Review

Introducing a Sport Experience Design (SX) framework for sport consumer behaviour research

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ABSTRACT

Sport Management Review celebrates 20 years of publishing research, and this milestone provides an opportunity to reflect on sport consumer research and offer possible directions for scholarship. This article utilizes a panel of 17 academic scholars to examine sport consumer research published in *SMR* as an exemplar; and then, more broadly, how to enhance sport consumer research and identify future trends in the sport industry. This information, combined with an article analysis, revealed two key findings. First, the quality of scholarship was acknowledged with noted weaknesses related to improving and diversifying methodology, stronger attention to theoretical development, and relevance to industry. Second, traditional boundaries of sport consumer research will expand due to technology, a broadening sport landscape, and links to other academic disciplines. In order to account for industry trends and address noted theoretical limitations, a Sport Experience Design (SX) framework is introduced, which consists of three interrelated elements: (a) the sport context in which a sport consumer navigates through an experience and interacts with touchpoints, (b) the sport user, with mental processes, psychological needs, and personal characteristics, and (c) the sport organization, which produces the sport experience to achieve organizational goals. The framework provides a holistic consumer-centred approach that considers cognitive, organizational, and physical relevant design factors that enhance customer satisfaction and engagement by improving use and pleasure of sport experiences.

1. Introduction

Sport Management Review (*SMR*) is a leading journal in the dissemination of scholarly research among academics as well as serving the sport industry. *SMR* was established by the Sport Management Association of Australia and New Zealand, and with its first published issue in November 1998, provided a new outlet for academic scholars. As *SMR* celebrates 20 years of publishing research, this milestone provides an opportunity to reflect on the status of sport consumer research and offer possible directions for academics publishing in the journal. *SMR,* as a multidisciplinary journal, represents a good outlet for research that seeks to understand a diverse range of topics related to sport management. The Journal's mission states:

Sport Management Review is published as a service to sport industries worldwide. It is a multidisciplinary journal concerned with the management, marketing, and governance of sport at all levels and in all its manifestations—whether as an entertainment, a recreation, or an occupation. (SMR, 2016)

As a result, sport consumer behaviour (SCB) research published in *SMR* should support this mission given the value this research adds to sport organizations.

The focus of this article is on sport consumer research and is comprised of three sections: (a) the context for SCB as a phenomenon of study; (b) insights from a panel of 17 scholars regarding their perceptions of *SMR* research, how to enhance sport consumer academic research in general, and identify future trends in the sport industry; and (c) based upon this insight, attention to theoretical development is warranted to address industry changes and thus a Sport Experience Design (SX) framework is introduced to guide future academic research directed at investigating the interaction between the sport consumer and the design of sport experiences.

2. Sport consumer behaviour

SCB research represents a sub-discipline within the academic field of sport management, and its evolution follows a similar trajectory as the general field of consumer behaviour. Consumer behaviour emerged as a sub-discipline of marketing in the early 1980's drawing upon a variety of other disciplines, including psychology, sociology, anthropology, economics, and general education, to investigate an individual's decision-making process (Holbrook, 1987; Schiffman & Kanuk, 2010). SCB research draws upon this multi-disciplinary approach with notable influences from social psychology and marketing with one important distinction: the assumption that sport has unique characteristics (Funk, 2008). Sport scholars and educators highlight intrinsic characteristics of sport products[1] related to the uncertainty of outcomes, fluctuations in supply and demand, sport's intangibility and inconsistent nature, reliance on product extensions, the possession of more knowledge by sport consumers, and the manner in which sport is consumed in the presence of others (Shilbury, Westerbeek, Quick, Funk, & Karg, 2014). Although the uniqueness of these characteristics can be debated and the assumption questioned empirically (Baker, Funk, & McDonald, 2016), the observed emotions and connections created from watching or participating in sport is evident, and the study of SCB remains a popular topic in sport management journals (Ciomaga, 2013; Kim, Chelladurai, & Kim, 2015; Shilbury, 2011).

SCB researchers should consider the unique characteristics of sport to provide sport organizations with actionable recommendations. Developing and delivering sport experiences to meet the needs and wants of sport consumers has implications for sport organizations, whose purpose is to provide sport consumers with a pleasurable experience by focusing on service quality and satisfaction to achieve organizational goals. However, sport consumption is largely subjective in nature and involves experiences based on interactions between individual consumers and the sport environment which consists of physical and technology mediated experiences (Funk, Beaton, & Alexandris, 2012; Yoshida, James, & Cronin, 2013). Consequently, SCB academic research has to account for a vast array of psychological and physiological needs and responses that occur before, during, and after the use or anticipated use of a sport experience (Funk, Alexandris, & McDonald, 2016). In addition, academic promotion requirements, refereed journal publishing cycles, and data access prompts researchers to strategically target their research on a specific aspect or temporal period which often dictates the methodology employed. In order to help academic researchers with this strategy and publishing in *SMR*, a panel of academic scholars was consulted in order to gain insight into their perceptions of SCB. The next section presents insight gained from these scholars.

3. Perceptions from the academic field

The author recruited a panel of sport management scholars to investigate perceptions of SCB research published in *SMR* as a specific case example, and then more broadly to identify potential areas for improvement and future direction of the sport industry. The panel represented active scholars in SCB research who are current members of editorial boards of prominent sport management journals.[2] The author sent a personalized email message to 28 experts explaining the purpose of the project and inviting responses to three questions:

1. What is your perception of sport consumer research published in *Sport Management Review*? Please comment on both positive and negative perceptions of this research.
2. What can be done to build and enhance sport consumer research?
3. What is your opinion about the future direction of the sport industry in the next 10 years, and how this will impact sport consumers?

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[1] The term sport product includes goods and services.
[2] The author utilized personal and professional networks to recruit panel members. As such, this information represents an informal polling approach of academics to gain insight and is not presented as a traditional case study.

Table 1
Panel members' perceptions of past work published in *Sport Management Review*.

Theme	Representative quotes
Journal Quality	"Significant impact in advancing our knowledge of the sport consumer." [Scholar E]
	"Consumer research in SMR is as good as anything published elsewhere." [Scholar F]
	"Excellent work has been done by the journal [. .] evidenced by the journal having the highest impact factor among the leading SM journals." [Scholar I]
	"Journal has published some wonderful review papers [. .] rigorous empirical testing of some of these theories has been missing." [Scholar R]
	"One of the top journals in this area." [Scholar L]
Methodology	"Often lacks the stringent approach of (quasi)-experimental research designs to establish causality among research variables." [Scholar J]
	"Some behavioural studies still largely rely on cross-sectional data which makes it difficult to defend a causal relationship between variables." [Scholar P]
	"Longitudinal studies [are almost completely absent in our literature]" [Scholar R]
Research Diversity	"More embracing of diverse research topics and methodology, being flexible and yet maintaining scholarly rigor." [Scholar I]
	"Open to new concepts, approaches and contexts which is encouraging for authors and good for the field." [Scholar M]
	"[SMR] distinguishes itself in the realm of sport consumer research via the diversity in research contexts examined." [Scholar G]
	"Diverse set of published articles on the topic including, both participant and spectator-focused research." [Scholar E]
Theoretical Development and Connection to Other Research	"SMR does publish a range of articles on similar subjects without encouraging the authors to consider their work in relation to other relevant studies featured in SMR and sport management broadly." [Scholar A]
	"Not really advancing sport consumer theory [. .] regurgitate a lot of the same consumer theories and not push for new ideas regarding behaviours that permeate current sport consumer life." [Scholar C]
	"Often major theoretical advances in cognate disciplines such as Human Resources, Organizational Psychology, Marketing and Management Theory seem slow to be adopted in SMR." [Scholar O]
Practical Relevance	"We need more articles covering research that will be of interest to those working in the field, and can be [tested] in real-world sport settings." [Scholar E]
	"Some of the papers are too theoretical and with limited applications." [Scholar D]
	"The marketing pieces that come out are [relevant] to our field for application." [Scholar C]
Dark Side of Sport	"I think the field can benefit from providing insight that can be helpful in addressing the dark side of fandom." [Scholar H]
	"We know more about the good things not much [about the] unintended negative outcome." [Scholar F]

Responses to the three questions were collected by either return email or an anonymous web-based survey. Seventeen of the invited scholars submitted responses. All responses to each question were collected into a single pool and analysed for common themes. A research assistant familiar with SCB research reviewed the pool of responses, developing an emergent descriptive coding scheme for each question. Initial lists of themes were reviewed, and overlapping topics were merged or grouped hierarchically (e.g., research diversity included sub-themes for methodological diversity and contextual diversity), where appropriate. Following approaches described in standard qualitative data analysis texts (e.g., Miles, Huberman, & Saldaña, 2013), the research assistant manually coded text passages from all responses to each question according to the most appropriate theme. All response text coded as each theme was examined for consistency, content, and meaning. Representative quotations were identified for each theme, with active consideration for the need to reflect possibly disparate perspectives on a common topic. Finally, the list of themes present in response to each question was summarized and tables of representative quotations were created. The results are presented in three sections corresponding to the three questions, with representative quotations provided in tables.

3.1. Perceptions of past work in Sport Management Review

Overall, comments on published work in *SMR* focused on the quality of the journal, methodology of published research, research diversity, theoretical development and connection to other research, practical relevance, and the dark emotional side of sport. Representative quotes are provided in Table 1 and key topics are discussed. Generally, although not universally, the quality of research published in *SMR* (and the journal itself) was lauded. Respondents described the diversity of research published favourably, specifically highlighting the wide range of methodological approaches and topic coverage. However, an analysis of SCB articles published in *SMR* conducted by this author revealed a different picture.[3]

The *SMR* analysis revealed that, in terms of methodology, the scientific process of inquiry used for theoretical testing was overwhelmingly quantitative (74%), with only 4% using a mixed method approach, 11% qualitative, and 11% conceptual. Data collection methods utilized were more diverse, using predominantly field surveys (48%), followed by on-line surveys (20%), and with 58% using samples directly related to the sport context investigated, followed by general populations (23%) and

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[3] The *SMR* article analysis was used to examine theoretical and methodological comments made by panel members. As such, it does not represent a systematic content analysis or meta-analysis of *SMR* articles. See Appendix for a description of the *SMR* article analysis.

student samples (16%). Interestingly, 53% of the articles mentioned the selection of sample as a study limitation which, although acknowledged in the research, still exists. Among the quantitative articles that utilized multivariate data analyses, only 4% used actual behaviour and 32% used self-report behaviour as a dependent variable. The majority of published articles (64%) used an attitudinal construct or behavioural intent as the dependent variable which can create multicollinearity issues when attempting to determine the effects of individual predictors in a regression model (e.g., redundancy of independent variables; making some independent variables insignificant). The topic coverage revealed a lack of diversity, with 65% examining spectator sport and 31% examining participant sport contexts, and with 69% of the data being collected from the United States or Australian/New Zealand sport contexts. The panel also noted methodology concerns, with multiple respondents calling for greater use of experimental designs and longitudinal data collection. In support of this concern, the *SMR* analysis revealed only 7% used an experimental design.

The panel noted theoretical development with connection to existing research as a major area of concern. Support for the panel's criticisms was observed in the *SMR* analysis as 17% of articles did not include explicit information as to what theoretical framework was used or it was unclear from where the theoretical framework was derived. In these articles, constructs and the relationship amongst them are listed, but a theoretical foundation was not mentioned. The article analysis did reveal considerable conceptual breadth exists in *SMR* with 71% of articles drawing upon academic disciplines of sport management, leisure, psychology, and business. A lack of consensus emerged among panel members with regards to the practical relevance of research published in *SMR*. Practical relevance was described both positively and negatively. This theme also emerged as an area for improvement related to SCB in general, as presented in the next section.

Holistically, the panel perceptions and article analysis revealed a lack of diversity in *SMR*-published research. Notably, the type of sport context investigated, data collection site used, methodology employed, and theoretical development require attention. Hence, efforts to address these concerns will require involvement from researchers submitting their work to *SMR*, editorial board members of the Journal who review the submissions, and *SMR* editorial staff.

3.2. What can be done to build and enhance sport consumer research?

The panel noted a number of areas for improvement in sport consumer research in general, which broadly fell into five categories: methodological, theoretical development, practical relevance, new publication outlets, and the review process. Each is reviewed briefly and representative quotations are provided in Table 2. Methodological improvements centred on calls for greater use of experimental and longitudinal research designs and the need for replication. These comments reflect an assessment of 114 SCB papers published from 2010–2014 in four journals (*Journal of Sport Management, Sport Management Review, Sport Marketing Quarterly, European Sport Management Quarterly*) which revealed only 22% used multiple stages of data collection or multiple methods; and within *Journal of Sport Management*, 80% used cross-sectional data collection methods (Funk, Lock, Karg, & Pritchard, 2016). Comments on theoretical development included connecting research to existing theory in both sport and non-sport contexts and journals, which is consistent with observations made about *SMR*

Table 2
Panel members' perceptions for improvement in sport consumer behaviour research.

Theme	Representative Quotes
Methodological	"Researchers conducting behavioural studies need to embrace methods that can prove causation among variables of interest. One research method that can be a fertile ground for sport consumer research is experiments." [Scholar P]
	"More rigorous (e.g., longitudinal) or intensive (e.g., ethnographic) research methods provides an opportunity to deepen our understanding of sport consumption." [Scholar A]
	"With few exceptions, longitudinal studies on consumer behaviour are largely missing." [Scholar R]
	"Sport consumer research would not recognize a replication study if it was punched on the nose by one. Without doubt, the lack of replication studies is the greatest failing of the discipline." [Scholar F]
Theoretical Development	"At times the work can seem piecemeal and disjointed from other similar work." [Scholar Q]
	"SMR should place higher emphasis on the requirements to authors to not only reference, but truly ground their studies in research that has been published in the journal previously." [Scholar R]
	"An effort needs to be made to ensure the relevance of sport consumption work to the broader [field] of consumer behaviour is clear." [Scholar O]
	"It will be interesting to see how future research explores in more detail the defining characteristics of sport consumer behaviour from a cultural perspective and examines the impact of the cultural dimensions on sport consumer loyalty." [Scholar B]
Practical Relevance	"There's also a need for connections between sport consumer behaviour and data driven decision making [. . .] how can scholars more effectively use their work to inform and effect policy or action that effects sport consumers? [Scholar K]
	"The connection between academics and practitioners in sport related to consumer behaviour needs to be enhanced." [Scholar E]
New Publication Outlets	"A special issue explicitly seeking papers that connect sport research to other fields, or requiring each published paper to address broader implications in a section of the paper." [Scholar O]
	"We need [. . .] more theoretical pieces that are invited." [Scholar C]
	"Special issues on current topics [. . .] strong invited papers." [Scholar D]
Review Process	"Sometime I think the discipline can't get out of its own way. What I mean by that is sometimes I and others have had good work rejected for silly reasons." [Scholar L]
	"Enhance fairness and rigorous standards in the peer-review process in sport management journals." [Scholar P]
	"The challenge is probably in the reviewing process and the quality standards set up to make sure articles' contributions (managerial, methodological or theoretical) are of the same level." [Scholar M]

specifically in the previous section. Suggestions related to practical relevance highlighted closing a perceived gap between what researchers study and the needs of the sport industry were also reinforced. A number of new research journals were suggested, including special issues and invited articles. Finally, the journal review process was identified by three respondents as an area for improvement. Overall, the panel members' comments for improving SCB research through increased attention to theoretical development, strengthening methodology, increased industry relevance, and improving the review process will require a concentrated effort from key stakeholders including sport consumer researchers, editorial board members of various journals, and journal editorial staffs.

3.3. Future directions of the sport industry

The final question was particularly relevant for future academic research. The panel identified seven ways sport consumers could be influenced by changes to the sport industry over the next 10 years. As a result, these changes should shape sport consumer research moving forward as academics tend to follow industry trends. The seven areas identified were: technology, internationalization and globalization, sport consumer experiences, individualization and personalization, generational shifts, commercialization, and social and health benefits of sport. Each topic is briefly reviewed below, accompanied with representative quotations in Table 3.

Panel members frequently mentioned technology as a factor influencing sport consumer research. Comments included general statements such as advancement of technology and specific technologies, such as virtual reality, social media, digital marketing, eSport, multiple screens, and audience fragmentation. The second most-frequently mentioned trend potentially influencing sport consumer behaviour was increasing internationalization, or globalization, of sport. A common refrain in such comments was a greater focus on emerging sport markets in Asia, Africa, Latin America, and the Middle East. A related topic focused on an expected dominance of international leagues supplanting existing national leagues.

Comments for the role of technology and its influence on the sport experiences were consistently observed. Specifically, panel members suggested technology could improve the sport consumer experience and technology-driven change will require greater attention to design elements. Another topic originating in technology-driven change is a shift towards greater individualization or personalization of sport consumption experiences. Several panel members noted the influence of

Table 3
Panel members' perceptions for future directions of sport consumer behaviour research.

Theme	Representative Quotes
Technology	"Diversification of media outlets, content and sources will continue to splinter the market." [Scholar K]
	"I am stunned by the growth (and potential growth) of e-sports. I think this is one of the most dramatic changes as it redefines our notion of sport compared to what we traditionally considered it to be." [Scholar H]
	"The growth in mediated consumption of sport is significant." Scholar E]
Internationalization and Globalization	"Growth of the sport industry in rising economies." [Scholar I]
	"Development of new international markets (Asia, Africa, etc.)." [Scholar D]
	"National leagues are being outmuscled by international leagues." [Scholar F]
	"Diversity and Globalisation: therefore from a managerial point of view it will be key to represent diverse sports contexts." [Scholar M]
Consumer Experience	"Technology will be further used to improve participants' and fans' experience." [Scholar D]
	"The stadium experience will become less and less accessible to sport consumers, and consequently, less and less important." [Scholar G]
	"I think one of sport's greatest challenges in the next decade or so is getting bums on seats. Consuming sport via television and other broadcasting mediums is starting to challenge the value proposition of attending live sport." [Scholar F]
Individualization or Personalization	"There will be a further development of individualized sport programs (e.g., personal training, etc.) and in contrast to the mass participation." [Scholar D]
	"CRM 2.0 in sport marketing. With the massive consumer data available, properties will have much more sophisticated CRM programs catered towards individual consumer." [Scholar P]
Generational Shifts	"New generations will need a different approach to market them" [Scholar D]
	"Sport will be challenged tremendously by a new generation of consumers whose primary interests are not in following sports through mainstream television subscriptions." [Scholar R]
	"GenY (1978–1990) and GenZ (millennials 1995–2007) are having a value clash. Gen Y is a generation that is not expecting immediate gratification while Gen Z is expecting immediate gratification given the digital globalization age they experience grew up in." [Scholar C]
Commercialization	"Given that part of SMR's remit is to consider modes of ethical organisational practice—is how the constant commodification of sport and our focus on increasing consumer behaviour actually benefits or damages those that partake." [Scholar A]
	"With the NBA's decision to add a sponsor brand logo on the jersey, it will be inevitable for other leagues to follow suit." [Scholar P]
Social or Health Benefits of Sport	"Sport has the potential to promote social harmony among people and constitute a kind of human flourishing." [Scholar B]
	"Obesity will be an important issue, and this will give an opportunity for the development of the sport participant market." [Scholar D]
	"Increasingly there is a need to bring back the connection of sport to broader aspects of health and well-being, both on an individual and community/societal level." [Scholar K]

generational shifts and how younger sport consumers may require distinct marketing approaches. Comments on the rising commercialization of sport highlighted both the effects on consumers and sport management's obligation to examine the ethical ramifications. Finally, several panel members called for future attention on how sport organizations could address social and health benefits derived from sport. Surprisingly, comments related to the social impact of digital technology on sport consumers were not observed (e.g., online fantasy leagues, informal sport pools, Twitter, and Instagram).

The panel members identified a number of environmental forces likely to influence the sport industry and consumers over the next ten years. Most notable was the role emerging technologies will have on sport consumer experiences. Panel members noted how technology will push the boundaries of research to investigate experiences at venues as well as virtual reality and eSport events; especially as generational preferences emerge. As a result, sport researchers will need to diversify their investigations to account for the impact technology has on sport experiences and how sport organizations respond. However, the *SMR* article analysis revealed only one article provided a direct exploration for the influence of technology on sport consumer behaviour (Yoshida et al., 2013). This technological focus will require sport researchers to broaden their research beyond traditional settings into technologically mediated aspects of the sport experience.

Holistically, the panel comments provided useful insight on ways to improve academic research devoted to investigating sport consumer behaviour. In addition, ideas for future research can be generated based upon comments regarding the future direction of the sport industry. In order to address technological trends identified and respond to a call for theoretical development, the concept of experience design is reviewed next, followed by an introduction of a conceptual framework to help guide future research.

4. User experience

The concept of experience dates back to the 1990's with Pine and Gilmore's (1998) article on the experience economy. The authors proposed that successful customer experience management can create a competitive advantage versus previous reliance on traditional elements such as price, promotion, and product quality. Managing the experienced environment includes consideration of environmental settings, social actors, social interactions with others or service encounters, and context as the core concern of experience design (Gupta & Vajic, 2000; Pullman & Gross, 2004). This experience perspective was later supported by Pullman and Gross (2004) stating, "Properly executed experiences will encourage loyalty not only through a functional design but also by creating emotional connection through engaging, compelling, and consistent context" (p. 553). The experience economy perspective represented a paradigm shift from the traditional transactional perspective of service to a focus on experience services as a new direction for business success (Pine & Gilmore, 2011). Based upon this perspective, research on user experience (UX) became a popular topic with considerable implications for digital and interactive systems and more generally customer experience (Norman, 2013).

Customer experience (CX) represents the product of a two-way interaction between a customer and product attributes, including tangible and intangible services, an organization offers from the start to the completion of the journey. Organizations that effectively manage and optimize these interactions can enhance customer satisfaction and loyalty, reduce churn, increase engagement, revenue, and future purchases, and create greater employee satisfaction (Pullman & Gross, 2004; Rawson, Duncan, & Jones, 2013). A value-added proposition for management is to design pleasurable user-centred interactions through which experiences are co-created.

The CX and UX perspectives propose that numerous touchpoints exist throughout the user journey which create a series of interaction episodes during a customer's navigation of an experience (e.g., Bitner, Brown, & Meuter, 2000; Grewal, Levy, & Kumar, 2009). A touchpoint refers to all direct and indirect interactions customers experience across multiple channels and at various points in time during their relationship with an organization (Bradbury & Coons, 2007). Service-dominant logic highlights the importance of touchpoints because customer experience is co-created through interactions with service touchpoints (Vargo & Lusch, 2004). From a design perspective, interactions involve encounters between customer and service provider that go beyond transactional exchanges and contribute to memorable experiences (Zomerdijk & Voss, 2010). Management can use a series of interactions to illicit sensory elements (i.e., sight, sound, smell, taste, and touch) to create cognitive, emotional, and physiological responses (Gupta & Vajic, 2000; Zomerdijk & Voss, 2010). These interactions can be choreographed similar to a theatrical production to include a dynamic sequence of operational choices related to where, how, and when customers are exposed to stimuli during a performance. This includes what the consumer encounters and observes on stage and in the auditorium, but also the unobserved activities required by the organization to deliver these interactions that occur behind the curtain during the performance as well as before and after production.

In summary, user experience is conceptualized as representing a diverse and complex set of two-way interactions across all channels, touchpoints, and time periods during the entirety of the consumer journey that produce cognitive, affective, social, and physical responses (Verhoef et al., 2009). The product of these interactions can produce emotional, sensorial, and physiological responses that can dynamically differ based on user expectation levels, dispositions, and contexts (Gentile, Spiller, & Noci, 2007; Hsieh & Yuan, 2010). The outcomes of these interactions are derived from memorability, uniqueness, novelty, aesthetics, and entertainment that are closely connected with customers' emotion, sensations, and perceptions (Voss, Roth, & Chase, 2008). Hence, researchers should investigate how a user experience meets customer needs and how design elements enhance the use and pleasure of the product (Parasuraman, Berry, & Zeithaml, 1991). The integration of UX and CX perspectives within sport consumer research is particularly relevant given the sport user experience relies on

individual-centric interactions that generate distinctive psychological and physical responses that foster an emotional connection with a sport organization useful in explaining and predicting loyalty and behaviours.

4.1. Sport user experience

The sport user experience includes a multitude of interactions that occur between the sport consumer and the experienced environment produced by the sport organization. Consider the potential number of touchpoints and interactions a sport consumer has attending a live sporting event from start to end. These interactions could range from searching for information about a game, purchasing tickets online, traveling to the game, enjoying pre-game activities, listening to music and announcements, watching the game and digital content on the jumbotron, doing the wave, using a mobile device to tweet or Instagram pictures from the game, interacting with other spectators, purchasing concessions and merchandise, using restrooms, participating in rituals, and finally leaving the venue. As a result, the sport consumer interacts with the team's website, venue employees, volunteers, vendors, other spectators, sound and visual systems, mobile technology platforms, facilities and service elements, and team personnel. This will require researchers to study the experience provided by the sport organization as a multitude of two-way interactions encountered along the entirety of the sport consumer journey that can begin and end beyond traditional temporal boundaries of a single game consumption episode. Moving forward, sport consumer researchers should account for the CX perspective related to customer journeys and the UX perspective related to digital and environmental design to investigate elements and processes that enhance customer satisfaction by improving the use and pleasure provided by co-created interactions. However, beyond merely applying these perspectives to sport consumer research, the unique characteristics of sport require a framework to investigate the distinctive nature of sport user experience.

The importance and value individuals place on sport in society influences how sport consumers use and experience the sport product. Sport brings people together through establishing a collective identity which creates a connection point for family, friends, communities, cities and nations (Woods, 2011). Sport motivates people to exercise and provides something to watch, do and talk about, regardless of socio-economics status. Sport provides drama with minimal consequences and builds character and team work, promotes self-confidence, provides role models and opportunities for stress reductions, and emotional escape. The psychological and physiological responses created from sport experiences, as well as the relationship that forms between the sport organizations and sport user, is not observed in general consumer contexts. General user experiences are more transactional but with sport, the sport user experience and journey is often more important than the result. Professional sport teams win and lose. Recreational golfers play better one day and worse the next. The unique characteristics of sport related to societal importance, outcome uncertainty, variability, and intense emotion are embedded in the design and utility of sport experiences. These characteristics highlight why sport experiences differ from staying at a hotel, eating at a restaurant, visiting a zoo, getting coffee, or using an Internet-based retailer or a brick and mortar store. The sport user experience that occurs when attending a professional football match or running a marathon is different from a general user experience. Rarely would one observe a consumer of Outback Steakhouse, Starbucks, Marriot, AMAZON, the Melbourne Zoo, or Walmart display the same level of emotion, collectively identity, and involvement as a sport consumer does with a sport organization. The next section introduces a Sport Experience Design (SX) framework that captures the unique characteristics of sport to help guide future academic research.

5. Sport Experience Design (SX) framework

The Sport Experience Design (SX) framework provides a consumer-centred approach that incorporates principles from Human Factors and Ergonomics (HF/E).[4] HF/E is an interdisciplinary field devoted to learning about human characteristics (e.g., needs, preferences, motivations, capabilities, limitations) in order to adapt a human-made environment to individuals that use it (Karwowski, 2005; National Research Council, 1983). This unified perspective focuses on a system design process that considers how design-relevant factors (e.g., environmental, social, cognitive, physical, organizational, technological) influence users, and promotes conceptual and empirical approaches to investigate user-product-environmental system interactions in order to optimize experience (Bitner, 1992; Cheung, Chan, & Limayem, 2005; Karwowski, Soares, & Stanton, 2011; Payne, Braunstein, & Carroll, 1978; Salmon & Macquet, 2016).

Broadly applied, HF/E has three knowledge domains useful for sport consumer research: cognitive, organizational, and physical. The cognitive domain represents mental processes that influence how the sport user interacts with the sport experience and related system design features. The organizational domain represents a sport organization's structure, policies, processes, and sociotechnical systems related to individual, social and organizational factors. The physical domain represents physiological responses that occur when engaging in a sport experience which include physical activity requirements related to the usability of design features. Collectively, these three domains provide beneficial direction to investigate how the design of sport experiences produce thoughts, feelings, and behaviours.

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[4] The term Human Factors and Ergonomics are used interchangeably with the main difference largely based on origins and academic usage. For more information see Karwowski et al. (2011).

The SX framework presented in Fig. 1 proposes three unique but interrelated elements of the sport experience design labelled Sport Context, Sport User, and Sport Organization. The sport context represents the user experience and includes both physical and technologically mediated interactions encountered before, during, and after consumption whether during a single experience or over the duration of the relationship with the sport context or organization. The sport user is the consumer, with psychological needs as well as personal characteristics that influence desired experiences and the manner in which interactions are perceived and processed. The sport organization represents the entity whose purpose is to achieve goals and objectives in order to secure resources to be successful. Overlapping areas in Fig. 1 are labelled A, B, C, and D, which represent the relationship among the three elements. An organized bike ride is offered to briefly describe these overlapping relationships below.

- Area A: The sport user likes to ride a bicycle as a recreational hobby and enjoys riding with friends on the weekends. The sport user's needs are met by riding her or his bike on various roads in the area without a business providing the user context.
- Area B: The sport user wants to ride with friends on a weekend and have water and snacks provided along a designated safe route with lunch at the end. The sport organization wants to sell registration slots to riders who want a desired experience to generate revenue and achieve business goals.
- Area C: The sport organization designs an organized ride with 30 K, 60 K and 100 K distances and attractive event features driven by consumer research.
- Area D: The sport organization delivers an organized ride on the weekend that meets sport user needs and generates resources to be successful.

Holistically, the SX framework proposes that each element should be considered when conducting sport consumer research, with specific attention to Area D in Fig. 1. The next subsections provide a discussion of each element, drawing upon research published in *SMR* related to the sport context and sport user.

5.1. Sport context

The sport context element of the SX framework represents the experienced environment through which a sport customer navigates an experience and encounters touchpoints before, during and after. Sport context touchpoints refer to a series of direct and indirect two-way interactions across all channels during a single sport experience episode, as well as the entirety of the sport consumer engagement with a specific context including environmental and technologically mediated settings,
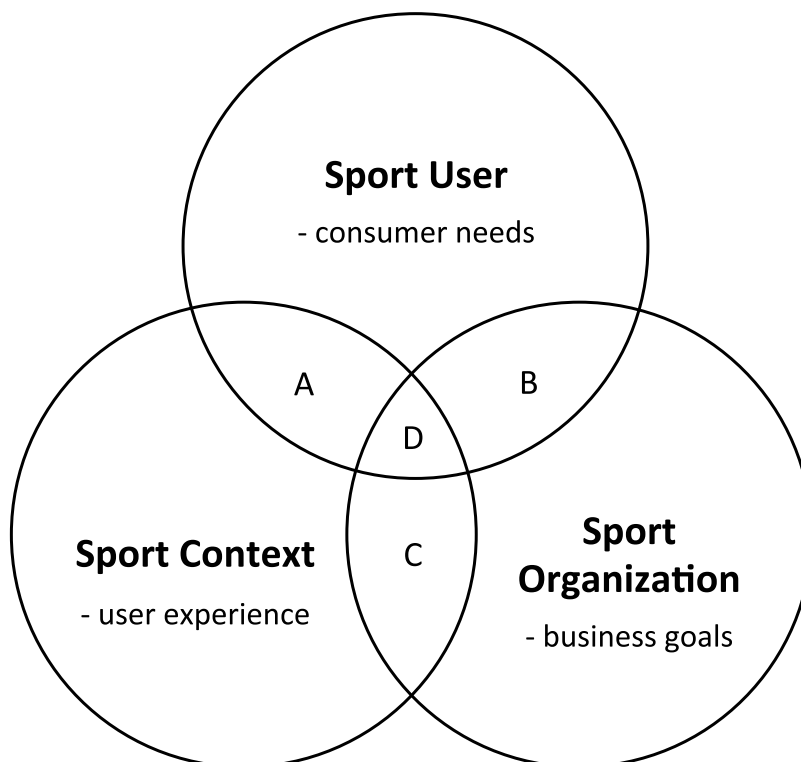

Fig. 1. Sport Experience Design (SX) Framework.

social actors and service encounters. Based upon the analysis of SCB articles published in *SMR*, considerable research has examined environmental settings related to spectator and participant sport.

Previous sport consumer research has a strong tradition of investigating the experienced sport environment. Wakefield and colleagues were instrumental in starting this research by examining the role that service quality has on generating positive experiences among spectators attending live sporting events (Wakefield & Sloan, 1995). Research appearing in *SMR* continues to examine sport user perceptions of various interactions related to stadium access, pre and postgame activities, facility aesthetics and layout, concessions and merchandise, scoreboard, on-field promotions, seating comfort, signage, accessibility to parking, sound systems, interaction with game operations staff, and employee attitudes (e.g., Clemes, Bush, & Collins; 2011; Hill & Green, 2000; Greenwell, Fink, & Pastore, 2002; Theodorakis, Alexandris, Tsigili, & Karvounis, 2013; Westerbeek & Shilbury, 1999; Yoshida et al., 2013). The study of sport user experience has also been discussed conceptually and extended to other sport contexts, such as Olympic Games, taekwondo facilities, student athletes, public and private sport facilities and leisure centres, golf clubs, and youth sport participation (e.g., Brown, 2000; Chelladurai & Chang, 2000; Howat & Assaker, in press; Kim, Zhang, & Ko, 2009; Ko, Durrant, & Mangiantini, 2008; Kung & Taylor, 2014; Lee, Kim, Ko, & Sagas, 2011; Murray & Howat, 2002; O'Reilly, Berger, Hernandez, Parent, & Seguin, 2015).

This body of work in *SMR* highlights the importance of describing context-specific interactions that influence the sport user experience. This line of inquiry largely focuses on how the sport consumer evaluates and responds to what the sport organization provides within a sport facility context (Area C in Fig. 1). However, the sport user experience can extend beyond a singular episode, such as attending a sport event, to include experiences not directly controlled by the sport organization. As a result, the influence of sport user needs should be considered (Area A in Fig. 1). There exists a substantial body of research devoted to understanding the needs of the sport user and this line of inquiry shifts the emphasis from the sport context to the sport user.

5.2. Sport user

The sport user element in the SX framework represents individual and social-psychological characteristics of the sport consumer. The sport user experience is a dynamic process that generates emotional and physical responses that can influence satisfaction and future behaviour (Du, Jordan, & Funk, 2015). As a result, customer characteristics become important considerations that influence assessment of the sport user experience. For example, the same sport context and the various touchpoints and interactions can be evaluated differently by sport consumers as well experienced differently. Variations in sport user demographics, psychographics, socio-cultural factors, and previous usage should be examined when investigating the sport context (Funk, Alexandris et al., 2016; Funk, Lock et al., 2016). The use of demographic, psychographic, and behavioural usage information is well represented in SCB research (Shilbury et al., 2014). Demographic information related to age, income, ethnicity, gender, education, occupation, and location are useful in developing customer profiles and creating various segments and personas in order to examine usage rates, intentions, and tenure. Psychographic information related to attitudes, motives, interest, perceived constraints, personality, and decision-making are useful for identifying needs and can be used in concert with demographic and usage information.

The sport user approach in *SMR* primarily uses a social-psychological perspective to describe perceptions, emotions, and attitudes of sport consumers. Most notable within this body of knowledge is the attention given to motivation, identification, attitudes, satisfaction, and loyalty (e.g., Biscaia et al., 2016; Casper, Gray, & Stellino, 2007; Chen & Phua, 2016; Funk & James, 2004; Funk et al., 2012; Heere & James, 2007; Howat & Assaker, 2013; Lock, Darcy, & Taylor, 2009; McDonald, Karg, & Vocino, 2013; Seo, Green, Ko, & Schenewark, 2007; Trail et al., 2012). The sport user perspective places primary attention on psychological processes and social forces that are less controlled by sport organizations. This line of inquiry led to a proliferation of measurement scales to describe the sport user on various psychological constructs (e.g., Allen, Drane, Byon, & Mohn, 2010; Bouchet, Bodet, Bernache-Assollant, & Kada, 2011; Cottingham et al., 2014; Funk, Ridinger, & Moorman, 2003; Mahony, Nakazawa, Funk, James, & Gladden, 2002). The proliferation of measurement scales is likely to continue as sport user experiences expand to meet consumer demand necessitating researchers to measure sport contextually-specific psychological constructs; most notable as a result of technology.

The sport user research in *SMR* highlights both the complexity and difficulty of describing sport consumer social-psychology, given the subjective nature of sport experiences which have increasingly expanded beyond the traditional boundaries controlled by sport organizations. As a result, researchers largely deemphasized the sport context in order to broaden the scope of examination to examine sport consumers who become more involved with the organization and integrate the sport experience into other aspects of daily life (Beaton, Funk, Ridinger, & Jordan, 2011). To date, SCB researchers have identified various psychological needs to explain why sport consumers enjoy and attend sporting events as well as why they continue engagement with sport organizations.

The SX framework offers a conceptual approach to balance the research pendulum which previously fluctuated between sport user and sport context perspectives. The contrasting perspectives in SCB research illustrate the benefits and, more importantly, the limitations of prioritizing either the sport user or the sport context. To date, SCB research generally fails to

consider both the psychology of the sport user and the nuances of the sport user experience within a single investigation.[5] The sport user perspective, with its social-psychological emphasis, can devalue the sport context. This may help with generalizability of results and the pursuit of basic research among academics, but limits relevance to industry practitioners. Sport organizations want information about their consumers that is unique to their products in order to evaluate organizational activities used to improve satisfaction and consumer engagement (Area B in Fig. 1). The sport context, perspective with its emphasis on a specific singular experience, addresses practitioner concerns, but the applied nature of this research can limit its appeal to academic journals. Academics want to develop and test theory that is applicable across numerous sport contexts in order to publish their research. In order to help facilitate dialogue and research among academic and industry professionals, the SX framework proposes that an organizational perspective should also be considered when investigating SCB. The next section discusses the final element of the SX framework.

5.3. Sport organization

The sport organization represents a goal seeking entity structured to achieve a specific purpose through a program of activities (Chelladurai, 2001; Slack & Parent, 2006). Within sport management, the type of organization (e.g., profit oriented, non-profit oriented) can influence goals, objectives, and business activities, but the critical function of management is to ensure the survival of the organization through securing resources (Chelladurai, 2001). Hence, a central task of management is to create a successful sport organization measured through outcomes such as productivity, profit, growth, legitimacy, and stability (Lock, Filo, Kunkel, & Skinner, 2015; Slack & Parent, 2006). Sport organizations can formulate activities to achieve a singular goal or set of objectives and determine which business activities perform well. The specific goal to be obtained dictates the development and implementation of policies, procedures, and processes that contribute to the sport user experience (Area C in Fig. 1). Within the SX framework, business goals are important when investigating the sport context. For example, a municipal parks department would likely have a different goal than a private event management company when producing a 10 mile distance running event. The parks department would be less profited oriented with a stronger focused on increasing community resident participation opportunities. Similarly, a private fitness facility would seek to maximize revenue from members while a university campus recreation facility would seek to maximize student welfare.

The increasing prevalence of technology and its impact on the sport user experience highlight one of the many challenges and opportunities sport organizations face moving forward. As noted in the panel comments, sport organizations will have to respond to individualization and personalization, generational shifts, commercialization, and social and health benefits of sport when designing and delivering sport experiences. Hence, when investigating the sport user experience, a sport organization's unique characteristics should be considered as it reacts to environmental forces and consumer perceptions (Lock et al., 2015). This management perspective is often neglected in sport consumer research, given management decisions and activities are often unobserved by sport customers. However, organizational characteristics will influence the production of touchpoints and interactions that occur within the sport context and can determine whether sport user needs are being met (Area D in Fig. 1).

6. SX application to research

The SX framework places equal importance on sport user and sport context while integrating a sport organizational perspective. The integration of three elements can help bridge the gap between academics and practitioners by considering cognitive, organizational, and physical design. Emerging technologies and expanding scope of the sport industry will require sport organizations to assess how, when, and where sport interactions are co-created and why some sport users respond differently in order to improve production. In addition, whether the amount of resource investment required to enhance the use and pleasure of interactions supports business goals must be considered. The SX framework can foster collaboration among academics and practitioners given the sport experience is never complete, continual experimentation is required, and sport customer happiness is the new utility metric. Working together, knowledge can be gained through theoretical development and testing, application and creation of methodologies to measure interactions and responses, and assessment for the effectiveness of management activities. As depicted in area D in Fig. 1, gaining customer feedback through consumer driven research should help sport organizations produce a sport experience to achieve goals and meet consumer needs.

6.1. Sport organizations

The SX framework is applicable to a broad range of sport organizations. Although each sport organization may have idiosyncratic touch points and interactions, the examination of processes would inform operating models in various organizations. Rawson et al. (2013) offer a four-step approach to examine these processes. First, a sport organization should identify those customer journeys most critical for achieving business goals and triple bottom line considerations (i.e., financial, social, environmental). Next, research should evaluate how well management activities are currently performing

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[5] Pritchard and Funk (2010) are among the few studies to utilize a multi-stage sampling procedure to capture sport user motives and sport context service attributes within a single game experience.

within each identified journey. Third, based on this knowledge, the sport organization should refine or build cross-functional processes to support the identified journeys. Finally, the sport organization should institute continuous improvement to these journeys and processes to ensure goals and objectives are being met. The dynamic and diverse nature of sport, coupled with a focus on experiential and emotional aspects of sport products, highlight the advantage of using the SX framework.

A beneficial means to examine a sport organization's unique characteristics is through a system design perspective. Sport consumer researchers can investigate a sport organization characteristics using four system design factors: stageware, orgware, customerware, and linkware (Hsieh & Yuan, 2010; Roth & Menor, 2003; Voss et al., 2008). The first element is stageware, which represents both tangible and intangible attributes of the physical and technology processes used to build sport user experience (i.e., sportscape, digitalscape). The second element is orgware, which involves organizational structure and policies used to design and manage the sport user experience (i.e., human resources, leadership and management). The third element, customerware, represents service delivery systems through which unique customer touchpoints and interactions are identified and managed during the journey including virtual and peripheral services as well as social interactions with other customers and employees that accompany the sport user experience. The fourth element is linkware, which represents the communication system and processes that connect all levels of the sport organization in order to evaluate design and delivery performance of the sport user experience, assess sport user needs, and determine whether business goals are being met. Holistically, the four elements represent an integrated perspective of organizational activities, consumers, and technological systems (e.g., Teixeira et al., 2012).

Investigating the sport organization can help sport consumer researchers identify and evaluate whether stageware, orgware, customerware, and linkware are appropriately designed to enhance sport consumer satisfaction. This allows organizational characteristics that enhance sport customer satisfaction and engagement to be detailed and tested in terms of both sport user and sport context. A well designed system should improve the use and pleasure provided by interactions that occur within the sport context that meet both consumer needs and business goals. In other words, if a sport organization designs and delivers the right experience, the sport consumer will be satisfied.

6.2. Sport user experience

The SX framework will present some challenges and require investigating sport experiences beyond traditional boundaries used in current theoretical and methodological approaches.[6] Research will be required to examine the subjective, contextual, and temporal nature of interactions and why different psychological and physiological responses are observed due to different sport user characteristics and contexts. Future research will also need to broaden the temporal scope of investigation in order to examine direct and indirect interactions along the entirety of the sport consumer journey, from a single game or event episode through to a series of longer-term interactions and relationships. This would entail developing a blueprint that identifies key activities in delivering service and deconstructing the sport experience into journey segments (i.e., before, during, and after game or 3 months, year 1, year 5 as a customer) and measuring satisfaction with interactions specific to each journey segment (Shostack, 1984, 1987). It will also be important to measure the gaps between the expected sport user experience and the current sport user experience through usability testing. Existing approaches and methodologies utilized for mapping and blueprinting service encounters (e.g., Patricio, Fisk, Cunha, & Constantine, 2011) are useful and can be augmented with recent mobile-moment research techniques that capture thoughts, reactions and behaviours as they actually happen via a panel of sport consumers.[7]

Application of the SX framework will require a renewed focus on "using" sport experiences versus "buying" sport experiences. Previous research generally collects information from a large number of sport consumers on what they did in the past, how often and why they did it, and what they are likely to do in the future in order to examine trends and make predictions that are generalizable. In contrast, 'sport using' research is less concerned with generalizability and requires collecting in-depth focused insight from a small group of sport consumers to explore feelings and thoughts during the sport experience as well as responses to specific design features. This approach will provide researchers with the ability to understand what sport consumers "do" and "feel" and not just what they "say" on a survey; which can provide valuable information on how a sport organization should design the experience.

The sport using approach within the SX framework can also inform research into why and how sport user experiences are prioritized in relation to non-sport experiences (Funk, Mahony, & Havitz, 2003). Sport consumers do not exist in a vacuum and have a finite amount of discretionary time and money to invest in sport products (Luker, 2016). Research should examine the use, pleasure and expected utility of sport experiences compared to non-organized sport experiences and non-sport experiences that occur in daily life (Thaler, 1985). This will help sport organizations improve their products and respond to competition for consumer discretionary spending. Beyond this broader economic approach, two additional examples are provided for sport consumer researchers to consider.

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[6] An excellent resource for user experience research can be found at Usability.gov.
[7] A good example of moment-based research can be found at dscout.com.

6.3. Micro-location technology at sport events

The first example to illustrate the SX framework is potential research on micro-location technology at sport events. Micro-location uses positioning technologies (e.g., iBeacon, BLE, Bluetooth, NFC, QR, Wi-Fi and GPS) to pinpoint a location of a consumer, and creates opportunities for proximity marketing and consumer engagement. The dynamic and diverse nature of live sporting events indicates that functional aspects are increasingly augmented with experiential and emotional aspects. A sport organization with a strategy to maximize revenue from a sport facility can focus on interactions delivered via micro location technology (Zafari, Papapanagiotou, & Christidis, 2016). This creates an opportunity for researchers to examine situational and emotional states inside a venue (Area A & D).

Technology can deliver content and experiences that help sport consumers connect and engage within the facility and event (He, Cui, Zhou, & Yokoi, 2015). Sport consumers increasingly desire real-time information on mobile devices related to replays, game statistics, concessions purchasing, venue navigation, and seat upgrades as well as social media capabilities. Data analytics collected from mobile devices represents a useful way to examine how sport consumers devote time, money, and effort (Inversini, Sit, & Pyle, 2016). For example, in designing the user experience for personalized mobile services, Sun and May (2014) examined five user experience components: the user's motivation and emotional state, usability as product factors, time and place as context of use factors, perception of social engagement as social actors, and norms or group image as cultural factors. These five components can be researched within spectator and participant sport event settings. Mobile devices have become a secondary screen that complements the live sport event and can be tailored to enhance sport customer's satisfaction and engagement. Micro-location technology can aid sport organization with efforts to assess the perceived use and pleasure derived from various mobile interactions as well as customize and personalize services and promotions to locations within the venue to generate retailing opportunities (Griffiths, 2014).

6.4. SX and PCM

The second example involves both theoretical and practical application of the SX framework by integrating the Psychological Continuum Model (Funk & James, 2001, 2006). Holistically, the PCM is a framework that describes the stage-based developmental progression of a sport consumer's connection with a sport object (i.e., team, recreational activity, event, league, sport organization). This progression is deconstructed into four hierarchical stages of Awareness, Attraction, Attachment and Allegiance that represent the degree of attitude formation that has occurred. As such, the PCM is largely sport user-centric and research using the framework has produced a segmentation strategy to place consumers into each of the four stages (Beaton, Funk, & Alexandris, 2009). The SX framework can incorporate conceptual and operational knowledge from the PCM to investigate interactions that occur throughout the consumer's journey based upon the sport user's connection level and the use, pleasure and satisfaction. The SX framework can also utilize the PCM to investigate the link between sport user and business goals (Area B & D). For example, if a strategy is to get more customers, the PCM can be used to develop sport user profiles from awareness and attraction stages in order to inform the production of the sport context and develop general advertising content. If the strategy is customer keeping and engagement, in-depth sport user personas can be created from attachment and allegiance stages in order to test proximity marketing strategy, conduct usability testing, and gain mobile-moment insight which can help customize and personalize the sport experience.

7. Conclusion

Sport consumer behaviour research published in *SMR* over the last 20 years has generally adopted either a sport context perspective or sport user perspective to investigate sport consumption; with minimal integration of the two perspectives. In addition, the sport organizational perspective is generally omitted. A Sport Experience Design (SX) framework is introduced with three interrelated elements: Sport Context, Sport User, and Sport Organization to provide a holistic consumer-centred approach that considers cognitive, organisational, and physical relevant design factors to promote theoretical development and collaboration with industry. It is hoped the SX framework introduced in this article will help broaden and balance theoretical and methodological approaches used by sport researchers as well as incorporate both academic and practitioners needs moving forward.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.smr.2016.11.006.

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