

An examination of the determinants of customer loyalty in mobile commerce contexts

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Abstract

While the importance of customer loyalty has been recognized in marketing literature for at least three decades, the development and empirical validation of a customer loyalty model in a mobile commerce (m-commerce) context had not been addressed. The purpose of our study was to develop and validate such a customer loyalty model. Based on IS and marketing literature, a comprehensive set of constructs and hypotheses were compiled with a methodology for testing them. A questionnaire was constructed and data were collected from 255 users of m-commerce systems in Taiwan. Structural modeling techniques were then applied to analyze the data. The results indicated that customer loyalty was affected by perceived value, trust, habit, and customer satisfaction, with customer satisfaction playing a crucial intervening role in the relationship of perceived value and trust to loyalty. Based on the findings, its implications and limitations are discussed.

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1. Introduction

New types of e-commerce transactions, conducted through mobile devices (e.g., cellular phones, handheld or palm-sized computers, and even vehicle-mounted interfaces), using wireless telecommunication networks and other wired e-commerce technologies, are termed mobile commerce (m-commerce) [58].

Recently, the potential for using m-commerce applications led many organizations to expend substantial resources on these technologies. Delivering value-added, interactive, and/or location-based mobile services (e.g., banking, content download, emergency/roadside assistance, etc.) to customers seems to be increasingly important in gaining a competitive edge by strengthening relationships with key customers. However, Ankar and D'Incau [3] argue that the popularity of m-commerce cannot simply be measured by the popularity of mobile devices, just as the popularity of wired e-commerce cannot be measured by the

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popularity of computers. In addition, the collapse of large numbers of dot-com companies required managers to relearn that profits matter [53] and that traditional marketing laws still applied to m-commerce. In order for wireless-based applications to be effectively used in the m-commerce environment, mobile service (m-service) providers must not only attract new customers but also be able to retain them to ensure profitable repeat business. In m-service industries, the high cost of acquiring customers can render many customer relationships unprofitable in the early years. But, without customer loyalty, even the best mobile business will fall apart.

Retaining customers is a financial imperative for any m-commerce vendor (m-vendor), especially as attracting new customers is considerably more expensive than for comparable, traditional, brick-and-mortar stores. Understanding how or why a sense of loyalty develops remains one of the crucial management issues. Aaker [1] discussed the role of loyalty in the brand equity process and specifically noted that brand loyalty leads to certain advantages, such as reduced marketing costs, more new customers, and greater trade leverage. In increasingly competitive markets, being able to build consumer loyalty is seen as the key factor in winning market share and developing a sustainable competitive advantage. While the importance of brand loyalty has been recognized in marketing literature for at least three decades, the empirical validation of a loyalty model for m-commerce context has not been addressed. M-commerce success, especially in the business-to-consumer area, may be determined partly by whether consumers show loyalty to a particular m-commerce vendor. With the rapid growth and proliferation of mobile services, it is thus important to know what factors influence a customer's attitudinal commitment and repeat purchase intentions.

Thus, our purpose was to develop and validate a customer loyalty model for m-commerce. Based on our findings, m-service marketers should be able to justify expenditures that promote increased mobile customer loyalty.

2. Theoretical background and research model

In addition to measurement issues, development of an understanding of the conceptual relationships

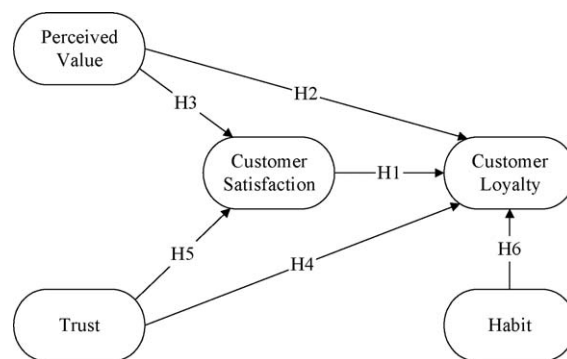


Fig. 1. The research model.

between service encounter constructs has preoccupied researchers over the two decades [14,31,37,56]. The objective has been in developing both a better understanding of the constructs themselves and how they relate to one another to drive customer loyalty. Previous research has suggested that customer loyalty should be the product of perceived value, customer satisfaction, trust, and habit. These perspectives have, however, been examined independently. Integrating the perspectives and empirically examining the factors that build customer loyalty in an m-commerce context can advance understanding of these constructs and their link to repeated mobile purchase behavior. A conceptual path model is now presented as Fig. 1, showing six hypotheses that were empirically tested.

2.1. Customer loyalty

Oliver [46] 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.” This emphasizes the two different aspects of loyalty described in prior studies—behavioral and attitudinal [33]. Chaudhuri and Holbrook [12] suggested that behavioral, or purchase, loyalty consisted of repeated purchases of the brand, whereas attitudinal loyalty included a degree of dispositional commitment, in terms of some unique value associated with the brand. Thus, customer loyalty here was considered bi-dimensional, including both attitudinal commitment and behavioral re-purchase intention. Based on prior

studies [6,35], customer loyalty was defined as the customer's favorable attitude toward an m-commerce website, resulting in repeat purchasing behavior.

2.2. Customer satisfaction

Satisfaction is a consumer's post-purchase evaluation and affective response to the overall product or service experience [45]. It is considered a strong predictor for behavioral variables such as repurchase intentions, word-of-mouth recommendations, or loyalty [20]. In the MIS research area, user satisfaction has been employed as a surrogate for information systems success, and therefore, has frequently been measured [8,18,63]. The conceptualization of customer satisfaction we adopted, therefore, corresponded to the summary affective response or feeling of a customer in relation to her/his experience with all aspects developed by an m-service to market its products and services.

Based on the DeLone and McLean [15,16] IS success model, user/customer satisfaction may be assumed to be the determinant of net benefit or individual impact (e.g., customer loyalty). Consumer satisfaction is believed to mediate consumer learning due to prior experience and to explain key post-purchase behaviors, such as complaining, word of mouth, repurchase intention, and product usage [44,65]. Anderson and Srinivasan suggested that "a dissatisfied customer is more likely to search for information on alternatives and more likely to yield to competitor overtures than is a satisfied customer." In addition, past research has indicated that satisfaction is a reliable predictor of re-purchase intentions [64]. Thus, our first hypothesis was:

H1. Customer satisfaction has a positive effect on customer loyalty.

2.3. Perceived value

Recently, "both managers and marketing scientists have begun focusing on the hitherto ignored role of customer value as a key strategic variable to help explain repeat purchase behavior, brand loyalty and relationship commitment" [50]. Perceived value is often assumed to involve a consumer's assessment of the ratio of perceived benefits to perceived costs [66]. Bolton and Drew [11] suggested that perceived value

is a "richer measure of customers' overall evaluation of a service than perceived service quality." According to Parasuraman and Grewal [49], perceived value is a function of a 'get' component (the benefits a buyer derives from a seller's offering) and a 'give' component (the buyer's monetary and non-monetary costs of acquiring the offering). Our study was primarily focused on information, system, and product/service quality as the 'get' component, and on money spent as the 'give' component.

Prior studies explicitly modeled perceived performance or quality as a direct antecedent of value, which, in turn, directly drove repurchase intention. Also, cumulative insights from prior studies supported the general notion that perceived value contributed to customer loyalty [17,28,62]. Anderson and Srinivasan suggested that when the perceived value was low, customers would be more inclined to switch to competing businesses in order to increase perceived value, thus contributing to a decline in loyalty. Thus, the next hypothesis was:

H2. Perceived value has a positive effect on customer loyalty.

Literature relating to service management has argued that customer satisfaction is the result of a customer's perception of value received [30]. Perceived value is considered a construct that captures any benefit-sacrifice discrepancy in the same way that disconfirmation does for variations between expectations and perceived performance. However, satisfaction is primarily an affective evaluative response. Adapting Bagozzi's [7] appraisal → emotional response → coping framework [27] to an m-commerce context suggests that the more cognitively-oriented value appraisals precede affectively-oriented satisfaction [4,5]. Thus, the following hypothesis was tested:

H3. Perceived value has a positive effect on customer satisfaction.

2.4. Trust

In prior research, trust has been conceptualized in several ways; researchers have long acknowledged this confusion [40,41]. In Internet commerce contexts, diversity in the conceptualization of trust is also

evident [26]. Prior studies have viewed trust as either (a) trusting beliefs [19,23,25] or (b) trusting intentions [32,39,42]. In an m-commerce environment, trusting beliefs can be described as consumers' perceptions of particular attributes of m-vendors, including the ability, integrity and benevolence of the vendors, when handling the consumers' transactions [36]. Trusting intentions imply that the truster feels secure and is willing to depend, or intends to depend, on the trustee. Thus, trusting intentions, in m-commerce, include making a one time or repeat purchase, or acting on information provided by an m-vendor.

Although some researchers have treated trust as a unitary concept [54], most now agree that it is multidimensional [55]. In consonance with the definition of trust of Gefen et al., we defined trust as a set of specific beliefs dealing primarily with the integrity (trustee honesty and promise keeping), benevolence (trustee caring and motivation to act in the truster's interest), competence (ability of trustee to do what the truster needs) and predictability (trustee's behavioral consistency) of a particular m-vendor. Gefen et al. suggested that this definition relied on separation between trust and actual behavioral intentions (e.g., repeat purchase intentions) in the ongoing economic relationship of customers and electronic vendors.

Some researchers have suggested that online customers generally stay away from electronic vendors whom they do not trust [34,52]. Following McKnight et al., we integrated the trust-related constructs, mentioned earlier, within the broad framework of the Theory of Reasoned Action (TRA) [21]. This posits that beliefs lead to attitudes, which, in turn, affect behavioral intention. Applying the viewpoints, we posited that trusting beliefs (perceptions of specific m-vendor attributes) could lead to attitudes (customer satisfaction), which, in turn, influenced intention to engage in repeat purchases (customer loyalty). Customer satisfaction was therefore considered to be a mediating variable between trust and customer loyalty. In addition, most researchers agreed that trusting beliefs directly influenced trusting intentions (e.g., repurchase intentions) [38]. Chiou [13] found that perceived trust had direct and positive impacts on the overall satisfaction and loyalty of customers. Because we also expected these variables and relationships to apply in mobile commerce, we hypothesized that:

H4. Trust has a positive effect on customer loyalty.

H5. Trust has a positive effect on customer satisfaction.

2.5. *Habit*

It is a fact of life that force of habit still dictates many behavioral intentions, once people have gained experience. Prior research has indicated that habitual behavior leads to the continuation of the same type of behavior [2,24]. As Ouellette and Wood [47] noted, once a behavior has become a habit, or well-practiced behavior, it becomes automatic and is carried out without conscious decision. According to Beatty and Smith [9], about 40–60% of the customers purchase from the same store through force of habit. They visit the websites out of habit rather than through a conscious evaluation of the perceived benefits and costs offered. Indeed, when habit is well-entrenched, people tend to ignore external information or rational strategy. Such an effect is a central element in Triandis [60] theory of attitude and attitude change: that behavioral intentions are the product of attitude, social norms, and affect caused by habit. Prior studies comparing the Theory of Reasoned Action and related theories using habit as an antecedent of behavioral intentions have found that habit can directly affect behavioral intentions more than do attitude and social norms [59,61]. Gefen found that habit alone can explain a large proportion of the variance in the continued use of a website. Applying these findings to m-commerce loyalty suggests that customers' intentions of repeat purchases on a specific website, (one they have habitually used in the past), will increase, due directly to the habit of visiting that specific website. Thus, we formed the hypothesis:

H6. Habit has a positive effect on customer loyalty..

3. *Methodology*

3.1. *Measures of the constructs*

Items selected for the constructs were primarily adapted from prior studies to ensure content validity. Perceived value was measured by three-item measures

adapted from Dodds et al. The five items for the trust construct were adapted from Gefen et al. The items measuring customer satisfaction were taken from previous measures of the overall level of user satisfaction or Web customer satisfaction [48]. The habit construct was measured by four items adapted from Gefen, which dealt with the habit of preferring a certain m-commerce website. Items for the customer loyalty construct were taken from the previously validated inventory [51] to measure attitudinal commitment and behavioral repurchase intentions. Likert scales (ranging from 1 to 7), with anchors ranging from “strongly disagree” to “strongly agree” were used for all questions. After pre-testing the measures, these items were modified to fit the m-commerce context studied. The survey items are listed in [Appendix A](#).

3.2. Data collection procedure

The research questions were examined by consumers in the context of consumer-oriented m-commerce. Data used to test the research model were gathered from a sample of experienced users of various m-commerce websites. To increase the generalizability of the results, the respondents were spread across 17 popular m-commerce categories, including sending/receiving emails, routine bank services, booking cinema/theatre tickets, restaurant table reservations, the reading and receiving of news, booking travel tickets, buying products online, receiving personalized offers, consulting fortune tellers, listening to/downloading music, downloading graphics/animation, playing online games, online chatting with strangers, stock trading, taking part in internet auctions, map services and mobile learning. Data were gathered from a quota sample of 255 respondents from two universities, three high-tech companies, and one insurance firm in Taiwan, with a quota of 15 responses from each category of m-services. Respondents were first asked whether they had ever conducted m-commerce transactions; if they replied in the affirmative, they were asked to participate in the survey. The questionnaire requested the respondents to think back to the last time they had purchased products/services through an m-commerce website and to answer the remaining questions accordingly. That is, respondents were asked to write

down the name of the last m-commerce website they had used to make a purchase. The respondents were instructed to answer the questions by assessing that website. For each question, respondents were asked to circle the response which best described their degree of agreement. Respondents ranged from 18 to 39 years of age (mean = 26 years). Approximately, 59% of the respondents were male. Sixty-two percent had completed one college or university degree.

4. Results

4.1. Measurement model

A confirmatory factor analysis using LISREL 8.3 was conducted to test the measurement model. Seven common model-fit measures were used to assess the model's overall goodness of fit: the ratio of χ^2 to degrees-of-freedom (d.f.), adjusted goodness-of-fit index (AGFI), normalized fit index (NFI), non-normalized fit index (NNFI), comparative fit index (CFI), relative fit index (RFI) and root mean square error of approximation (RMSEA). As shown in [Table 1](#), all the model-fit indices exceeded the respective common acceptance levels suggested by previous research, demonstrating that the measurement model exhibited a good fit with the data collected. Therefore, we proceeded to evaluate the psychometric properties of the measurement model in terms of reliability, convergent validity, and discriminant validity.

Reliability and convergent validity of the factors were estimated by composite reliability and average variance extracted (see [Table 2](#)). The composite reliabilities were calculated as: (square of the

Table 1
Fit indices for measurement and structural models

Fit Indices	Recommended value	Measurement model	Structural model
$\chi^2/\text{d.f.}$	≤ 3.00	1.85	2.41
AGFI	≥ 0.80	0.86	0.83
NFI	≥ 0.90	0.94	0.92
NNFI	≥ 0.90	0.96	0.94
CFI	≥ 0.90	0.96	0.95
RFI	≥ 0.90	0.92	0.91
RMSEA	≤ 0.08	0.058	0.075

Table 2

Reliability, average variance extracted, and discriminant validity

Factor	Perceived value	Customer satisfaction	Trust	Habit	Customer loyalty
Perceived value (PV)	0.73				
Customer satisfaction (CS)	0.58	0.75			
Trust (TR)	0.12	0.30	0.72		
Habit (HB)	0.16	0.16	0.18	0.79	
Customer loyalty (CL)	0.62	0.72	0.45	0.42	0.85
Composite reliability	0.89	0.90	0.93	0.94	0.96

Diagonal elements show the average variance extracted. Off-diagonal elements show the shared variance.

summation of the factor loadings)/{(square of the summation of the factor loadings) + (summation of error variables)}. The interpretation of the resultant coefficient is similar to that of Cronbach's alpha, except that it takes into account the actual factor loadings rather than assuming that each item is equally weighted in the composite load determination. Composite reliability for all factors in our measurement model was above 0.80. The average extracted variances were all above the recommended 0.50 level, which meant that more than one-half of the variances observed in the items were accounted for by their hypothesized factors. Convergent validity can also be evaluated by examining the factor loadings and squared multiple correlations from the confirmatory factor analysis. Following Hair et al.'s [29] recommendations, factor loadings greater than 0.50 were considered to be very significant. All of the items in the research model had factor loadings greater than 0.70. Also, squared multiple correlations between the individual items and their a priori factors were high (above 0.50 in all cases). Thus, all factors in the measurement model had adequate reliability and convergent validity.

To examine discriminant validity, we compared the shared variances between factors with the average variance extracted of the individual factors [22]. This showed that the shared variance between factors were lower than the average variance extracted of the individual factors, confirming discriminant validity. In summary, the measurement model demonstrated adequate reliability, convergent validity, and discriminant validity.

4.2. Structural model

A similar set of fit indices was used to examine the structural model. Comparison of all fit indices, with

their corresponding recommended values, provided evidence of a good model fit ($\chi^2/\text{d.f.} = 2.41$, AGFI = 0.83, NFI = 0.92, NNFI = 0.94, CFI = 0.95, RFI = 0.91, RMSEA = 0.075). Thus, we could proceed to examine the path coefficients of the structural model.

Properties of the causal paths, including standardized path coefficients and *t*-values, are shown in Fig. 2. The effect of customer satisfaction on customer loyalty was significant ($\beta = 0.45$, $P < 0.001$). Thus, H1 was supported. As expected, perceived value had a strong positive and highly significant impact on both customer satisfaction ($\gamma = 0.69$, $P < 0.001$) and customer loyalty ($\gamma = 0.36$, $P < 0.001$). Therefore, H2 and H3 were also supported. Trust was found to be a significant factor in determining customer satisfaction ($\gamma = 0.37$, $P < 0.001$) and customer loyalty ($\gamma = 0.29$, $P < 0.001$), supporting hypotheses H4 and H5. Finally, habit appeared to be a significant determinant of customer loyalty ($\gamma = 0.35$, $P < 0.001$), supporting H6. Altogether, customer satisfaction, perceived value, trust, and habit

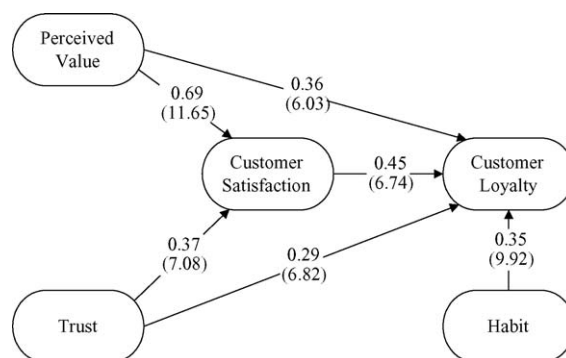


Fig. 2. Hypotheses testing results. Note: *t*-values for standardized path coefficients are described in parentheses.

Table 3

The direct, indirect, and total effect of dominants on customer loyalty

	Direct effect		Indirect effect		Total effect	
	CS	CL	CS	CL	CS	CL
PV	0.69	0.36		0.31	0.69	0.67
TR	0.37	0.29		0.17	0.37	0.46
HB		0.35				0.35
CS		0.45				0.45

accounted for 85% of the variance in customer loyalty, with customer satisfaction exerting a stronger direct effect on customer loyalty than perceived value, trust, or habit. Sixty-two percent of the variance in customer satisfaction was explained by perceived value and trust. The direct and total effect of customer satisfaction on customer loyalty was 0.45. However, the total effect of perceived value on customer loyalty was 0.67. Perceived value, despite showing a weaker direct effect than customer satisfaction on customer loyalty, exhibited a stronger total effect on customer loyalty than that of customer satisfaction. The direct, indirect, and total effect of perceived value, trust, habit, and customer satisfaction on customer loyalty were summarized in Table 3.

5. Implications of the research

We empirically validated existing theories within the context of m-commerce, investigating the direct and indirect effects of perceived value, trust, habit, and customer satisfaction on customer loyalty. The integration of these perspectives, and the empirical examination of the factors that build customer loyalty in an m-commerce context, advanced our understanding of these constructs and their linkage to repeated mobile purchase behavior. Perceived value, trust, habit, and customer satisfaction are significant factors in determining customer loyalty.

According to the path coefficients, customer satisfaction exhibited the strongest direct effect on customer loyalty, whereas perceived value exhibited a stronger total effect on customer loyalty than that of customer satisfaction. The results consistently supported prior studies, in which both perceived value and satisfaction were significant predictors of customer loyalty. The findings also indicated that perceived

value was partially mediated through satisfaction in influencing customer loyalty. Both reasoning and empirical research have provided evidence that the perceived value and satisfaction of customers tap into different dimensions. To prevent conceptual ambiguities, perceived value should be conceptualized and measured as a cognitive construct, while customer satisfaction is best conceptualized as an affective variable [43]. We also confirmed that satisfaction and value, while distinct, are complementary constructs. With the advent of customer value research, measuring affective satisfaction variables continues to be important, especially within a relationship marketing setting. Also, the inclusion of a perceived value construct in the customer loyalty model provides a richer portrayal of the dynamics surrounding satisfaction evaluation, perceived value, and repeat purchase intentions.

Trust was found to have a significant positive impact on customer satisfaction and loyalty. This supported prior studies' suggestions that trusting beliefs directly influence trusting intentions (repeat purchase intentions). Customer satisfaction has also been considered a mediating variable between trust and customer loyalty. We confirmed Fishbein and Ajzen's TRA, which suggested that cognitive variables (e.g., perceived value and trust) are mediated by affective ones (e.g., customer satisfaction) to result in conative outcomes (e.g., customer loyalty). Our findings indicated that satisfaction can play a crucial intervening role in the relationship of perceived value and trust to loyalty. To truly understand customer repurchase behaviors, multidimensional models, which take both cognitive and affective variables into consideration, are needed. Thus, the concepts of perceived value, trust and customer satisfaction do not substitute for, but complement, each other.

We also showed that habitual prior preferences, in the use of specific m-commerce systems, directly and strongly increased a consumer's intention to continue using the same systems. While the data indicated that repurchase behavioral intentions are partly the product of a rational assessment of perceived value, trust and customer satisfaction, the data showed that repeat mobile purchase intentions are also the product of habitual prior usage. We also confirmed some aspects of Shapiro and Varian's theory [57], which stated that IT companies succeed, among other things, by locking

in customers through high switching costs, and also through the mental effort required to learn a new IT. This mental investment in a new m-commerce system can make users become entrenched in that system, even when superior systems are available.

6. Implications for practice

As suggested by our proposed model, customer loyalty should develop if the formation of perceived value, trust, customer satisfaction, and habit is appropriately managed. Thus, management attention may be more fruitful if focused on the “development” of such internal psychological processes. Accordingly, in order to increase customer loyalty, it is important for an m-service to be a “satisfying” brand, with which consumers become favorably disposed. Managers must be concerned about the on-line m-service experience of consumers, from the first encounter, through purchasing, to delivery and beyond, as this can influence consumer satisfaction with the m-service, and thus influence customer loyalty. Prior research has shown that information quality, system quality and service quality may influence customer satisfaction in an online commerce context. Thus, creating and maintaining customer satisfaction through its antecedents is an appropriate and necessary strategy for developing overall customer satisfaction.

In addition, perceived value was shown to be another significant determinant of customer satisfaction and loyalty. From a managerial standpoint, this shows the importance of value as a strategic objective. To discourage customers from switching to competitors, a company must continuously work at enhancing perceived value. Prior studies support the general notion that perceived value is determined by quality and sacrifice. Thus, in order to obtain higher customer loyalty, m-commerce practitioners must continuously work to improve the value perceived by consumers, by increasing the quality of their content, product, service and system, and by the reasonable pricing of their products/services. However, case studies and anecdotal evidence strongly suggest that achieving a sustainable competitive advantage can still be very difficult, even with superior products and reasonable prices; regardless of the company's core offerings (products or services), superior service quality is essential [10].

Trust appeared to be an important determinant of customer satisfaction and loyalty. The findings suggested that, in order to attract more customers to repurchase products/services from a specific m-commerce vendor, the development of customers' perceived value and satisfaction was not enough. In an m-commerce context, customers who cannot trust an m-vendor will not be loyal to that m-vendor, even when they are satisfied with the products/services provided. Thus, an m-commerce vendor must try to establish an image, which includes integrity, benevolence, competence, and predictability.

Habit was found to have a significant influence on customer loyalty. From a managerial perspective, one way to increase customer re-use is to encourage the customers to develop the habit of using it. Some barriers may exist when customers are faced with entering a new system; this means that replacing an old system may be difficult, because the customers' assessment that the new system is of high value is not always enough to make them switch. Thus, m-commerce practitioners can attract new customers through special promotions, sales and coupons. Once customers begin using the m-service, and become familiar with it, they may be inclined to continue, if it becomes a habit.

Our empirical results also emphasized the importance of assuming a simultaneous, multivariate analytical approach. We hope to encourage customer loyalty managers to include measures of perceived value, customer satisfaction, trust, habit, and customer loyalty into their current customer loyalty valuation techniques. The study has provided reliable and valid measures of these constructs. These concise, loyalty-related measures, with good reliability and validity, may be periodically administered to a representative set of consumers, allowing m-commerce marketers to enhance their understanding of customer loyalty levels, and take the necessary corrective action to improve them.

7. Limitations

This empirical study has several limitations. First, investigations using a customer loyalty model are relatively new. Our findings and their implications were obtained from a single study. Thus, caution must

be taken when generalizing our findings and discussion to other m-commerce categories or user groups. Second, we did not incorporate firm level loyalty outcomes (e.g., market share, relative price, profit) in the model. Past research has suggested that market share increases as purchase loyalty increases. The influence of customer loyalty on the market share, relative price, and profit of an m-commerce vendor is an important issue. Third, while the proposed model indicated a relatively high R^2 , there is still a need to find additional variables that can improve our ability to predict customer loyalty. Finally, this study was conducted using a snapshot research approach. Understanding of the causality and interrelationships between or among variables important to customer loyalty in an m-commerce context could be enhanced by longitudinal evidence.

8. Conclusions

Our research is the first empirical effort to examine factors affecting repeat purchase intentions in an m-commerce context. Thus, the results represent an important step in unraveling the intricate relationship between the key constructs. Our results support the customer loyalty model and generally confirm our six hypotheses. The contributions of this study to customer loyalty research are:

- First, the traditional conceptualization of customer loyalty was successfully applied in the new mobile commerce context.
- Second, the results indicated that customer loyalty is affected by perceived value, trust, habit, and customer satisfaction; customer satisfaction was found to play a crucial intervening role in the relationship of perceived value and trust to loyalty.

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Appendix A. Survey items used in the study

- Perceived value

V1: The product/service of the m-commerce website is good value for money.

V2: The price of the m-commerce website is acceptable.

V3: The product/service of the m-commerce website is considered to be a good buy.

- Customer satisfaction

S1: I am satisfied with this m-commerce website.

S2: The m-commerce website is successful.

S3: The m-commerce website has met my expectations.

- Trust

T1: Based on my experience with the m-commerce vendor in the past, I know it is honest.

T2: Based on my experience with the m-commerce vendor in the past, I know it cares about customers.

T3: Based on my experience with the m-commerce vendor in the past, I know it is not opportunistic.

T4: Based on my experience with the m-commerce vendor in the past, I know it is predictable.

T5: Based on my experience with the m-commerce vendor in the past, I know it knows its market.

- Habit

H1: This website is where I usually go to buy the above-mentioned products/services through a mobile device.

H2: This is my preferred m-commerce website providing the above-mentioned products/services.

H3: When I need to buy the above-mentioned products/services through a mobile device, this is the first website I try.

H4: I often buy the above-mentioned products/services from this m-commerce website.

- Customer loyalty

L1: My preference for this m-commerce website would not willingly change.

L2: It would be difficult to change my beliefs about this m-commerce website.

L3: Even if close friends recommended another m-commerce website, my preference for this m-commerce website would not change.

L4: I will buy from this m-commerce website the next time I purchase the above-mentioned product/service.

L5: I intend to keep purchasing the above-mentioned products/services from this m-commerce website.

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