

# Does e-CRM can Enhance Customer Loyalty in Online Shopping?

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**Keywords** *e-CRM, Online Shopping, electronic commerce, Internet, Web site, Loyalty, Trust, Customer Satisfaction, Perceived Value, Repurchase Intention, Price sensitivity, Word-of-Mouth*

## **Abstract**

*Online shopping as a type of electronic commerce (e-commerce) is defined as the process consumers go through to purchase products or services over the Internet. As the business is moving online, it is become an opportunity for business to use Internet as a tool for customer relationship management (CRM/e-CRM) to maintain existing customers and attract new customers in order to enhance customer loyalty. This research describes a theoretical model for investigating e-CRM influences customer loyalty indirectly through trust, customer satisfaction, and perceived value. In addition, this research also examining how customer loyalty influenced repurchased intention, price sensitivity, and word-of-mouth. Based on the theoretical model, a set of hypotheses were formulated and tested empirically. The results of this research indicate that e-CRM successfully enhance the customer loyalty indirectly through trust, customer satisfaction, and perceived value. The customer loyalty also influenced high-level participation of repurchase intention and promoted positive word-of-mouth, while it is failed to achieve less sensitivity towards price. Finally, the theoretical and managerial implications are discussed.*

## **Introduction**

The Internet has evolved dramatically over the past 30 years. Recent studies (Keeley, Gilbert, and Mannicom, 2003) indicate that the Internet provides the foundation for electronic mail (e-mail), the World Wide Web (WWW), and electronic commerce (e-commerce). Customer Relationship Management (CRM) is the dynamic process of

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managing a customer-company relationship such that customers elect to continue mutually beneficial commercial exchanges and are dissuaded from participating in exchange that are unprofitable to the company (Bergeron, 2002). It is mostly defined in the terms of the acquisition and retention customers and the resulting profitability (Menconi, 2000; Nykamp, 2001). Effective CRM is assumed to lead to bottom-line benefits for the organization (Feinberg and Kadam, 2002).

The internet has provided a platform to deliver CRM functions on the Web (e-CRM), thus as business moves to the Web, e-CRM will move to center stage. CRM and e-CRM has direct and indirect impact on customer satisfaction, sales, profit, and loyalty (Feinberg and Kadam, 2002). Retaining customers is a financial imperative for electronic vendor (e-vendor), especially as attracting new customers is considerably more expensive than for comparable, traditional, bricks-and-mortar stores (Reichheld and Schefter, 2000). The development of loyalty in customers has become a crucial management issue. Aaker (1991) has discussed the role of loyalty in the brand equity process and has specifically noted that brand loyalty leads to certain marketing advantages such as reduced marketing costs, more new customers, and greater trade leverage. In the high competitive markets, being able to build loyalty in consumers is seen as the key factor in winning market share (Jarvis and Mayo, 1986) and developing sustainable competitive advantage (Kotler and Singh, 1981).

Online shopping as a type of electronic commerce (e-commerce) which used for business-to-business (B2B) and business-to-customer (B2C) transaction has shown a great success, especially in business-to-customer (B2C) transaction. Through the success of online shopping, it is necessary to determine whether consumers show satisfaction and

loyalty to a particular online shopping provider which they cannot touch. e-CRM effort through web service took the role to retain and maintain the relationship between online shopping provider and online shopping customers as well as in business-to-business (B2B) area and business-to-consumer (B2C) area which intend to enhance the customer loyalty to the online shopping provider. Luarn and Lin (2003) indicated that customer satisfaction, trust, and perceived value were found to be important determinants of customer loyalty.

The purpose of this research is to investigate how e-CRM effort can affect the customer loyalty indirectly through trust, customer satisfaction, and perceive value. In addition, this research also investigates whether the loyal customer will participate in repurchase intentions, price sensitivity reaction, and positive word-of-mouth (WOM). This paper's structure contains the literature review of all variables, research model and hypotheses, research methodology and results, and finally is the discussion of the result including implications for research and managerial activity.

## **Conceptualization of e-CRM**

The simple definition of e-CRM is customer relationship management on the web; however, e-CRM also includes the use of e-mail, e-commerce activity, and any other Internet-based customer touch points. The Web is an increasingly important touch point from the perspective of CRM, even though it accounts for much lower sales or customer support volume compared to the telephone, which is today's predominant CRM touch point (Bergeron, 2002). Similar to CRM, e-CRM also collecting customer's information and detail contacts which will be stored into the system. The reason for collecting

customer's data is to improve services provided directly to customers and to use the information in the system for targeted marketing and sales purposes.

Brown and Gulycz (2002) found that an ongoing process basis, performance information has to be acquired on who the customers are and their needs, customer purchasing patterns, the impact of marketing and/or communication efforts, the match between services and products and customers needs, and current levels of customer satisfaction. These information should then be used to plot current customer needs, wants and expectation; predict where customer needs, wants and expectation are growing; and predict future customer needs, wants and expectations.

Most people consider the web, like the fax and telephone, to be part of everyday business. Nowadays, interactivity and functionality are keys to the success of any Web site, and part of this interactivity is expected to include e-CRM. Bergeron (2002) has discussed the value of the Web and advantages of the Web in e-CRM. A Web touch point is most valuable when the following condition exist such as:

- customers are computer literate and likely to be online at least one day a week;
- The Web can provide more and better information than is available through other means, such as print media;
- The marginal cost of web publishing information for a particular product is lower on the web than through other means;
- Product variability-in price, specifications, or configuration-is high; and
- The volume of traffic on the Web site is high.

Instead of the value of the Web, there are also some advantages of the Web in e-CRM that are listed as follows:

Advantage of the Web in e-CRM	Advantage of the Web in e-CRM
<ul style="list-style-type: none"> <li>• Affordability</li> <li>• Amenability to new technology treatments</li> <li>• Availability</li> <li>• Degree of integration</li> <li>• Enhanced customer data collection</li> <li>• Enhanced interactivity</li> <li>• Flexibility</li> <li>• High information density</li> </ul>	<ul style="list-style-type: none"> <li>• Immediacy</li> <li>• Low marginal cost</li> <li>• New CRM service opportunities</li> <li>• Omnipresence</li> <li>• Personalization</li> <li>• Popularity</li> <li>• Repurposable content</li> <li>• Self-documentation</li> <li>• User control</li> <li>• Fun factor</li> </ul>

Table 1. Advantage of the Web in e-CRM

### *e-CRM in online shopping*

Online shopping is the process consumers go through to purchase products or services over the Internet. Based on the process of online shopping, online shopping as a type of e-commerce was defined into retail industry. Online shopping which called as online retail using retail Web site as the medium between the provider (retailer) and consumers. Retailers are at the front end of the supply chain and consequently are the “interface” from which consumers make their purchase and it is very important that retail industry is likely to be ahead of other industries in understanding CRM (Feinberg and Kadam, 2002).

The use of retail Web sites by consumers for purchase and information gathering (consumers are actually more likely to use Internet as an information search tool and then go to store to purchase, then make a purchase itself) suggests that these Web sites will be the essential e-CRM tool for all retailers in the future (Feinberg and Kadam, 2002). Therefore, it is necessary that retail Web sites at least have some e-CRM features. Feinberg and Kadam (2002) defined 42 e-CRM features based on site customization

(which can also be an enormous disadvantage) and alternative channels (different ways to contact the company).

e-CRM features	e-CRM features
1. Complaining ability	22. Toll-free numbers
2. Privacy policy	23. Track order status
3. Product information online	24. External links
4. Product highlights	25. Member benefit
5. Preview product	26. Spare parts ordering
6. Site map	27. On sale area
7. e-mail	28. Quick order ability
8. Purchase conditions	29. Site customizing
9. Customer service area	30. Postal address
10. About company	31. Order within 3 clicks
11. Local search	32. Domain fault repair
12. Problem solving	33. Find stores
13. Cross sell/up sell/add on sale	34. Gift certificate
14. Online purchasing	35. Fax
15. Check out	36. Request catalog
16. Info first time users	37. AFFINITY program
17. Membership	38. Chat
18. Mailing list	39. Bulletin Board
19. Product customization	40. Site tour
20. Your account info	41. VoIP
21. FAQ	42. Call back button

Table 2. e-CRM Features

In the process of online shopping, the payment can be done by using debit card, various types of electronic money, cash on delivery, cheque, wire transfer, postal money order, etc. Once the payment has been accepted the good and services can be delivered through download (music, video, software), shipping, in-store pickup, and print out (ticket). There are also some satisfactory and unsatisfactory in online shopping. The satisfactory of online shopping are including increased customization, convenience in shopping, responsiveness in product delivery, cost savings through lower prices, and able to fulfill most shoppers' needs. The unsatisfactory experience of online shopping can be

including security, ease of use, poor level of service, costs, and product delivered did not meet consumer expectations.

## **Research Model and Hypotheses**

Through the purpose of this research that is investigating how e-CRM effort can affect the customer loyalty in online shopping activities, we have designed a research model to support this research. The research model's design suggests that e-CRM is indirectly affect loyalty through trust, customer satisfaction, and perceived value. The research model also suggests that loyal customers will participate in repurchase behavior intentions, price sensitivity reaction, and promoting positive Word-of-Mouth.

### ***Definitions and Models***

Loyalty is defined as the intention of a consumer to repurchase products/services, not sensitive toward the price, and promoting positive word-of-mouth to others. Consumer who is loyal to a brand's products/services have experienced in satisfaction. Oliver (1999) defines brand loyalty as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior." Loyalty is impossible to quantify exactly. What can be quantified is customer behavior, where customer loyalty is concerned. The loyalty effect provides a model that can be used to predict customer behavior, based on factors that positively and negatively affect behaviors associated with loyalty (Bergeron, 2002). The positive contributors to behaviors consistent with loyalty include value,

investment, lack of alternatives and positive emotional bond (Bergeron, 2002). The greater the perceived value of the company's products or services, the greater the loyalty effect. The more time, energy, or money invested in a relationship, the more likely the relationship will continue. The more unique or readily available a product or service, the more likely a customer will continue buying it from a particular company. A personal, emotional bond with a company representative is often the most important factor in creating a loyal customer. Bergeron (2002) also found that negative contributors to loyalty behaviors include number of affordable alternatives and customer frustrations.

Trust is defined as one party's confidence in the other member's reliability, durability, and integrity and the belief that its actions are in the best interest of and will produce positive outcomes for the trusting party (Peppers and Rogers, 2004). A relationship of trust is one in which both parties feel "comfortable" continuing to interact and deal with each other, whether during a purchase, an interaction, or a service transaction. Companies create trust-based customer relationships through the action of their employees and partners, through company strategies and policies. Researchers have found trust to be important to both virtual teams and e-commerce (Hoffman, Novak, and Peralta, 1999; Jarvenpaa, Tractinsky, and Vitale, 1998). There are two concepts of trust in Web vendor/business, trusting beliefs and trusting intention, which is part of interpersonal trust (McKnight and Chervany, 2002). Trust is not so easily understood, and the steps required to generate a customer's trust are not necessarily simple. Peppers and Rogers (2004) found that there are several myths about trust such as intimate customer relationship require time and proximity; trust takes time; more customized contact is better; people trust companies; and people like to be asked their opinion.



Customer satisfaction in e-commerce activity can be called as user information satisfaction or end-user satisfaction. Both user information satisfaction and end-user computing satisfaction scales have been used to measure user satisfaction indirectly through information quality, system quality, and other variables (Luarn & Lin, 2003). Satisfaction is including in relationship building block. Satisfied customers are generally more incline to remain in the relationship and dissatisfied customers will generally seek to replace the supplier with an alternative, if it is available (Peppers and Rogers, 2004). Companies have to increase both the satisfaction and loyalty of their customers, but it requires specific method to measure them. Peppers and Rogers (2004) found that customer satisfaction is a helpful, but not a sufficient condition for maintaining customer loyalty. This means that satisfaction by itself does not guarantee loyalty; therefore, instead of maintaining existing customers, new customers must be attracted (Brown and Gulycz, 2002). For example, many companies have many satisfied customers who are not behaviorally loyal, while other companies have dissatisfied customers who remain behaviorally loyal.

Customer perceived value is the difference between the prospective customer's evaluation of all the benefits and all the costs of an offering relative to perceived alternatives. It is known that perceived value as the potential key determinant of loyalty, is composed of a “get” component as the benefits a buyer derives from a seller’s offering and a “give” component as the buyer’s monetary and nonmonetary costs of acquiring the offering (Luarn and Lin, 2003). Companies have to identify what creates value for each customer and then deliver that value to the customer. Many CRM practitioners focus exclusively on the differences in customer value, they want to know which customers are

the most important to the company's financial future, and should therefore be singled out for special care or targeted with growth initiatives (Peppers and Rogers, 2004). Although having a good knowledge of customers' value is important, we need have to know more about our customers than their value if we hope to use CRM tools to increase value. Companies have to understand that customers do not usually know or care what their value to the companies, customers simply want to have their problem solved, and every customer has a slightly different twist on how they want the process handled (Peppers and Rogers, 2004). This study focuses primarily on product and service quality, including Web site quality, as the get component and on time and money spent as the give component (Luarn and Lin, 2003).

Repurchase intentions is defined as the individual's judgment about buying again a designated service from the same company, taking into account his or her current situation and likely circumstances (Hellier *et al.*, 2003). Customer repurchase decision often depends on a general assessment of the service and supplier, based on multiple service transaction experiences with that supplier (Liljander and Strandvik, 1995). Hellier *et al.* (2003) found that brand preference and customer satisfaction have positive effect on repurchase intentions.

In customers view, price and quality of the products/services is very important. They are preferred to get the desired products/services in lower price with high quality. In the online shopping competition, customers can easily get information to comparing the price of the products/services through several online shopping Web sites. Companies have to be careful while implementing e-CRM strategy in the online shopping Web sites in order to create customer loyalty, which the loyal customer might be not sensitive toward the

price. The relative ease that products can be compared over the internet would increase the importance of price in a buyer's decision-making process, thus forcing prices to drop to relatively similar levels (Kelley, Gilbert, and Mannicom, 2003). Lower buyer costs in electronic marketplaces promote price competition among sellers, especially in low differentiated commodity markets (Bakos, 1998). Some retailers would charge low prices to attract informed customers while others charge high prices to sell to uninformed consumer category (Kelley, Gilbert, and Mannicom, 2003). Online shopping mostly offers lower price and efficiency in attracting customers. Degeratu *et al.* (1998) found that price sensitivity over internet was sometimes lower than the same products purchased through traditional channels. In addition, Brynjolfsson (2000) found that e-retailers of CDs and books "with lowest prices did not make the most sales." This finding would indicate that when people decided to buy the books and CDs, what they need is the quality inside the books or CDs and they cannot negotiate to get lower price. Kelley, Gilbert, and Mannicom (2003) found that "prices does not rule on the web; trust does," which there is a possibility of goodwill transfer – a positive purchasing experience in the traditional marketplace can lead to lower price sensitivity when the product, or brand, is purchased online.

Word-of-mouth (WOM) is defined as the passing of information by verbal means, especially recommendations, but also general information, in an informal, person-to-person manner. Word of mouth is typically considered a face-to-face spoken communication, although phone conversations, text messages sent via SMS and web dialogue, such as online profile pages, blog posts, message board threads, instant messages, and emails. In order to promote and manage word-of-mouth communications,

marketers use publicity techniques as well as viral marketing methods to achieve desired behavioral response. Through the increasing use of the Internet as a research and communications platform, word of mouth has become an even more powerful and useful resource for consumers and marketers. Consumers may use WOM as a means to gain attention, social status, superiority, or power by showing off what they have bought, what they have been doing, or to enhance their reputation as an expert (Wojnicki, 2006). In addition, Wojnicki (2006) also found that consumers who are satisfied generate more WOM than those who are dissatisfied, but only when they are experts, and only when they had a choice. Through the popularity of electronic consumer in virtual communities, when making a purchasing decision, consumers may turn to the community to gather information, ask for advice, or review experts' opinions. The result is an ongoing process of interpersonal influence and online word-of-mouth recommendation (de Valck, 2006). Consumers who tell others about products can be classified into four categories, depending upon the amount of information they give and receive (Lee and Zaichkowsky, 2006). Consumers who both give and receive a great deal of product-based are called socially integrated. Those who mainly give information, but do not care to receive it are called socially independent. Those who like to receive information, but rarely give information are deemed socially dependent. Finally, consumers who give and receive low amounts of marketplace information are deemed to be socially isolated. In CRM context, it is very important for company to generate positive customer experience, which will promote positive word-of-mouth, and it also make sense to keep working on a reduction of negative customer experience before it turns into negative word-of-mouth (Samson, 2006). In addition, Samson (2006) also indicate its effect on the individual

consumers, negative word-of-mouth may also spread more strongly across space and time compare to positive word-of-mouth.

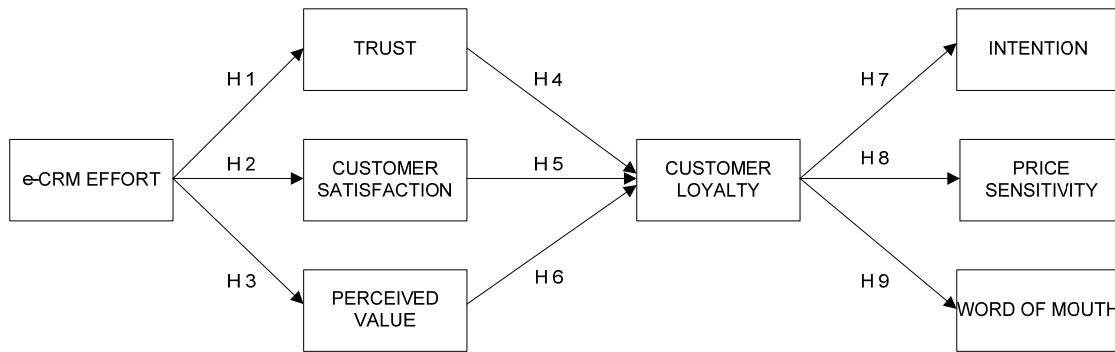


Figure 1. The Research Model

### ***Hypotheses***

Through the limited literature, it has been suggested e-CRM will promote loyalty and loyalty will promote behavioral intentions. From the customer’s perspective, CRM is about good (affordable, reliable, personable, truthful, and responsive) customer service. The customer that a company wants to hold onto, who will remain loyal, and bring his or her business to the company, is worth the trouble of paying for a good CRM system, not a frustrating one (Bergeron, 2002).

Trust is vital in many business relationships, especially those containing an element of risk, including interacting with an e-vendor (Luarn and Lin, 2003). As mentioned previously, a relationship of trust is one in which both parties feel “comfortable” continuing to interact and deal with each other, whether during a purchase, an interaction, or a service transaction. Therefore, it is very important for companies to create trust-based customer relationships through the action of their employees and partners, through

company strategies and policies (Peppers and Rogers, 2004). Customer satisfaction as a business term is a measure of how products and services supplied by a company meet or surpass customer expectation. It is commonly believed that e-CRM leads to customer satisfaction, which lead to sales and profit for company. Feinberg and Kadam (2002) found that it is generally accepted that e-CRM/CRM is related to customer satisfaction. Perceive value is the perceived e-service utility relative to its monetary and nonmonetary costs, assessed by customer and based on simultaneous considerations of what is received and what is given up to received it (Luarn and Lin, 2003). Kelley, Gilbert, and Mannicom (2003) found that e-CRM implementation effort related with the perceived degree of e-CRM. Therefore, we test the following hypotheses:

*H1: e-CRM effort will positively affect Trust.*

*H2: e-CRM effort will positively affect Customer Satisfaction.*

*H3: e-CRM effort will positively affect Perceived Value.*

Luarn and Lin (2003) have proposed that trust, customer satisfaction, and perceived value were found to be important determinants of purchase loyalty. Trusting beliefs and trusting intention, which is part of interpersonal trust (McKnight and Chervany, 2002) might be engage in the trust related behavior such as loyalty. Morgan and Hunt (1994) found that brand trust leads to brand loyalty and commitment because trust exchange relationships that are highly valued. It is believed that customer satisfaction will lead to loyalty, although as mentioned previously, satisfied customer does not guarantee loyalty (Brown and Gulycz, 2002). In addition, Kelley, Gilbert, and Mannicom (2003) found that e-CRM implementation effort relates with the perceived degree of e-CRM received, and, in turn, is linked to the loyalty experiences by a virtual customer towards e-retailers.

The greater perceived value of the company's products or services, the greater the loyalty effect (Bergeron, 2002). Therefore, we test the following hypotheses:

*H4: Trust will positively affect Loyalty.*

*H5: Customer Satisfaction will positively affect Loyalty.*

*H6: Perceived Value will positively affect Loyalty.*

It is suggested that loyal customer will stay in good relationship with company and shown behavioral intentions. Taylor and Hunter (2002) proposed that loyal customer is engaged in the activities that support and strengthen their relationship with sponsoring e-CRM company, as well as engage in positive word-of-mouth activities within their own professional community. In addition, based on the conflicting views that price on the internet may or may not be important, it is proposed that the more loyal a customer is towards an e-retailer, the less sensitive he/she becomes towards price (Kelley, Gilbert, and Mannicom, 2003). Therefore, we test the following hypotheses:

*H7: Loyalty will positively affect Repurchase Intentions.*

*H8: Loyalty will show less positive affect to Price Sensitivity.*

*H9: Loyalty will show positive affect to Word-of-Mouth behaviors.*

## **Methodology**

### ***Data collection***

In order to preparing the research methods, we made questionnaires to collect study data. The questionnaires were spread by using e-mail. The questionnaire used five-point Likert-type scale items ("strongly disagree" to "strongly agree") to capture all of the constructs identified in the research model. The questionnaire was divided in two parts, demographic and respondent perceptions. This research took place in Seoul, South Korea where the online shopping phenomena is highly performed and also this research used

data from a quota sample of 160 students as respondents. The subject of this research is the well known online shopping Web sites in South Korea.

### ***Measures used in the study***

The measures in this current research were mainly adapted from prior studies to ensure content validity. The items for the e-CRM constructs were mainly adapted from Kelley, Gilbert, and Mannicom (2003). The items to measure trust, customer satisfaction, perceived value, and loyalty were taken from Luarn and Lin (2003), where the items for loyalty were including commitment attitude. The items to measure repurchase intentions and word-of-mouth behaviors were adapted from Taylor and Hunter (2002). Finally, the items to measure price sensitivity was adapted from Goldsmith *et al.* (2005) and modified to fit the online shopping context.

### ***Statistical methods used in the study***

This research used two statistical software, SPSS version 15 and LISREL 8.51. For the reliability analysis, mean, and standard deviation were processed using SPSS version 15. The research hypotheses were tested using structural equation modeling (SEM) analysis using LISREL 8.51. In addition to measuring the variables in the research model, demographic data was included in the survey instrument in order to ascertain the level of representative of the sample. The fit of the structural model was evaluated by examining RMSEA (Root Mean Square Error of Approximation), CFI (Comparative Fit Index), IFI (Incremental Fit index) which is recommended by Hu and Bentler (1999). In addition, this research also examining Chi-Square and Normed Chi-Square (the comparison



between Chi-Square and the degree of freedom) values. This study used an alpha level of 0.001 for all statistical tests.

## **Results**

All of the questionnaires has been transferred and processed electronically using statistical software such as SPSS and LISREL. The demographic profiles of the sample are presented in Table 3. It is noted that of the 160 respondents, three-fourth are males and one-fourth are females. In age profiles, the respondents who are 18 – 25 years old with 55 percent of respondents dominated it. The personal qualification is dominated by bachelor degree with 71.9 percent of respondents and mostly of the respondents' status is single (78.8 percent).

For the monthly expenditure, it is noted that 58.8 percent of respondents as the dominant participants are spending below ~~W~~500.000. This might be caused by the domination of the respondents' age are between 18 – 25 years old. G-Market is the most favorite online shopping Web site that respondents had chosen (35.6 percent) and the respondents mostly bought fashion products from their favorite online shopping Web sites, followed by books or CDs and electronic products. In this research, we allowed the respondents to choose more than one kind of product that they usually bought through online shopping Web site.

The reliability of the questionnaire scale was tested using cronbach's alpha ( $\alpha$ ) for 30 measurement items. The cronbach's alpha for scales in the model ranged from 0.631 to 0.850, which suggests that the measures for the scale were reliable.

Variable	Category	Frequency	Percent
Gender	Male	117	73.1
	Female	43	26.9
Age	< 18 years	3	1.9
	18 – 25 years	88	55
	26 – 35 years	41	25.6
	36 – 45 years	10	6.3
	> 45 years	18	11.3
Professional Qualification	Bachelor Degree	115	71.9
	Master Degree	23	14.4
	Doctorate Degree	5	3.1
	Others	17	10.6
Marital Status	Single	126	78.8
	Married	34	21.3
Monthly Expenditure	< ₩ 500.000	94	58.8
	₩ 500.000 – ₩ 1.000.000	31	19.4
	₩ 1.000.000 – ₩ 2.000.000	12	7.5
	> ₩ 2.000.000	23	14.4
Favorite Online Shopping Web Site	Auction	29	18.1
	G-Market	57	35.6
	Interpark	22	13.8
	Danawa	8	5
	D&Shop	5	3.1
	GS e-Shop	8	5
	Others	31	19.4
Most Products Bought (Respondents can choose more than one option)	Electronics	46	19.7
	Books or CDs	50	21.5
	Fashion	86	36.9
	Tickets	24	10.3
	Housewares	13	5.6
	Automotive tools	3	1.3
	Others	11	4.7

Table 3. Demographic data summary

### *Test of Model*

RMSEA (Root Mean Square Error of Approximation), CFI (Comparative Fit Index), and IFI (Incremental Fit index) values were 0.087, 0.80, and 0.80, respectively, which indicate a minimally acceptable fit (marginal fit). Chi-Square and Normed Chi-Square (df=396) values were 837.25 and 2.21, respectively. Thus, it can be concluded that the model fit is acceptable for testing the hypothesized relationship.

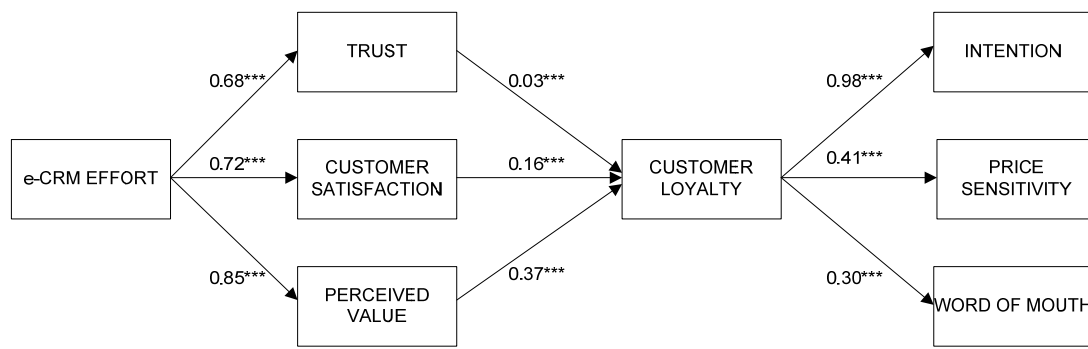
### *Hypotheses test*

The hypothesized relationship was tested by path analysis using structural modeling. Standardized path estimates are shown in Figure 2. In hypotheses H1, H2, and H3, we investigate the influence of e-CRM effort on trust, customer satisfaction, and perceived value. As expected, e-CRM had a strong positive effect on trust (path coefficient=0.68), customer satisfaction (path coefficient=0.72), and perceived value (path coefficient=0.85). Therefore, this indicates that hypotheses H1, H2, and H3 were supported. Based on these path coefficients, e-CRM has strongest effect on perceived value.

Hypotheses H4, H5, and H6 examine the paths from trust, customer satisfaction, and perceived value to Loyalty. Trust (path coefficient=0.03), customer satisfaction (path coefficient=0.16), and perceived value (path coefficient=0.37) shown a significant positive effect on loyalty. However, trust shown a very weak effect to loyalty and perceived value has strongest effect to loyalty. Therefore, this indicates that hypotheses H4, H5, and H6 were supported.

In hypotheses H7, H8, and H9, it was suggested that loyal customer will participate in repurchase intention, less sensitive towards price, and promote positive word-of-mouth.

Loyalty has positive effect on intention (path coefficient=0.98), price sensitivity (path coefficient=0.41), and word-of-mouth (path coefficient=0.30). Loyalty has very strong effect on perceive value. However, as hypothesized before that loyalty will have less affect to price sensitivity, the path coefficient between loyalty and price sensitivity shown a quite strong effect. This indicates that the respondents in this research shown that they are sensitive towards price although they are loyal customer. Therefore, hypotheses H7 and H9 were accepted, while H8 was rejected.



\*\*\* $p < 0.001$

Figure 2. Hypotheses Testing Result

## Discussion and Implications

This research investigated the indirect effect of e-CRM effort on loyalty through trust, customer satisfaction, and perceived value, and examined the direct effect of loyalty on repurchase intention, price sensitivity, and word-of-mouth. It is generally accepted that e-CRM effort has strong effect on trust, customer satisfaction, and perceived value, which indirectly influence loyalty. This finding suggests that e-CRM plays an important role to maintain relationship with the customers and e-CRM can support customers' needs very well. Perceived value play a crucial intervening role in the effect of e-CRM

to loyalty. This finding suggests that it is very important for online shopping provider to make sure what the customers want based on their expectation.

However, trust and customer satisfaction had not strong effect on loyalty. This findings suggest that although customers trust and satisfied with the product/services of the online shopping provider, it is not guarantee that they will loyal to those online provider because there is a high level of competition in online shopping context where all providers are competing very hard to attract the customers. For example, there are many online shopping providers attract the customers with lower price compare to other providers (Kelley, Gilbert, and Mannicom, 2003) and as mentioned before that satisfied customer does not guarantee loyalty (Brown and Gulycz, 2002). Based on this research's result, it had shown that loyalty failed to achieve less sensitivity toward price. This result related with the customers who are trust and satisfied with the product/services of the online shopping in their last experience, which had shown low effect on loyalty. This finding suggests that trusted and satisfied customers can be not loyal because of they are sensitive towards price, where other online shopping providers offering them a lower price while they want to make another transaction in the future. In addition, through the online shopping transaction, since we cannot feel and touch how is quality of the products that we want to buy and we only can see those products on the online shopping Web site, this caused that price is the only one preference that customers can compare from several online shopping providers.

Loyalty had a strong effect on repurchase intention that it may cause by the indirect effect between perceived value and loyalty. This finding suggests that while the customers have a great experience in their last transaction with their online shopping

provider, they found that the online shopping provider is very helpful and useful for them and they will not be doubtful to make another purchase with those online shopping in the future. Though, trust and satisfaction had not a strong effect on loyalty, there is still a possibility that there is an indirect effect between trust and satisfaction on repurchase intention through loyalty. This finding suggests that some of customers can stay loyal with their online shopping provider and participate in repurchase intention which may cause by there is no other alternative for them to buy the product that they need. Additionally, loyalty also had shown a positive effect to word-of-mouth. This finding suggests that loyal customers have a great intention to share their last good experiences in online shopping to other people, which is promoting positive word-of-mouth and it is expected that the positive word-of-mouth will attract new customers to participate in that online shopping transaction.

As the conclusion of this research, e-CRM effort implementation is successful to enhance customer loyalty in online shopping context, through indirect effect from customer trust, customer satisfaction, and customer perceived value. Additionally, customer loyalty influenced high-level of repurchase intention and promotes positive word-of-mouth, while customer loyalty failed to affect less sensitive towards price. The results of this research encourage online shopping providers to keep implementing great efforts of e-CRM in order to maintain the relationship with existing customers as well as new customers, because e-CRM can be also achieved by new customers when they visit an online shopping Web site and intend to make a transaction. Online shopping providers are encouraged to implement e-CRM in the pre-purchase transaction to enhance the trust, satisfaction, and perceived value for customers and in the post-

purchase to enhance customer loyalty that will lead to participate in repurchase intention, less sensitive towards price, and promoting positive word-of-mouth.

Online shopping provider must be very carefully to set the price of the products on the Web site because customers can easily get the information of products price through Internet and comparing which one is the best price that they can get from several online shopping providers. In addition, online shopping providers have to keep the customers' data safely and did not sell or share the customers' data to others. Customers will be happy if the online shopping provider that they had transaction before is calling them in order to maintain the relationship or offering some new products, but they will not be happy if other providers or companies is calling them for some reasons.

This research is using small size of sample and students as the respondents that are may not reflect the population of online shopping customers. However, large size of sample and various professions will provide more comprehensive research of the online shopping behavior in Korean population. In the future, this kind of research can be done in the country with different shopping culture where the online shopping phenomena is not highly performed, which may caused by the security awareness, traditional shopping satisfaction and low technology infrastructure.

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## Appendix

Variables	Mean	Std. Deviation
e-CRM 1	3.8375	1.29774
e-CRM 2	3.5563	1.15332
e-CRM 3	3.6812	1.29774
e-CRM 4	3.8000	1.29774
e-CRM 5	3.8750	1.29774
Trust 1	3.2000	1.29774
Trust 2	3.1937	1.07280
Trust 3	3.1188	1.07792
Trust 4	3.1500	1.10573
Customer Satisfaction 1	3.3313	1.02006
Customer Satisfaction 2	3.5313	.99002
Customer Satisfaction 3	3.2625	1.07275
Perceived Value 1	3.4438	1.16418
Perceived Value 2	3.3563	1.12907
Perceived Value 3	3.4688	1.03960
Customer Loyalty 1	3.1188	1.09528
Customer Loyalty 2	3.1062	1.15250
Customer Loyalty 3	3.0937	1.13158
Customer Loyalty 4	3.3813	1.12642
Customer Loyalty 5	3.2875	1.11247
Repurchase Intention 1	3.1562	1.27159
Repurchase Intention 2	2.6625	1.20213
Repurchase Intention 3	3.3375	1.05739
Price Sensitivity 1	2.7625	1.09019
Price Sensitivity 2	2.6563	1.18187
Price Sensitivity 3	2.8688	1.09019
Word of Mouth 1	2.8125	1.09019
Word of Mouth 2	2.9750	1.13797
Word of Mouth 3	2.7875	1.12930
Word of Mouth 4	2.9062	1.11698