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The Impact of Consumer Knowledge on Profitable Consumer Loyalty through Perceived Service Quality and Psychological Involvement in Non-Profit Sport Clubs

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Quality and Psychological Involvement in Non-Profit Sport Clubs

ABSTRACT

Purpose – The purpose of this research was to test the influence of consumer knowledge management on attitudinal and behavioral loyalty through service quality and psychological involvement.

Design/methodology/approach – The participants (N = 396) were recruited through a convenience sampling technique from non-profit sport clubs in Iran. Data were analyzed with the Structural Equation Modelling using Mplus 7.4.

Findings – The results revealed that the effects of service quality on psychological involvement were dependent on consumer knowledge management. Furthermore, there were the mediating effects of service quality and psychological involvement in the relationships between the consumer knowledge management and loyalty.

Practical implications – The research findings provide valuable insights for non-profit sport club managers seeking to better attract and retain their consumers by demonstrating the importance of investing in consumer knowledge management initiatives. Managers should thus integrate knowledge orientation into their marketing and relationship management strategies and apply the strategy into consumer knowledge within club services.

Originality/value – This study empirically highlights the important role of knowledge from, for, and about the consumer on perceived service quality and loyalty building among the non-profit consumer base.

Keywords: consumer knowledge, behavioral loyalty, attitudinal loyalty, perceived service quality, psychological involvement

Introduction

Despite competition from for-profit sport organizations, consumers are often more interested in non-profit sport clubs (NPSCs), since NPSCs provide less expensive sport services (Nowy et al., 2015). This great interest in NPSCs can be an important source to generate increased profitability. Consumers now possess more information and knowledge about services than ever before, which organizations implement as a competitive tool in the marketplace (Taherparvar et al., 2014). Consumer knowledge management (CKM) is a type of consumeroriented concept which takes consumer knowledge (CK) as a significant strategic resource (Feng and Tian, 2005). There is a need for NPSCs to justify CKM activities because they compete for scarce organizational resources (Yang and Chen, 2008). CKM is widely studied in for-profit organizations (e.g., Taghizadeh et al., 2018; Taherparvar et al., 2014). However, investigating the significant of CKM in non-profit sport sector is a growing body of research (Behnam et al., 2016; Behnam, et al., 2020). CKM is particularly important in the context of NPSCs as those organizations primarily provide strong consumer-based services (Lang et al., 2019). Applying the knowledge discovery process, organizations develop their marketing strategies in ways that improve perceptions of their service quality to both attract and retain consumers (Rajagopal, 2014). As attracting and retaining consumers through the use of knowledge represent key determinants of success for NPSCs (Delshab, Winand, Sadeghi Boroujerdi, Hoeber and Mahmoudian, 2020; Koenigstorfer and Wemmer, 2019), research in this context is particularly valuable.

Qin and Prybutok (2009) stated that service quality should be enhanced via the detection of novel methods of working and service development, and organizations have to carry out better knowledge processing to tailor their services to best please consumers. Thus, to provide better

service quality, organizations need to develop relationships with consumers, which can be established via obtaining an improved understanding of CK. Although the relationship between CKM and service quality has been examined in prior research (Tseng and Wu, 2014), the identification of specific attributes of CKM in predicting service quality have not been explored.

Attracting and retaining consumers depends on organizations satisfying consumer expectations as they relate to service quality perceptions, which represent one of the most important predictors of consumer satisfaction (Koenigstorfer and Wemmer, 2019). Thus, organizations who do not understand their consumers' perceptions are likely to lose business. On the other hand, if an organization understands consumer demands about their services (e.g., through CKM) and is able to offer service which exceeds consumers' expectations, then it is likely to improve perceptions of service quality (Romano and Vinelli, 2001). Taghizadeh et al. (2018) believed that each dimension of CKM has distinct value and contributes to the determination of how service quality is achieved. Service quality has been shown to increase spectators' involvement (Ko et al., 2010) and consumer loyalty (e.g., Alexandris et al., 2017; Biscaia et al., 2013; Foroughi, Shah, Ramayah and Iranmanesh, 2019; Kim et al., 2014). Although the relationship between service quality and involvement have been indicated in the ride-sourcing services (Su et al., 2019) and leisure contexts (Alexandris et al., 2012), the relationship between service quality and psychological involvement has not been empirically verified within CKM literature.

In addition, present literature indicates the significance of psychological involvement in accounting for sport participation (e.g., Kim *et al.*, 1997), sport event attendance and consumption (e.g., Armstrong, 2002), and behavioral loyalty (e.g., Inoue et *al.*, 2017). With regards to the complex nature of consumer loyalty, many scholars have examined both attitudinal and behavioral

aspects (e.g., Evanschitzky and Wunderlich, 2006; Foroughi, Iranmanesh, Gholipour and Hyun, 2019; Han and Hwang, 2015; Han and Hyun, 2012; Trail *et al.*, 2016; Yuksel *et al.*, 2010). However, little research have examined the effect of psychological involvement on different aspects of loyalty in NPSCs, and there is a call to consider the consumer's involvement effects on the aspects of loyalty in various management settings (Ahn and Back, 2018; Foroughi, Iranmanesh, Gholipour and Hyun, 2019). In addition, within emerging markets, the key to ensuring the success of an organization is in developing consumers' loyalty consisting of both attitudinal and behavioral components (Kumar *et al.*, 2013).

In the context NPSCs, although empirical research has been conducted on knowledge-related factors (e.g., Delshab, Pyun, Kerwin and Cegarra-Navarro, 2020, Delshab, Winand, Sadeghi Boroujerdi, Hoeber and Mahmoudian, 2020; Wemmer *et al.*, 2016), however, prior research have paid little attention on CKM (Behnam *et al.*, 2016; Behnam, *et al.*, 2020). Given that NPSC's business models are predominantly consumer-oriented, and CK is an important asset for their businesses, effective CKM enables NPSCs to gain competitive advantages through the development of services. To realize these competitive advantages, NPSCs should establish effective channels which enable decision making based on improved CK. In particular, improved CK can be utilized to provide an improved quality of service, influencing consumer loyalty towards the club. To date, this sequence in NPSCs remains unclear and in need of empirical validation.

Existing studies have focused on evaluating CK based on the managers' perspectives, yet scholars advocate for complementary research adopting a consumer perspective, especially within service industry contexts (Tseng and Wu, 2014). Similarly, prior work has issued calls for further consumer-centric research to explore the role of individual CKM dimensions within

sport-based service quality literature (Khosravi and Nilashi, 2018; Tseng and Wu, 2014). Within this study, we respond to the call of Burgess and Steenkamp (2013), highlighting that researchers should develop new models and theories applicable to various contexts (e.g., emerging sport markets) to advance theoretical and practical understandings. We seek to further extend the extant literature surrounding knowledge management in the field of sport management, which to date remains in its infancy (Girginov *et al.*, 2015). Therefore, we sought to test the mediating roles of perceived service quality and psychological involvement in the relationships between three dimensions of CKM (knowledge from/about/for consumers) and both attitudinal and behavioral loyalty. In addition, this research contributes new insights to the sport management literature by examining these constructs in the Iranian sport context as an emerging sport market.

Theoretical Background

Consumer Knowledge Management

Knowledge is considered a significant source of competitive advantage within sport organizations (Delshab and Sadeghi Boroujerdi, 2018; Delshab, Pyun, Kerwin and Cegarra-Navarro, 2020). One prominent knowledge resource is external knowledge (Gibbert *et al.*, 2002) which includes recognizing consumers' needs and preferences (Lee, Naylor and Chen, 2011). Within the present research, CK refers to consumers' perceptions about how NPSCs consider their ideas, information, problems, needs, and preferences. CK generation is a dynamic process where consumers have an active role via interactions with each other and the focus organization (Taherparvar *et al.*, 2014). CKM deals with gaining CK as well as sharing and extending this knowledge in a systematic and organized manner (Taghizadeh *et al.*, 2018). Cui and Wu (2016) considered two attributes of CK, which are need tacitness and need heterogeneity. Elsewhere, Arnold *et al.* (2011) evaluated depth and diversity as two attributes of CK. In general, scholars

typically conceptualize CK as a multi-dimensional construct encompassing knowledge from, about, and for consumers (e.g., Behnam *et al.*, 2016; Gebert *et al.*, 2003; Taghizadeh *et al.*, 2018; Taherparvar *et al.*, 2014). In line with these viewpoints, we conceptualize CK as a three-dimensional construct encompassing multiple aspects of consumer-based knowledge (i.e. knowledge *from*, *about*, and *for* consumers).

Knowledge from the consumer is a tacit information that is obtained from the consumer to know external environment (Taghizadeh et al., 2018). In the NPSCs context, for instance, knowledge from the consumer could refer to consumers' perceptions about how clubs consider consumers' ideas when developing services and information generated from consumers about activities of interest and service quality evaluations (Behnam et al., 2020). This knowledge helps the organization to improve its services or prepare new services in response to consumers' evolving needs (Wu et al., 2013). This knowledge is important for organizations to achieve the concept of co-creation (Sigala, 2012).

Knowledge about the consumer is explicit information that includes consumers' tastes, backgrounds, or experiences to understand their needs (Taghizadeh *et al.*, 2018). In NPSCs, knowledge about consumers refers to consumers' perceptions about how clubs consider their demands and problems, and clubs seek to understand their needs better (Behnam *et al.*, 2020). This knowledge is actively obtained from consumers or other actors and is stored as a valuable knowledge base during long-term commerce activities (Itami and Nishino, 2010), as well as is related to the design, improvement and development of service (Wu *et al.*, 2013). This knowledge is also important to the organization because it helps identify consumers' concerns and preferences through examining their perceptions of services (Chua and Banerjee, 2013).

Knowledge for the consumer helps consumers to learn about existing/new services and products provided by organizations (García-Murillo and Annabi, 2002). Knowledge for consumers refers to consumers' perceptions about how clubs provide information about current and new services, as well as the benefits of these services (Behnam et al., 2020). This knowledge is essential because it helps consumers to become aware of, and better use, the services offered by the organization (Wu et al., 2013). According to Tseng and Wu (2014), the possession of CK enables organizations to enhance their competitive advantage through differentiation of services, leading to a point of difference over their competitors. CKM thus enables an organization to quickly respond to consumer needs and demands (Tseng, 2016), which can improve the relationship between the organization and their consumers, and enhance the quality of service offered by the organization (Keshtidar et al., 2017). Finally, this CK indirectly influences intention to use of sport services (Behnam et al., 2020).

Consumer Knowledge Management and Service Quality

According to Zeithaml (1988), perceived quality is "the judgment of the consumer on the excellence or superiority of a product/service" (p. 3). Service quality represents a key source for organizations to obtain a competitive advantage that leads to differentiation and increases the value of the services provided (Biscaia *et al.*, 2017; Rajagopal, 2014). In the sport industry, both managers and researchers have focused on the issue of service quality due to the increased use of these services (Lee, Kim, Ko and Sagas, 2011). This is certainly true for sport organizations whom operate within a competitive environment where they are involved in the production of intangible services, rather than tangible goods (Lam *et al.*, 2005). Tseng and Wu (2014) demonstrated that CK had a significant effect on service quality in the Taiwanese companies based on managers' perspective. Thus, by aiming to exhaustively understand consumer demands

about goods and services, organizations can position themselves to improve the quality of goods and services they produce, and exceed the service quality expectations held by their consumers (Tseng & Wu, 2014).

On this basis, CKM and its respective dimensions are key areas of concern for sport organizations and more specifically for NPSCs. Salomann et al. (2005) argued that that CK could be employed in service creation to create new ideas (i.e., knowledge from consumer). Knowledge from consumers is mostly concerned with asking consumers their perceptions of service quality offered by an organization (Taghizadeh et al., 2018). According to Butler (2000), organizations can use their knowledge about consumers to improve service quality and subsequently positively influence their intentions to reuse services. In the same vein, NPSCs that leverage their knowledge and understanding about their consumers can subsequently take steps to address their requests and develop their consumers' loyalty (Delshab, Winand, Sadeghi Boroujerdi, Hoeber and Mahmoudian, 2020). This illustrates how organizations can improve their service and problem-solving abilities, in turn improving service quality (Tseng and Wu, 2014). Knowledge from services (i.e., via Knowledge for the consumer) would assist to consumers in differentiating services experiences with regards to the quality of services (Rowley, 1997). Knowledge for the consumer has influence perceived service quality (Gebert et al., 2003). Collectively and conceptually the CKM dimensions each contribute to explaining service quality perceptions within sport clubs. This leads to establish our first hypothesis:

H1a: Knowledge from the consumer positively influences perceived service quantum among consumers in NPSCs.

H1b: Knowledge about the consumer positively influences perceived service quality

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H1c: Knowledge for the consumer positively influences perceived service quality among consumers in NPSCs.

Service Quality and Psychological Involvement

One key way that sport organizations focus on optimizing the experience of their consumers and enhancing their satisfaction is through enhancing the quality of their services (Kim and Kim, 2020). Further, research has established that consumers' service quality perceptions act as an antecedent of perceived value (Shapiro et al., 2019). Alexandris et al. (2017) stated that perceived service quality may take on increased importance within the decision-making process of highly involved consumers. Similarly, Iwasaki and Havitz (2004) suggested that environmental factors (e.g., service quality) could be a significant antecedent of involvement. Psychological involvement refers to the extent to which one may view an activity "as central to their life (centrality), and providing them with both hedonic (pleasure) and symbolic (sign) values" (Inoue et al., 2017, p. 49). Pleasure refers to the value and enjoyment derived from the sport (Beaton et al., 2011). Delivering excellent consumer service would help consumers experience fun, exciting, and interesting activities (Alexandris et al., 2012), which can lead to pleasure. Centrality reflects how central the sport is to the individual's lifestyle (Sato et al., 2019). Sivadas and Baker-Prewitt (2000) stated that service quality affects the centrality of attitudes. Hence, it makes sense that as service quality increases, consumers will spend more time in the club and following the club. Moreover, sign represents the level of symbolism or selfexpressive value of the sport (Beaton et al., 2011). Scholars stated that consumers tend to identify themselves with goods that are related with positive brand associations (Wattanasuwan, 2005). In the same vein, Alexandris et al. (2012) showed that service quality plays an important role and image in the development of leisure involvement in non-profit dancing associations.

Accordingly, service quality is believed to influence psychological involvement among consumers in NPSCs. This leads to our second hypothesis as follows:

H2: Perceived service quality positively influences psychological involvement among consumers in NPSCs.

Psychological Involvement and Consumer Loyalty

One of the significant predictors of loyalty in the sport context is involvement. Assessment and prediction of consumer behavior can be facilitated through the examination of the level of individuals' involvement and loyalty as they are directly linked to consumer behavior (Mao and Zhang, 2013). According to Foroughi, Iranmanesh, Gholipour and Hyun (2019), loyalty is usually measured by both attitudinal and behavioral components. Attitudinal loyalty refers to consumers' emotional and psychological states (Ahn and Back, 2018; Kim *et al.*, 2020), while loyalty from a behavioral perspective can include repurchase or reuse behavior (Chung *et al.*, 2019). Similarly, Oliver (1999) highlighted that consumers can establish loyalty through the balance between attitudinal and behavioral aspects including the four stages: cognitive, affective, and conative stages for attitudinal loyalty, and the action stage for behavioral loyalty (Han and Hwang, 2015). More specifically, loyalty creation is a process in which rational reasons for continuous support (cognitive) give a way to emotional connections between a consumer and a service (affective), followed by an obligation to reuse/repurchase the service (conative), and finally lead to reuse even when action is required to overcome barriers (Oliver, 1997).

According to the Psychological Continuum Model (PCM; Funk and James, 2006), a transition from awareness to allegiance coincides with changes in psychological involvement (Beaton *et al.*, 2011). Past literature examined and supported the impact of involvement on

attitudinal loyalty (Backman and Crompton, 1991; Park, 1996). For instance, Backman and Crompton (1991) revealed that attitudinal loyalty is predicted by involvement among leisure participants. Later, Park (1996) demonstrated that involvement was correlated with attitudinal loyalty in fitness clubs. More recently, several studies in the professional sport sector revealed the impact of psychological involvement on behavioral loyalty. Kunkel *et al.* (2013) stated that consumers with higher levels of involvement had higher loyalty. Behavioral loyalty has also been shown to be positively affected by consumer involvement with professional football teams (Inoue *et al.*, 2017). Based on the above, this research espouses the following associations between consumers' psychological involvement and two aspects of loyalty:

H3: Psychological involvement positively influences attitudinal loyalty among consumers in NPSCs.

H4: Psychological involvement positively influences behavioral loyalty among consumers in NPSCs.

Attitudinal and behavioral loyalty are significant concepts in predicting a long-term consumer relationship, mainly when the attention does not remain only on the evaluation of previous behaviors but is also on forecasting future behaviors by the consumer (Kumar and Shah, 2004). In the football industry, Maderer *et al.* (2016) found that attitudinal loyalty positively influenced the behavioral loyalty of fans. Similarly, many previous studies in sport management have argued attitudinal loyalty is a key determinant of behavioral loyalty (Bauer *et al.*, 2005; Funk *et al.*, 2000). Hence, the behavioral loyalty of NPSC consumers should also be in part dependent upon their attitudinal loyalty. Thus, our last hypothesis is built as follows:

H5: Attitudinal loyalty positively influences behavioral loyalty among consumers in NPSCs.

Figure 1 summarizes the hypothesized relationships that were examined in the current study.

Method

Study Context

Data relevant to test the hypotheses were collected from a sample of NPSCs in Iran. NPSCs play a crucial role in the development and promotion of interest in sport and physical activities in Iran. The administration of these clubs is centralized and government-controlled, which are under control of the National Sport Federation. NPSCs aim to increase sport participation, in line with the government initiatives including 'Sport for All' and 'Active Iran' for the purpose of supporting the sporting aspirations among Iranians (Dousti et al., 2013). We obtained data from 15 NPSCs in the city of Urmia, where 95 NPSCs are located. Most NPSCs in Iran follow similar policies and practices which have been initiated by the government. However, types of sport, size, internal actors, and processes vary across the clubs. The clubs recruited in this study consisted of small (number of members < 100) and medium (100 < number of members < 400) sizes. NPSCs offer services related to competitive and recreational sport activities across both individual (e.g., table tennis) and team (e.g., volleyball) sports. However, only one type of sport is provided per club. Consumers include elite athletes as well as the general public who are interested in recreation and health. Each NPSC has separate facilities for male and female members.

Sample

We utilized a quantitative design with a convenience sample of 396 consumers from 15 NPSCs (i.e., nine individual and six team sport clubs) located in Urmia, Iran. The sample consisted of 181 females (45.7%) and 215 males (54.3%). A total of 420 questionnaires were collected, but 24 questionnaires were removed due to incomplete responses to key questions. The participants ranged in age from 18 to 70, with most respondents representing the 21 to 30 (n = 111, 28%) age group. Participants were the membership of club at least 6 month, with most respondents were club consumers for 2-3 years (n = 148, 37%), attended the club once (n = 110, 28%) or twice a week (n = 148, 37%), and used the club's sport services with friends (n = 175, 44%).

Procedure

In this study, first, we simple randomly selected 18 of the 95 NPSCs from within Urmia. Then, of the 18 sport clubs that were invited, 15 agreed to participate. The objectives of the research were described to the managers of each NPSC. At the end of the study, we provided a written report of the results to each manager who agreed to participate. After obtaining consent from the manager of the 15 sport clubs, two trained surveyors were stationed at the entrance of each club during the busiest days and times (from 5 pm to 8 pm on Tuesdays, Wednesdays, and Thursdays over a two-week period). Potential respondents were informed about the aims of the research, that their participation was voluntary and that their responses would remain anonymous

before they agreed to participate.

Measures

The participants responded to the following questionnaire items. Constructs with a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) were used to measure CKM,

perceived service quality, and psychological involvement (see Table 1 for the item statements). First, the researchers modified the CKM scale which was originally designed for managers (e.g., Taghizadeh et al., 2018; Taherparvar et al., 2014) to be suitable for the current context (i.e., consumer perspective, NPSC settings). For instance, we modified the original statement of "our bank asks customers about their required services" to "my club asks customers about activities of interest to them (e.g., activities for health and recreation, or athletics)." This revised scale was then confirmed by eight sport management scholars. The CKM scale consisted of three dimensions with 15 items: knowledge from the consumer (four items), knowledge about the consumer (seven items), and knowledge for consumer (four items). Second, perceived service quality was evaluated by the three-dimensional scale using 15 items which were adapted from Alexandris et al. (2004). This scale consisted of physical environment (five items), interaction quality (five items), and outcome quality (five items). Third, the nine-item psychological involvement scale with three dimensions of pleasure (three items), centrality (three items), and sign (three items) was adapted from Beaton et al. (2011) and Inoue et al. (2017). Fourth, attitudinal loyalty was measured by the nine-item multidimensional scale, adapted from previous work (Han and Hwang, 2015; Han and Hyun, 2012; Yuksel et al., 2010). The attitudinal construct included three dimensions: cognitive, affective, and conative (each with three items). Lastly, behavioral loyalty was measured by the unidimensional scale with three items, adapted from Han and Hwang (2015) and Evanschitzky and Wunderlich (2006).

Data Analysis

To test our hypotheses, we used structural equation modelling adopting a maximum likelihood estimation with standard errors and a mean-adjusted chi-square statistic (i.e., the Satorra-Bentler chi-square). The skewness (-.17 to -.92) and kurtosis (-.54 to .8) statistics for all

observed variables were at an acceptable level, but multivariate normality was not acceptable. Thus, we conducted the analysis using Mplus Version 7.4 (Muthén and Muthén, 1998-2012) which is robust to non-normal data and has been popularly used in previous sport marketing and management research (e.g., Drayer *et al.*, 2019; Kim *et al.*, 2020; Larkin and Fink, 2019; Shapiro *et al.*, 2019; Yim and Byon, 2020). To evaluate the second-order measurements (i.e., perceived service quality, psychological involvement, and attitudinal loyalty), we conducted a second-order confirmatory factor analysis.

Indicator reliability, internal consistency, discriminant validity, and convergent validity were assessed (Chin, 1998). Reliability was examined by composite reliability (CR), while indicator reliability was examined using factor loadings. Reliability is deemed suitable when a CR value is higher than the threshold of .70 (Hulland *et al.*, 2018). Convergent validity is examined using average variance extracted (AVE). An indicator is deemed valid when its AVE value is higher than the threshold of .50 (Fornell and Larcker, 1981). Discriminant validity is supported when square root of the AVE of each construct is higher than correlation coefficients with the other constructs in a model (Fornell and Larcker, 1981).

Results

Testing the Measurement Model

The results of the confirmatory factor analysis (CFA) indicated a good model fit, with $\chi^2/df = 1826.12/1194 = 1.53$, comparative fit index (CFI) = .95, Tucker-Lewis index (TLI) = .95, standardized root mean square residual (SRMR) = .043, and root mean square error of approximation (RMSEA) = .037. The CR values of all latent variables ranged from .84 to .95 (beyond the .70 threshold) and thus indicated a satisfactory level of reliability (see Table 1). All

factor loadings were beyond .70, indicating all indicators exhibited unique variance more than common variance (see Table 1). For convergent validity, the AVE values were beyond the threshold of .50, which showed that amount of variance explained by each construct was more than its error variance, showing satisfactory convergent validity (see Table 1). The results also demonstrate satisfactory discriminant validity as the square root of the AVE value of each construct was beyond its correlation with any of the other scales (see Table 2). In addition, the variance inflation factor (VIF) scores were between 1.09 and 2.21, so multicollinearity was not an issue (Hair *et al.*, 2011).

###Insert Table 1 around here###

###Insert Table 2 around here###

Testing the Structural Model

The analysis of the structural model yielded the following results for the goodness-of- fit indices: $\chi^2/df = 1842.25/1204 = 1.53$, CFI = .95, TLI = .95, SRMR = .048 and RMSEA = .037, indicating a satisfactory model fit. Figure 1 and Table 3 shows the hypothesized model and path loadings. The structural model accounted for 49% of the variance in perceived service quality, 16% of the variance in psychological involvement, 13% of the variance in attitudinal loyalty, and 12% of the variance in behavioral loyalty. In support of H1a-H1c, knowledge from, about, and for consumer significantly and positively influenced perceived service quality at the .05 probability level ($\beta = .29$, $\beta = .36$, and $\beta = .13$, respectively). Next, perceived service quality positively affected psychological involvement ($\beta = .39$, p < .001), supporting H2. In support of H3 & H4, psychological involvement positively affected attitudinal loyalty ($\beta = .29$, p < .001) and behavioral loyalty ($\beta = .17$, p = .002). Finally, attitudinal loyalty also positively influenced

behavioral loyalty (β = .25, p < .001), supporting H5. Thus, all paths hypothesizing the direct effects among the constructs were supported by SEM results.

###Insert Figure 1 around here###

In order to test the mediating effects of service quality and involvement in the relationship between CKM dimensions and attitudinal/behavioral loyalty, a bootstrapping approach was performed to account for the indirect effects by Mplus. A bias-corrected bootstrap 95% confidence interval (CI) was calculated, based on 5000 bootstrap samples since this method is considered a reliable procedure to examine the significance of indirect and total effects (Hayes and Scharkow, 2013), dealing with non-normality of the indirect effect (Little, 2013). As shown in Table 3, the indirect effects from knowledge from/about the consumer to attitudinal loyalty were significant ($\beta = .071, 95\%$ CI [.022, .144]; $\beta = .090, 95\%$ CI [.041, .162]; respectively). Knowledge for the consumer did not show a significant indirect effect on attitudinal loyalty (β = .032, 95% CI [-.002, .082]). In addition, the indirect effects from knowledge from/about the consumer to behavioral loyalty through attitudinal loyalty were also significant ($\beta = .036, 95\%$ CI [.012, .076]; β = .046, 95% CI [.020, .088]; respectively). The no mediation, or zero effect, did not occur between upper and lower limits of the 95% CIs for both paths, thus supporting indirect effects. However, knowledge for the consumer did not have a significant indirect effect on behavioral loyalty ($\beta = .017, 95\% CI [-.001, .042]$).

###Insert Table 3 around here###

Discussion

In this study, we aimed to examine how CKM influences consumer loyalty in the NPSC setting and tested the mediation effects of service quality and involvement in the relationships.

This study offers several contributions that improve theoretical and managerial implications by understanding the detailed mechanisms in the impact of CKMs on loyalty. Theoretical and practical implications are discussed below.

Theoretical Implications

The study examines CKM in sport management literature based on the suggestion of Girginov et al. (2015) and from the point of consumers (Tseng and Wu, 2014). This study adds to prior work on CKM (Behnam et al., 2020) by highlighting the role of CKM dimensions on service quality. By confirming of the dimensions of CKM as essential determinants of perceived service quality, our study empirically contributes to previous research that has primarily focused on external knowledge in general (Tseng and Wu, 2014), and responded to call of Khosravi and Nilashi (2018) and Tseng and Wu (2014). Our results suggest that CKM exerts a positive effect on consumers' perceived service quality. This resulting is consistent with previous literature (Butler, 2000; Rowley, 1997; Salomann et al., 2005; Taghizadeh et al., 2018), which found that knowing the preferences and requests of consumers, applying the obtained new ideas from consumers in services, and information provided to consumers about services can lead to improve service quality perceptions. These findings show that the dimensions of CKM affect perceived service quality in NPSCs. From the consumers' perspective, sport clubs that align their services with consumers' needs and demands and provide better services than their competitors can be perceived as clubs with higher service quality.

The current research adds another perspective to the existing literature in psychological involvement (Iwasaki and Havitz, 2004; Nyadzayo *et al.*, 2016). The influence of CKM on consumers' psychological involvement through perceived service quality can be a new insight to the literature of psychological involvement. We are able to link perceived service quality with

consumers' psychological involvement and present a logical framework in NPSCs settings that identifies CKM as an antecedent of consumers' psychological involvement through perceived service quality. In addition, the results showed perceived service quality influences psychological involvement of consumers in NPSCs and contributes to prior research on service quality outcomes (e.g., Alexandris et al., 2012; Jones et al., 2019; Ma and Kaplanidou, 2020; Xiao et al., 2019). The results of this study show that the improvement of the physical environment of services and the interaction quality of clubs with consumers is effective in increasing their pleasure. The positive outcomes of using services lead to more time spent in the club (i.e., centrality), which ultimately makes consumers feel part of the club (i.e., sign). This positive relationship between service quality and involvement enriches the findings of Alexandris et al. (2013) that runners with high involvement were more interested in core event quality than circumferential service attributes The findings of the current research demonstrate that a NPSC consumers' psychological involvement with the club is affected by service quality. Thus, we forward that consumers' overall connection with an NPSC, can be influenced by their interactions and exchanges with the organization (e.g., Funk and James, 2001).

Another significant finding from this study indicates that psychological involvement was significantly connected to consumer loyalty (i.e., attitudinal and behavioral), in line with previous studies (Inoue *et al.*, 2017; Iwasaki and Havitz, 2004; Kunkel *et al.*, 2013). This study showed that psychological involvement influenced attitudinal loyalty (β = .29) to a greater extent than behavioral loyalty (β = .17). These findings enrich the sport management literature by revealing the higher effect of psychological involvement, compared to behavioral loyalty, on attitudinal loyalty. Although recent studies of loyalty have applied either an attitudinal loyalty measure or behavioral loyalty measure, or composite measure (e.g., Ballouli *et al.*, 2016; Bodet,

2012; Maderer and Holtbrügge, 2019), the results of this study acknowledge the need to distinguish between attitudinal and behavioral loyalty components (Maderer and Holtbrügge, 2019). The current findings also advance understandings pertaining to NPSC management within emerging markets. Previous studies have focused mainly on recreational agencies, professional team settings, events and developed markets. It seems in the Iranian market consumers are becoming loyal to the club's services as a result of their involvement. This might be due to the possibility that if a service can appeal to consumers' cultural rationale, there would be a natural progression toward consumer loyalty to it (Kumar *et al.*, 2013). It can observe that as the dominant number of sport consumers in Urmia have high psychological connection to volleyball clubs (e.g., via pleasurable services offered), they perceive the club services more favorably and ultimately intend to consume more. Also, service offerings in emerging economies can accelerate the creation of profitable consumer loyalty, evidencing that they closely resonate and blend with the country's culture (Kumar *et al.*, 2013).

Existing research has indicated a significant relationship between attitudinal loyalty and behavioral loyalty (e.g., Bauer *et al.*, 2005; Funk *et al.*, 2000; Maderer *et al.*, 2016). Moreover, elucidating the conceptual construct of consumers' loyalty, the current study adds to the sport management literature by presenting and validating the multidimensional structure of attitudinal loyalty, while most previous studies considered attitudinal loyalty as unidimensional (e.g., Keshtidar *et al.*, 2018; Papadimitriou *et al.*, 2019). The results of this study infer when consumers prefer their clubs over other clubs, they have intention to use the club's sport services, leading to their ongoing involvement with using the club's sport services.

Lastly, this research sought to test the mediating role of perceived service quality and psychological involvement in the relationships between the CKM dimensions and consumer

lovalty. The findings suggest that the knowledge from/about consumer play a role in improving consumer loyalty. Though the impact of CKM on consumer loyalty has been supported in the previous literature (Behnam et al., 2016; Feng and Tian, 2005), the mediating role of perceived service quality and psychological involvement has seldom been examined. This study adds to prior research by highlighting the mediating roles of perceived service quality and psychological involvement in this link, therefore enhancing understandings related to important variables within the NPSC and consumer relationship value chain. Relationships with consumers as part of CK are one of the information resources to improve service quality (Probst et al., 2000). When an individual possesses favorable attitudes towards a club, their psychological involvement is enhanced which may lead to movement in the PCM (Funk and James, 2001). Consumer progression through the PCM (i.e., increasing psychological involvement) correlates with the consumer developing more meaningful attitudes towards the sport organization (i.e., attitudinal loyalty) and investing more time and resources in engaging in activities supportive of the organization (i.e., behavioral loyalty; Funk and James, 2006). This is significant since consumers' psychological involvement is most valuable when it leads to the enhancement of consumer loyalty (Inoue et al., 2017; Kunkel et al., 2013). Therefore, this mechanism show that the knowledge from/about consumer increases consumers' loyalty through perceived service quality and psychological involvement.

Practical Implications

The present research findings provide valuable insights to NPSC managers seeking to better attract and retain their consumers by demonstrating the importance of investing in CKM initiatives. Managers in the sport industry thus need to integrate knowledge orientation into their marketing strategy as well as relationships strategy and apply the strategy into CK within work

settings. Overall NPSC managers should work to develop a culture of consumer-orientation among staff to obtain optimal CK data.

According to the current research, knowledge from, about, and for the consumer influenced their perceived service quality. To capitalize on this, sport clubs can enhance their service quality through obtained information from consumers about club and competitors' services and provide better services based on consumers' demands as well as detailed information about club services and their applications. Clubs managers can obtain consumers' knowledge about club programs and activities and competitors through various ways of communication (e.g., direct surveys and social networks). Listening to consumers through various formal and informal interactions enables the club managers to identify important problems voiced by their consumers. If necessary, current services can be redesigned to overcome weaknesses, and new services are generated and offered based on consumers' demands. For example, based on the obtained information from consumers, one of the weaknesses is the simultaneous use of consumers with different purposes (e.g., recreational, health and competitive) from club services. Based on consumer purposes for service use, clubs can redesign services through better classifying the times of service use. Managers can identify these demands directly from consumers who interact regularly with other consumers or in other ways like using complaint solicitation forms, critical incident techniques, or focus group interviews. Clubs managers need to apply consumer relationship management systems to gain a better understanding of the benefits and attributes

account their cognitive, affective, and behavior preferences.

Since consumers have various needs and preferences from club services, it is recommended that clubs offer services with high quality that meets interests of consumers (e.g.,

services for competitions, health, and recreation), which can be effective in forming favorable attitudes among consumers. Based on the PCM, reinforcing attitudes results in movement on model towards loyalty (Funk and James, 2006). Accordingly, consumers would reuse club services and create a better interaction with the club. It is recommended that sport clubs improve service quality based on consumers' demands to create positive attitudes and involve consumers in club activities as well as make bonding strategies with focus on consumers' behaviors. For example, more frequent contact with consumers through strategies of the knowledge from and about consumer would enable clubs to recognize significant occurrences (e.g., event, process, or problems) discovered by consumers, ways they are treated, and the consequences in terms of perceived effects. For example, some consumers may identify a problem with air conditioning in the club, whereas other may be more concerned about the expertise of coaches or a lack of fitness program offerings. Based on this information, the club could then adjust the air conditioning, employ specialist coaches, or provide additional fitness programs. One consequence of such actions would be increase in consumer retention. Due to the challenging objectives and limited resources of NPSCs, facilitating knowledge processes to develop the newness and quality of services can be an important tool to improve the performance of these organizations (Delshab, Winand, Sadeghi Boroujerdi, Hoeber and Mahmoudian, 2020) and leverage consumer retention and loyalty (Koenigstorfer and Wemmer, 2019). In general, sport researchers and managers need to focus more on activities that contribute to enhancing knowledge about and from the consumer. According to our findings, a CKM approach necessitates additional research effort and further consideration on how to execute and apply such knowledge in marketing activities.

Limitations and Future Research

This study has several limitations which provide directions for further research. First, data were collected only from a single culture (Iran) and service context (NPSCs). CKM may have different impacts on loyalty based on the type of organizations (e.g. profit vs. non-profit, public-private) and within dissimilar cultural contexts. For example, as the Asian culture is considered more collectivistic while Western culture is generally more individualistic (Pura, 2005), results may vary across these contexts. In individualistic cultures, people are more conscious of themselves rather than their groups, while people in collectivistic cultures are more conscious about 'we' (Hofstede et al., 2010). Future research may consider a cultural investigation to determine whether CKM influences consumer loyalty differently in cross-cultural settings. Second, our study was cross-sectional in nature and therefore does not explain how involvement and loyalty may alter over time. Hence, future research could use a longitudinal study to better explain the causal relationships and compare consumers' cognitive, affective, and behavioral outcomes over time. Third, CKM was measured based solely on the consumers' viewpoint in this study. Future research could integrate and include the sport club's viewpoint to better understand the interconnectedness between these stakeholder groups and how clubs can better reflect consumers in process of CKM. Lastly, the study did not consider any possible moderation effects on the hypothesized relationships in the CKM process. One recommendation for future studies is to consider the length of time a person has been a consumer of a club as a moderating variable in the model (Wolter et al., 2019). This variable can be effective in consumer's cooperation for their knowledge sharing with club, or to investigate the relationship stage (Cambra-Fierro et al., 2018) that can influence the interactions between consumers and organizations (e.g., knowledge sharing). Additionally, variables like knowledge from the consumer may also be impacted by this

variable as the longer an individual has been a consumer of a club, the more likely the individual will be to understand the club and evaluate their own experiences with the club.

Conclusion

Sport organizations, including NPSCs, exist in a competitive environment and therefore need to better understand how to attract and retain consumers. CKM allows for the rapid assessment of, and feedback from, consumers to ensure whether consumer demands are being satisfied. This research sought to identify how attitudinal and behavioral consequences can stem from interactions between NPSCs and consumers. The current research investigated the relationship between CKM and consumer loyalty, and the mediating effects of perceived service quality and psychological involvement in this relationship. Our findings showed that CKM was significantly linked to consumer loyalty. This study highlighted the role of CKM in improving service quality perceived by consumers, which, in turn, increased psychological involvement of consumers with their sport clubs. This study contributes to existing empirical findings on the significance of psychological involvement in loyalty, revealing that consumer's psychological involvement affects attitudinal loyalty to a greater extent than behavioral loyalty. These findings have implications for NPSCs as they endeavor to enhance loyalty among their consumers. Tional Journal of Sports Marketing and Sports

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Table 1

Results of Measurement Properties

Construct (CD 02 AVE 70)	λ	Mean (SD)
CKM: Knowledge from customers (CR = .92; AVE = .79)	0.64	2.04 (1.12)
My club asks customers about its current service quality.	.86*	3.94 (1.13)
My club asks customers about its competitor's service quality.	.91*	4.00 (1.15)
My club asks customers about activities of interest to them (e.g., activities for	.90*	3.98 (1.19)
health and recreation, or athletics).		,
Obtaining ideas from customers allows for developing novel and innovative	.88*	3.99 (1.15)
services for my club.		,
CKM: Knowledge about customer (CR = .95; AVE = .74)	0.64	2 01 (1 00)
My club demonstrates an understanding of its customer's background.	.86*	3.91 (1.08)
My club demonstrates an understanding of the number of customer's referrals.	.88*	3.97 (1.12)
My club demonstrates an understanding of customer's requirements and	.88*	4.00 (1.12)
prerequisites.	0.5*	` ′
My club demonstrates an understanding of customer's demands and requests.	.85*	3.97 (1.12)
My club demonstrates an understanding of customer's problems.	.86*	4.07 (1.11)
My club demonstrates an understanding of customer's job and income level.	.85*	3.98 (1.09)
My club demonstrates an understanding of customer's records in the club.	.86*	3.98 (1.05)
CKM: Knowledge for customer (CR = .93; AVE = .74)	00*	2.74 (1.24)
My club provides information about current services for customers.	.90*	3.74 (1.24)
My club provides information about new services for customers.	.82*	3.85 (1.12)
My club provides information about the benefits of new services for customers.	.91*	3.79 (1.16)
My club helps customers to make better decisions by providing information to	.81*	4.01 (1.14)
them.		,
Perceived Service Quality: physical environment (CR = .90; AVE = .65)	0.64	2.04 (1.14)
My club's facilities are attractive.	.86*	3.94 (1.14)
My club's facilities are spacious.	.84*	3.95 (1.10)
My club's facilities are clean.	.82*	4.02 (1.07)
The equipment of my club is in good condition.	.82*	3.88 (1.09)
My club environment (temperature, air) is good.	.71*	4.05 (0.99)
Perceived Service Quality: interaction quality (CR = .87; AVE = .59)	7.0*	4.05 (1.12)
Staff respond quickly to customer needs.	.76*	4.05 (1.12)
Staff work with enthusiasm.	.73*	4.03 (1.10)
Staff are educated.	.78*	4.04 (1.06)
Staff help customers feel comfortable.	.76*	3.98 (1.07)
Staff are experts. Paraginal Sources Organization autocome guality (CR = 02), AVE = 70)	.80*	3.98 (1.04)
Perceived Service Quality: outcome quality (CR = .92; AVE = .70)	.84*	4.04 (1.05)
My club's sport programs help me increase my energy.		4.04 (1.05)
My club's sport programs help me improve my health.	.81*	3.97 (1.11)
My club's sport programs help me improve my fumes.	.86*	3.99 (1.17)
My club's sport programs help me improve my psychological well-being.	.83*	4.00 (1.13)
My club's sport programs help me improve my fitness. Parasived Service Overlity (second and or CP = 00), AVE = 77)	.85*	3.98 (1.15)
Perceived Service Quality (second-order; CR = .90; AVE = .77)	.87*	NIA
Physical environment		NA NA
Interaction quality	.89* **	NA NA
Outcome quality Psychological involvements placeure (CP = 02: AVE = 78)	.88*	NA
Psychological involvement: pleasure (CR = .92; AVE = .78)	.87*	3.99 (1.17)
Following this club is one of the most satisfying things I do.	.07	3.33 (1.17)

I really enjoy following this club.	.90*	4.07 (1.17)
Compared to other activities following this club is very interesting.	.89*	3.98 (1.16)
Psychological involvement: centrality (CR = .91; AVE = .78)		
I find a lot of my life is organized around following this club.	.86*	4.00 (1.19)
Following this club has a central role in my life.	.89*	4.01 (1.22)
A lot of my time is organized around following this club.	.89*	4.01 (1.26)
Psychological involvement: sign (CR = .90; AVE = .76)		
Going this club says a lot about who I am.	.87*	4.06 (1.18)
When I go this club, I can really be myself.	.87*	4.12 (1.20)
I feel like this club is part of me.	.87*	4.11 (1.17)
Psychological involvement (second-order; CR = .90; AVE = .76)		
Pleasure	.92*	NA
Centrality	.91*	NA
Sign	.79*	NA
Cognitive Loyalty (CR = .92; AVE = .80)		
I would like to let others know about my association with this club.	.88*	3.86 (1.10)
I would like to publicize my connection with this club.	.89*	3.85 (1.09)
I would like to tell others about my association with this club.	.91*	3.90 (1.10)
Affective Loyalty ($CR = .91$; $AVE = .78$)		
I like this club more than other clubs.	.86*	3.92 (1.13)
I am happy when I attend in the club.	.88*	3.97 (1.16)
I feel better when I stay in club.	.91*	4.00 (1.13)
Conative Loyalty (CR = .93; AVE = .77)		
I am likely to support the club in the future.	.88*	3.86 (1.13)
I am likely to attend future this club.	.89*	3.98 (1.08)
I am likely to use the club services in the future.	.87*	3.88 (1.10)
Attitudinal Loyalty (second-order; CR = .84; AVE = .64)		
Cognitive Loyalty	.75*	NA
Affective Loyalty	.79*	NA
Conative Loyalty	.87*	NA
Action Loyalty (Behavioral) (CR = .93; AVE = .82)		
When I have an option, I choose mostly this club.	.91*	3.89 (1.09)
I have frequently attended this club in the past 12 months.	.87*	3.87 (1.14)
My extent of preference to this club increased as compared to competitors in the past 12 months.	.93*	3.89 (1.08)
past 12 months. *n < 05		

Note: λ = standardized factor loading; CR = composite reliability; AVE = average variance extracted; SD = standard deviation; NA = not applicable.

Table 2 Correlations among the Constructs

Correlations among the Con	isirucis						
	KFRC	KAC	KFC	PSQ	PI	AL	BL
1. KFRC	.89						
2. KAC	.73	.86					
3. KFC	.63	.59	.86				
4. PSQ (second-order)	.63	.65	.52	.88			
5. PI (second-order)	.31	.29	.36	.38	.87		
6. AL (second-order)	.16	.11	.14	.25	.34	.80	
7. BL	.15	.14	.06	.16	.25	.30	.90
te 1: The diagonal values in b	bold refer to	square roo	t of AVE				
tote 2: KFRC = knowledge fro SQ = perceived service quality		nological in	volvement.	$\Delta I = attitud$	linal lovalty	r BI = hehs	

Table 3 *Hypotheses testing results*

Direct effects	Standardized coefficient	SE	Sig.	
KFRC → PSQ (Hypothesis 1a)	.29	.08	<i>p</i> <	.001
$KAC \rightarrow PSQ$ (Hypothesis 1b)	.36	.07	<i>p</i> <	.001
$KFC \rightarrow PSQ$ (Hypothesis 1c)	.13	.06	p =	.027
$PSQ \rightarrow PI (Hypothesis 2)$.39	.05	<i>p</i> < .001	
PI →AL (Hypothesis 3)	.29	.06	<i>p</i> < .001	
$PI \rightarrow BL$ (Hypothesis 4)	.17	.05	p = .002	
$AL \rightarrow BL$ (Hypothesis 5)	.25	.05	<i>p</i> < .001	
Total Indirect effects	Standardized	SE	Bootstrapping (95% CI)	
Total Indirect chects	coefficient	t SE	Lower 2.5%	Upper 2.5%
KFRC → AL	.071	.030	.022	.144
$KAC \rightarrow AL$.090	.030	.041	.162
$KFC \rightarrow AL$.032	.021	002 .082	
$KFRC \rightarrow BL$.036	.016	.012	.076
$KAC \rightarrow BL$.046	.017	.020	.088
$KFC \rightarrow BL$.017	.011	001	.042

Note: KFRC = knowledge from customer; KAC = knowledge about customer; KFC = knowledge for customer; PSQ = perceived service quality; PI = psychological involvement; AL = attitudinal loyalty; BL = behavioral loyalty; SE= standard error; CI = Confidence interval.

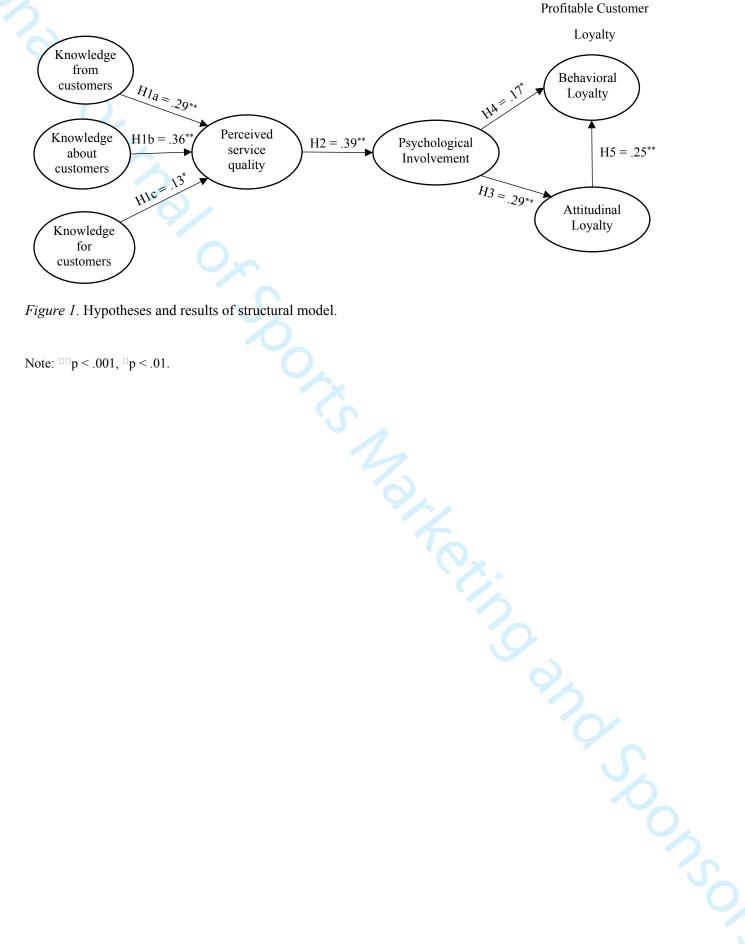


Figure 1. Hypotheses and results of structural model.

Note: $\Box p < .001$, $\Box p < .01$.