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An Integrated Model for Sport Consumer Repurchase Intention: A Case in the Commercial Martial Arts Schools

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ABSTRACT

The retention of customers is fundamental to the success of sport organizations for a variety of reasons, not the least of which is it is less expensive for an organization to keep a current customer than to gain a new one. Since customer repurchase intention is an important indicator to predict repurchase behavior, exploring the factors that influence this behavior has important theoretical and practical implications in the commercial martial arts school market. Although previous research provides a foundation for the factors that influence a customer's repurchase intention, additional empirical work is warranted. This study was designed to integrate the findings of previous studies and examine how utilitarian factors (perceived value and switching cost), a hedonic factor (perceived enjoyment), and social/psychological factors (confirmation and satisfaction) directly or indirectly influenced consumers' repurchase intentions in the context of commercial martial arts schools. The results indicated that customer satisfaction had the strongest impact on customer repurchase intention, followed by perceived enjoyment, switching costs, confirmation, and perceived value.

1. Introduction

Originating in Asia, martial arts are multifunctional sports that include combative sport (Gartland, Malik, & Lovell, 2001,^[22] Kochhar, Back, Mann, & Skinner, 2005),^[42] self-defense systems (Daniels & Thornton, 1992),^[13] physical fitness (Fong, Fu, & Ng, 2012),^[19] and psychological intervention programs (Baron & Faubert, 2005;^[2] Kim, Zhang, & Ko, 2009).^[40] Since the 1980s, participation in the martial arts has increased tremendously; the estimated number of those engaged in learning and practicing martial arts was 8 million in the United States (Zetaruk, Violan, Zurakowski, & Micheli,

2005).^[72] According to IBISWorld (2021), there are roughly 45,129 martial arts schools were operating in the United States (U.S.). The number of businesses in the commercial martial arts industry has grown 15.6% per year on average over the five years from 2016 to 2021.

Membership fees are the primary source of revenue for most commercial martial arts schools. Therefore, how to retain and target more members is regarded as a challenge that most commercial martial arts schools share. The prior empirical and theoretical focus has predominantly been on customer targeting. This customer targeting includes motives of martial arts participants

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(Ding, Chen, Zou, & Zian, 2015),^[15] marketing demand for martial arts schools (Kim et al., 2009), and benefits of engaging in martial arts (Baron & Faubert, 2005,^[2] Brudnak, Dundero, & Van Hecke, 2002;^[7] Lakes & Hoyt, 2004;^[44] Wall, 2005).^[68] To our knowledge, few research studies have been conducted on retention marketing within the context of martial arts participants (Kim et. Al., 2015;^[37] Kim & Zhang, 2019).^[39] Furthermore, little is known about how various sociological and psychological factors influence consumers' repurchase intentions in the context of commercial martial arts schools. Since customer repurchase intention is an important predictor of repurchase behavior, exploring the factors that influence repurchase behavior has important theoretical and practical implications in the market. This study was designed to integrate the findings of previous studies and test how utilitarian factors (perceived value and switching costs), a hedonic factor (perceived enjoyment), and social/psychological factors (confirmation and satisfaction) directly or indirectly influence consumers' repurchase intentions in the context of commercial martial arts schools. By closing this gap in the literature, martial arts school managers may use the information to better understand their consumers' consumptive intentions after purchase, expand their market base, and increase the likelihood of repeat purchase.

The retention of customers is fundamental to the success of sport organizations for a variety of reasons, not the least of which is that it is less expensive for an organization to keep a current customer than to gain a new one. Keiningham, Vavra, Aksoy, and Wallard (2005)^[35] concluded that it typically costs five times more to acquire a new customer than to retain a current customer. In addition, current customers are a potential base for cross-selling and are also a valuable source of new ideas for business strategies (Liu-Thompkins & Tam, 2013;^[45] Juttner & Wehrh, 1994).^[33]

As mentioned above, membership, among other revenue sources, contributes greatly to commercial martial arts school profitability. Therefore, every commercial martial arts school invests substantial time and financial support to this endeavor. The goal is to increase consumer frequency of purchase. However, despite these efforts, consumers' attitudes and needs ultimately determine whether an item is purchased repeatedly. Consequently, in addition to considering the environment and organizational factors that influence repurchase intention, marketing strategists must also consider the psychological and social forces that are likely to condition consumer behavior. That is, what goes on inside the consumer's mind is important. This is the principle behind the study of consumer behavior in

the field of marketing. In today's increasingly competitive marketplace, the sport market must be concerned not only with the who, what, when, and where of marketing, but also with why consumers repurchase the product. To be successful in an increasingly crowded marketplace, the marketers must analyze and understand the factors that influence consumer's repurchase intentions.

2. Review of Literature

2.1 Customer Satisfaction

Customer satisfaction is generally defined as "the degree of overall pleasure or contentment felt by the customer, resulting from the ability of the service to fulfill the customer's desires, expectations and needs in relation to the service" (Hellier, Geursen, Carr, & Richard, 2003, p. 1765).^[29] In the context of martial arts or the sport fitness industry, members may be satisfied with the quality of service and the overall environment of the facility. They may also be satisfied with the outcome of the training or practice. Conceptually, a higher level of satisfaction with the purchased experience should result in higher repurchase intention by customers (Jones, Mothersbaugh, & Beatty, 2000).^[34] Empirically, the relationship between customer satisfaction and repurchase intention has been examined by many research studies within the general business field. For example, Patterson and Spreng (1997)^[53] conducted a study to investigate the relationships among four key post-purchase constructs: perceived performance, satisfaction, perceived value, and repurchase intention. In a causal path empirical study of business-to-business professional services, it was found that customer satisfaction made the largest contribution toward predicting a customer's repurchase behavior. A similar study by Tsai and Huang (2007)^[64] yielded a result consistent with Patterson and Spreng (1997),^[53] which found that overall satisfaction had a direct, and positive, influence on repurchase intention in the context of online consumption. However, Bearden and Teel (1983)^[3] differed from the preceding authors in that they argued the repurchase intention is not always directly controlled by customer satisfaction. Rather, it is mediated by "attitude" at a satisfaction level. Hellier, Geursen, Carr, and Richkard (2003)^[29] confirmed this indirect relationship between repurchase intention and customer satisfaction by investigating 1,132 participants from insurance companies in the U.S. and found that switching costs mediate the relationship between customer satisfaction and repurchase intention. Dongji, Shenghui and Kai (2008)^[16] also reported the mediation effect between customer satisfaction and repurchase intention through

switching costs. Their survey of 201 participants from hairdressing facilities in China revealed that switching costs and customer satisfaction positively influenced the repurchase intention. By applying bootstrap analysis, they also concluded that the mediation effect is only partial. To investigate the relationship among customer satisfaction, switching costs, and repurchase intention, we proposed the following hypotheses:

H₁: Customer satisfaction has a significant positive influence on repurchase intention.

H₂: Customer satisfaction has a significant positive influence on switching costs.

2.2 Customer Confirmation

People have expectations for most behavior in life. These expectations may relate to consumption of a product or service and are typically about the performance or the quality of the product or service. For instance, when a pair of sneakers is purchased, there are certain expectations about quality, style, and/or comfort. Similar to sport, an attendee at an NBA game may expect a certain performance from a team or player. Research shows there are also expectations concerning the concessionaire service, cleanliness of the arena, parking, and etcetera (Chelladurai & Chang, 2000;^[9] Greenwell, 2001).^[24] In terms of the commercial martial arts industry, buying a martial arts school membership would typically lead to expectations about the experience. There may be expectations about the service at the front desk, the cleanliness of the locker room, the quality of the martial arts instructors, and etcetera. The discussion of consumer expectations directly leads to the concept of confirmation, which is defined as “a cognitive belief representing the extent to which consumers’ ex ante expectations of service use were met in reality, and refers to this evaluation process” (Wen, Prybutok, Xu, 2011, p. 16).^[70] In satisfaction theory, Oliver (1980)^[51] suggested,

Expectancies about the product or service are either confirmed or disconfirmed. Dis-confirmation then leads to satisfaction or dissatisfaction with the product or service. If the individual were satisfied, then he or she would purchase the product or service again. If not, then there would likely be no repeat purchase (p. 263).

Oliver’s (1980)^[51] expectation-confirmation theory (ECT) includes four primary constructs: (a) expectation, (b) perceived performance, (c) confirmation, and (d) satisfaction. According to the ECT framework, the process through which a customer reaches repurchase intention is as follows. First, customers have certain expectations about the service or product that they want to buy. Second, customers then decide to buy and use the service

or product. Third, customers evaluate the performance based on their initial expectations and determine if their expectations are confirmed or disconfirmed. After a period of initial usage, a perception of its performance is formed. This perception could either be positive or negative. Fourth, customers perceive satisfaction or dissatisfaction based on the level of initial expectations confirmed or disconfirmed. Finally, satisfied customers repeat the purchase and dissatisfied customers start to look for an alternative product or service. ECT has been used in marketing research, particularly in consumer behavior literature, to study consumer satisfaction and post purchase behavior (Oliver, 1980).^[51] The applicability of ECT has been tested in many contexts, such as automobile consumption (Oliver & Westbrook, 1993),^[52] restaurant service (Swan & Trawick, 1981),^[62] and camcorder repurchase (Spreng, MacKenzie, & Olshavsky, 1996).^[61]

Empirically, the link between confirmation and satisfaction, as well as that between confirmation and repurchase intention, has been well investigated in numerous studies (e.g. Harrolle, Trail, & Anderson, 2007;^[27] Trail, Anderson, & Fink, 2005;^[65] Wann, Dolan, McGeorge, & Allison, 1994;^[69] Wen et al., 2011).^[70] These studies were conducted not only within the general business field but also within the sport market. Harrolle et al. (2007)^[28] conducted a study with college football fans and found that when people’s expectations about the team’s performance are confirmed, then they are satisfied their purchase of tickets to attend games. Bhattacharjee (2001)^[5] investigated online banking users (n=1,000) via a cross-sectional field survey and found that confirmation and customer satisfaction made a significant contribution in predicting customer repurchase intention, explaining 42% of the total variance. In addition to the direct effect, confirmation also has an indirect effect on repurchase intention through customer satisfaction (Wen, Prybutok, & Xu, 2011).^[70] Therefore, we offered the following additional hypotheses:

H₃: Customer confirmation has a positive influence on repurchase intention.

H₄: Customer confirmation has a positive influence on customer satisfaction.

2.3 Perceived Value

Perceived value has been described in various ways. Rokeach (1973)^[57] defined value as “an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (p.5). He also suggested that “values are multifaceted standards that guide conduct” (p.13). Shampine and Gordon (1975)

^[60] noted, “values are constructs representing generalized behaviors or states of affairs that are considered by the individual to be important” (p.2). They also suggested that although individual values can be modified, they tend to endure over time. Perceived value, as a salient determinant of repurchase intention, has been discussed in various industries and can easily be confused with needs (Bettman, Luce, & Payne, 1998).^[4] Shampine and Gordon (1975)^[60] made the distinction between these two different constructs in this manner:

Needs are satisfied by specific responses or goals and are defined by the responses or goals themselves. Values, on the other hand, may be satisfied by a variety of behaviors. Needs require satisfaction. The individual may not feel compelled to behave in a specific way to satisfy a particular value. (p. 9)

It is evident from previous studies that value perceptions have an influence on sport consumer behavior (Braithwaite & Law, 1985;^[6] Trail & James, 2013),^[66] especially as professional sport teams and leagues, try to connect with fans through their values and personal goals. Thus, teams are hoping these connections will grow and increase fans’ repeat consumption. From a sport marketing perspective, sport consumers attach a great deal of importance to their perceptions of value. Using a sample of golfers’ buyers, Kim and Lough (2007)^[38] found that perceived value is a good predictor of intentions to revisit a sport business. In addition, Parasuraman and Grewal (2000)^[54] concluded that the construct of perceived value is the most important indicator of intentions to repurchase or revisit. Hence, we proposed the following hypothesis related to perceived value and repurchase intention:

H₅: There is a positive relationship between perceived value and repurchase intention.

2.4 Perceived Enjoyment

Perceived enjoyment has been described as a crucial factor in predicting consumers repurchase behaviors in multiple studies. In sports, there are many studies that investigate the relationship between perceived enjoyment of physical activity and the level of participation (DiLorenzo, Stucky-Ropp, Vabder Wal, & Gotham, 1998;^[14] Sallis, Prochaska, Taylor, Hill, & Geraci, 1999;^[58] Salmon, Owen, Crawford, Bauman, & Sallis, 2003).^[59] The perceived enjoyment scale is a subscale of the Intrinsic Motivational Inventory (IMI), which has been used in physical education and public health studies. It was originally developed by McAuley, Duncan, and Tammen (1989)^[47] to measure positive affect associated with involvement in physical activities in college students. Teixeira and Correia (2009)^[63] tested the applicability of

IMI within a population of fitness club members. Results from the confirmatory factor analysis provided support for the latent structures proposed by McAuley et al. (1989).^[47] The perceived enjoyment scale was shown to have acceptable reliability and validity.

In the specific context of this study, perceived enjoyment can be defined as the holistic sensation customers feel when they practice martial arts, which is studied as a flow theory (Csikszentmihalyi, 1990).^[11] When people consider their overall experience in practicing martial arts as enriching and enjoyable, they would be likely to return for more practice. Few studies have been conducted within the field of sport marketing to examine the relationship between perceived enjoyment and repurchase intention. Little is known about whether martial arts school members’ repurchase intention is influenced by perceived enjoyment. Thus, we proposed the following hypothesis:

H₆: A customer’s perceived enjoyment positively affects a customer’s repurchase intention.

2.5 Switching Costs

Perceived switching costs are regarded as the loss or sacrifice of time, money, and effort when a customer switches from one service provider to another one (Dongjin et al., 2008).^[16] According to Guiltinan (1989),^[25] switching costs may “entail search costs resulting from the geographic dispersion of service alternatives, as well as learning cost resulting from the customized nature of the service encounter” (p.262). Jackson (1985)^[32] stated that customers faced with high investment in switching costs were not likely to change vendors. Conceptually, when the perceived switching costs increase, the likelihood of a customer repeating purchase should also increase. For example, if martial arts participants find another recently opened martial arts school within 10 miles of their current school, considering the cost of time and travel expense to the recently opened school, they may decide to renew their membership and stay with their current school instead.

Studies have revealed that switching costs have an important influence on customer’s repurchase intentions. For example, Dongjin et al. (2008)^[16] found that higher perceived switching costs amounted to a higher level of repurchase intention. Another similar study by Jones et al. (2000)^[34] reached the same conclusion and supported the view that consumers who faced more investment in switching costs were more likely to remain with the same provider. We, therefore, propose the following hypothesis:

H₇: switching costs have a positive influence on repurchase intention.

2.6 Repurchase Intention

Repurchase intention can be viewed as a critical element in boosting a business organization’s profitability and ensuring long-term performance. According to social exchange theory, the consumer’s repurchase intention is “a willingness or preposition to maintain a transactional relationship with the current product or service provider, which is very similar to the consistent tendency of personal relationship in social psychology” (Dongjin et al., 2008 p.449).^[16] Customer retention, or repurchase intention, is one of the most important concepts in marketing (Gerpott, Rams, & Schindler, 2001;^[23] Verhoef & Franses, 2003).^[67] Repurchase intention may be especially important in the commercial martial arts market, which primarily operates by membership fees. Reichheld and Sasser (1990)^[56] provided an excellent example of the impact customer retention can have on business success.

Profits rise as defection rates fall. Reducing defections by just 5% generated 85% of profits in one bank’s brad system, 50% more in an insurance brokerage, and 30% more in an auto-service chain. MBNA America has found that a 5% improvement in defection rates increases its average customer value by more than 125% (p. 170).

Despite the appropriateness of previous studies as a framework to explain repurchase intention across different industries, there are only a few research studies investigating the factors influencing repurchase intention in the sport industry. Among the few existing studies,

the relationship between repurchase intention and other constructs has been primarily studied in an isolated and piecemeal fashion. In fact, repurchase intention has shown to be a consequence in models of other focal constructs (Chiu, Chang, Cheng, & Fang, 2009;^[10] Kim, LaVetter, & Lee, 2006;^[36] Kwon, Trail, & James, 2007).^[43] However, the repurchase intention construct itself has not specifically been the focus of a formal model in the sport marketing literature. Not only is there no formal comprehensive model of repurchase intention, but there is also no formal model of the consequences of the construct in the sport marketing literature. Thus, there is a major theoretical gap in the sport marketing literature in this regard. The purpose of this study is to test a general model (Figure 1), which aims to describe the extent to which customer repurchase intention was influenced by customer satisfaction, perceived value, perceived enjoyment, switching costs, and confirmation.

3. Method

3.1 Procedures and Participants

A convenience sampling approach was utilized to collect data from current members of five martial arts schools in eastern coastal cities in the U.S. All questionnaires were provided to participants before or after practicing or training to prevent disruption to their practice routine. Following approval from the martial arts schools’ managers, questionnaires were administered on site and participants completed them in a convenient place

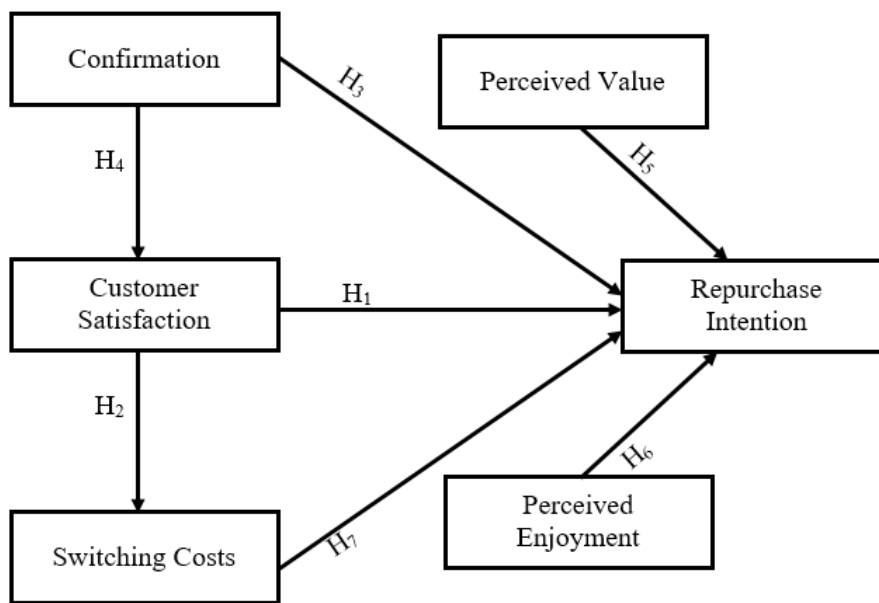


Figure 1. Proposed research model

(e.g., front desk, lobby). The collection was achieved with the cooperation of the staff of each school. Four hundred questionnaires were distributed, and 368 respondents were deemed usable for further analysis resulting in a response rate of 92%. Among those respondents, 41.1% ($n=151$) were female and 58.9% ($n=217$) were male. The sample consisted of mostly White ($n=239$, 64.9%), followed by Asian ($n=106$, 28.8%), Hispanic ($n=15$, 4.1%), and African American ($n=5$, 1.4%). Respondents ranged in age from 18 to 75 years, with a mean age of 38 years ($SD=16.2$).

3.2 Instrumentation

The survey instrument was comprised of two sections. The first section was regarding respondent's age, race, gender, and household income. Each descriptive question was measured with one item. Except for questions of age and length of membership which were asked as an open-ended question, all other demographic questions were asked by offering several choices. For example, there were two choices for gender question (male and female), six choices for race question (Asian/Pacific Islander, African American, White, Hispanic, multiracial, and other). The second section included 24 items measuring six constructs: (1) customers' satisfaction, (2) switching costs, (3) confirmation, (4) perceived value, (5) perceived enjoyment, and (6) repurchase intention. All questionnaire items were adapted from existing measures previously used in sport and leisure research studies. Two sport marketing scholars and two managers from the commercial martial school sector proofed the questionnaire to ensure its appropriateness in the context of the present study. Based on their responses, only minor changes were made regarding wording clarity and visual layout of the questionnaire. The 21 items were measured on a seven-point Likert Scale ranging from strongly disagree (1) to strongly agree (7). All scales used for the present study have been shown to be psychometrically sound instruments based on prior validation studies in various research settings. What follows is a summary of each scale.

To measure martial arts school members' perceived switching costs, the current study employed three items adapted from a study by Jones et al. (2000).^[34] Satisfaction and confirmation scales were adapted from Oliver's ECT (1980).^[51] The satisfaction scale included four items to measure participants' general level of satisfaction with their previously purchased membership. The confirmation scale was comprised of three items which asked respondents to indicate to what extent they agreed or disagreed with statements about their expectations. To

assess martial arts school members' perceived enjoyment, seven scale items adapted from McAuley and colleagues' (1989)^[47] framework was used, which measured a total of 7 items. This measure has been shown to have acceptable internal consistency in previous studies (McAuley et al., 1989;^[47] Ryan & Deci, 2000;^[55] Gao, 2008).^[21] Perceived value measurement was adopted from the work of Netemeyer et al. (2004).^[49] Repurchase intention was measured by three items adopted from Eggert and Ulaga (2002).^[17] This three-item scale has been widely used in the entertainment/leisure marketing literature and showed good reliability (Curtis, Abratt, Rhoades, & Dion, 2011).^[12]

3.3 Data Analysis

Data from the completed questionnaires were entered into a database and analyzed using SPSS 22.0 and Mplus 8.3. Initial data analysis consisted of examining the demographic information using means, standard deviations, values of skewness and kurtosis. The main data analysis for the current study was conducted in two stages: confirmatory factor analysis (CFA) and structural equation modeling (SEM) analysis. Since running structural equation modeling has been found to be sensitive to non-normal data (Kline, 2015),^[41] the normality of each observed variable was examined by skewness and kurtosis value before conducting the main data analyses. According to Kline (2015),^[41] a normally distributed response should have skewness values between 2 to -2 and kurtosis values between 3 to -3. The results indicate that all indicator variables' skewness and kurtosis values were between -2 to 2 and none of items showed a violation of data normality (Table 1).

CFA was performed to assess the psychometric properties of the scales. The maximum likelihood (ML) estimation method was used for parameter estimation. ML is an accepted estimation procedure used for confirmatory factor analysis (Lomax, & Schumacker, 2004)^[46] when data are continuous and multivariate normal. ML has also been found to be an acceptable estimation method for ordinal data when the number of response categories are above five, treated as continuous data, and are normally distributed (Mindrila, 2010).^[48] The reliability of constructs was examined using both Cronbach's α and composite reliability (CR; Fornell & Larcker, 1981).^[20] The threshold value of .70 was adopted to determine both acceptable α and CR value (Bagozzi & Yi, 1988;^[1] Nunnally & Bernstein, 1994).^[50] Convergent validity evidence was examined according to average variance extracted (AVE). Hair et al. (2006)^[26] suggested that AVE values for each factor should be above .5 to show acceptable convergent validity. Discriminant validity

was examined by comparing the square root of AVE with the inter-construct correlations. After the validity and reliability were examined, the evaluation of model fit was assessed using chi-square (χ^2), standardized root mean square residual (SRMR), the comparative fit index (CFI), normed fit index (NFI), and the root mean square error of approximation (RMSEA). Suggested by Hu and Bentler (1999),^[31] the following cut-off values were selected for this study: RMSEA < .06, SRMR < .08, and NNFI and CFI > .95. After measurement models were confirmed, SEM was conducted on the hypothesized model to test the seven hypotheses. Just as in CFA, the same fit index criteria were conducted to examine the structural model.

4. Results

4.1 Measurement Models

CFA was conducted for each measurement construct. The model fit indices for the initial CFA illustrated acceptable model fit for all measurements except for perceived enjoyment (chi-square = 120.27 [$df=14$], SRMR = .058, CFI = .94, NFI = .92, and RMSEA = .11). Post hoc model modification was made based on the modification indices (MIs; Kline, 2015). The correlation between residuals on item 3 (“I thought practicing martial arts was quite enjoyable.”) and item 4 (“I would describe practicing martial arts as very interesting.”) in the dimension of perceived enjoyment was added (MI = 64.12). This adjustment made theoretical sense because the two item wordings are similar and Pearson correlation between these two items was .7. The final modified model showed a significant improvement in model fit (chi-square = 56.15 [$df=13$], SRMR = .015, CFI = .99, NFI = .96, and RMSEA = .06).

Among the six latent constructs, all revealed acceptable AVE values, ranging from .51 (perceived enjoyment) to .63 (satisfaction) indicating good convergent validity. None of the square root AVE values were less than any of inter-construct correlations, providing good evidence for discriminant validity. All the values of Cronbach’s α (from .81 to .94) and CR (from .83 to .91) were well above the suggested cutoff criteria, indicating the items within the measurement constructs were reliable. All factor loadings in the final models were statistically significant at .5 and were greater than the recommended cutoff of .7 (Enders, & Bandalos 2001).^[18] Descriptive statistics, correlations, reliability estimates, and AVE values for measurement models are presented in Table 2.

4.2 Structural Model

After establishing the psychometric properties of

scores for the measurement models, a full structural model with all parameter estimates was computed. The original hypothesized model showed an acceptable fit to the data ($\chi^2 = 1010.27$, $p < .001$, $\chi^2/df = 3.55$, SRMR = .059, NFI = .95, CFI = .96, and RMSEA = .075). The values of CFI and NFI were all above the suggested value (>.95; Hu & Bentler, 1999). Only RMSEA was slightly above the suggested standard, with a value of .075. Although a specification was needed to further improve the overall model fit, a decision was made not to further conduct post hoc analysis due to two reasons. The first one was that the hypothesized model might lose theoretical sense from the specified model when a re-specification was initiated. For example, the MIs indices suggested that a path should be added from a latent variable repurchase intention to an indicator variable of confirmation. The second reason was that except for the RMSEA value, all other alternative model fit indices indicated good values. According to Cangur and Ercan (2015),^[8] RMSEA value tends to be sensitive to model complexity (i.e., number of indicator variables and estimated parameters).

The hypothesized structural model was estimated to examine the hypotheses with regard to the effects of confirmation, customer satisfaction, switching costs, perceived value, and perceived enjoyment on repurchase intention; the effect of confirmation on customer satisfaction; and the effect of customer satisfaction on switching costs. The tested model included a total of six latent constructs (Figure 2). When analyzing the paths among the six latent variables, one path was not statistically significant (customer satisfaction to switching costs). Therefore, hypothesis 2 was not supported. The standardized effect of customer satisfaction had the strongest positive influence on repurchase intention ($\beta = .79$, $p < .01$), indicating that when perceptions toward customer satisfaction increased by one standard deviation, repurchase intention would increase by .79 standard deviations. Perceived enjoyment ($\beta = .72$, $p < .01$) was the second strongest significant predictor of repurchase intention followed by switching costs ($\beta = .56$, $p < .01$), perceived value ($\beta = .42$, $p < .05$), and confirmation ($\beta = .42$, $p < .05$). Therefore, hypotheses 1, 3, 5, 6 and 7 were supported. The SEM results also indicated that confirmation had a significant positive impact on customer satisfaction. Therefore, hypothesis 4 was supported (Table 3). Confirmation, perceived value, perceived enjoyment, customer satisfaction, and switching costs accounted for 68% of the variance in repurchase intention, $R^2 = .68$. Confirmation accounted 36% of the variance in customer satisfaction, $R^2 = .40$.

5. Discussion

Martial arts schools, like many other businesses, rely on continuing memberships to provide a large portion of business income and considerable effort is devoted to this aspect of operations. The stated purpose of this study was to address gaps in the general sport marketing literature concerning whether customer repurchase intention is influenced by customer satisfaction, perceived value, perceived enjoyment, switching costs, and confirmation. To address this question, we proposed a research model based upon seven hypotheses related to the relationships between repurchase intention and each of the five stated post-purchase customer constructs in the context of commercial martial arts schools (Figure 1). Six of the seven hypotheses underlying this model were confirmed in this study.

The first hypothesis (H_1) related to the proposed positive relationship between customer satisfaction and repurchase intention was confirmed. That is, customer satisfaction at martial arts schools had a significant positive influence on repurchase intention. This finding confirmed those of prior studies in which customer satisfaction was also found to result in higher repurchase intention (Jones et al., 2000;^[34] Patterson & Spreng, 1997;^[53] Tsai & Huang, 2007).^[64]

The second hypothesis (H_2) concerned the proposed positive relationship between customer satisfaction and switching costs was not confirmed. That is, increased customer satisfaction did not result in increased perceived switching costs. This finding contradicts the mediation effects of switching costs between customer satisfaction and repurchase intention found by Hellier et al. (2003)^[29] and Dongji, et. al., (2008).^[16] One possible explanation is that, in a practical sense, satisfied customers may not give much thought or importance to the concept of switching cost, since going to another vendor may not even be a consideration. If the customers were dissatisfied and were considering other vendors, then perhaps switching costs would have had more relevance and importance in that context.

The third and fourth hypotheses concerned the proposed positive influence of customer confirmation on repurchase intention (H_3) and on customer satisfaction (H_4). Customer confirmation relates to the extent to which expectations were met (or not) by the purchased product or service and was based upon “expectancy.” In the current study of martial arts school customers, confirmation was found to significantly and positively influence repurchase intention (H_3) and to positively influence customer satisfaction (H_4). These findings would be expected from common

experience and have been confirmed in prior studies (Harrolle & Trail, 2007;^[27] Harrolle et al., 2007;^[28] Trail et al., 2005;^[65] Wann et al., 1994;^[69] Wen et al., 2011).^[70] That is, one would anticipate that having expectations fulfilled (or exceeded) by the martial arts school, along with the associated satisfaction, would reasonably lead to continued customer use of the service and ultimately customer loyalty. Both the customer and the school would then benefit.

The fifth hypothesis (H_5) concerned the proposed positive relationship between perceived value and repurchase intention was supported by the results of this study. Specifically, increased perceived value of membership was significantly related to an increase in repurchase intention. This positive finding was expected and confirmed those of previous studies, some of which were sport-related (Braithwaite & Law, 1985;^[6] Trail & James, 2013).^[66] Perceived value is a multifactor concept and may consist of a sense of belonging, warm social interactions, self-respect, self-fulfillment, fun, and enjoyment, among others (Homer & Kahle, 1988).^[30] These are certainly value dimensions that would be experienced by satisfied participants at a martial arts school.

The sixth hypothesis (H_6) focused on the proposed positive relationship between a martial arts school customer’s perceived enjoyment and repurchase intention and was supported by the study results. This significant finding confirmed that of prior studies linking perceived enjoyment with repurchase behaviors in the context of physical activity (DiLorenzo et al., 1998;^[14] Sallis et al., 1999;^[58] Salmon et al., 2003).^[59] Perceived enjoyment by participating in activities at martial arts schools would reinforce the desire by members to continue to participate. This finding helped fill a gap in the literature concerning perceived enjoyment and repurchase intention in a specific sport.

The seventh hypothesis (H_7) examined the proposed positive relationship between switching costs and repurchase intention was confirmed. Similar to the results of prior studies, the current study verified that martial arts school customers, who perceived higher switching costs to move to another school, also had higher levels of repurchase intention resulting in the decision to not move (Dongjin et al., 2008;^[16] Jones et al., 2000).^[34]

The proposed research model (Figure 1) was largely confirmed by the results of this study. Path coefficients have been used in a variety of ways for many years to examine the functional relations between variables (Wright, 1934).^[71] In the present study, path coefficients suggested some significant direct and positive effects by

the five constructs on repurchase intention among martial arts school members (Figure 2). The direct effects upon repurchase intention included the following, in descending order of effect (based upon path coefficient): customer satisfaction ($\beta = .79$), perceived enjoyment ($\beta = .72$), switching costs ($\beta = .56$), and confirmation and perceived value ($\beta = .42$, respectively).

The confirmed significant direct paths in the research model highlighted the crucial role played by customer satisfaction in increasing repurchase intention among members of martial arts schools. This suggests that managers of martial arts schools should focus attention on those specific factors that enhance customer satisfaction and customer perceived enjoyment because these constructs contributed significantly to repurchase intention and hopefully to a loyal membership base in both direct and/or indirect ways. As in many other circumstances, a satisfied customer is a repeat customer. This finding helps to fill a gap in the general sport marketing literature concerning the influence of different constructs on customer repurchase intention and in the specific case of martial arts schools.

Limitations and Future Research

Since the surveys were only conducted in one geographical area of the U.S. and were conducted at only one point in time for each survey, limitations are inevitable. Participants in other geographical areas, in areas with greater or fewer numbers of competing schools, and schools surveyed over a longer period may have resulted in a somewhat different group of martial arts school members with different expectations, experiences, impressions, and motivations. The current study was also limited in the selection of variables tested. Other repurchase intention predictors, such as household income and price fairness, could have been included in the model but were not. Future study in this specific area may focus on possible distinctions based upon frequency of participation, with the assumption that frequent users may have different motivations and experiences as compared to only occasional users. The goal would be to better understand the motivations (or lack thereof) of occasional users to thereby increase their satisfaction and participation.

Table 1 Descriptive Analysis for Each Item

	Mean	SD	Skewness	Kurtosis
Switching Costs				
SC1	5.05	1.45	-1.58	1.66
SC2	4.86	1.52	-1.08	1.29
SC3	5.18	1.40	-1.00	0.98
Customer Satisfaction				
CS1	5.78	0.82	-1.77	1.27
CS2	5.64	0.94	-1.23	1.41
CS3	5.96	1.44	-0.83	1.58
CS4	5.54	0.91	-0.93	0.93
Confirmation				
C1	4.82	1.55	-0.82	1.21
C2	5.34	1.49	-1.02	0.80
C3	5.24	1.56	-0.81	1.15
Perceived Enjoyment				
PE1	5.51	1.90	-1.40	0.93
PE2	6.13	1.65	-0.91	0.19
PE3	6.00	1.74	-0.73	1.25
PE4	5.62	1.11	-1.08	1.21
Perceived Value				
PV1	5.35	1.49	-0.85	1.31
PV2	5.60	1.45	-1.21	1.36
PV3	5.34	1.44	-1.01	1.01
PV4	4.99	1.36	-0.96	1.01
Repurchase Intention				
RI1	5.01	1.91	-1.09	1.04
RI2	4.79	1.94	-1.06	1.12
RI3	5.06	1.84	-1.16	-1.18

Table 2 Descriptive statistics, correlations, reliability estimates and AVE values for the latent variables

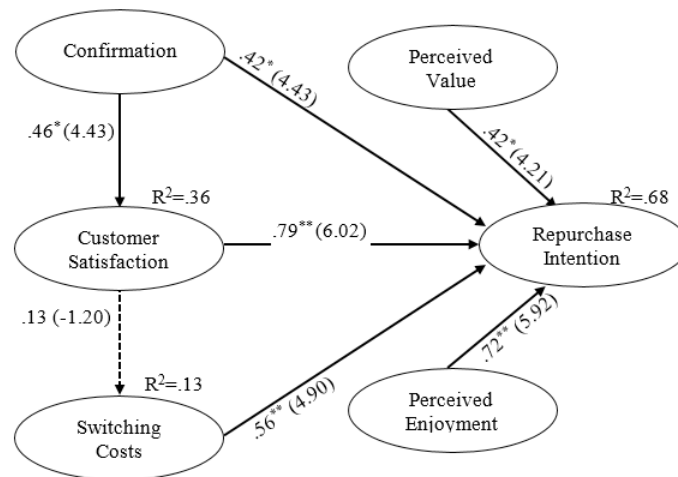
Variables	Mean	SD	α	CR	AVE	r					
Switching Costs	5.03	1.46	.89	.81	.55	1					
Customer Satisfaction	5.73	1.03	.86	.75	.58	.41*	1				
Confirmation	5.13	1.53	.90	.81	.53	.42*	.58*	1			
Perceived Enjoyment	5.82	1.60	.81	.83	.50	.51*	.61*	.50*	1		
Perceived Value	5.32	1.44	.76	.84	.51	.42*	.56*	.55*	.53*	1	
Repurchase Intention	4.95	1.25	.93	.89	.55	.58*	.65*	.58*	.49*	.42*	1

* p<.05

Table 3 Results of Hypotheses Test: Path Coefficients (β) and Significance Level (p).

Hypotheses	Path	β	p	Support
H1	Customer satisfaction → Repurchase intention	.79	**	Yes
H2	Customer satisfaction → Switching Costs	.13	.24	No
H3	Confirmation → Repurchase intention	.42	.02	Yes
H4	Confirmation → Customer satisfaction	.46	.01	Yes
H5	Perceived value → Repurchase intention	.42	.03	Yes
H6	Perceived enjoyment → Repurchase intention	.72	**	Yes
H7	Switching costs → Repurchase intention	.56	**	Yes

** p < .01



* p<.05, ** p<.01

Solid lines represent significant paths; dotted line represents insignificant path

Figure 2. Analytical results of repurchase intention model

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