website called Gomaji, which sells meal vouchers, as an example, buyers are usually attracted by the price and hence they continue reading the contents stated on the meal voucher (e.g., pictures and introduction to the restaurant). At the same time, consumers would also search for more information about the restaurant (e.g., netizens' ratings on that restaurant) and finally they will decide whether they would buy the meal voucher or not based on all information that they have gathered [5].

Moreover, due to the fact that all procedures starting from ordering, paying, even after-sale service or goods return are done through the OGB website, need to be executed via computer and the Internet, consumers thus need to have certain level of understanding the way of doing business on the OGB websites in order to be able to get the products information they need and smoothly finish their purchase online [6]. Hence, the perceived ease-of-use and computer self-efficacy of the consumers might have influenced on their intention to

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participate in the OGB activities. Even though previous studies related to OGB have become more and more popular, they mostly focus on the price discount [7, 8], technology acceptance model (TAM)[9, 10], website quality [3, 10, 11], trust [10-12], perceived risk [9, 13] or electronic word of mouth [3] as antecedent variables to investigate consumers' online group-buying motivation, satisfaction, intention and behavior. Few studies have focused on computer self-efficacy, perceived ease-of-use, reducing search costs, and OGB intention. Therefore, this research examines the relationships among computer self-efficacy, perceived ease-of-use, reducing search cost, and the OGB intention.

II. LITERATURE REVIEW AND HYPOTHESES

First, this study explored the influence of computer self-efficacy on perceived ease-of-use, then the influence of perceived ease-of-use on online group-buying intention. Second, this study explored the influence of computer self-efficacy on online group-buying intention. Third, this study explored the influence of reducing search cost on online group-buying intention. Finally, this study provided valuable suggestions that allow online group-buying vendors to enhance customers' purchase intention and develop more effective marketing strategies. The research model is shown in Fig. 1, and each concept and research hypothesis are elaborated on below.

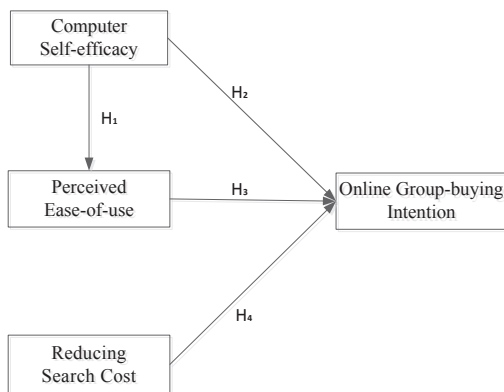


Fig 1. Research model

A. Computer Self-Efficacy

Self-efficacy is an individual's determination to achieve a particular objective through organization and execution [14]. Self-efficacy is hypothesized that the expectations of self-efficacy would influence whether one will initiate a coping behavior, the amount of effort to be put, and the duration of sustaining that effort when facing challenges and aversive experience [15]. Self-efficacy is largely influenced by four primary sources of information, namely performance accomplishment, vicarious experience, verbal persuasion, and emotional arousal [16]. Mager [17] further elaborated that self-efficacy is one's self-judgments on his/her own performance of a particular action instead of the expectations towards the affects or results of that action. It has five main effects on behavior, namely choice behavior, motivation, perseverance, facilitative thought patterns, vulnerability to stress and depression. Consequently, self-efficacy helps an individual to estimate his/her perception regarding his/her ability to complete the task. This belief will develop and grow along with one's age and accumulated experience in life. Computer self-efficacy is about judging one's computer skills [18]. This idea is conceived based on Bandura's (1977) theory of personal self-efficacy beliefs and behavior. Furthermore, this theory does not mean to judge one's ability to perform simple component tasks, such as formatting diskettes or entering formulas in a spreadsheet. However, it is actually measuring one's capability to perform broader tasks, such as preparing written reports or analyzing financial data [19]. That is, computer self-efficacy is by nature a "perception" concept, and the focus is on understanding how people perceive their information technology (IT)-related capabilities [20].

B. Perceived Ease-of-Use

Proposed by Davis [21], the technology acceptance model (TAM) added perceived ease-of-use and perceived usefulness to the theory of reasoned action (TRA) and illustrate user acceptance of information system. TRA developed by Fishbein and Ajzen [22] stated

that attitude and subjective norm significantly influence behavioral intention, which in turn affects actual behavior. According to Davis [21], the perceived ease-of-use, combined with perceived usefulness, determines the user's attitude toward and intention to adopt a particular information system. Perceived ease-of-use is defined as the degree of perception or belief a user has that he/she would not require effort to use a certain system, whilst perceived usefulness is the degree of perception or belief a user has that usage of a certain system would help increase his or her performance at work. Some studies focused on exploring the indirect influence of the perceived ease-of-use and perceived usefulness on customers' OGB intention. For example, perceived ease-of-use and perceived usefulness have been identified as important factors that directly affect customers' attitudes, which subsequently has a significant effect on intention to OGB [9]. Similarly, perceived usefulness is determinant of OGB intention, and perceived ease-of-use influence perceived usefulness [10].

Computer self-efficacy is capable of predicting user perceptions and subsequent acceptance along with the use of systems within particular target user groups within organizations. Such strongly held beliefs will have a continuing significant impact on their perceptions of ease-of-use about any computer system [23]. People with higher level of computer self-efficacy would perceive new technology with lower level of complexity because they have confidence in their technical knowledge and hence possess more positivity in their usage [18]. Cazan, Cocoradă and Maican [24] also stated that self-efficacy is a good predictor of the perception regarding the ease of computer use. Therefore, this research assumes that computer self-efficacy will influence on customers' perceived ease-of-use of OGB website, as stated in the following hypothesis:

H₁: The computer self-efficacy has a significantly positive influence on perceived ease-of-use.

C. Online Group-Buying Intention

OGB intention refers to consumers' intention and subjective tendency to purchase an item on an OGB website [25]. Kauffman and Wang [1] listed the following elements that influence such OGB markets: demand externalities, price, price-level effect, and cycle-ending effect. Demand externalities take effect through the upward shift of demand curves. The main driving force to increase demand is the higher utility that a potential adopter recognizes due to the large network size that will lead to higher willingness-to-pay. In other words, the group size, determined by the number of orders, will affect how a potential buyer to decide his/her purchases. Price means that the demand will be higher when there is a decrease in the price within the group-buying context. The price-level effect refers to the degree to which consumers perceive and react to changes in the price of the focal products or services. In the group-buying scenario, when someone senses that the price has a tendency to drop to her reservation price or even lower and there is a possibility that her purchase will affect this, then the order is more likely to be placed if this person is risk-seeking. In contrast, some people who are more risk-averse might wait until the price decreases to decide to purchase, even if the change in price is to be anticipated. The cycle-ending effect refers to the occurrence of new orders after the auction cycle almost ends. Cheng and Huang [3] integrated planned behavior theory with electronic word-of-mouth, network embeddedness, and website quality attitude to evaluate antecedents that affect OGB intentions from the potential and current consumers and the consequence of OGB intention of current consumers. Electronic word-of-mouth is the actions that important individual consumers take in terms of posting comments about group-buying products. Those comments generate a social pressure regarding purchase of OGB products. They classified the network embeddedness into the structural and relational embeddedness. The structural embeddedness of the initiator refers to the number of consumers who have taken parts in the activities held by the initiator.

The relational embeddedness of the initiator refers to the number of consumers perceived by the consumers who have recurring participation in the activities held by the initiator. The website quality is one of the consumer attitudes. Consumer attitude towards OGB website quality consists of system quality attitude, information quality attitude, and service quality attitude. The results demonstrate that there are certain factors that affect potential consumers' intention to participate in the group-buying activities, such as experiential electronic word-of-mouth, relational embeddedness of the initiator, and service quality attitude. As for current consumers, their main intention to take part in the OGB is influenced by the structural and relational embeddedness of the initiator. Intention is positively influenced by system quality attitude and also positively influences the OGB behavior. Hsu, Chang, Chu and Lee [11] presented a theoretical model to scrutinize the antecedents of repurchase intention in the OGB through integrating the perspective of IS success model and the literature of trust. It was found that the repurchase intention is positive influenced by the perceived quality of website and the satisfaction towards website and sellers. On the other hand, perceived qualities of website and sellers significantly influence the satisfaction towards website and sellers, respectively. Furthermore, trust in the website also positively influences the perceived quality of website and satisfaction towards website, whilst trust in sellers has significant impact on the perceived quality of sellers and satisfaction with sellers.

Mehta and Sivadas [26] found that low computer skills would negatively affect consumers' perception towards the advertisement and direct marketing displayed on the Internet, however this will generate a more positive influence towards those who are more computer-savvy. Vijayasarithy [27] defined on-line shopping self-efficacy as a consumer's self-assessment of his/her capabilities to shop on-line and indicated that intention to use on-line shopping was strongly influenced by on-line shopping self-efficacy. Chen, Yen and Chen [28] explored that

employee intentions in adopting the new smart phone technology in the logistics industry and they found that smart phone self-efficacy has a direct effect on behavioral intention. Lu, Hu, Gao and Kinshuk [29] indicated that computer self-efficacy contributed positive influence on computerized adaptive testing attitude. The fundamentals of computerized adaptive testing are that the computer selects the test items based on the individuals so that it would correspond to the ability of each student. Therefore, this study assumed that the confidence in oneself, in the information technologies and in their positive influence on the well-being of people and society decrease the anxiety towards the internet or computers, and then it is possible to increase OGB intentions. This is restated in the following hypothesis:

H₂: The computer self-efficacy has a significantly positive influence on OGB intention.

Perceived ease-of-use has a significant effect on intention to adopt the use of a specific information system [30]. A user's intention to use an information technology is influenced, primarily, by its usefulness and ease-of-use [31]. Roca and Gagne [32] stated that perceived ease-of-use and perceived usefulness have been identified as important factors that directly affect students' continuance intention to use e-learning. Similarly, Smith and Sivo [33] also indicated that perceived ease-of-use and perceived usefulness have been scientifically proved as critical determinants of teachers' continuance intention, for they directly encourage teachers to continue using e-learning. Sun and Jeyaraj [34] illustrated that perceived ease-of-use to affect individuals' intentions to adopt information technology. Rodrigues, Oliveira and Costa [35] explored the role of ease-of-use, usefulness, enjoyment, and intention to use in a gamified business application and they found that these gamified applications may increase the intention of customers to use them through ease-of-use. Therefore, this research assumes that perceived ease-of-use of OGB website will influence on customers' OGB intention, as stated in the following hypothesis:

H₃: The perceived ease-of-use has a significantly positive influence on OGB intention.

D. Search Cost

Search cost is the perceived cost incurred at the stage of finding product or price related information [36, 37]. Lynch and Ariely [38] defined search costs as those that arise when consumers desire to buy a certain product or service, and then need to search for and compare information about prices and quality. Teo and Yu [39] stated that search costs include the time and effort needed to find information related to the focal products and services, and compare prices or other features among different online stores. Döring, Kießling, Preisinger and Fischer [40] indicated that buyer's search costs are all costs that the buyers should bear during making their efforts to find the right seller and to buy a product. They further analyze how various search techniques for e-catalogs in the whole search process would affect the search process costs and then divide them into three types: regular search costs, expanded search costs, and consequential costs. Regular search costs consist of a basic successful search including the labor costs for the time one is looking for the desired item. Expanded search costs are all extra costs incurred due to a problematic search process. Consequential costs consist of the costs incurred due to a bad search, which unrelated to the search process itself but resulting in the consequences of finding and using a not well matching product. Kutlu [41] explained that ex-ante transaction costs are incurred prior to the assignment of contract such as costs of searching, collection of information and negotiation, while ex-post transaction costs are costs that emerge after the contract assignment such as costs for monitoring and enforcement, of which happened to both parties after the contract assignment is done. These ex-ante transaction costs are considered as search costs. In other words, search costs arise when consumers need to search for the right business partner, as well as information related to products and services in order to make a purchase decision [42].

There is a lot of uncertainties and risks in the online shopping [43], for example:

consumers are unable to interact face-to-face with the merchant resulting in a more challenging situation to resolve conflicts, it is more difficult to review the product prior to the purchase, of which means that the products/services the consumers ordered might not fulfill their expectations, it might lead to online scams or personal information abuse by the merchants. Therefore, when doing online purchase consumers should conduct thorough research on the products/services they are looking for. The economic literature has focused on consumer search costs as the main reason for the price dispersion. Recent analytical researches in economics have expanded the search literature by including the Internet, particularly Internet shopbots that can be utilized as a mean to reduce search cost [44, 45].

Biswas [46] explained that online consumers do research on the products they would like to buy in order to gain knowledge and evaluate them before making the decision. The more product knowledge they have, the lower the probability for information asymmetry to happen and hence the higher the purchase intention. When customers are looking for products/services they will search for related information based on their experiences, and then will start considering or evaluating the possibility to purchase, as well as comparing different offers and then deciding on their purchase behavior [47]. Li, Kub and Lub [48] pointed out that increasing the information flow and proactively provide richer information for consumers will help consumers get all information regarding the products on the OGB platform of which eventually help consumers save their search costs and increase their purchase intention. Wu, Chen, Chen and Cheng [49] proposed a framework to understand the impacts of information searching cost on repurchase intention from online shoppers' perspective and they suggested that providing sufficient cues to reduce consumers' information searching cost is the core element of repurchase intention formation. Furthermore, if consumers are able to have lower information searching cost via the information provided by the online stores' websites, it is possible to have

more effective consumer retention than when applying a strategy involving value-induced features. Therefore, this study assumed that if an OGB website can significantly decrease the search costs for products/services the consumers are looking for, then they will have higher intention to purchase certain products/services on the OGB website. This study thus hypothesizes the following:

H₄: The reducing search costs have a significantly positive influence on OGB intention.

III. METHODOLOGY

A. Data Collection

Before sending the questionnaire, a pretest validation of the design was carried out with some experts and scholars in Taiwan. The questionnaire was subsequently revised to improve understanding of its content. The integrity of the collected data can be affected by the low willingness of respondents to participate. Therefore, purposive sampling was used in this study in order to ensure that the respondents had a high willingness to participate in the research. The target respondents were those individuals who had made purchases on OGB websites. The questionnaire was distributed to the target respondents via e-mail, social networks, and links on websites. The questionnaire was distributed to the respondents at the beginning of April 2015, with 230 questionnaires returned by May 2015. Of these, 88 were invalid because the respondents have never engaged in any OGB activities, leaving a total of 142 valid questionnaires. Table 1 shows the demographic details of the sample, which includes data on the respondents' gender, marital status, age, education level, occupation and length of OGB experience.

TABLE I DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS (N= 142)

Percentage of respondents		Percentage of respondents	
Gender		Age	
Male	49.3	≤20 years old	7.7
Female	50.7	21-30 years old	27.5
Marital Status		31-40 years old	34.5
Single	43.7	≥41 years old	30.3
Married	55.6	Education	
Other	.7	High school and below	3.5
Occupation		College	9.9
Student	19.7	University	40.8
Government	43.0	Master's degree and above	45.8
Service industry	12.7	Length of OGB experience	
Manufacturing	7.7	Less than 1 month	11.3
High tech	7.0	1-6 months	20.4
Other	9.9	7-12 months	8.5
		More than a year	59.8

B. Measures Instruments

The research constructs were operationalized based on the related studies and a pilot test. With regard to computer self-efficacy, this study defined it as a person's perceptions of his or her ability to use computers in the accomplishment of a task [19]. There are three items in the scale developed by Compeau and Higgins [19], Oostrom, van der Linden, Born and van der Molen [18], and Sun and Jeyaraj [34]. This study defined perceived ease-of-use as the extent to which consumers believe that using an OGB website would be free from effort [10, 21]. There are four items in the scale derived from Davis [21] and Tsai, Cheng and Chen [10]. This study defined reducing search costs as the reduced costs associated with retrieving information about the contents, prices and purchase process of the products and services [39]. There are three items in the scale proposed by Teo and Yu [39], Kutlu [41], and Solomon [42]. Finally, this study defined OGB intention as consumers' subjective probability, intention, and prospects to purchase a product or a service from a OGB website [25], and three items used to assess this are based on Fishbein and Ajzen [22] and Tsai, Cheng and Chen [10]. Items in the questionnaire were measured using a seven-point Likert scale ranging from (1) strongly disagree to (7) strongly agree.

C. Data Analysis Procedures

First, this study uses SPSS statistical software to conduct the descriptive data analysis. Second,

this study uses the Partial Least Squares (PLS) path modelling (variance based structural equation modelling) to conduct the model analysis. This technique is less stringent with regard to the data distribution and sample size requirements compared to covariance-based structural equation modeling. The minimal demands on distributional assumptions and sample size make PLS an appropriate analysis technique for this study [50, 51].

IV. RESULTS

This study applied PLS modeling to validate the constructs of the information disclosure on OGB website, OGB website involvement, and OGB intention, and to test the hypotheses. The psychometric properties of the constructs were tested using confirmatory factor analysis (CFA) and using Smart PLS 2.0 M3 [52]. This process had two stages: (1) assessment of the measurement model; and (2) testing of the structural model.

A. The Measurement Model

Due to the fact that unidimensionality cannot be directly measured with PLS, but can be assessed using an exploratory factor analysis (EFA), this study applied EFA to establish whether the measurement items converge to the corresponding constructs (factors), whether each item loads with a high coefficient on only one factor, and whether this factor is the same for all items that are supposed to measure it. The measurement model of this study only CSE3 was not be classified into "computer self-efficacy" dimension and was therefore omitted, and the measurement model of this study thus achieved good unidimensionality [53].

This study assessed the quality of the measurement model by examining the construct reliability, convergent validity, discriminant validity, and standardized factor loadings of the latent variables [54]. Reliability is used to evaluate the internal consistency of a construct. CFA analysis of PLS provides the values for Cronbach's alpha and composite reliability (CR) for each construct. As can be seen from Table 2, all the constructs in the model possessed adequate internal reliability, as the Cronbach's alpha and CR

value of each construct is greater than 0.70 [55]. The four scales thus demonstrate adequate reliability. In addition, the analysis of the factor loadings of each item for all the constructs in the model shows that all the measurement items are significant at $p < 0.001$ [56, 57]. Furthermore, this study found that the average variance extracted (AVE) value for all the latent variables in the model is greater than 0.5 [51], which demonstrates that the constructs possess adequate convergent validity. Assessment of discriminant validity of the constructs was done by calculating the square root value of the AVE for each construct. The results show that all the square root values are greater than the correlation values with all other constructs (see the values on the diagonal in Table 3), which confirms the constructs possess adequate discriminant validity [58].

TABLE II PSYCHOMETRIC PROPERTIES IN THE NULL MODEL (N = 142).

Constructs	Items	Loading	CA	CR	AVE
Computer self-efficacy	CSE1	0.871	0.771	0.895	0.811
	CSE2	0.929			
	EOU1	0.938			
Perceived ease-of-use	EOU2	0.958	0.960	0.971	0.894
	EOU3	0.950			
	EOU4	0.936			
	SC1	0.907			
Reducing search cost	SC2	0.895	0.873	0.922	0.797
	SC3	0.876			
	GBI1	0.961			
Online Group-buying Intention	GBI2	0.965	0.944	0.964	0.899
	GBI3	0.917			

†CA = Cronbach's alpha; CR = Composite Reliability; AVE = Average Variance Extracted

** All standardized factor loadings are significant at $p < 0.001$.

TABLE III MEAN, S.D., AND INTERCORRELATIONS OF THE LATENT VARIABLES.

Constructs	Mean	S.D.	Computer self-efficacy	Perceived ease-of-use	Reducing search cost	Online Group-buying Intention
Computer self-efficacy	5.751	1.017	0.900			
Perceived ease-of-use	5.734	1.143	0.589	0.945		
Reducing search cost	5.507	1.143	0.564	0.608	0.893	
Online Group-buying Intention	5.467	1.26	0.579	0.781	0.688	0.948

†Square root of the AVE on the diagonal.

B. The Structural Model

The structural model aims to examine the relationships among a set of dependent and independent constructs. A bootstrapping analysis with 5,000 samples and the original 142 cases was performed to examine the significance of the path coefficients. The results of the PLS analysis of the research model are presented in Fig. 2. R² measures the relationship of a latent variable’s explained variance to its total variance. Values of approximately 0.670 are considered substantial, values around 0.333 are considered average, and values around 0.190 are considered weak [51]. As can be seen from Fig. 2, the research model accounted for 68.6% of the variation in the construct of “online group-buying intention” and 34.7% of the variance in the construct of “perceived ease-of-use”. It means that substantial R² of 0.686 for the OGB intention and average R² of 0.347 for the perceived ease-of-use.

The significance of each path coefficients can also be seen from Fig. 2. All paths coefficients, except for H², was found to be significant (indicated by *** in Fig 2), providing support for propositions H¹, H³ and H⁴. H² states that the computer self-efficacy has a significantly positive influence on OGB intention. This hypothesis is not supported. In other words, computer self-efficacy strongly affected on perceived ease-of-use with path coefficient at 0.589 (t = 7.039; p < 0.001). It means perceived ease-of-use and reducing search cost strongly affected OGB intention, with path coefficients at 0.542 (t = 7.902; p < 0.001) and 0.311 (t = 4.276; p < 0.001) respectively.

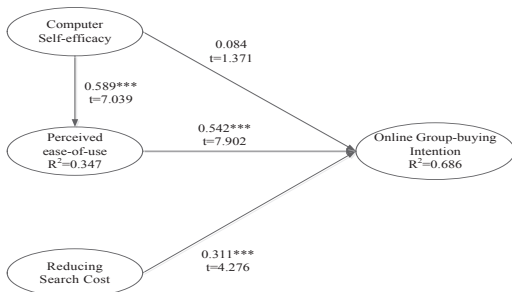


Fig.2 PLS Structural Model

*** denote path coefficients significant at the p<0.001 level.

V. CONCLUSION

This study provides valuable findings regarding the possible causal relationships among computer self-efficacy, perceived ease-of-use, reducing search cost and OGB intention. The results indicate that computer self-efficacy have an indirect influence on customers' intention to use OGB through the mediation of perceived ease-of-use; while, reducing search cost is an important factor that directly affect customer' intention to use OGB.

A. Implications for Practice and Research

As expected, the results of this study provided strong support for the first hypothesis and confirmed that the positive effect of computer self-efficacy on perceived ease-of-use was significant. It was in line with previous research which argued that individuals with high perceived computer self-efficacy were more inclined ease to using computer supported computer-related task [20, 23, 59]. Computer self-efficacy makes the estimation of technology acceptance easier by elaborating how willing a person would like to learn, to purchase goods online, and utilize decision-making systems [14, 28]. As anticipated, the increased ubiquity and decreased cost for computers and Internet access in the past years have made customers to include a degree of familiarity with standard computer software packages as a basic prerequisite [29]. The developing trend would not only be in favor of increasing customers' computer self-efficacy, but also be helpful improving customers' perceived ease-of-use.

The second hypothesis examined the links between computer self-efficacy and OGB intention. The present study didn't find the significant influence of computer self-efficacy on OGB intention. The result seemed to be inconsistent with the findings obtained in Vijayasathy [27] and Chen, Yen and Chen [28] suggesting that self-efficacy has a direct effect on behavioral intention. One possible explanation for the different result might be the different the context of research framework. In the study of Vijayasathy [27] and Chen, Yen and Chen [28], they explored the effects of self-efficacy and attitude on behavioral intentions,

as well as the effect of perceived ease-of-use on attitude. In other words, they did not explore a direct effect of perceived ease-of-use on behavioral intention. Instead, they explore the mediate effect of attitude between perceived ease-of-use and behavioral intention. However, in the present study, the influence of computer self-efficacy on perceived ease-of-use, and then the influence of perceived ease-of-use on OGB intention were explored. Thus, computer self-efficacy may be a strong predictor of OGB intention through perceived ease-of-use. The result might be explained in the light of following arguments.

The third hypothesis examined the links between perceived ease-of-use and OGB intention. It appeared that perceived ease-of-use positively and significantly affected OGB intention. It was in line with previous research which argued that individuals with high perceived ease-of-use were more inclined to using computer supported their intentions to adopt [33, 35]. Davis [21] indicated the ease-of-use is a very powerful mediator that influences technology adoption. In fact, the influence of ease-of-use is especially more significant in the OGB context. This is because the OGB features and design can reduce the cognitive effort required to use the OGB websites and, in this way, satisfies the business objectives of having more customers spending time on the OGB website and participate in the OGB activities. Therefore, if OGB websites can increase customers' perceived ease-of-use, then this may enhance their OGB intention. This research thus suggests that OGB websites should provide ease-of-use functions on the OGB website for customers, as well as enhance their OGB intention.

With regard to the fourth hypothesis, the results of this study provided strong support for the fourth hypothesis and confirmed that the positive effect of reducing search cost on OGB intention was significant. That is if OGB can provide sufficient information cues, consumers can lower cognitive searching costs, which, in turn, increase consumers' OGB intention. It was in line with previous research which argued that if an OGB website can significantly decrease the search costs for products/services

the consumers are looking for, then they will have higher intention to purchase certain products/services on the OGB website [37, 48, 60]. Therefore, if an OGB website can accurately and immediately provide the information to their targeted consumer, the OGB website will save the consumer time, efficiently size down the consideration set of products, and result in higher OGB intention. Due to the unique electronic environmental context, the consumers still perceive online shopping as risky and uncertain, leading their need to spend time and effort to evaluate the necessary products information [61]. This study thus suggests that the OGB websites can provide more detail information about products/services and increase customers' OGB knowledge so as to convince and empower them in their purchase intentions [49]. Chen and Lee [62] also pointed out that the level of information disclosure on dining blog will help decrease consumer search costs when looking for information on restaurants. In other words, OGB websites should not only provide a stable platform, but also provide a customized search function in order to meet consumers' personal preferences (for example, searching by region or category), so that they can quickly find information regarding the products/services they are looking for, thus decreasing search costs and increasing OGB intention [63].

B. Limitations and Further Research

Although the findings of this study have a number of meaningful implications for practitioners, there are also certain limitations, as follows. First, this research applied a purposive sampling method and obtained a slightly inadequate number of respondents. Therefore, it is suggested that future research should apply a random sampling method to collect more responses and increase the generalizability of the findings. Second, the sample used in the survey was limited to the Taiwanese context, which means that limited generalizability may occur. Therefore, it is suggested to do future studies with focus on broader data collection and replication of this research in other or larger contexts and/or investigate the impacts of regional and cultural

elements. Third, it should be noted that this study has excluded discussions that affect the search costs, such as product types, product attributes, and product complexity. Hence, variations in product properties, types and degrees of complexity certainly will result in various degrees of impact on search costs. It is also suggested that those impacts should be included in the future research.

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