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Exploring Factors Effecting the Continuance of Purchasing Behavior in Internet Shopping: Extrinsic Benefits and Intrinsic Benefits

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Previous research examined how extrinsic and intrinsic factors influence customers to shop online. Conversely, the impact of these factors on customer retention in Internet shopping has not been examined. This study is one of the few attempts to investigate the perceived benefit factors effecting customers' continuance of purchasing items through the Internet. According to an online questionnaire filled out by 1,111 online customers to conduct a multiple regression analysis, extrinsic benefits measured in terms of time and money savings, social adjustment, and self-enhancement as well as intrinsic benefits measured in terms of pleasure and novelty as well as fashion involvement have strong effects on the continuance of purchasing. Our findings indicate that customer retention must be promoted in Internet shopping by guaranteeing not only extrinsic benefits but also intrinsic benefits. This study discusses the relevant techniques providing those benefits to customers and guidelines for future research.

1. Introduction

There are plenty of studies on customer behavior that investigate the factors influencing purchases through the Internet. However, the factors effecting repeat purchasing through Internet shopping are also important. Since keeping the customer purchasing a product/service is essential to maintaining the profitability of any business, the continuance of purchasing through the Internet is vital to online business. Despite this need to succeed in business [11], the factors effecting the continuance of purchasing items through the Internet have rarely been explored. Recent studies show that investigating the factors effecting the continuance of purchasing behavior in an online environment helps to create an effective customer-retention strategy and to determine the impact of the identified factors on the products and services offered by Internet shops [7],[18].

As the fundamental reason for the existence of true market segments is the benefit that people derive from consuming a given product [13], the benefits of Internet shopping for customers have been discussed in literature. Generally, the benefits are time savings and the convenience of shopping without being restricted by store hours or locations. These extrinsic benefits serve as a means to help customers achieve other outcomes, for example, to reduce time spent and to gain convenience or efficiency. Shang, et al. found that an extrinsic factor, perceived usefulness, was not an antecedent of purchasing through Internet shopping, but rather, intrinsic motivations, fashion and cognitive absorption, were more important than extrinsic ones [23]. Considering this, the extrinsic benefit and intrinsic benefit customers get by shopping online can be used as a measure of the willingness of a customer to continue purchasing from an Internet shopping website. While prior studies have examined the benefits that encourage a customer to purchase through the Internet, this study examines the extrinsic and intrinsic benefits effecting the customer's intention to continue purchasing items through the Internet. By applying exploratory factor analysis, the underlying factors among the variables in the analysis can be discovered. These factors were investigated as to whether there is any relationship with the continuance of purchasing behavior by using multiple regression analysis.

In the following section, we discuss the literature that is relevant to the continuance of purchasing behavior and the benefits of Internet shopping. Next, the methodology, measurement development, and reliability analysis are described in the third and the fourth sections, respectively. The results are discussed in the fifth section. Finally, we present our conclusions and discuss the limitations of the present research and guidelines for future research.

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2. Continuance of Purchasing Behavior in Internet Shopping

The phrase "continuance of purchasing behavior in Internet shopping (CPB)" refers to a customer's intention to continue purchasing items through Internet shopping after he/she has purchased products or services online.

Many studies on customer behavior, in particular, customer satisfaction and intention to continue purchasing, have applied expectation-confirmation theory in the EC context. According to previous studies [6),7),18)], the factors effecting the continuance of purchasing online are satisfaction, confirmation, loyalty incentives, psychological factors including trust and satisfaction, and merchant characteristics including service quality. In the literature, perceived benefit has not yet been examined in the context of behavior of consumers who may continue to purchase through the Internet. This called for a study on the perceived benefits effecting continuance of purchasing through Internet shopping.

One of the outstanding studies examined the antecedents of customers' intention to continue to use an online brokerage, which is a kind of EC service [4). By adding a new factor, customer loyalty, to Bhattacherjee's study [4), a model of repurchasing factors of Internet shopping examining the key factors underlying customers' intention to continue purchasing items through the Internet was developed by Atchariyachanvanich, et al. [2). Reference 2) focused on five factors including confirmation, satisfaction, perceived usefulness, perceived incentives, and customer loyalty, which accounted for 46% of the variation in the repurchase intention. This means that there must be other variables that have an influence also. Therefore, this study would propose and examine a new factor, perceived benefit that effects the customer's intention to continue purchasing through Internet shopping.

3. Benefits of Internet Shopping

According to Haley's study [13), the fundamental reason for the existence of true market segments is the benefit that people derive from consuming a given product. He also argued that benefits sought by consumers determine their behavior much more accurately than do demographic characteristics or volume of consumption. He further pointed out that "a substantial group of people must be interested in your specific set of benefits before you can make progress in a market". This implies that online customers must be interested in Internet shopping's benefits before Internet shops can make progress in a market aspect such as customer retention. Once an online customer perceives benefits of purchasing items through the Internet, they will tend to purchase again. This brings us to a new factor, perceived benefit, which may effect the customer's intention to purchase again through Internet shopping.

Two kinds of benefits, extrinsic benefits and intrinsic benefits, were identified by previous studies in the information systems domain. Reference 10) indicated that extrinsic motivation (usefulness) and intrinsic motivation (enjoyment) influenced computer usage intention. Reference 15) identified seven benefits (i.e., monetary savings, time savings, self-enhancement, social adjustment, pleasure, novelty, and altruism) that could motivate customers to disclose their personal information to Internet businesses. In the domain of Internet shopping, the intrinsic factor in terms of fashion involvement was more important than extrinsic factors in explaining why customers shopped online [23). Although the largest number of benefits has been identified in the context of online information disclosure [15), they have not been examined in the context of Internet shopping. Therefore perceived benefits in terms of extrinsic and intrinsic benefits are proposed based on previous studies [10),15),23).

3.1 Extrinsic Benefits

Extrinsic benefits offer means with which customers can achieve other goals [15). Since extrinsic motivation refers to the performance of an activity because it is perceived to be helpful in gaining valued outcomes that are distinct from the activity itself [10), extrinsic benefits pertain to the benefits obtained from the outcome of performing the activity, but are distinct from the activity itself. Such benefits can motivate a consumer's intention to perform an action to gain benefits that serve as a means to reach other outcomes. Four types of extrinsic benefits classified in Ref. 15), were adapted to the domain of consumer behavior in Internet shopping.

Time saving refers to benefits that provide better efficiency or convenience. The benefits of time saving are to reduce time spent on and to achieve convenience in shopping. Time saving

may effect online customers because it allows them to carry out more activities. As Internet shopping lowers the customers' time cost to obtain information about product prices and product offerings [3], it may encourage them to shop online again. Thus, we propose that:

H1: Time saving positively effects a customer's continuance of purchasing behavior in Internet shopping.

Money saving includes means for customers to reduce money spent on shopping and to gain free gifts such as discounts, vouchers, loyalty points, etc. Perceived incentives in terms of free gifts, free coupons, and points were found to significantly influence the intention to repurchase in Internet shopping [2]. Customers are generally concerned about the cost of purchasing a product or service. If Internet shopping can help them save money in purchasing items, they may come back to purchase again. Therefore, we propose that:

H2: Money saving positively effects a customer's continuance of purchasing behavior in Internet shopping.

Social adjustment refers to the customers' need to establish social identities by assimilating into desired social groups. In general, customers have a desire to align with others who are like-minded [15]. Internet shopping provides additional services to satisfy such a desire. For example, a beauty club webpage is made for online customers who like purchasing beauty products and also to exchange and share knowledge about those products. This may motivate online customers to visit the Internet stores and purchase from them again. Thus, we propose that:

H3: Social adjustment positively effects a customer's continuance of purchasing behavior in Internet shopping.

Self-enhancement refers to means for customers to assert their self-concept or to maintain self-esteem in relation to others. Hui, et al. asserted that Internet businesses can possibly make use of such characteristics by bundling self-enhancement benefits with requests for personal information [15]. In addition, the consumer behavior of an individual will be directed toward enhancing self-concept through the consumption of goods as symbols [24]. For example, online customers will be recognized by the Internet store on their next purchase after they have registered as members of the Internet store. We posit that:

H4: Self-enhancement positively effects a customer's continuance of purchasing behavior in Internet shopping.

3.2   Intrinsic Benefits

Intrinsic benefits refer to the benefits gained from purchasing through Internet shopping, apart from any purchase consequences that may be anticipated, and are ends in themselves to customers [10],[15]. When a customer considers the intrinsic benefits, they perform a task simply because the performance of the task offers them benefits. Previous studies [15],[23] indicate that online customers seek out consumption experiences obtainable from purchasing (pleasure, novelty, and fashion involvement) as ends in themselves.

Pleasure is defined as the extent to which the activity of purchasing in Internet shopping is enjoyable and pleasant in its own right, apart from any purchase consequences that may be anticipated [10],[15]. Jarvenpaa and Todd show that Internet customers miss the fun and atmosphere of shopping in traditional stores [16]. In response to this problem, Aberg and Shahmehri developed the Human Web Assistant to provide efficient user support to make a website more fun to use, to increase the customers' trust in the website, and to improve the website's atmosphere [1]. In addition, virtual reality storefronts offer online customers additional ways to find enjoyment through Internet shopping. This perception of pleasure may make customers more likely to purchase again in Internet shopping. Thus, we hypothesize that:

H5: Pleasure positively effects a customer's continuance of purchasing behavior in Internet shopping.

Novelty focuses on means that help customers fulfill their innate needs for exploration or information. Hui, et al. indicated that the curiosity of customers can be stimulated by an appropriate level of information complexity [15]. As Internet shopping websites provide plenty of information about products, support, payment methods, and delivery channels, these benefits may make customers visit Internet shopping websites again. This leads to the hypothesis that:

H6: Novelty positively effects a customer's continuance of purchasing behavior in Internet shopping.

Fashion involvement is defined as the degree to which the activity of purchasing in Internet shopping enables customers to make purchases

according to their own fashionable behavior. Shang, et al. assumed that shopping is a fashionable behavior and adopted fashion involvement to conceptualize the effects of social influence[23]. Their study found that fashion involvement was more important than extrinsic factors in explaining behavior of online customers. Therefore, we propose that:

H7: Fashion involvement positively effects a customer's continuance of purchasing behavior in Internet shopping.

4. Methodology

Based on the well-established framework for developing measures of a construct[8], this study specifies the domain of the construct (i.e., Internet shopping benefits), generates items from literature reviews, collects data, purifies items, assesses reliability and validity, and develops norms.

4.1 Data Collection

This study targeted potential online users who have purchased a product or service through Internet shopping and intend to continue purchasing through it. The percentages of Internet users of the communication usage trend survey conducted in 2005 by the Ministry of Internal Affairs and Communications[20] were first used as a condition to screen our potential online customers or potential respondents. Then the percentages of age groups and gender of our respondents were set equally to those of the Internet users. Hence, this avoids an excess of answers from highly educated respondents or young respondents and ensures that the respondents will be selected randomly.

As the web-based survey was conducted in Japan, a Japanese version of the questionnaire was administered. The questionnaire, originally written in English, was translated into Japanese by bilingual speakers whose native language was Japanese and whose background was IT-oriented. The questionnaire was then translated back into English by another bilingual speaker whose native language was English and whose background was also IT-oriented. The English versions were then compared, and no item was found to pertain to a specific cultural context in terms of language or to a specific IT-related context in terms of background translation.

The survey process consisted of four steps. First, the percentages of age groups and gender were set equally to those of the Internet users

of the communication usage trend survey[20]. The segments of respondents in the database were set to these percentages. Then an invitation to fill out an online questionnaire was electronically mailed to 6,000 registered opt-in-mail members of 'goo Research' of NTT Resonant Inc., Japan (www.goo.ne.jp) on March 15, 2007. Secondly, the respondents answered a pre-test questionnaire posted on the goo website during March 16–19, 2007. This pre-test was to screen online users who have purchased a product or service through Internet shopping and might intend to continue purchasing through it. Then 2,926 samples were recorded as pre-test respondents in the database. Thirdly, if the percentage of pre-test respondents in each age group and gender was higher than the segments set in step 1, the system would randomly select the respondents from among each segment. Then 2,000 respondents were randomly selected as potential respondents and received the opt-in mail with the invitation for the post-test questionnaire attached. Lastly, they answered the questionnaire during March 20–25, 2007. The percentages of target respondents were recorded until they reached the segments set in step 1. Hence, the system automatically stopped gathering the online questionnaire when the segments were completed. After completing all steps, 1,111 target responses had completed and they had successfully reached the segments of target respondents set in step 1. The respondents received a point as a reward if they completed the online questionnaire.

To replicate the distribution of online customers of Internet shopping in Japan[21], sample weighting[⋆1] was applied to assign a weighted variable to each response. The weighted variable was created based on the percentages of gender and age group[21]. Then each response in the dataset was weighted by their weighted variables. As a result, the distribution of the dataset is now applicable to the distribution of online customers of Internet shopping in Japan. **Table 1** presents the respondents demographic data.

4.2 Measures

The post-test questionnaire consisted of two

⋆1 Sample weighting is used to correct disproportional sample sizes and adjust the collected data to represent the population from which the sample was drawn[9]. During a period of data collection, the population of online customers[21] is the newest one that is suitable for doing sample weighting.

Table 1 Demographic data of respondents ($N = 1,111$).

Category	Percentage (%)
Gender:	
Male	52.2
Female	47.8
Marital Status:	
Single	39.8
Married	60.2
Age:	
15-19	7.4
20-29	19.7
30-39	21.8
40-49	18.9
50-59	18.4
>=60	13.8
Annual Income: (1 USD = 119 JPY)	
Less than 25,210 USD	13.2
25,210-50,420 USD	33.8
51,421-75,630 USD	19.4
Greater than 75,630 USD	18.2
Missing values	15.4
Education level:	
Secondary School	3.0
High School	30.3
Vocational School	10.4
College	10.1
Bachelor Degree	39.6
Master Degree	4.1
Doctoral Degree	1.9
Others	0.6
No. of Purchases within 6 months:	
1-5	30.0
6-10	42.7
11-15	9.2
16-20	9.5
20-25	1.3
26-30	4.5
Over 30	2.8

Table 2 Descriptive statistics of data ($N = 1,111$).

Items	Mean	Std. Deviation
E1: Convenience	4.41	0.63
E2: Save time	4.08	0.81
E3: Shop/find information easier	3.89	0.74
E4: Shop/find information more quickly	3.68	0.83
E5: Save money	3.13	0.92
E6: Offer lower prices	3.46	0.87
E7: Interact with other customers in EC communities	2.73	0.88
E8: Interact with like-minded people	2.67	0.93
E9: Recommendation from like-minded people	3.04	0.92
E10: Exchange idea and compare experience	3.01	0.92
E11: To be recognized when purchasing again	2.84	0.95
I1: Enjoy using Internet shopping	3.92	0.76
I2: Be happy when using Internet shopping	3.75	0.71
I3: Be delighted with experience of Internet shopping	3.31	0.88
I4: Stimulate curiosity	3.54	0.86
I5: Provide customers with the product/supplemental information that they are interested in	3.57	0.78
I6: Offers options to perform task in different ways	3.78	0.71
I7: Opportunity to make oneself appear fashionable	2.48	0.93
I8: Boast of being the first one who possess a product	2.55	1.06

sections. The first section was designed to gather demographic characteristics including age, gender, education level, personal monthly income, and Internet activities. In the second section, the measurement items were developed from previous studies on the EC benefits for customers [26] and the literature discussed in Section 3. In addition, new measurement items were adapted from Ref. 15). The items were modified to fit the domain of Internet shopping when necessary. A 19-item scale measuring perceived benefits and one item measuring overall customers' continuance of purchasing behavior in Internet shopping were developed (see Appendix A.2). The scale items of perceived benefits were classified into two major categories: extrinsic benefits and intrinsic benefits. The respondents were requested to evaluate the level of their agreement with each scale item on a five-point Likert scale ranging from (1) "strongly disagree" to (5) "strongly agree". **Table 2** represents the descriptive statistics of all scale items. Each item's mean values ranged between 2.48 and 4.41, while the

standard deviation values were between 0.64 and 1.06. In this study, a dependent variable, CPB, was measured by "Internet shopping will become my first choice when I buy a product". It is the highest loaded item representing the repurchase intention from Ref. 2). The mean and standard deviation values of CPB were 3.22 and 0.958, respectively.

4.3 Exploratory Factor Analysis

Before performing an exploratory factor analysis (EFA), one needs a strong conceptual foundation to support the assumption that a structure does exist [12]. Hence, it must be certain that the data matrix has sufficient correlations to justify the application of factor analysis. Kaiser's measure of sampling adequacy (MSA) was used to quantify the degree of intercorrelations among the variables and the appropriateness of factor analysis. The overall MSA was 0.897. In addition, all individual variables' MSAs ranged from 0.500 to 0.849. This clearly suggests that factor analysis can be used to extract research factors [12].

EFA was applied to the 19 benefit items by using the principle components extraction

method and varimax rotation. The criteria used in this analysis are outlined as follows [12]:

1.   Factors with eigenvalues or latent roots of all components should be greater than 1.0,
2.   Communalities of all items should be more than 0.5;
3.   The factor loadings of ±0.50 or greater are considered necessary for practical significance; and
4.   Cronbach's alpha values of each factor extracted and overall measure should be greater than 0.7.

The EFA extracted items into four factors that passed all criteria. To justify the extracted factors from the factor analysis, a reliability analysis was performed on items classified under each extracted factor as well as the overall scale. None of the four factors' alpha was lower than 0.7. Consequently, these factors provide a reliable and consistent measure of intended dimensions and no further elimination of items appears necessary. **Table 3** shows the final factors with meaningful factor names, loadings, communality, Cronbach's alpha, eigenvalues, and percentage of trace. Factor 1 with six items, factor 2 with five items, factor 3 with six items, and factor 4 with two items were loaded. Each factor was subjectively named from the nature of the grouped items with significant loadings:

1.   Factor 1 Pleasure & Novelty: I1, I2, and I3 — Pleasure; I4, I5, and I6 — Novelty
2.   Factor 2 Social adjustment & Self-enhancement: E7, E8, and E9 — Social adjustment; E10, and E11— Self-enhancement
3.   Factor 3 Time & Money Savings: E1, E2, E3, and E4 — Time savings; E5 and E6 — Money savings.
4.   Factor 4 Fashion involvement: I7 and I8

The correlation matrix was used to investigate the convergence of the 19-item scale, as shown in Appendix A.1. In order to justify the convergent validity, the correlations among the items of the same construct should be positive and large enough to represent common characteristics shared by the group items [5]. The smallest within-construct correlations, as showed in Appendix A.1, were: Factor 1 $(I1 - I6) = 0.43$; Factor 2 $(E7 - E11) = 0.50$; Factor 3 $(E1-E6) = 0.19$; and Factor 4 $(I7-I8) = 0.60$.

Table 3 Component matrix of exploratory factor analysis ($N = 1,111$).

Items	Factor Loadings[a]				Comm-unality
	1	2	3	4	
E1: Convenience			0.581		0.581
E2: Save time			0.660		0.517
E3: Shop/find information easier			0.578		0.528
E4: Shop/find information more quickly			0.624		0.507
E5: Save money			0.692		0.644
E6: Offer lower prices			0.654		0.558
E7: Interact with other customers in EC communities		0.861			0.775
E8: Interact with like-minded people		0.878			0.807
E9: Recommendation from like-minded people		0.827			0.741
E10: Exchange idea and compare experience		0.820			0.717
E11: To be recognized when purchasing again		0.607			0.568
I1: Enjoy using Internet shopping	0.801				0.687
I2: Be happy when using Internet shopping	0.652				0.537
I3: Be delighted with experience of Internet shopping	0.702				0.651
I4: Stimulate curiosity	0.768				0.702
I5: Provide customers with the product /supplemental information that they are interested in	0.707				0.601
I6: Offers options to perform task in different ways	0.708				0.620
I7: Opportunity to make oneself appear fashionable				0.666	0.677
I8: Boast of being the first one who possess a product				0.735	0.669
					Total
Sum of squares (eigenvalues)	6.702	2.912	1.345	1.126	12.085
Percentage of trace	35.28	15.33	7.08	5.93	63.61
Cronbach's alpha (Overall = 0.893)	0.871	0.894	0.770	0.743	

[a] Factor loadings less than .50 are not printed; Rotation converged in 8 iterations.

Table 4   Correlation matrix of the factors.

Factors	Fashion involvement	Social adjustment & Self-enhance ment	Pleasure & Novelty	Time & Money Savings
Fashion involvement (I7-I8)	0.486			
Social adjustment & Self-enhance ment (E7-E11)	0.426	0.646		
Pleasure & Novelty (I1-I6)	0.153	0.172	0.522	
Time & Money Savings (E1-E6)	0.045	0.095	0.531	0.404

Table 5   Results of multiple regression analysis.

	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Beta		
(Constant)	3.218		31749.185	0.000
Social adjustment & self-enhanc ement (E7-E11)	0.181	0.190	1783.222	0.000
Pleasure & novelty (I1-I6)	0.363	0.380	3579.654	0.000
Time and money savings (E1-E6)	0.370	0.388	3653.601	0.000
Fashion involvemen t (I7-I8)	0.144	0.151	1417.844	0.000

Discriminant validity is the extent to which a factor is truly distinct from other factors. Indeed, Hair, et al. suggested that average variance extracted can be used to evaluate discriminant validity [12]. To demonstrate the discriminant validity of the constructs in this study, the square root of average variance extracted for each factor should be greater than the correlations between that factor and all other factors. **Table 4** shows the correlation matrix of the factors. The assessment of discriminant validity indicates that the square root of average variance extracted of all factors, except that of time and money savings, is greater than the correlations between that factor and all other factors.

Overall, these results provide empirical support for the reliability and convergent validity of the items of our research model.

5. Results of Multiple Regression Analysis

A multiple regression analysis was conducted to investigate the impact of perceived benefits on the continuance of purchasing behavior in Internet shopping. **Table 5** shows the results of the multiple regression analysis for continuance of purchasing ($R^2 = 0.354$). According to the beta coefficients, the factor that has the highest impact on the continuance of purchasing behavior is time and money savings ($\beta = 0.39$; $p < 0.01$), followed by pleasure and novelty ($\beta = 0.38$; $p < 0.01$), social adjustment and self-enhancement ($\beta = 0.19$; $p < 0.01$), and fashion involvement ($\beta = 0.15$; $p < 0.01$). Extrinsic benefits (time and money savings, social adjustment, and self-enhancement) and intrinsic benefits (pleasure and novelty, fashion involvement) are statistically significant factors effecting the continuance of purchasing behavior in Internet shopping. As a result, all hypotheses (H1-H7) were supported.

The results showed that not only extrinsic benefits but also intrinsic benefits influenced the online customers' intention to continue shopping online. Surprisingly, extrinsic benefits in terms of time and money savings and intrinsic benefits in terms of pleasure and novelty have the most significant effect on CPB. Purchasing items through Internet shopping saved customers' time to shop and find information and saved them money, as online prices are lower than offline prices of the same products. This indicated that online customers intend to purchase again through Internet shopping because it can solve their problems in shopping that are lack of time and financial constraint [25]. The results also suggest that offline customers may turn to purchasing through the Internet to solve these problems. If this is true, it will help increase the number of online customers. In addition, Internet shopping impressed online customers by arousing their curiosity and offering enhanced shopping experiences. The Internet shopping website gives consumers a different shopping experience because the interaction between the merchant and the consumer is more engaging and enjoyable [14]. Although Ref. 17) argued that enjoyment in Internet shopping seemingly does not influence repeat customers to return, our positive significance of pleasure and novelty factor confirmed that online customers have an intrinsically enjoyable experience on-line that makes them purchase items again through the Internet.

Online customers gained the extrinsic benefits of social adjustment and self-enhancement. When they purchase through the Internet, they can interact and exchange ideas with other customers who have similar interests or attitudes. They realized that Internet shopping would assist them in purchasing the items recommended by like-minded customers. In addition, they perceived that they would be recognized by Internet shopping websites when they come back to purchase again. Although the online customers considered these benefits when continuing to shop online, the coefficient of the social adjustment and self-enhancement factor was still low. This may be because Internet shopping websites do not provide enough services promoting social adjustment and self-enhancement benefits to online customers. For example, although they want a recommendation from like-minded customers before making a purchase, this option is not always provided by Internet shopping websites.

It is interesting that online customers continued purchasing through the Internet because they were given opportunities to make themselves appear fashionable and to boast of being the first one who possessed the product. These perceptions were regarded as intrinsic benefits in terms of fashion involvement that are abstract and difficult to be evaluated. Consequently, Internet shopping websites are having difficulty in offering these benefits to their customers.

6. Conclusion

This paper is one of the first studies to investigate whether perceived benefits effect customers' continuation of Internet shopping purchases. 1,111 samples collected from online customers in the EC market of Japan were analyzed by using multiple regression analysis. The results confirm that not only extrinsic benefits (time and money savings, social adjustment and self-enhancement) but also intrinsic benefits (pleasure, novelty, and fashion involvement) have significant positive effects on the continuance of purchasing behavior in Internet shopping. The findings showed that people who consider both extrinsic and intrinsic benefits of online purchasing were more likely to purchase again in Internet shopping. Therefore, we call for technological development to provide techniques and services for ensuring online customer's benefits that minimize time and

cost of purchasing, enhance customers' social self-concept behavior, establish customers' social identity, improve enjoyment and pleasantness of online purchasing, and provide means to help customers arouse their curiosity when coming back to purchase again through Internet shopping.

7. Implications and Limitations

Despite several significant findings, we acknowledge three limitations in our study. First, it did not focus on any products, services, or Internet shopping websites. The empirical results for continuance intention may be biased or awry. For example, the respondents may have focused only on particular products/services or products that are not sold on the Internet. The perceived benefits factor influencing continuance intention in purchasing through Internet shopping for a particular product, service or Internet shopping website may be different from those we asserted in this study. It may be difficult to extend these results to an Internet shopping website selling a particular product and service. Second, as our model has been validated by and well explains the continuance of purchasing behavior of Japanese online customers, it should be validated with respondents from different nationalities such as Chinese and Americans. This is because the consumption behavior of our respondents, Japanese, is notably different from those of other societies [25]. Based on the same model, a comparative study of repurchasing behaviors of online customers from different nationalities should be done. The differences between online customer nationalities regarding their continuance of purchasing behavior in Internet shopping will yield insights that can help Internet shopping websites better retain customers in different world market segments. Finally, the measures of perceived benefits developed in this study are the first step in exploring how customers' intention to continue purchasing in Internet shopping are influenced by their perceptions of benefits gained from purchasing through Internet shopping. The measurement of social adjustment, self-enhancement, and fashion involvement should be further refined.

The interesting findings implied that the perceived intrinsic benefits in terms of pleasure and novelty are important to encourage online customers to continue purchasing in Internet shopping. This calls for an intention to offer

these benefits to online customers. Internet shopping websites need to enhance user interfaces to support the interactions between customers and their websites as well as the interactions among customers. Online customers would come back to purchase again if they got product or supplemental information. In case online customers want to get product instruction, the Internet shopping website should provide another webpage for product instruction. For example, a cosmetics online shopping website would provide another webpage to instruct their customers how to use and apply make-up.

As Internet shopping offers perceived extrinsic benefits in terms of social adjustment and self-enhancement to online customers by implementing a software agent in the web pages, researcher should consider developing an effective agent for this purpose. For example, FireFly Network (www.firefly.com) recommends such commodity products as music and books based on opinions of like-minded people [19]. This automated recommendation agent is called collaborative filtering and is one technique of personalization. Internet shopping websites should carefully select appropriate techniques to provide benefits to the customers because each technique serves a different purpose in online applications in the EC business domain [22]. Moreover, to further investigate how much the perceived benefits factor can be generalized, future research should integrate it to the model of repurchasing in Internet shopping [2] and study the effects of variables such as gender and income on the structural path hypothesized in the model.

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Appendix

A.1 Correlation Matrix of the Items (Table 6)

A.2 Scale Items

Extrinsic benefits:

E1   Using Internet shopping is convenient.

E2   Using Internet shopping saves me time.

E3   Using Internet shopping would make it easier for me to shop or find information.

E4   Using Internet shopping would enable me to shop or find information more quickly than using traditional stores.

E5   Using Internet shopping saves me money.

E6   Internet shopping offers lower prices than traditional stores for the same products.

E7   Internet shopping allows me to interact with other customers in EC communities.

E8   I should be given chances to interact with other like-minded people when I purchase through the Internet.

E9   Internet shopping recommends other things to purchase that other like-minded people appreciate.

E10   Internet shopping allows me to exchange ideas as well as compare experiences.

E11   Internet shopping recognizes me when I purchase through the Internet again.

Intrinsic benefits:

I1   I enjoy using Internet shopping.

I2   I am very happy to purchase products through Internet shopping.

I3   I am delighted with my experience of Internet shopping.

I4   Interacting with Internet shopping stimulates my curiosity.

I5   Internet shopping provides me with the products and supplemental information that I am interested in.

I6   When I purchase through the Internet, Internet shopping websites offer me options to perform tasks in different ways.

I7   When I purchase through the Internet, it gives me opportunities to make myself appear fashionable.

I8   I like to boast of being the first one who possesses a product.

Continuance purchasing behavior (CPB):

Internet shopping will become my first choice when I buy a product.

Table 6   Correlation matrix of the items.

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	I1	I2	I3	I4	I5	I6	I7	I8
E1	1.00																		
E2	0.60	1.00																	
E3	0.42	0.38	1.00																
E4	0.36	0.37	0.48	1.00															
E5	0.19	0.27	0.25	0.34	1.00														
E6	0.31	0.29	0.42	0.40	0.44	1.00													
E7	0.10	0.10	0.18	0.22	0.19	0.20	1.00												
E8	0.06	0.08	0.14	0.21	0.19	0.20	0.81	1.00											
E9	0.11	0.14	0.24	0.24	0.19	0.22	0.66	0.69	1.00										
E10	0.09	0.11	0.20	0.23	0.19	0.22	0.64	0.67	0.73	1.00									
E11	0.03	0.08	0.15	0.23	0.18	0.19	0.53	0.54	0.50	0.52	1.00								
I1	0.46	0.33	0.40	0.35	0.17	0.30	0.20	0.15	0.23	0.22	0.20	1.00							
I2	0.37	0.31	0.40	0.37	0.23	0.38	0.21	0.19	0.24	0.22	0.25	0.52	1.00						
I3	0.25	0.22	0.31	0.33	0.20	0.33	0.31	0.29	0.35	0.29	0.33	0.54	0.56	1.00					
I4	0.32	0.28	0.35	0.34	0.22	0.34	0.26	0.26	0.31	0.30	0.29	0.67	0.45	0.61	1.00				
I5	0.31	0.26	0.41	0.39	0.19	0.39	0.29	0.28	0.32	0.28	0.30	0.51	0.49	0.47	0.58	1.00			
I6	0.39	0.30	0.46	0.40	0.19	0.33	0.25	0.22	0.28	0.23	0.23	0.54	0.47	0.43	0.51	0.64	1.00		
I7	-0.01	0.07	0.10	0.16	0.19	0.20	0.48	0.50	0.42	0.42	0.57	0.14	0.16	0.31	0.30	0.24	0.12	1.00	
I8	0.04	0.09	0.08	0.15	0.19	0.19	0.32	0.37	0.37	0.36	0.42	0.19	0.21	0.40	0.37	0.26	0.14	0.60	1.00

Group labels: Time & money savings (E1–E6); Social adjustment & self-enhancement (E7–E11); Pleasure & novelty (I1–I6); Fashion involvement (I7–I8).

Note: Correlation is significant at the 0.01 level (2-tailed).

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