Online Co-Creation Behaviour in a Sports Context

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Abstract

This research project examined online co-creation behaviour (OCCB) from a customer perspective. Few studies have investigated the nature of OCCB concepts and its dimensions. This thesis addressed this research gap by integrating co-creation behaviour (e.g. OCCB) and European Customer Satisfaction Index (ECSI) model to test its ability to explain what brand-related characteristics lead to customer-to-customer OCCB and to examine OCCB’s impact on brand-related outcomes. As little is known about the relationship between customer-centric OCCB and brand outcomes, especially in a team sports context, it was hoped the research would add value.

Study 1 was an exploratory study that identified some of the co-creation behaviours of members of online communities dedicated to football clubs. Two general types of OCCBs were found; namely in-role behaviours (knowledge contribution behaviour) and extra-role behaviours (feedback, helping, advocacy and tolerance). These behaviours are customer-initiated, designed to build relationships with other community members and motivated by enthusiasm for their club. The exploratory results support the usefulness of the OCCB constructs and helped to enhance the operationalisation of these constructs for the later quantitative studies.

Study 2 and Study 3 were related to the research objective that examined customer OCCBs in relation to brand-related characteristics. First, the ECSI model was examined in a team sports industry and was found to be a useful framework in this context and in explaining fans’ club loyalty. The customer OCCB construct was then added to examine its role within the ECSI framework. The results obtained made some important theoretical contributions and provided some important managerial insights for sports teams and for service marketers more generally.
In summary, the research expanded our understanding of OCCB from a customer perspective, expanded our knowledge of OCCB in a sports-related context and improved our understanding of the relationship between brands and customer OCCB.
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Chapter 1

Introduction

1.1 Introduction

This research project examined online co-creation behaviour (OCCB) from a customer perspective. The idea was to understand customer perspectives of OCCB and explore OCCB dimensions and nomological net. The research was designed to address a gap in the literature and add the OCCB construct to the European Customer Satisfaction Index (ECSI) model to see whether the OCCB construct added to our understanding of customer loyalty. The next section discusses the current research project and points out some gaps in OCCB literature.

1.2 Background

There is growing interest in customer-brand relationships (Kaufmann & Loureiro 2016; Martínez-López et al. 2017), especially as customers now play many roles in these relationships (e.g. as participants in the development of new or existing products or services). The currently accepted customer-centric perspective of value creation emerged from debates over the sustainability of value when examined from an organisation-centric view. Critically, from this perspective, a brand’s success was seen to rely heavily on the contributions of different stakeholders (Ind 2013).

The traditional paradigm of marketing suggests that customers are relatively passive participants (O’Hern & Rindfleisch 2010). This approach is being shifted by a new perspective, in which customers are active co-creators of the products and services they
consume (O’Hern & Rindfleisch 2010). In the context of this paradigm shift, Vargo and Lusch (2004) suggested that marketing has changed from a goods-dominant view, in which the main focus is tangible products and discrete transactions, to a service-dominant view, in which intangible products, exchange process and relationships are equally essential elements of the marketing process. It appears that many organisations are transforming from performing a traditional make and sell style to a more creative sense and respond style that embraces the co-creation principle (Haeckle 1999). This transition to co-creation may increase customers’ interaction and engagement with organisations, which may help to improve organisations’ customer equity (Kumar et al. 2010; Van Doorn et al. 2010).

Customer co-creation is a valuable opportunity for organisations to generate ideas that reflect customer needs (Durugbo & Pawar 2014). Many organisations have started to use value co-creation in different contexts, such as at the post-launch stage (Nambisan & Baron 2009). These organisations have gained many benefits from customer involvement with their offerings (Vargo, Akaka & Vaughan 2017). Co-creation can be a critical opportunity for organisations to avoid negative perceptions about their offerings, as it helps to measure customer reactions and allows organisations to correct problems before they become major issues (Hoyer et al. 2010). Organisations that adopt this approach can, therefore, gain a real competitive advantage (Hull 2004).

Recently, brands such as Apple and Starbucks have attempted to use co-creation for a competitive advantage (Ramaswamy & Ozcan 2016). However, despite the growing literature on co-creation, only about 13% of studies have been undertaken in marketing contexts (Galvagno & Dalli 2014) and an even smaller percentage within branding
contexts (France et al. 2018) and online contexts (Vale & Fernandes 2018). The co-
creation theory evolved around organisations and their process orientation, and the impact
that customer participation has on such processes, and many studies have examined these
issues. However, there has been little research into customer perspectives of OCCB, which
led to the present research project. To make the project manageable, the issue was
examined within a sporting context for the reasons outlined in the next section.

1.2.1 Sports as the Research Context

Sport has a major consumer focus, and sports-oriented customers (fans) have unique
relationships with their favourite teams (Abosag, Roper & Hind 2012). Previous studies
have suggested that many fans are highly engaged and identify strongly with their team
(Yoshida et al. 2014). Customers who identify strongly with their team perform different
behaviours, such as positive word-of-mouth, open and enthusiastic displays of their team’s
ritual behaviour, consumer-to-consumer interactions in fan communities, and reading,
watching and listening to information about their team (Ahearne, Bhattacharya & Gruen
2005; De Ruyter & Wetzels 2000).

Given the existing fan bases and their level of team identification, sports organisations are
in an ideal position to take advantage of social networks as a participation platform
(McCarthy et al. 2014; Williams & Chinn 2010). Online communities and social media in
general have transferred the communication paradigm between sports teams and their
fans, as they are both common and easily accessible (i.e. they are platforms through which
fans can easily interact with each other and/or with the club) (Healy & McDonagh 2013;
Kerr & Emery 2011; Richardson 2004; Rowley, Kupiec-Teahan & Leeming 2007). As
most fans are highly attached to their teams, most clubs use their online platforms to promote their brands (Filo, Lock & Karg 2015; Hur, Ko & Valacich 2007). Despite the considerable efforts that many sporting clubs now make to attract fans to use their online platforms, these interactions through social networks are relatively recent, which may explain the lack of sports research on fan co-creation (Woratschek, Horbel & Popp 2014a), especially on online platforms (Uhrich 2014) and from a fan perspective (Stavros et al. 2014).

Typically, fans of team sports consider their club to be their own, which makes their relationship with the club special and long-lasting. They will usually support their team regardless of the team’s results, which contributes to value co-creation (Abosag Roper & Hind 2012; Popp & Woratschek 2016). Indeed, the behavioural patterns of fans could be considered a manifestation of customer co-creation behaviour (Vale & Fernandes 2018), which is defined as customer-led actions involving in-role and extra-role behaviours, where brand communities are important but not essential (Chou et al. 2016; France, Merrilees & Miller 2015; Yi & Gong 2013).

There are few studies that have conceptualised or operationalised OCCB, and it has been suggested that the literature lacks theoretical depth (i.e. there has been little application of theoretical frameworks to the field) (Filo, Lock & Karg 2015). Moreover, there have been few investigations into the antecedents or consequences of customer OCCB, especially in a sports industry context (Abeza, O’Reilly & Séguin 2015; Vale & Fernandes 2018), which led to the present research project being undertaken. Given the limitations of previous research, insights were obtained from online platform data to better understand sports fans’ OCCB, as discussed in subsequent sections and chapters.
The Australian Rules Football (AFL) is the largest professional sport in Australia. It has a total 18 teams across 7 states. The AFL has very large TV audience on Australia, and is the most attended sport in Australia (Hopkins 2013). AFL games has one of the highest average attendance in the world across all outdoor professional league behind the NFL (American football), IPL (cricket), and the Bundesliga (German soccer) (Hopkins 2013). In 2018, the total attendance of all season-games is more than 6,750,810, where the AFL final played in front of 100,000 spectators (AFL, 2018). Australia is considered as one of the greatest sporting countries, excelling in some sports such as tennis and cricket (Melnic & Wann 2010). Australian fans are considered the most enthusiastic, knowledgeable and passionate in the world (Melnic & Wann 2010). So, this is an interesting country and context to do this study.

1.3 Research Objectives

Co-creation behaviour has rarely been investigated for its nature or defined from a customer perspective, especially in online contexts, and little is known about the relationship between customer-centric OCCB and brand outcomes. Consequently, this study explored the OCCB concept from a consumer perspective and examined the relationships between customer OCCBs and brands using the ECSI framework as a foundation. The specific aim of this study is to understand and investigate sport customers (fans) online behaviour, to examine whether OCCB helps to increase fans’ satisfaction and loyalty.
Based on these objectives, the present study was designed to answer the following research questions:

1. Is there a relationship between customers OCCB and brand outcomes?

   • This question will be answered in *Chapter Two: Literature Review*

2. How team sports customers (fans) create value with one another in Online Communities? And what kind of online behaviours they perform?

   • This question will be answered in *Chapter Three: Qualitative Study Findings*

3. How can customers OCCB and brand outcomes be measured?

   • This question will be answered in *Chapter four: OCCB in ECSI model.*

4. Is the ECSI model useful framework predicting OCCB? In particular:

   • Whether the ECSI model is applicable in sport industry? and

   • Does it help to explain the relationship between customers OCCB and brand outcomes?

   • These questions will be answered in *Chapter four and Chapter five.*

**1.4 Contribution to Knowledge**

It was anticipated that the project would contribute to the body of knowledge by:

• Expanding our understanding of OCCB from a customer perspective, as little research has been undertaken in this area and few studies have conceptualised or operationalised OCCB (France et al. 2018).
• Expanding our knowledge of OCCB in a sports industry context, as few theories and frameworks have been applied in sports-related research (Filo, Lock & Karg 2015). This study expected to provide valuable insights into sports fans’ OCCB.

• Expanding our understanding of the online behaviour of fans, as most sports-related co-creation studies have been undertaken in an offline context and focused on transactional behaviours (Yoshida et al. 2014).

• Adding to the existing co-creation theory that focuses on the impact of co-creation on brands and how organisations benefit from co-creation, where very few studies have examined such a relation (France et al. 2018). It was expected that the project would contribute to a better understanding of customer-centric OCCB to better understand customers’ value perceptions.

• Adding to our understanding of customer loyalty by adding the OCCB construct to the ECSI model. This contribution will come from testing brand-related drivers that might increase customers’ tendency to participate in OCCB and finding brand-related outcomes of OCCB, which have rarely been tested previously.

• Adding to our understanding of service-dominant (S-D) logic, as the project examined OCCBs in a sports-related context. This is important, as there has been little research into sports-related customer-to-customer relationships, especially in online platforms (Abeza, O’Reilly & Séguin 2015; Filo, Lock & Karg 2015; Gill 2016). It was expected that each aspect of S-D logic would address an OCCB aspect. Indeed, S-D logic suggests that the joint creation of values on online platforms should be a key manifestation of OCCB (Brodie et al. 2013; France,
Merrilees & Miller 2015; Hoyer et al. 2010). OCCB is context-specific, and the joint creation of value is determined by customers during the consumption process, and through value in use (Alotaibi 2016, Chou et al. 2016; Vargo, Akaka & Vaughan 2017). Therefore, S-D logic recognises that value can be co-created in online platforms through OCCB between customers.

- Expanding our understanding of the role played by perceived value, as a multidimensional value construct (PERVAL) (Sweeney & Soutar 2001) was included in the revised ECSI model where there are no previous studies which uses such multidimensional construct in the ECSI model.

This study was also designed to contribute to the practice by:

- Expanding our understanding of the sports industry by developing a model that would be a valuable tool for managers. It was hoped that sports clubs could incorporate such models into their planning processes and, thereby, improve performance.

- Obtaining a better understanding of the relationship between brands and customer OCCB, which has been little investigated. This should help service providers gain insight into the factors that motivate customers to participate in OCCB and the outcomes of such behaviours.

- Expanding our understanding of the role played by different perceived value dimensions, which should provide diagnostic information for managers trying to interact effectively with their teams’ fans.
1.5 The Research Approach

A mixed methods approach was used, with three research phases, to examine the issues of interest. In the first (qualitative) phase (Study 1), a netnography of some fan-based online forums was undertaken to better understand OCCB. The aim of study 1 was to explore the OCCB construct in specific online communities and determine the types of OCCBs undertaken within those communities. The second study (Study 2) used a quantitative approach and aimed to explore the suggested model, incorporating the constructs identified in the literature review and confirmed in the qualitative phase. Data in this phase were obtained through an online survey of members of some fan-based online forums. The third study (Study 3) also used a quantitative data approach. In this case, a more general sample was obtained from the responses of members of a large commercial online consumer panel. In addition, the multidimensional PERVAL scale was included within the ECSI model to see whether it provided additional useful information. Study 3 aimed to assess the revised model with more general sample using online panel.

1.6 The Structure of the Thesis

The thesis is presented in a traditional format. Following the discussion of the research aims (Chapter 1) and the literature review (Chapter 2), the three aforementioned studies were undertaken (Chapters 3, 4 and 5). As each study had different objectives, each of these chapters has an introduction, methods, results and discussion section.

Chapter 2 reviews the relevant literature to summarise what is known about OCCB and provide a structure for the present research project. The review begins with the theoretical background to the research, introduces the OCCB construct and discusses research that
has examined OCCB relationships of interest. Previous studies into the constructs in the suggested model (i.e. expectation, brand image, perceived quality, perceived value, satisfaction, attitudinal loyalty and behavioural loyalty) are then discussed.

Chapter 3 discusses the netnographic approach used in the initial qualitative phase of the research (Study 1) and outlines the results. Chapter 4 discusses the initial quantitative study (Study 2) undertaken to examine the OCCB construct and the relationships of interest, as suggested by prior research and the results of the netnography. This quantitative study aimed to determine the brand-level drivers that motivated customers to participate in OCCB and the consequences of these online behaviours. Chapter 5 discusses the second quantitative phase (Study 3), which examined the results from Study 2 in more detail using a more general sample of fans. Finally, Chapter 6 draws some conclusions from the research, discusses the project’s theoretical contributions and managerial implications, and outlines some limitations and areas for future research.

1.7 Conclusions

This chapter provided a foundation for the present research project. It outlined the background to the study and suggested the gaps in the literature that led to the project. The project’s research objectives and research approach were then detailed, and the academic, managerial and methodological contributions of the project were outlined. The next chapter discusses some prior OCCB-related research which revealed that little attention had been paid to such phenomenon.
Chapter 2

Literature Review

2.1 Introduction

As this project investigated online co-creation behaviour (OCCB), the relevant literature was reviewed to determine what was already known in order to structure the present research. The review begins with a description of the theoretical background to the research, followed by a discussion of OCCB and previous studies into some OCCB-related relationships. The constructs included in the suggested estimated model (i.e. expectation, brand image, perceived quality, perceived value, satisfaction, attitudinal and behavioural loyalty) are then discussed.

2.2 The Theoretical Framework

2.2.1 Service-Dominant Logic

Service-dominant (S-D) logic, developed by Vargo and Lusch (2004), has provided marketing with a new orientation. Vargo and Lusch (2015) described the infrastructure that demonstrates S-D logic. They suggested that marketing has transformed from a goods-dominant view (G-D), in which physical products and unrelated transactions are central, to an S-D view, in which intangibility and relationships marketing are central (Vargo & Lusch 2016). They argued that service, not goods, is the common denominator of exchange and that the co-creation of value is a central tenet of S-D logic (Vargo & Lusch 2017).
Vargo and Lusch (2006) distinguished between co-creation and co-production, suggesting that this distinction is critical to the S-D logic model. The co-creation of value is determined by users and occurs through the consumption process as well as the use of a service or a product (Lusch & Vargo 2006). However, co-production only occurs at the production stage or service and product encounter stage. Co-production is a subcategory of co-creation, as the ultimate purpose of co-production is to create value for customers. Value co-creation is created in the encounters that occur between multiple actors (Vargo & Lusch 2017).

Vargo and Lusch (2016) provided 11 modified foundational premises (FPs) upon which S-D logic is based (Table 2.1). These 11 FPs provide a framework for S-D logic, although Frow et al. (2015) argued that these FPs are not strict rules to follow but, rather, illustrate an ongoing effort to understand value and exchange. S-D logic made an important theoretical contribution to our understanding of OCCB, as it helped to explain consumer influences and roles in OCCB that go beyond those related to transactions (Van Doorn et al. 2010; Vargo & Lusch 2015). The present project focused on S-D logic to interpret OCCB in an online community (OC) context (Chou et al. 2016). Specifically, S-D logic helps to explain the role consumers play in co-creating value for themselves and the organisations with which they interact (Alotaibi 2016, Hartmann, Wieland & Vargo 2018). S-D logic suggests that marketers need to consider the important roles consumers play in co-creation, both inside and outside each transaction (Vargo, Akaka & Vaughan 2017) and that “value is co-created by multiple actors, always including the beneficiary” (Vargo & Lusch 2017, p. 47). This suggests that the joint creation of value is impacted by the nature of the interaction (Vargo, Maglio & Akaka 2008; Vargo & Lusch 2016).
Table 2.1: The foundation premises of the S-D logic model

<table>
<thead>
<tr>
<th>FP</th>
<th>Foundational Premise</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP1</td>
<td>Service is the fundamental basis of exchange</td>
</tr>
<tr>
<td>FP2</td>
<td>Indirect exchange masks the fundamental basis of exchange</td>
</tr>
<tr>
<td>FP3</td>
<td>Goods are a distribution mechanism for service provision</td>
</tr>
<tr>
<td>FP4</td>
<td>Operant resources are the fundamental source of strategic benefit</td>
</tr>
<tr>
<td>FP5</td>
<td>All economies are service</td>
</tr>
<tr>
<td>FP6</td>
<td>Value is co-created by multiple actors, always including the beneficiary</td>
</tr>
<tr>
<td>FP7</td>
<td>Actors cannot deliver value but can participate in the creation and offering of value propositions</td>
</tr>
<tr>
<td>FP8</td>
<td>A service-centred view is inherently beneficiary oriented and relational</td>
</tr>
<tr>
<td>FP9</td>
<td>All social and economic actors are resource integrators</td>
</tr>
<tr>
<td>FP10</td>
<td>Value is always uniquely and phenomenologically determined by the beneficiary</td>
</tr>
<tr>
<td>FP11</td>
<td>Value co-creation is coordinated through actor-generated institutions and institutional arrangements</td>
</tr>
</tbody>
</table>

Source: Vargo & Lusch (2016)

The role of the customer as co-creator is obvious in OCs, where members of a community are not only recipients of information, knowledge and experience, but suppliers of these resources, as they interact, participate and converse with other members of the community (Pongsakornrungsilp & Schroeder 2011). A customer, as co-creator, can create value directly with an organisation or indirectly with other stakeholders. Direct co-creation involves customer-led interactions between the customer and the brand directly (France, Merrilees & Miller 2015, Alotaibi 2016), while indirect co-creation involves interactions led by the customer that include instances in which the customer involves the brand in
their interactions with other people, including potential customers, friends or relatives (France, Merrilees & Miller 2015). Consequently, the active role that customers play in joint value creation has the power to shape a brand regardless of whether these interactions are direct with the brand or indirect with other customers (France, Merrilees & Miller 2015, Alotaibi 2016).

S-D logic also asserts that “all social and economic actors are resource integrators” (Vargo & Lusch 2017, p. 47). Vargo and Lusch (2017) also argued that value creation occurs within networks and that social context provides the main platform for value creation (Alotaibi 2016). As already noted, OCs are valuable and viable contexts for collaboration and value creation, as community members are capable of helping other community members and are powerful platforms within which value can be created in multiple ways (Popp & Woratschek 2016). Indeed, Merz, He and Vargo (2009) suggested that online communities can jointly improve the value of a brand through dynamic social interactions between members and an organisation and/or between members themselves.

Every aspect of S-D logic addresses the concept of OCCB. Consequently, the joint creation of values within an OC is a key manifestation of OCCB (Brodie et al. 2013; France, Merrilees & Miller 2015; Hoyer et al. 2010). Thus, value can be co-created in OCs when members engage in OCCBs, as they not only consume information but provide information about a service or product and help other members with issues related to the brand (Chou et al. 2016; France, Merrilees & Miller 2016).
2.2.2 The ECSI Framework

The European Customer Satisfaction Index (ECSI) framework emerged from prior research into the satisfaction of consumers in Sweden and the United States. The framework was intended to improve the evaluation of customer satisfaction and loyalty, and has been validated in telecommunications, bank and postal service contexts (Mojtaba Kaveh 2012). Kristensen, Martensen and Gronholdt (2000, p. 1008) described the ECSI framework as “a structural equation model with unobservable latent variables ...that link customer satisfaction to its determinants and, in turn, to its consequence, namely customer loyalty”.

Satisfaction models have also been used to assess the quality of services provided by different companies in various industries (Johnson et al. 2001). Different models have been used to evaluate customer satisfaction, including the Swedish Customer Satisfaction Barometer (SCBS), the American Customer Satisfaction Index (ACSI), the Norwegian Customer Satisfaction Barometer (NCSB) and the ECSI (Revilla-Camacho, Cossío-Silva & Palacios-Florencio 2017). There are several constructs in the ECSI model (i.e. image, expectations, perceived quality hardware, perceived quality of customer service, perceived value, satisfaction and loyalty) and the model can be used to examine the relationships between these constructs. Some changes have been made to the model by adding additional constructs (Revilla-Camacho, Cossío-Silva & Palacios-Florencio 2017). Table 2.2 shows how the ECSI model began and how it has evolved over the years (Bayol et al. 2000). The Table shows how the ECSI model has been examined in many different service industries, with offline surveys often used to obtain data. The present project is one of the first to modify the ECSI model to an online environment.
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<tr>
<th>Authors</th>
<th>Constructs</th>
<th>Industry</th>
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<tbody>
<tr>
<td>Kristensen, Martensen &amp; Gronholdt (1999)</td>
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<td>Cross-industry study</td>
<td>Quantitative Offline</td>
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<td>Gronholdt, Martensen &amp; Kristensen (2000)</td>
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<td>Cross-industry study in Denmark (telecommunications, soft drinks, fast food, banks and supermarkets)</td>
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<td>Bayol et al. (2000)</td>
<td>Expectations, image, loyalty, perceived value, perceived quality, satisfaction and complaints</td>
<td>Mobile phone industry</td>
<td>Quantitative Offline</td>
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<tr>
<td>Vilares &amp; Coelho (2003)</td>
<td>Satisfaction, loyalty, perceived quality of products, perceived quality of services, expectations, image, perceived value and perceived employees (commitment, satisfaction and loyalty)</td>
<td>Supermarket customers</td>
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<tr>
<td>Ball, Coelho &amp; Macháš (2004)</td>
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<tr>
<td>Serkan &amp; Gökhan (2005)</td>
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<td>Quantitative</td>
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<td>Ryglová &amp; Vajčnerová (2005)</td>
<td>Image, expectations, perceived quality, perceived value, satisfaction, loyalty and complaints</td>
<td>Tourism industry</td>
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<tr>
<td>Ball, Coelho &amp; Vilares (2006)</td>
<td>Image, loyalty, expectations, perceived value, perceived quality, satisfaction, communication and complaints</td>
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<td>Chitty et al. (2007)</td>
<td>Image, technical dimension, functional dimension, price, perceived value, satisfaction and loyalty</td>
<td>Backpacker hostels</td>
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<tr>
<td>Turkyilmaz (2007)</td>
<td>Image, expectations, perceived quality, perceived value, satisfaction and loyalty</td>
<td>Telecommunications industry</td>
<td>Quantitative Offline</td>
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<tr>
<td>Mojtaba Kaveh (2012)</td>
<td>Image, perceived value (technical dimension, functional dimension), price, satisfaction, trust and purchase intention</td>
<td>Hotels</td>
<td>Quantitative Offline</td>
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<tr>
<td>Turkyilmaz et al. (2013)</td>
<td>Image, expectations, perceived value, perceived quality, satisfaction and loyalty</td>
<td>Mobile telecommunications industry</td>
<td>Quantitative Offline</td>
</tr>
<tr>
<td>Askariazad &amp; Babakhani (2015)</td>
<td>Image, expectations, perceived quality, perceived value, satisfaction, loyalty, complaints and trust</td>
<td>Construction and mining equipment industry</td>
<td>Quantitative Offline</td>
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<tr>
<td>Revilla-Camacho, Cossio-Silva &amp; Palacios-Florencio (2017)</td>
<td>Image, expectations, perceived quality, perceived value, satisfaction, loyalty, complaints, trust, communication and corporate responsibility</td>
<td>Tourism industry</td>
<td>Quantitative Offline</td>
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Source: Revilla-Camacho, Cossio-Silva & Palacios-Florencio (2017)
2.3 Creating Value: Moving from an Old to a New Paradigm

According to Payne, Storbacka & Frow (2008), organisations traditionally provide goods and services that customers seek to buy. According to Porter (1980), customers in the value chain do not play a substantial role in value creation. However, their role is obvious when value is exchanged. So it can be said that an organisation-centric view suggests that service or product value is created with little or no contribution from customers. Kotler (1991) proposed an alternative market-oriented perspective where customers are the central focus, and the main goal is to determine customer needs and satisfy their demands. Dyer, Singh and Hesterly (2018) suggested that co-creation helps to develop relationships between suppliers and customers that may, in turn, satisfy customer needs and thereby create value.

While considerable work has been undertaken to describe co-creation, the concept remains ambiguous and needs further clarification (Prahalad & Ramaswamy 2004), especially in the digital world (Amit & Han 2017). According to Skålén, Pace and Cova (2015), co-creation is the value created by an organisation’s customers, while another definition suggests that co-creation is the unique value that results from joint creativity (Sanders & Stappers 2008). Zwass (2010) suggested co-creation is the contribution that a firm’s customers make that adds value to the market. Still, others have suggested that co-creation brings mutual benefits, as it helps suppliers to improve their offerings and customers to improve their consumption experience (Vargo, Akaka & Vaughan 2017).

Frow, Payne and Storbacka (2011, p. 29) suggest co-creation is “an interactive process, involving at least two willing resource-integrating actors, which are engaged in specific form(s) of mutually beneficial collaboration, resulting in value creation for
those actors”. An example of this occurs when organisations allow customers to take a central role as participants in the development of new or existing offerings. This approach contrasts with the traditional marketing paradigm in which organisations seek to deliver ideas for new or existing offerings so they can meet customer needs (Hoyer et al. 2010). Here, co-creation is defined as a phenomenon that shows the willingness of potential beneficiaries to cooperate to create and achieve shared and significant value through continued dialogue and iterative processes.

Customer co-creation is a very important opportunity for organisations to generate ideas that reflect customer needs (Durugbo & Pawar 2014). Many organisations have started to use value co-creation in different contexts, such as at the post-launch stage (Nambisan & Baron 2009). These organisations have gained many benefits from customer involvement with their offerings (Vargo, Akaka & Vaughan 2017). Co-creation can be a critical opportunity for organisations to avoid negative perceptions about their offerings, as it helps to measure customer reactions and allows organisations to correct problems before they become major issues (Hoyer et al. 2010). Organisations that adopt this approach can, therefore, gain a real competitive advantage (Hull 2004).

Cost reduction may also occur through co-creation, as customers undertake part of the development task, usually without being paid (Hoyer et al. 2010). The result of the co-creation process generally fits customer needs better, making co-creation a way for organisations to avoid failures (Fang, Palmatier & Evans 2008). This approach is likely to improve an organisation’s reputation, as co-creation is likely to improve customer perceptions of an offering’s attributes, which, in turn, increases purchase intention and leads to positive word-of-mouth (Franke et al. 2009). It also seems that the process of co-creation helps to inform customers about hidden or inside operations,
such as possible issues arising from producing a product or the large costs involved in product development, which may increase customer appreciation for that product (Joshi & Sharma 2004). By increasing product knowledge, co-creation can help to improve organisation–customer relationships and, therefore, customer equity (France et al. 2018).

2.3.1 Organisation-Centric View

The value creation process remains separate in this perspective. An organisation’s task is to create offerings and, subsequently, provide these to the public. Customers respond to the organisation’s actions solely by purchasing their goods or services. In this perspective, value emerges only through the processes controlled by the organisation (Ophof 2013). Organisations attempt to satisfy customers by segmenting them into homogeneous subgroups or segments. According to Normann and Ramirez (1993), this approach does not represent or act as a cooperative source of value.

2.3.2 Consumer-Centric View

The customer-centric perspective on value creation emerged from debates on the sustainability of the organisation-centric view of value. The segmentation process is also emphasised here (Piller, Ihl & Vossen 2011) and the customer’s role is more central. According to Prahalad and Ramaswamy (2002), this approach suggests that customers are integral to the organisation, and they have power over an organisation’s processes, which increases their influence over value creation.
2.4 Value Co-creation Behaviour

There has been growing interest in customer-brand relationships in recent years (Gomez-Suarez, Martinez-Ruiz & Martinez-Carballo 2017; Kaufmann et al. 2016) and it is now recognised that customers play many roles in these relationships. Kaufmann et al. (2012) clarified these relationships from a co-creation perspective, suggesting three types of relationships, namely:

1. Customers discover the brand and collect information about it.

2. A customer-brand relationship is developed within which a form of customer self-identification evolves. This second stage leads customers to surround themselves with other customers who share the same brand interest.

3. Customers become active participants who feel they have an obligation to create value for the brand and other customers (Algesheimer, Dholakia & Herrmann 2005; Muñiz & O’Guinn 2001; McAlexander, Schouten & Koenig 2002; Schau, Muñiz & Arnould 2009). This leads them to engage in co-creation strategies.

As co-creation behaviours are complex, it is not surprising that there are many definitions for this concept. Some have defined co-creation behaviour as customer-led actions involving in-role and extra-role behaviours where brand communities are important but not essential (France, Merrilees & Miller 2015; Yi & Gong 2013; Yi & Gong 2016). Others have defined co-creation behaviour as an active, creative social process built on alliances between organisations and customers that create value for both parties. Such behaviour occurs when there are active participants in a brand community who are influenced by brand community principles (Brakus et al. 2009; Ind et al. 2013; Kaufmann et al. 2012; Muñiz & O’Guinn 2001).
To understand co-creation behaviour in the present context, it is important to recognise that co-creation can be direct or indirect (France, Merrilees & Miller 2015). Direct co-creation behaviour, which is initiated by customers, takes place between customers and the brands and influences the consumers’ brand experiences by, for example, generating ideas for new products that affect offerings and, eventually, impact the way the brand is experienced by all its customers (France, Merrilees & Miller 2015; Kaufmann 2016). Indirect co-creation behaviour occurs in the indirect relationships between customers and brands. This type of behaviour involves customer-initiated interactions with other customers in a community or network, such as family or friends, and uses brand-specific voices and actions that influence the way a brand is perceived (France, Merrilees & Miller 2015; Ind et al. 2013; Kaufmann 2016; Yi & Gong 2013). Both direct and indirect co-creation behaviours have the potential to shape a brand’s image and performance (France, Merrilees & Miller 2015).

While indirect OCCBs were the focus of the present research project, it is worthwhile discussing co-creation behaviour in an offline context before conceptualising the OCCB construct for this study. As noted previously, indirect co-creation behaviour occurs when customers are involved in value co-creation. This co-creation behaviour has been conceptualised as a higher-order two-dimensional construct, with the two dimensions being customer participation behaviour (CPB) and customer citizenship behaviour (CCB) (Laud & Karpen 2017; Yi & Gong 2013). CPB is the customer in-role behaviour that is necessary for successful co-creation (Shamim & Ghazali 2014; Yi & Gong 2013) and includes information seeking, information sharing, responsible behaviour and personal interactions (Yi & Gong 2013). On the other hand, CCB is voluntary behaviours of customers that add value and provide a competitive advantage to the organisation (Shamim & Ghazali 2014; Yi & Gong 2013) and includes
providing feedback, helping behaviours, tolerance and advocacy. These four aspects can increase an organisation’s value but are not essential for successful co-creation (Yi & Gong 2013).

2.4.1 Online Co-Creation Behaviour

The internet provides customers with a great deal of information on brands, products and services. It also facilitates two-way communication between customers, at one end, and vendors or producers at the other. This provides customers with a sense of empowerment and a belief that they should have a more substantial role in their interactions with organisations, which is likely to enhance value creation (Hoyer et al. 2010), improve customer relationships and enhance business process efficiency (Khodakarami & Chan 2014).

Researchers have examined various aspects of co-creation, including customer co-creation activities, the roles customers play in co-creation activities, the psychological drivers of consumer participation in co-creation, OCCB, and customer-generated content and business value (Chou et al. 2016; Dahlander & Frederiksen 2012; Healy & McDonagh 2013; Schau, Muñiz & Arnould 2009; Zhang et al. 2017).

2.4.1.1 In-role and extra-role online co-creation behaviours

An online community (OC) is a group of members who use online platforms to communicate shared interests, allowing friendships between members to evolve (Chiu, Hsu & Wang 2006; Chou, Lin & Huang 2016; Ridings & Gefen 2004; de Valck, van Bruggen & Wierenga 2009). Online communities offer customers an opportunity to co-create through expressions of brand voice (Healy & McDonagh 2013). Indirect OCCBs, based on the interactions that customers have with each other, are sources of
value for participants, the organisation and the online community as a whole (Schau, Muñiz & Arnould 2009). These behaviours may increase loyalty and satisfaction with the brand, as well as members’ trust and commitment, and feelings of empowerment (Brodie et al. 2013). It is generally believed that co-creation behaviours occur when there is an existing relationship between customers and the brand that is characterised by strong emotions and value sharing (Dessart, Veloutsou & Morgan-Thomas 2016; France, Merrilees & Miller 2015; Kaufmann et al. 2012; Wirtz et al. 2013).

In the management literature, employee behaviours have been categorised as in-role behaviours, which are task-performance-related, and extra-role behaviours, which are task-context-related (Borman & Motowidlo 1993). Task performance relates to behaviours necessary for the successful completion of a specific task. Task context relates to voluntary behaviours that are often termed organisational citizenship behaviours (Borman & Motowidlo 1993). As with the employee behaviour literature, there are in-role and extra-role OCCBs. Online in-role behaviours are knowledge contribution behaviours necessary for a successful online brand community and online co-creation activities between members (Chou et al. 2016). In the present project, online-based knowledge contribution behaviours were defined as the behaviours related to knowledge sharing and the processes required for individuals and groups to exchange knowledge about a preferred brand within the OC. These behaviours allow members to communicate their expertise, understanding and/or insights to other community members to “acquire and leverage the knowledge to create more value” (Chuang & Chen 2015, p. 8; Nambisan & Baron 2009).
Extra-role CCB is voluntary and delivers substantial value when it results in effective co-creation (Yi, Natarajan & Gong 2011; Yi & Gong 2008) and includes a range of activities, such as:

1) **Online feedback behaviour** involves providing comments, insights and recommendations to members of a given OC, which are a source of long-term assistance to members and the community as a whole (Chou et al. 2016).

2) **Online helping behaviour** is intended to help other members of an OC. This behaviour is salient within online communities when directed toward consumers, rather than employees, and is often brand-specific. People are more likely to provide this help to other consumers rather than employees, as “other customers in a service encounter may need help from those with consistent with their expected roles. Moreover, members’ roles are less defined and role-scripted, as compared with those of employees” (Chuang & Chen 2015, p. 8).

3) **Online advocacy behaviour** is often seen as a form of word-of-mouth communication in an electronic format. This behaviour stems from the assumption that community members are attached to a brand of interest, which leads them to advocate for that brand and the OC. Bickart and Schindle (2001) suggested that customers were more likely to believe brand information presented through OCs than information provided on organisational websites. Online advocacy behaviours occur because people have affiliations with multiple stakeholders, including the preferred brand, members of the OC and the OC itself. Such people often promote stakeholder interests above their own interests, thereby creating value for all stakeholders (Tsai & Chen 2011).
4) **Online tolerance behaviour** involves being patient when the posted information is not considered useful due to mistakes or delays in posting (Lengnick-Hall, Claycomb & Inks 2000; Chou, Lin & Huang 2016).

### 2.4.2 Sports and Co-Creation Behaviour

Limited sports-related consumer research has studied value co-creation (Uhrich 2014). Holt (1995) explored consumer behaviours among baseball spectators using the metaphorical terms of classification, integration, experience and play to conceptualise spectator consumption behaviours, which, in turn, reflected a variety of social interaction behaviours, including those with other supporters. For example, spectators used classification behaviours to simultaneously align themselves with supporters of their preferred team, while creating distinctions from other teams’ supporters (Uhrich 2014). When team supporters distinguished themselves from other teams’ supporters, rivalry was created among the most emotionally invested supporters (Heinonen 2002; Horbel et al. 2016; Richardson 2004; Uhrich 2014).

Woratschek and Durchholz (2012) used the idea of reference groups to categorise football spectators into groups, including VIP supporters, fanatics and family members. They also identified multiple behaviours specific to each group, including choreographed performances and provocation of other teams’ supporters, which increased their perceived value.

Uhrich (2014) developed the typology in Figure 2.1 to explain customer–customer co-creation platforms that might add value to sports customers. He suggested two dimensions—termed the joint sphere (in which organisations impact perceived value) and the customer sphere (in which customer-to-customer interactions impact
perceived value). Uhrich (2014) suggested that the typology should improve our understanding of value co-creation among team sports consumers.

2.5 Online Communities

Online communities have been defined as “affiliative groups whose online interactions are based upon a shared enthusiasm for, and knowledge of, a specific consumption activity or related group of activities” (de Valck, van Bruggen & Wierenga 2009, p. 185). Members of OC can befriend one another through shared interests, which promote closer social relationships than those through information exchange alone (Peyron & Hultin 2014).
OC members are people who have mutual goals or interests and who use electronic media as a primary resource to communicate (Hennig-Thurau et al. 2015). Such communities permit members to communicate and transmit information without concern for time limits or geographic differences (Litvin, Goldsmith & Pan 2018). Consumers may be involved with OCs for many different reasons, including seeking out recommendations, wanting to interact with people who have common interests, a desire to promote others’ welfare, financial benefits and even self-improvement benefits (Hennig-Thurau et al. 2015). The intention to take part in OCs is primarily a function of the community’s perceived usefulness and convenience (Jang et al. 2008).

As with their offline counterparts, OCs can impact consumer behaviours and perspectives (Kim et al. 2008). OC participation is positively related to consumer attitudes, including member loyalty to given brands, brand image and intent to use or consume a particular brand (Jang et al. 2008; Kim et al. 2008; Woisetschlager et al. 2008). Some social capital dimensions, such as social interactivity, trust, norms of reciprocity, common vision, social identification and common language, affect the level and quality of information that OC members exchange (Chiu, Hsu & Wang 2006). As consumers who lack experience with brands or markets seek information on such topics, they are more likely to accept the opinions of the group (Litvin, Goldsmith & Pan 2018). Unlike reviews often created by professionals—which consumers may distrust due to the potential for service providers influencing or determining their content—consumer discussions in online communities do not involve compensation, so they are usually perceived as truthful and credible (Burton & Khammash 2010), prospective and new consumers view such online discussions as helpful resources for gaining optimal value of products and services.
2.5.1 Fan-to-Fan Co-Creation Behaviour in Online Communities

Past research into value co-creation has assumed that supporters of team sports also engage in value creation behaviours outside live sporting events (Uhrich 2014), including post-game interactions that are often important for supporters (Mann 1989; Melnick & Wann 2011; Uhrich 2014). Along with stadium interactions, supporters may socialise in restaurants or pubs, designated supporter zones, public transportation, parks and online communities (Kelley & Tian 2004; Kytö 2011; Lauss & Szigetvari 2010; Ruddock, Hutchins & Rowe 2010).

Previous research has explored value co-creation among sports fans that goes beyond primary matches or games (Uhrich 2014). Supporters may discuss the prospects of their team winning before the game takes place, evaluate parts of the game that were of major importance or take part in celebrating or mourning the performance of the team (Weed 2008). Kytö (2011) studied sports fans’ experiences and engagement in performances such as choreography, chants and marches before matches and within stadiums (Uhrich 2014). Woratschek et al. (2007) used an ethnographic approach to examine football supporters’ interactions at away matches and found relevant behaviours occurred on trains and buses en route to matches. These behaviours increased supporter relationships and co-created value, as they supported social norms and intentions (Uhrich 2014). Kelley and Tian (2004) studied the actions of fans outside live matches and found that they often co-created value while travelling to games and meeting other fans after matches and through many other contexts external to stadium events (Uhrich 2014).

Team sports fans co-create value with their peers in many ways outside actual game day activities (Holt 1995). They derive value from interactions related to team sports that occur throughout their daily lives, such as discussing their team with co-workers.
or reading people’s online comments in communities that they belong (Santos et al. 2018; Uhrich 2014; Vale & Fernandes 2018).

Online communities have become important forums for fans of team sports (Füller, Jawecki & Mühlbacher 2006; Seo & Green 2008; Zagnoli & Radicchi 2003). By exchanging information with other community members, members can take part in value creation activities that are relevant to online sports consumers (Uhrich 2014; Vale & Fernandes 2018; Woratschek, Horbel & Popp 2014b). Online communities are common and easily accessible. Thus, they are platforms through which fans can easily interact with one another, which explains why community members’ interactions are not limited to match days (Healy & McDonagh 2013; Kerr & Emery 2011; McCarthy et al. 2014).

In the present study, fan-to-fan co-creation behaviour is defined as interactions between two or more fans undertaken in fan-based online communities to co-create value. This could be by sharing information about their favourite team or assisting other fans that need help. Members are assumed to have pre-existing relationships with a relevant team, and their interactions are assumed to provide members with a brand voice (Schau, Muñiz & Arnould 2009). So, for this project (study 1 and 2) Data were collected online from three fan-based online communities (www.BigFooty.com, www.EaglesFlying.com and www.dockerland.com). These were selected as these online forums included the two local Western Australian teams and are run by fans. More details about each community can be found in chapter 3 and chapter 4.

2.6 Fanship

Fanship refers to the extent to which a person identifies with a given brand (a sports team in the present research context) (Reysen & Branscombe 2010). It is derived from
the term fanatic, an individual who is an “enthusiastic, ardent and loyal admirer of an interest” (Reysen & Branscombe 2010, p. 177). Sports fans may show their interest in a team in many ways outside of attending games, such as purchasing team-related products (e.g. jumpers or scarves), perusing mass media or online information about the team or taking part in informal discussion of the team and its components, such as coaches and players (Stewart & Nicholson 2003).

Sports fans fulfil desires for group membership through their relationships with other fans, which is beneficial from a social psychological perspective (Branscombe & Wann 1991; Wann 2006). Identification with others who have shared interests has positive effects on people’s self-image. Thus, belonging to a group that is related to a favourite team and its fans is likely to create a desired self (Rosenberg & Turner 1981; Tajfel 1979). Team affiliations allow fans to obtain an indirect sense of accomplishment through their teams, accounting for fan reactions when a team succeeds or fails (Reysen & Branscombe 2010). A fan’s team identification influences how others view teams, members, and team opponents (e.g. fans who strongly identify with a team often spend substantial amounts of money to engage in team consumption behaviours, view team achievements as their own, and are unlikely to distance themselves emotionally from the team after a loss) (Branscombe & Wann 1991).

Consumer behaviours in various sports situations can be impacted by team identification. Social identity theory suggests group identification results in conformity with other group members (Turner & Reynolds 2012). Researchers have found fans’ team identification influences their support for their preferred team (Ahn, Hong & Pedersen 2014; Bristow & Sebastian 2001; Gladden & Funk 2001). People with high team identification not only engage in self-centred consumer behaviours but take part in behaviours that contribute to a larger community (Yoshida et al. 2014).
Previous studies have found that, compared to fans with low team identification, fans with high team identification are willing to spend more money on attending and watching games, buy products related to the team, devote more time to team performance and spend more time discussing their preferred teams with others. They are unlikely to change their loyalty to competing teams when their team’s performance is not ideal (Roos 1999). Thus, people with high team identification are more likely to express support for teams using online platforms than those with low team identification (Gray & Wert-Gray 2012; Nasermoadeli, Ling & Maghnati 2013).

2.7 The ECSI Model’s Constructs

2.7.1 Brand Image

Keller (1993) defined brand image as the aggregate information a consumer associates with a brand and suggested it corresponds to the consumer’s perception of that brand. In many cases, people view brand images as containing characteristics appropriate for self-identity and, therefore, display self-concepts through brand identification (Belk 1988). During the process of brand identification, people’s self-concept becomes integrated with particular brands due to the links between their self-concepts and the brand’s characteristics, increasing people’s favourable perception of that brand (Escalas & Bettman 2003; Hsieh & Chang 2016).

Brand image has been an important recent factor in the sports-team literature. It is believed that a strong sports brand image will help to protect organisations from potential financial losses (Bauer, Stokburger-Sauer & Exler 2008; Gladden & Funk 2001). Empirical investigations into the impact of brand image on behavioural outcomes of sports customers are uncommon (Bauer, Stokburger-Sauer & Exler...
2008). However, Gladden and Funk (2001) found that image had a positive relationship with loyalty, while other studies have shown that positive brand image influences financial performance in the team sports industry (Bauer, Sauer & Schmitt 2005; Robinson & Miller 2003).

Keller (1993) divided brand equity into brand awareness and brand image. Since brand awareness, the vital first step for brand association, is very high for professional sports teams due to traditional media exposure and social media, the approach of Bauer, Stokburger-Sauer and Exler (2008) was used here to measure fan perspectives and beliefs about their team’s brand. It is believed that if one organisation is more trustworthy than another, then customers develop a favourable image of that organisation, which then influences value perception (Mojtaba Kaveh 2012). A review of the ECSI literature revealed that image has a significant impact on perceived value (Ball, Coelho & Machás 2004; Chitty, Ward & Chua 2007). Therefore, it can be suggested that:

H1a: Brand image has a positive impact on perceived value.

Previous studies have shown that brand information is relevant to self when it provokes intentional intention (Petty, Cacioppo & Schumann 1983). Therefore, customers demonstrate high self-connection with the brand, which might create behavioural intentions to participate in brand activities or purchases (Hsieh & Chang 2016). Since brand image may also influence customer behavioural loyalty (Marie-Paule Bayol et al. 2000; Martensen, Gronholdt & Kristensen 2000; Turkyilmaz et al. 2013), suggesting:

H1b: Brand image has a positive impact on behavioural loyalty.
2.7.2 Customer Expectations

Customer expectations are individual anticipations regarding a product or service that are based on experience between customers and brands (Mojtaba Kaveh 2012). Expectation is a broad concept that refers to a customer’s perception of a certain outcome in the future (Coye 2004; Robinson 2006). In the literature, there are two types of expectations: will expectations and should expectations (Boulding et al. 1993). Robinson (2006, p. 72) defined will expectations as relating to “what customers perceive will happen in their next service encounter” and should expectations as “customers’ beliefs regarding what they think should happen in the next encounter”.

The service quality literature considers that customer expectations is an essential factor in determining the level of customer satisfaction with service providers (Bateson 2002; Van Leeuwen, Quick & Daniel 2002). Disconfirmation of expectation theory (Oliver 1980) came from work to study the antecedents of satisfaction (Robinson 2006). Based on that theory if there is a gap between what is expected and what is received disconfirmation occurred (Pansari & Kumar 2017). When customers expectation are met, it increases customer satisfaction (positive disconfirmation) (Kwon 2015).

In the present study, customer expectations were measured as the overall expectations of the supported club.

Exceeding customer expectations can lead to a competitive advantage (Revilla-Camacho, Cossío-Silva & Palacios-Florencio 2017). In the ECSI model, it is assumed customer expectations have a direct impact on perceived value, so it can be suggested:

H2a: Expectations have a positive impact on perceived value.
Customers have expectations each time they deal with the service providers, which form feelings of satisfaction with the service (Coye 2004; Robinson 2006). Expectations thereby lead to customer satisfaction (Robinson 2006). Thus, we hypothesised that:

H2b: Expectations have a positive impact on satisfaction.

2.7.3 Perceived Quality

Perceived quality is the customer’s assessment of a recent consumption experience (Fornell, Johnson & Anderson 1996). Perceived quality contains two major elements, being “the degree to which a product or service provides key customer requirements (customisation) and the degree to which a firm’s offering is reliable, standardised and free from deficiencies (reliability)” (Askariazad & Babakhani 2015, p. 21). Previous studies of the team sports industry revealed that two main aspects influence fan perceptions of overall quality: (1) hardware, the tangible objects that remain after the interaction with the service provider has ended, including the total benefits fans received from the club supported, and (2) humanware, or customer service (Chitty, Ward & Chua 2007; Hightower, Brady & Baker 2002; Kunkel, Doyle & Berlin 2017). Thus, we conceptualised that perceived quality in this study is the overall quality of the sports firm’s technical quality and customer service quality. Both qualities has been shown as the antecedents of perceived value (Baker, Parasuraman,Grewal, & Voss, 2002). Based on the American customer satisfaction model (ACSI), Perceived quality has positive association between value and customer satisfaction, and value is positively impacted by perceived quality (Fornell 1992). The European customer satisfaction index (ECSI), contains the perceived quality construct as antecedents
affecting perceived value and is believed to have positive and direct impact on satisfaction (Kristensen, Martensen, & Gronholdt 2000). Previous research on leisure sport has found that the perception of quality service influences perceived value and satisfaction (Howat & Assaker 2013). Therefore, it can be suggested that:

H3a: Perceived quality has a positive impact on perceived value.

H3b: Perceived quality has a positive impact on satisfaction.

2.7.4 Perceived Value

In recent years, perceived value has been receiving attention in the marketing literature (Boksberger & Melsen 2011; Chiu, Shin & Lee 2017). Perceived value is not necessarily what the customer truly receives, but what the customer believes he or she is getting and is a trade-off between perceptions of multiple benefits and sacrifices (Komulainen, Mainela & Tähtinen 2013; Ulaga 2003; Walter et al. 2001). It is claimed that perceived value is “the fundamental base of all activities of marketing” (Holbrook 1994, p. 22). McDougall and Levesque (2000, p. 393) defined perceived value as the “benefits received in relation to the costs”. Based on previous definitions, perceived value uses a utilitarian approach, which insists on the differences between the benefits received and the given cost. In sports literature, perceived value has mostly been used to measure value for money (Chiu, Shin & Lee 2017).

Previous studies, such as Howat and Assaker (2013), investigated public swimming centre members’ perceived value for money of their facilities provided. Another example detailed in Yu et al. (2014) and Chiu, Shin and Lee (2017) involved investigations of the impact of perceived value for money on the behavioural intention for gym customers. The present study uses a value for money construct, based on the
original ECSI model, employed in Study 2.

According to Kunkel, Doyle and Berlin (2017), a unidimensional perceived value focuses only on the value of price that is appropriate for consumer goods but does not wholly capture the nature of the team sports’ consumption experience. The consumption of sport is high by nature (Mullin et al. 2007). This is caused by many factors; even unsuccessful teams have some loyal fans who surely evaluate the team positively according to more than one factor (Lock et al. 2014). Therefore, value dimensions related to team sports are considered multidimensional and in need of further investigation (Lee & Trail 2011).

Based on the results of Study 2 and following the approach of Kunkel, Doyle and Berlin (2017), Study 3 applies a multifaceted perceived value scale of team sports on a multidimensional perceived value scale (PERVAL), developed by Sweeney and Soutar (2001), which measures perceived quality, emotional and social value, rather than only an overall value for money scale.

2.7.4.1 Quality value

Quality value represents “the utility derived from the perceived quality and expected performance of the product” (Sweeney & Soutar 2001, p. 2011). Customers evaluate the performance value of their products by knowing the perceived benefits of that product. Past research suggests that sports fans who perceive high levels of quality value experience higher satisfaction and commitment (Brady et al. 2006; Hightower, Brady & Baker 2002). In this context, performance is related to club membership and the supported teams’ merchandise that is available to purchase. If fans purchase club products, such as memberships and their benefits and other products such as team shirts, and perceive higher levels of value, then they will be more likely to renew their
membership, buy new products, and experience higher levels of satisfaction.

2.7.4.2 Emotional value

Emotional value is defined as the ability of the product or service to provoke customer feelings and emotions (Sheth, Newman & Gross 1991). Emotional value resulting from a product or service makes customers feel happy and good about themselves (Holbrook 1994). Emotional reactions may take many forms, including love, happiness, fear and sorrow (Sanchez 2000). Some researchers have simplified these emotions further, stating that “pleasure and arousal are the primary dimensions of emotion and most other emotions can be categorised as combinations of these” (Lawler & Yoon 1996, p. 94).

Sports teams can create greater emotional reactions than other products or services, and this helps to increase the satisfaction of emotional needs (Mullin 2007). Future fan behaviour relies heavily on his or her effective state (Trail, Fink & Anderson 2003). However, despite the known impact on fan intentions, little is known about the emotional experiences of fans (Biscaia et al. 2012).

Here, emotional value was measured based on the emotions fans feel when supporting their team (Biscaia et al. 2012; Jones et al. 2005). Pleasant emotions such as feeling happy about supporting the team and unpleasant emotions such as feeling displeasure about being a fan of the team were used in this study.

2.7.4.3 Social value

Social value can be defined as “the utility derived from the product’s ability to enhance social self-concept” (Sweeney & Soutar 2001, p. 211). Social value is derived from “social consequences (that are communicated) to others” (Sweeney & Soutar 2001, p.
This type of value could be attained through an individual’s association with products owned, such as wearing a favourite brand or belonging to a specific community.

Previous research asserts that sports are a great opportunity to join a social group based on common interests (Katz & Heere 2013; Kunkel, Doyle & Berlin 2017). Sports can give fans opportunities to communicate and form social bonds that advance peer group acceptance (Funk et al. 2014). Therefore, social motives are a major reason why fans support teams (Funk et al. 2014). Moreover, the social value perceived as being due to the sports team has a strong relationship with fan loyalty (Bauer, Stokburger-Sauer & Exler 2008).

Perceived value is the perceived level of service quality compared to the price paid which might impact on customer satisfaction (Howard & Sheth 1969). Previous research has shown that the measurement of customer satisfaction usually used in conjunction with the measurement of perceived value; and value is expected to have direct and positive impact on satisfaction (Chen 2009). In the sports literature, perceived value tends to be an antecedent to satisfaction and has a direct, positive impact on satisfaction (Howat & Assaker 2013; Gallarza, Gil-Saura & Holbrook 2011). Therefore, it can be suggested that:

H4: Perceived value has a positive impact on satisfaction.

2.7.5 Customer Satisfaction

Satisfaction is defined as “an evaluation of the surprise inherent in product acquisition and/or consumption experience” (Oliver 1981, p. 27). In other words, the definition of satisfaction is a consumer’s “pleasurable fulfilment” generated from the consumption
experience (Oliver 1999, p. 34; Westbrook & Oliver 1991). In addition, service satisfaction is defined as customer’s “satisfaction with performance”, which is “a post-consumption evaluation of perceived quality relative to pre-purchase performance expectations about quality” (Homburg, Koschate & Hoyer 2005, p. 85).

Organisations usually use customer satisfaction to measure brand performance because it is related to desirable results such as purchase intention and word-of-mouth (Anderson & Sullivan 1993; Yoshida & James 2010). Satisfaction can be tested as single-transaction-specific satisfaction or an overall form of satisfaction (Lam et al. 2004). In this study, we measure cumulative satisfaction, which is the satisfaction across a series of transactions or service encounters (Lam et al. 2004). Overall satisfaction is an essential indicator of an organisation’s past, present and future performance (Lam et al. 2004; Taylor & Baker 1994; Yoshida & James 2010).

Service delivery ultimately relies on customer satisfaction as a means of driving increased market share via referrals and repeat business, which in turn requires firms to be aware of and meet customer needs (Barsky & Labagh 1992). Therefore, service delivery can also impact the future intentions of customers to make repeat purchases as well as customer loyalty (Alexandris et al. 2004; Kwon 2015). Customer loyalty is anticipated to grow as the perceived value of a brand rises, but a decline in perceived value makes customers more likely to be open to a rival brand’s marketing (Grönroos & Voima 2013). There is growing support in the literature for models that assert overall satisfaction construct impact loyalty (Alexandris et al. 2004; Clemes et al. 2011; Howat, Crilley & McGrath 2008). Therefore, it can be suggested that:

H5: Satisfaction has a positive impact on behavioural loyalty.
2.7.6 Behavioural Loyalty

Customer loyalty has been conceptualised in various ways, making it a multifaceted construct (Majumdar 2005). Loyalty is broadly defined as an individual’s determination to make a repeat purchase of a favoured product or service, with the intention of continuing to do so in the future (Majumdar 2005). Customer loyalty induces individuals to purchase from the same vendors or use the same brands when they can, make suggestions about the vendors or brands to others, and evaluate them positively (Kandampully & Suhartanto 2000). Sports research has characterised behavioural and attitudinal loyalty as distinct forms of this construct (Baloglu 2002; Tachis & Tzetzis 2015). Behavioural loyalty views loyalty simply as actions like word-of-mouth recommendations, repeat purchases, watching team matches and reading team news; these have been measured in the sporting context (Cossío-Silva et al. 2016; Yoshida & James 2010). In this study, we investigate the behavioural loyalty of fans as their intentions to follow their team’s events and remain loyal to their team.

2.8 Antecedents of OCCBs in Online Communities

2.8.1 Brand Image

As mentioned earlier, individuals view brand images as containing characteristics appropriate for self-identity and therefore display self-concepts through brand identification (Belk 1988). Previous studies have revealed that brand information is considered relevant to self when it provokes intentional intention (Petty, Cacioppo & Schumann 1983). Therefore, customers demonstrate high self-connection with the brand, which might create behavioural intentions to participate in brand activities or purchases and share information about the brand (Hsieh & Chang 2016). Brand image
could motivate customer behaviours, such as cooperation and advocacy (Ahearne, Bhattacharya & Gruen 2005). In a sports context, basking in reflected glory (BIRGing) defines as a sport fan’s tendency to identify with a successful sport team (Cialdini et al 1976). Previous studies demonstrated a relationship between BIRGing and fan engagement (Yoshida et al. 2014). It is believed that the favourable organisation’s image motivate fans to participate on extra-role behaviour such as advocacy and cooperation with the team and other fans (Ahearne et al 2005). So, customer motivation is not only internally driven, such as through customer identification with the team, but externally motivated, in light of the visible social setting, such as engaging with the favourite team and other fans socially (Yoshida et al. 2014). Based on this information, it can be suggested that:

H6: Brand image has a positive impact on online customer co-creation behaviour.

### 2.8.2 Perceived Quality

As mentioned earlier, perceived quality is the customer’s assessment of a recent consumption experience (Fornell, Johnson & Anderson 1996). It refers to the interrelationships between firms and customers (Chuang & Chen 2015). Perceived quality encompasses two main factors—hardware and software. These are important variables for brands to enhance because they help to build a strong relationship between customers and companies (Barnes 1994).

Few prior studies have examined the perceived quality of a brand and the OCCB relationship in a team sports setting. However, researchers have found positive relationships between software quality, as part of perceived quality, and co-creation.
The more software quality that is perceived, the more likely customers are to engage in co-creation behaviours (Chuang & Chen 2015; Lengnick-Hall, Claycomb & Inks 2000). It can therefore be suggested that:

H7: Perceived quality has a positive impact on online customer co-creation behaviour.

2.9 The Outcomes of OCCBs in Online Communities

2.9.1 OCCBs and Perceived Value

When determining whether or not to perform a particular co-creation behaviour, an individual is likely to evaluate the benefits and costs resulting from that behaviour (Suh & Chang 2006). This means that the higher the positive attitude of an individual toward a certain behaviour, the stronger his or her intention to perform the behaviour (Ajzen 1991). Perceived value is subjective and individual and therefore varies among customers (Zeithaml 1988). Perceived value is a contextual concept. By estimating costs and benefits, a customer evaluates other options available on the market in relation to these benefits and costs and then chooses to act in a way that appears to have the best overall benefit-to-cost ratio (Komulainen, Mainela & Tähtinen 2013; Ulaga 2003; Walter et al. 2001).

It is assumed that before deciding on co-creation behaviour, the customer takes into account all the factors that are important to him/her and makes an exchange between the perceived costs and perceived benefits of the co-creation behaviour. The difference in this evaluation can be positive, resulting in a value perceived by the client, or negative, resulting in uselessness perceived by the client (Foster 2005; Komulainen, Mainela & Tähtinen 2013).
Consumers engaging in co-creation as part of the process of consumption tend to anticipate a variety of benefits, which may be personal, social, cognitive or emotional in nature (Nambisan & Baron 2009). However, few studies have investigated the perceived value for customers who participate in OCCB (France et al. 2018).

Service-dominant logic holds that “value is co-created by multiple actors, always including the beneficiary” (Vargo & Lusch 2017, p. 47). S-D logic recognises that value can be co-created in OCs through OCCB between the customer and other customers. This co-creation of value is achieved by customers who consume information, provide information related to the improvement of the service or product, or help other customers with issues related to the brand (France, Merrilees & Miller 2015; Chou, Lin & Huang 2016).

Past research on the topic has aligned the perceived value among consumers as a predictor of satisfaction when engaging in consumption, whether of sport, tourism or other cultural activities and products (Gallarza, Gil-Saura & Holbrook 2011; Prebensen & Xie 2017; Williams & Chinn 2010), which suggests:

H8: OCCB positively impacts on perceived value.

2.9.2 OCCBs and Attitudinal Loyalty

Attitudinal loyalty was previously measured as a form of psychological commitment (Crosby & Taylor 1983). However, researchers like Gladden and Funk (2001), Iwasaki and Havitz (1998) and Pritchard, Havitz and Howard (1999) have subsequently proposed that attitudes represent psychological commitment, giving rise to the concept of attitude commitment as “an internal psychological state that an individual has
toward an object” (Heere & Dickson 2008, p. 230). Very little empirical research has investigated the different types of loyalty as significance to the OCCB. One study explored offline co-creation behaviour as loyalty antecedents and found that co-creation behaviour influences attitudinal loyalty (Cossío-Silva et al. 2016).

Sports fan attitudinal loyalty can involve psychological and emotional commitment (Beatty et al. 1988). In online communities, commitment may be reflected in participatory and helpful behaviours used to create value (Algesheimer, Dholakia & Herrmann 2005). There is a possibility the bidirectional influence between brands and online communities is related to those brands in terms of attitudinal loyalty. Individual OC participation could generate attitudinal loyalty (Algesheimer, Dholakia & Herrmann 2005). Additionally, relationship quality theory suggests participation in online communities can impact attitudes and behaviours among consumers, including influencing brand loyalty (Hajli et al. 2017; Jang et al. 2008; Kim et al. 2008). Based on this information, it is suggested:

H9: OCCB positively impacts on brand attitudinal loyalty.

2.9.3 OCCB and Satisfaction and Behavioural Loyalty

Online communities offer customers the opportunity to co-create through the expression of brand voice (Healy & McDonagh 2013). Indirect OCCB, based on the interaction of customers with each other, and has a brand voice and brand actions, is a source of value for participants and the online community (Schau et al. 2009). OCCB may increase loyalty and satisfaction to the brand, along with the trust, commitment and empowerment of other members (Brodie et al. 2013). According to McDonald and Karg (2014, p. 296) “under social interaction theory, fans increase opportunities to participate in exchange knowledge, interact and add value to the experience of
attending games, and therefore those more engaged in sports communities would be expected to have higher levels of satisfaction and loyalty to teams”, suggesting:

H10: OCCB positively impacts on customer satisfaction.

H11: OCCB positively impacts on customer behavioural loyalty to the brand.

2.9.4 Attitudinal Loyalty and Behavioural Loyalty

Attitudinal loyalty includes a commitment to purchase a preferred product or service to promote its repeated purchase in the future. Loyal customers are believed to repeat purchasing from the same service providers, recommend those providers, and keep a positive attitude of them (Kandampully & Suhartanto 2000). The relationship between attitudinal and behavioural loyalty is consistent with the attitude–behaviour hierarchy theory (Ajzen1991). In sports literature, positive relationships exist between attitudinal loyalty and behavioural loyalty (Bee & Havitz 2010; Tachis & Tzetzis 2015), which suggests that:

H12: Attitudinal loyalty has a positive impact on behavioural loyalty

These hypotheses led to the model examined in the present study, which can be seen in Figure 2.2.
2.10 Conclusions

This chapter presented and examined the constructs of interest in this research and suggested relationships that might exist between these constructs. A comprehensive examination of the relevant literature showed that very few studies have investigated OCCB between members in fan-based social networks in the team sports industry. However, based on the findings from studies in other industries and contexts, relationships between constructs were hypothesised that generated the model studied in the present research. In the next three chapters, we undertake studies to investigate the suggested model. All of the relevant methodology, results and discussions are described in the context of these studies.
Chapter 3

Study 1

3.1 Study 1: Qualitative Phase Data Collection

Despite the empirical research undertaken on online co-creation behaviour (OCCB) in recent years, studies are only beginning to investigate OCCB (in-role and extra-role) in online communities from a consumer perspective (Chou et al. 2016). The objective of this exploratory stage was to explore the OCCB construct in online communities and determine the types of OCCBs undertaken. Specifically, this initial stage explored online communities to determine what these behaviours might be and how team sports customers (fans) create value with one another.

Ethical clearance was obtained from the University’s Human Ethics Office before undertaking a netnographic approach to collect data from two online sports forums to examine fans’ sports-related online co-creation activities. A netnography approach, detailed in subsequent sections, was selected as it was expected to offer deep insight into fans’ perspectives (Schembri & Latimer 2016). This chapter details the methods used to explore OCCB in online communities, the sampling and data collection procedure, and the results.

3.2 Methods

Netnography, which originated from ethnography (Kozinets 2002; Kozinets 1999; Kozinets 2015), has been defined as written accounts resulting from online fieldwork that is informed by the methods of cultural anthropology (Kozinets 2015). It has also
been described as a “qualitative research methodology that adapts ethnographic research techniques to study the cultures and communities that are emerging through computer-mediated communications” (Kozinets 2002, p. 8). According to Muñiz and Schau (2005) and Nelson (2005), netnography uses information that is publicly available on the internet to study the nature and behaviour of online groups.

Netnography is often used as many people use of the internet to create knowledge and share information or to create virtual communities with others who share the same interests (Kozinets 2002). Indeed, many “consumers are using newsgroups, chat rooms, email servers, personal World Wide Web pages, and other online formats to share ideas, build communities, and contact fellow consumers who are seen as more objective information sources’ than corporate sponsored information and advertising” (Kozinets 2002, p. 61). This has led to the use of anthropological methods to better understand virtual communities’ cultures and norms (Sandlin 2007).

Netnography has been used in marketing and consumer behaviour to examine a number of topics and consumer groups, such as X-files fans, consumer boycott communities and the consumption of nostalgia (Brown, Kozinets & Sherry 2003; Kozinets 1997; Kozinets 2001; Kozinets 2002; Kozinets & Handelman 1998; Kozinets & Handelman 2004; Nelson & Otnes 2005; Nip 2004). Indeed, Aitamurto (2013) has used netnography to examine online value co-creation processes.

While marketing researchers have used a variety of qualitative methods to understand phenomena of interest, some have suggested netnography is a faster, simpler and less expensive tool than traditional ethnographic approaches. Further, it is more natural and unobtrusive than are focus groups or interviews (Kozinets 2002). Kozinets (2002) suggests five tips to consider when conduct netnographic studies, namely:
Gain entry into the community that you want to investigate. An online community (OC) should match the research questions (i.e. the researcher needs to know as much as possible about the virtual communities). According to Kozinets (1999), there are four different online communities (boards, rings and lists, chat rooms and dungeons), all of which provide valuable information. However, Kozinets (2001, p. 63) provided a method to specify the most suitable online platforms, ranking them according to “(1) a more focused and research question relevant segment, topic, or group; (2) higher “traffic” of postings; (3) larger numbers of discrete message posters; (4) more detailed or descriptively rich data; and (5) more between–member interactions of the type required by the research questions”.

1. Collect the required data and analyse them. Netnography provides two types of data. There are written forms of communication between OC members, which are often copied and pasted into research documents by the researcher. There are also field notes researchers make that provide descriptions, reflections and analyses of observations (Kozinets 2002).

2. Trustworthiness and reliable interpretation. Netnography is used to analyse textual discourse, which can create problems (Kozinets 2002). To overcome this, it is suggested researchers focus their analysis on the text and conversational acts and ensure trustworthiness by immersing themselves with targeted online communities for as long as possible (Kozinets 2002).

3. Taking an appropriate ethical approach. There are two main questions related to ethical concerns, namely: Are online forums considered private or public and what constitutes “informed consent” in cyberspace? (Backhausen 2016; Kozinets 2002). Kozinets (2002) encouraged ethical research behaviour and has urge
researchers to (a) fully disclose their presence, affiliations and intentions to OC members during the research; (b) ensure the confidentiality and anonymity of the informants; (c) seek and incorporate feedback from members of the OC being researched and (d) obtain member permission to use their data in writing. However, others, such as Langer and Beckman (2005), have argued online forums are open and information posted is publicly available. Consequently, researchers can take notes without members’ permission.

4. **Member check.** The member check is a presentation of findings to the people who were studied (Lincoln & Guba 1985). This is a useful way of obtaining insightful comments to the findings, embracing more ethical research practices and developing an ongoing relationship with members (Kozinets 2002). However, Langer and Beckham (2005) suggested member checks are not necessary, especially if the research was done unobtrusively.

A symbolic netnography approach, which examines “the online social experience and interaction of particular people’s groups, nations, languages, cultures and identity formations” (Kozinets 2015, p. 249), was used here. As mentioned previously, there are four main stages in any netnographic study (Kozinets 2015), namely:

1. The entry phase, which focuses on targeting convenient and appropriate groups that enable researchers to become familiar with an OC.

2. The data collection stage, which can take many forms. Here, a copy and paste from targeted threads approach was used for one forum and the NCapture browser extension was used for the other online forum.
3. The analysis and interpretation phase, which involves reading the obtained
texts and coding and recoding these to make sense of the data.

4. The final stage, which is used to ensure an ethical approach was used during
the entire process (Kozinets 2015).

3.2.1 The Entry Stage

The Big Footy online forum was chosen as an entry point in this study, as it is the
biggest Australian Football League (AFL) online forum and has many active
members. The forum also has some important features. For example, members can
give likes to posts they admire and can receive notifications as new topics of interest
are posted on particular forums or specific threads. Moreover, members can subscribe
to and contact their favourite members. The forum has many subsections, one of which
is assigned to the West Coast Eagles and the focus of this stage of the study.

The data collection started in the Big Footy Forum (described in Table 3.1). Threads
in the West Coast Eagles’ (WCE) section that discussed topics other than football itself
were chosen. These topics discussed issues such as tickets, stadiums and membership.
The selected threads were organised under themes based on their content. These
themes were stadium atmosphere, membership, WCE’s business and marketing,
memorabilia, game memories and experiences, ticketing, and WCE guernseys. The
posts on the selected threads were copied based on the likes received. Any posts that
received more than one like was copied and pasted into a Word document. All of the
Word documents were then imported into NVivo 10 for further analysis.

Data were also collected from another fan-based online forum (Eagles Flying High,
also described in Table 3.1). This forum is dedicated to the WCE. It is a smaller OC than Big Footy but still has many active members. Data were collected in the same way on this forum. All of the threads that discussed topics other than football were examined. As this forum does not provide a like feature and is relatively small, every post was used. As similar themes were found to those used for the Big Footy analysis, each thread was allocated to an appropriate theme and imported into NVivo 10 for further analysis.

Table 03.1: The Online communities

<table>
<thead>
<tr>
<th>Online community</th>
<th>Members</th>
<th>Affiliation</th>
<th>Total posts collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Footy</td>
<td>150,000</td>
<td>All AFL clubs (West Coast Eagles sub-forum targeted)</td>
<td>2024 posts from 54 threads</td>
</tr>
<tr>
<td>Eagles Flying High</td>
<td>608</td>
<td>West Coast Eagles</td>
<td></td>
</tr>
</tbody>
</table>

3.2.2 Data Collection

The data for this phase of the study were collected between May and November 2015. As noted earlier, the netnographic component of this research was undertaken using data obtained from two online communities. The data were extracted from archives of participants’ posts that went back several years (from March 2013 to October 2015). Posts were collected within the season and after the season had finished, and included reactions to the team’s performance during the season and the team’s preparation for the next season.

3.2.3 Data Analysis
A netnographic approach was used to examine OCCB among members of the two online communities. A content analysis approach to the data analysis was considered appropriate, as it is suitable for the micro-level analysis used here (Braun & Clarke 2006). As noted earlier, the data were analysed using the Nvivo 10 software package. The results were then compared with current theories thought relevant to the research. This approach is considered appropriate when the research aims to refine and enhance existing theory (Bryman & Bell 2015) and followed the approach suggested by Brodie et al. (2013) in their attempt to refine S-D logic theory.

A netnographic approach was used in this qualitative phase to explore the two fan communities to discover and increase our understanding of participants’ OCCB. Netnography is “participant-observational research based on online fieldwork and uses computer-mediated communications as a source to enable a contextually situated exploration of the behaviour of members of an online group” (Kozinets et al. 2010, p. 60). This type of analysis includes members’ contributions to online forums (such as downloaded written and graphical files, reflective field notes, screen captures) and other netnographic products of observation. This analysis suggested both in-role and extra-role online co-creation activities, which are discussed in subsequent sections.

3.3 Results

3.3.1 Objects of Online Co-creation Behaviour

After reviewing the data, online co-creation objects were found, and themes identified. There are many objects that customers (fans) discussed in the online communities, including services and products, team, coaches and organisation-related businesses. The object was to determine types of OCCB (Brodie et al. 2014). Thus, a thread about
recruiting a new player is a different type of OCCB than one designed to help other fans with membership issues. The major issues discussed were related to:

1) **Products and services.** The analysis revealed that many members discussed the team’s products or services. Many members talked about membership issues.

Well I think there's something like 8000 in the wings?? (somebody correct me I know it's around here). The new stadium is meant to be 60,000. There's 10,000 reserved for general public. So that leaves 50,000 in theory for members come 2018. So whether you can get a membership at the new stadium is still up in the air. It may be that only in the wings members will get full memberships but most are uncertain if people will drop memberships or have 3 or 7 game memberships or what. It’s possible that the general public will be able to get full memberships once the new stadium is finished but i wouldn't count on it. (Online Community1 “OC1”)

Discussions about merchandise or memorabilia related to their team were also common in the online communities:

Hi guys, I'm really keen on buying an old VFL Guernsey! Specifically the yellow Guernsey with blue wings. If anyone would be willing to part with a large one between 85-105cm across the chest. I am willing to pay top dollar! Can be long sleeve or sleeveless. Thanks for your time Go the mighty west coast!! (Online Community 2 “OC2”)

2) **Team (coaches and players).** Some threads discussed teams and players. Those threads tended to discuss recruiting new players and evaluating the performance
and statistics of each player. Consequently, it was often specific and technical:

Now I don't want to stir up a hornets nest with this one but in reality we have recruited poorly in general but even more so in this area. I keep seeing indigenous players do well at other clubs that we would have been potentially able to recruit. (OC1)

We play on an oval that the biggest in the comp at 176 meters long. They can break the lines and do things that are unpredictable and right now we are the most predictable team in the comp. (OC2)

3) **Firm or Brand.** Some threads focused on management performance. These tended to be more negative comments about team management and how they administer the club.

‘The West is Ours’ campaign, makes the club seem extremely out of touch in my opinion, and is leaving us vulnerable to losing the market to a football team and brand (the purples) that is arguably seen as much more desirable from a prospective supporter's perspective. (OC1)

Fremantle have historically aligned themselves with a working class image, which authentic or not (the Fremantle fans I know all come from conservative, golden triangle families) - is currently going to be more likely to attract new fans than an un-performing club rekindling old stereotypes. We are in danger of becoming irrelevant on and off the field, and our current marketing and comms team needs a serious upgrade. (OC2)

3.3.2 **Online Co-creation Behaviour Themes**
The analysis identified several online co-creation objects that were central to OCCB. Member contributions in online communities suggested several OCCB themes that might create value for other members or the team. Members performed OCCB by posting information that benefitted different actors in the online communities. The OCCB themes identified in the analysis were:

1) **Online community members’ generic behaviours.** This was the most common behaviour on the two online communities. Members provided postings and shared news about their clubs:

   Just thought I would bring this to the attention of all Eagles fans who read this forum. The eagles official website is now taking a poll on what jumper we should wear in 2016 <link to the Website>.” (OC1)

   According to a comment from admin of the official WCE Facebook page, facilities for members are an important part of the design. So that's pretty good. (OC2)

2) **Online community members’ voluntary behaviours.** This behaviour was also common across the online communities. Members not only undertaking the basic behaviour of sharing news but also they are involved in much more detailed tasks that are generally designed to help other members of the OC. Members participate by answering other members’ questions and/or by assisting them with issues related to the clubs’ products or services.

   My bro wants to get a player issued (unsigned) white clash Mark Le Cras
number 2. You used to be able to bid for them from the online auctions section of the website but I can't seem to find them anymore. Does anyone know what the story is? (OC1)

Someone replied “I found it, here is the link <website link>.”

The voting for the 2016 jumper is now open on the club’s website. However, you need to be a member to vote <website link> implore/beg you to please vote for Return the Wings.

Another member replied:

Voted! My only reservation is that I don't think the peril should be wheeled out just because our navy or royal jumpers clash with a team as it would cheapen it. In the past we have only used it for Heritage rounds and as a celebration of our history, and I would like to see it reserved for such occasions. I could live with a white winged clash. (OC 2)

Thus, two OCCB themes were found in the online communities. The first was related to members’ generic behaviour, which involved basic tasks that created value for other members by sharing information. The other was related to behaviours designed to help other members and involved more detailed tasks that created value for other members.

### 3.3.3 Online Co-Creation Behaviours

The various behaviours identified suggest how fans behave in an online context to benefit each other and their club; thus, creating value for themselves, for other members and their team. These behaviours ranged from simple tasks, such as sharing knowledge and news, to more involved actions that assisted each other and the team.

As noted earlier, two major online behaviour themes were identified: (1) generic
behaviour, which could be considered in-role behaviour (e.g. knowledge sharing), and (2) voluntary behaviour, which could be considered extra-role behaviour (e.g. fan citizenship behaviour), and both are discussed in detail in subsequent sections.

### 3.3.3.1 Online knowledge contribution behaviour (in-role)

A basic task for members of any OC is the sharing of news and information; as such, knowledge is critical to virtual communities (Wasko & Faraj 2005). Such in-role behaviour, which can lead to subsequent online co-creation (Chou et al. 2016), was evident in the data, as many members shared news about their club.

According to the club on twitter [Club official twitter page], we’re wearing our clash jersey (to this game). (OC1)

So the Eagles just announced their plans for a new training facility at Lathlain Park. [Club official website] Two ovals (replicating MCG and new Burswood dimensions) along with “state of the art” training facilities etc. (OC2)

Others spread the news by copying related articles that talked about their club.

According to this article [website], the AFL gave us the choice of the Royal Wings or the White Flag and we chose the White Flag. I'm actually very angry about this and my anger is at the fools that are destroying the club from within. (OC1)

Eagles made number two in this fine list. some of those one off guernseys must be hard to find [website] (OC2)

So, members saw knowledge sharing as part of their ‘duty’ to their club and to the
other fan-mates on the OC.

3.3.3.2 Online helping (extra-role)

Online helping can be considered online citizenship behaviour. Members help by answering fellow members’ questions (Johnson & Rapp 2010). Helping other members (fans) can increase the value people obtain from their membership and the brand itself (i.e. the club in this case) (Ipe 2003; Jin, Park & Kim 2010). Here, one member helped by suggesting where another member might find a particular guernsey:

FYI [website link to purchase the clubs gurneys]. Just ordered one of these off the internet. This is not sold through the team store, yet! (OC1)

Please help! Anyone know when the guernsey numbers are actually announced? Reason I ask is that it seems that The Eagles can't update their website until the players have numbers? (OC2)

And another member replied:

Yes it’s already announced! For those who can't be bothered looking elsewhere; the full list of guernsey numbers are: [list of all guernsey numbers] (OC2).

3.3.3.3 Online feedback (extra-role)

Online feedback is an extra-role behaviour (Chou et al. 2016) that can create value for members and the brand (Jaakkola & Alexander 2014). One member commented that the administrator:

Seemed so frustrated, started getting more and more blunt in their response.
What I don’t think they get is just a little communication would go a long way.

The administrator’s feedback showed concern for members, which is likely to increase the value that the team provides to their members.

I am one of the admins, but today's response wasn’t me, but looking at the comments now, I thought it was rather obvious the admin involved was simply mistaken. (OC1)

Feedback from members to other members was also evident. An example is in a member's post about a suggested jumper’s design for their team:

How good does it look. This was the last time the full royal kit was worn against Hawthorn's home guernsey with white shorts. Hung this up at work yesterday and great response actually. Some of the workers even said that is the best looking kit they've see. (OC2)

3.3.3.4 Online advocacy (extra-role)

Online advocacy is a customer citizen behaviour that focuses on promoting and recommending the online social platform and the brand (team). This behaviour was evident in several posts, including:

The WC BF board podcast gets on average 9.3 million downloads. I'll make sure to mention it to my friends on other social media pages. (OC1).

Request to support the team should be posted to every known Aussie Rules football website where Eagles supporters may inhabit or lurk. A call to arms should reverberate across the internet. (OC2)
Such online advocacy is undertaken because of member interest in their preferred team.

3.3.3.5 **Online tolerance (extra-role)**

Online tolerance refers to being forgiving or patient when the information about a favourite brand is incorrect. According to Laud and Karpen (2017, p. 783), “customers’ mutual tolerance levels enable them to be patient while dealing with each other (i.e. other market actors, firm and other customers) – not merely during service delays and failures, but also daily exchange interactions.” This post came from a member who tried to be calm and convince another member of a club decision.

> Nothing's been hijacked. We asked to return the wings, and it looks like that's what's going to happen. Colour is and always was a secondary issue which there is less agreement on, even among the RTW group. Seriously, we have a grass roots campaign where the club have clearly listened and looks like it has worked and people still stick the boots into the club. (OC1)

Another post came from a member answering a negative post about their club:

> For a start, we are lucky the club have even listened to us at all. Secondly we are even more lucky that they were willing to sit down with a few on here and tell us things that in reality we had no right or obligation to be told. They have given us more time and feedback than any run of the mill fan deserves or expects. (OC2)

These texts suggest that many members tolerate their club and their fellow members.
3.4 Other Constructs

The analysis also provided some evidence about other constructs of interest. Indeed, some of the ECSI model’s constructs outlined in the suggested model, as discussed in Chapter 2, seemed evident in the online communities and are discussed in subsequent sections.

3.4.1 Online Brand Image

A club’s image is a set of characteristics associated with that club. Supporters associate their club with an image they have in mind and with the services the club delivers. An online image can be ‘polished’ or ‘destroyed’ by online fans depending on the club’s performance on the field:

In the last few weeks, I’ve felt that the club I grew up idolising isn't the same.

The lack of passion and heart that I grew so accustomed too doesn't seem to be there anymore. (OC1)

However, it can also be affected by off-field factors:

Unfortunately the last few years I have felt the club has become stale and generic as it has become a brand (church) promoting our off-field work more so than our football. (OC2)

However, some fans try to protect the club’s image online:

The PM Tony Abbott, holding an Eagles scarf… a leader with an approval rating of just 29%. Nearly a third of Coalition supporters disapprove of this guy, yet our social media person decided it would be a good idea to plaster his face across our News Feeds. (OC2)
The analysis suggested supporters put a great deal of effort in the online world and use it to polish, criticise and defend their club’s image.

3.4.2 Perceived Value

Perceived value comes from customers’ experiences when interacting with organisations. Fans use online communities to communicate, share and complain about their experiences with their club. Some fans use online communities to obtain and share the news they believe added value to them:

According to a comment from admin of the official WCE Facebook page, facilities for members is an important part of the design. So that's pretty good. (OC1)

Some people communicate with other fans using online platforms to demonstrate their opinion, and their activities may impact these other fans’ value:

Very proud of the club for coming out publically to make their position clear. It is the appropriate and right thing to do. Congratulations to the club for standing up on this issue. (OC2)

However, negative interactions can decrease value, often leading to negative eWOM and reduced satisfaction:

Having put up with 20 or so years of being locked out of games in Subi could encourage literally tens of thousands of these to take up a membership when the new stadium is built, for fear of missing out and a desire to not be locked out for another 20 years. (OC1)
Still love the footy but have become disenchanted with our club, the lack of change (players), the control of the WAFC and the general lack of direction. We were one of the real power clubs and we have drifted for almost 10 years putting profitability ahead of success and member satisfaction. That has taken its toll. (OC2)

3.4.3 Satisfaction

Satisfaction occurs when fans’ expectations are met. Highly satisfied fans often discuss why they are satisfied:

I will give the club a shout out for good service...We lost our membership cards...quick online chat and the club organised replacement pick-up...Credit where it's due, Impressive. (OC1)

I love this. Great effort by the club and to tie it into the announcement of our well overdue Reconciliation Action Plan makes this a fantastic year for the club in terms of engagement with the Indigenous community and its players (OC2)

However dissatisfied customers (fans) can use online platforms to show their anger:

Needless to say I won't be back again anytime soon to buy anything from the Eagles store. (OC1)

This dissatisfaction might lead fans to consider switching support to other teams:

I know many relatives who have become Dockers members [rival team] because there were no Eagles memberships available. (OC2)
3.4.4 Loyalty

Loyalty is a measure of a fan’s feelings and connection to their club. Such loyalty can be expressed in strong or weak ways online:

I proudly wore my Eagles guernsey to school the following Monday, of course none of the Kiwi kids knew what it was. (OC1)

Others showed their loyalty by defending their club’s identity or players:

A bloke hits one of our club legends and you expect us to sit there and cope it? Vickery [rival’s player] deserved every bit of his spray and more. I just wish I was closer to the bench. (OC2)

However, loyalty can decrease with negative interaction(s) or experience between fans and clubs:

The stadium atmosphere was more like a funeral than a football game. Won’t be upset if I don’t return this year [to attend another game] because it was a pretty horrible night. (OC1)

3.4.5 Perceived Quality

Perceived quality is the benefit customers receive from a product or service. This can be related to hardware (e.g. product quality) or software (e.g. warranties or customer service). The data suggested perceived quality was important to fans and that it increased the value they obtained, which led them to share their feelings through social media.
Love the new t-shirts, I just ordered another one for my partner they have amazing quality! (OC1)

As another example, one fan who received a free extension of their membership to his/her favourite club after a follow-up call from customer service commented:

Seems they're doing a nice offer to upgrade the membership, which allows you to pick two home games of the season to go to like a full membership, So happy! (OC1)

Another fan commented after receiving a bad service:

Got an apology from the club’s store manager, the next day, so I was happy with that. (OC2)

### 3.5 Discussion of the Exploratory Findings

The objective of this initial stage was to explore the OCCB construct in online communities and determine the types of OCCBs undertaken. The study suggested online community members did undertake OCCBs and three types of objects were found (products and services, the team and the brand). These OCCBs were either generic behaviours, such as knowledge generation, or voluntary behaviours, such as assisting other members. This is consistent with prior research into online value co-creation that had suggested value co-creation take places within a participation process, which occurs during member interactions (Chou, Lin & Huang 2016; Vargo & Lusch 2004). The results supported the idea that members of online communities are co-creators of value for themselves, other members (Nambisan & Baron 2009) and the organisation (i.e. the team in this case) (Brodie et al. 2013; Laud & Karpen 2017).
This exploratory study supported previous research on the OCCB construct. First, the OCCBs identified were customer-led interactions that provided brand voice (Healy & McDonagh 2013; Schembri & Latimer 2016). Second, the OCCBs were voluntary and benefitted the brand directly and indirectly (Ind et al. 2013; Kaufmann 2016; Yi & Gong 2013; France, Merrilees & Miller 2015; Popp & Woratschek 2016). Finally, the OCCBs reflected in-role and extra-role behaviours that were based on customers’ interactions with one other (Schau, Muñiz & Arnould 2009; Chou, Lin & Huang 2016).

These exploratory results support the OCCB construct included in this project’s model. This exploratory phase also helped to operationalise the OCCB construct that was used in the project’s subsequent studies.

### 3.6 Conclusions

This chapter detailed the findings obtained from the netnography approach that was used to collect and analyse the textual data obtained from two online fan communities. The analysis suggested that some co-creation behaviours were undertaken by members of these online communities. Two general types of OCCBs were identified, namely in-role behaviours (knowledge contribution) and extra-role behaviours (feedback, helping, advocacy and tolerance). These behaviours were customer-initiated, designed to build relationships with other community members, and motivated by an enthusiasm for the club. The next chapter discusses the quantitative study that was undertaken to extend our understanding of these co-creation behaviours and examine the relationships suggested by previous research and the netnography results discussed in this chapter.
Chapter 4

Study 2

4.1 The Data Collection Approach

Data were collected online from three fan-based online communities (www.BigFooty.com, www.EaglesFlying.com and www.dockerland.com). These were selected as they were online forums that included the two local Western Australian teams and were run by fans. Based on the co-creation literature, online community members engage with each other to increase value for themselves and the brands in which they are interested (Brodie et al. 2013; Muñiz & Schau 2011; Nambisan & Baron 2010). The three chosen online communities are run by “footy” enthusiasts, with one dedicated to the West Coast Eagles and one to the Fremantle Dockers. According to Dholakia and Vianello (2009), online communities tend to be more successful and active when they are run by enthusiasts and the brand’s fans; as such, non-official online communities have less control over members’ opinions, ensuring a variety of perspectives.

Big Footy, the first targeted OC, was launched in 1999 and is the biggest AFL OC in Australia. Big Footy was created by a media company as the online hub for footy fans’ social interactions. It is ranked tenth in Australia as a social networking site. There are more than 150,000 registered users and about 2.5 million visits each month, with 500,000 unique visitors each month. Big Footy has 18 online discussion forums (one for each AFL club) and each is run and moderated by the fans of the relevant club.
The second targeted online discussion forum was Dockerland, which is the only non-official fan-based online discussion forum for Fremantle Dockers Club. It was created in 2001 and is run by club fans. It is a smaller online discussion forum than Big Footy, as it focuses on only one club. Dockerland has about 130 daily visitors and 650 daily page previews. The third targeted online forum was Eagles Flying High, which is the only fan-based OC focusing on the West Coast Eagles Club. It was established in 2003 and is run by club fans. It has 608 registered members and 50 daily page views. The data collection was undertaken simultaneously from the three online discussion forums after seeking permission from the forums’ owners to publish the online survey. The data were collected during April and May 2017.

4.2 The Constructs

A comprehensive review of the OCCB literature and the results of the earlier qualitative study provided the basis for the constructs that were included in the current study. These constructs are discussed in the subsequent sections.

4.2.1 The Original ECSI Model’s Constructs

Developing the questionnaire, based on the European Customer Satisfaction Index (Figure 4.1) but adapted for use in an OCCB context, proved difficult. There were few examples of such constructs in any context in published studies and attempting to incorporate all the possible aspects within a professional sporting club context was time-consuming and challenging. The final survey used in this study (using AFL fans as an example) is shown in Appendix A.
Figure 0.1: The original European Customer Satisfaction Index model

Image was measured using three items adapted from previous studies undertaken by the ECSI Technical Committee (1998), Kristensen, Martensen and Gronholdt (2000) and O’Loughlin and Coenders (2002). The relevant items, shown in Table 4.1, were asked on a seven-point Likert-type scale from strongly disagree to strongly agree.

Table 4.1: Image items

| (Team) is an honest organisation | (Team) is a professionally run organisation | (Team) would be a good place to work |

The Expectations construct was measured using three items based on the recommendations of the ECSI Technical Committee (1998) that had been used in a previous study (Kristensen, Martensen & Gronholdt 2000). The items, shown in Table 4.2, were asked on a seven-point Likert-type scale that ranged from very low to very high.
Table 4.2: Expectation items

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<tbody>
<tr>
<td>My overall expectations of my club as an organisation are</td>
<td>My overall expectations of the way my club treats fans are</td>
</tr>
<tr>
<td>My overall expectations of my club to meet my needs are</td>
<td></td>
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</table>

The *Perceived Quality* construct focused on aspects that represented the quality of the product and service offered and assessed *Team Administrative Staff Quality* (Table 4.3). The three items were developed from previous studies (Kristensen, Martensen & Gronholdt 2000; O’Loughlin & Coenders 2002) and asked using a seven-point Likert-type scale from strongly disagree to strongly agree.

Table 4.3: Perceived quality items

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<tbody>
<tr>
<td>The total benefits I receive as a <em>(Team)</em> fan are competitive with the benefits received by fans of other professional sport teams</td>
<td></td>
</tr>
<tr>
<td>The <em>(Team’s)</em> administrative staff care about their fans</td>
<td></td>
</tr>
<tr>
<td>The <em>(Team’s)</em> administrative staff are knowledgeable</td>
<td></td>
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</table>

*Perceived value for money* is a central construct in the ECSI model. The four items used to measure the perceived value of the fans are in Table 4.4 and were based on recommendations made by the ECSI Technical Committee (1998) and those used by Chitty, Ward and Chua (2007) and Kristensen, Martensen and Gronholdt (2000). Once again, a seven-point Likert-type scale from strongly disagree to strongly agree was used to measure these items.

Table 4.4: Perceived value items

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<tbody>
<tr>
<td><em>(Teams)</em> offer reasonably priced products and services</td>
<td></td>
</tr>
<tr>
<td>The products and services available to <em>(Team’s)</em> fans are good ones for the price</td>
<td></td>
</tr>
<tr>
<td>The <em>(Teams)</em> offer fans good value for money</td>
<td></td>
</tr>
<tr>
<td><em>(Team’s)</em> products and services are generally economical</td>
<td></td>
</tr>
</tbody>
</table>
The *Satisfaction* construct was measured using the three items in Table 4.5. These items were adapted from suggestions made by the ECSI Technical Committee (1998) and those used in studies by Chitty, Ward and Chua (2007) and Kristensen, Martensen and Gronholdt (2000). A seven-point Likert-type scale from strongly disagree to strongly agree was used to measure these items.

**Table 4.5: Satisfaction items**

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<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>I am satisfied with the interactions I have with <em>(Team)</em></td>
<td>I am satisfied with the interactions I have with other <em>(Team)</em> fans</td>
</tr>
<tr>
<td>I am satisfied with the interactions I have with other <em>(Team)</em> fans</td>
<td>I am satisfied with the interactions I have with other <em>(Team)</em> fans</td>
</tr>
</tbody>
</table>

Customer loyalty was measured as the behavioural loyalty of the fans (Table 4.6). The loyalty construct had three items that were adapted from Chitty, Ward and Chua (2007). Once again, a seven-point Likert-type scale from strongly disagree to strongly agree was used to measure these items.

**Table 4.6: Behavioural loyalty items**

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<table>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>If I were faced with the same choice again, I would still support <em>(Team)</em></td>
<td>I often watch <em>(Team)</em> on TCV</td>
</tr>
<tr>
<td>I often watch <em>(Team)</em> on TCV</td>
<td>I often follow reports about <em>(Team)</em> in the media</td>
</tr>
</tbody>
</table>

**4.2.2 Online Co-Creation Behaviour Constructs**

An OC is a group of people who use an online platform to communicate their shared interests and friendships often evolve (Chou et al. 2016; Ridings & Gefen 2004; de Valck, van Bruggen & Wierenga 2009; Williams & Cothrel 1999). Online brand
communities offer customers the opportunity to co-create value through their expression of brand voice (Healy & McDonagh 2013). Indirect OCCB, based on the interaction customers have with each other, is a source of value for participants, the OC and relevant brands (sports teams in this case) (Schau et al. 2009). Such behaviour may increase loyalty to and satisfaction with a brand and increase trust, commitment and empowerment (Brodie et al. 2013).

Two types of OCCB were identified in the literature review and the qualitative study (in-role and extra-role behaviours). Online in-role behaviour (a knowledge contribution behaviour) is necessary for a successful OC and online co-creation (Chou et al. 2016). Knowledge contribution behaviour (Table 4.7), in this case, was measured using four items adapted from Chou et al. (2016) on a seven-point Likert-type scale from strongly disagree to strongly agree.

<table>
<thead>
<tr>
<th>Table 4.7: Knowledge contribution behaviour items</th>
</tr>
</thead>
<tbody>
<tr>
<td>I spend a lot of time sharing things on (Team’s) website</td>
</tr>
<tr>
<td>I actively share my knowledge with others on (Team’s) website</td>
</tr>
<tr>
<td>I am usually involved when complicated issues are discussed on (Team’s) website</td>
</tr>
<tr>
<td>I involve myself in discussions of numerous issues on (Team’s) website</td>
</tr>
</tbody>
</table>

Customer citizenship (extra-role) behaviour is voluntary behaviour that provides significant value (Yi, Nataraajan & Gong 2011; Yi & Gong 2008). Extra-role behaviours include:

1. Feedback, which can be seen in people giving suggestions or comments to other members of the OC.

2. Helping other customers or members of the brand community.

3. Advocacy, which is often seen as eWOM.
4. Tolerance, which refers to people being patient when the posted information on the website is not considered useful or seen as a mistake.

The items used to measure these aspects were adapted from Chou et al. (2016), with changes to make them relevant to the present sports-related research context. The items for these four constructs were asked on a seven-point Likert-type scale from strongly disagree to strongly agree (Table 4.8).

Table 4.8: Customer citizenship behaviour items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Online Feedback</strong></td>
<td>1) If I have additional useful information, I will let others on (Team’s) website know.</td>
</tr>
<tr>
<td></td>
<td>2) When I receive valuable information from others on (Team’s) website, I comment about it.</td>
</tr>
<tr>
<td></td>
<td>3) When I experience a problem, I let others know about it on the (Team’s) website.</td>
</tr>
<tr>
<td><strong>Online Advocacy</strong></td>
<td>1) I say positive things about (Team’s) website to other people.</td>
</tr>
<tr>
<td></td>
<td>2) I recommend (Team’s) website to others.</td>
</tr>
<tr>
<td></td>
<td>3) I encourage my friends and relatives to get involved with (Team’s) website.</td>
</tr>
<tr>
<td><strong>Online Helping</strong></td>
<td>1) I assist other members of (Team’s) website community if they need my help.</td>
</tr>
<tr>
<td></td>
<td>2) I help other members of (Team’s) website community if they seem to have problems.</td>
</tr>
<tr>
<td></td>
<td>3) I teach members of (Team’s) website community if they need me to solve problems correctly.</td>
</tr>
<tr>
<td><strong>Online Tolerance</strong></td>
<td>1) If information is not delivered as expected on (Team’s) website, I do not get upset.</td>
</tr>
<tr>
<td></td>
<td>2) If other members of (Team’s) website community make a mistake, I am tolerant of this.</td>
</tr>
<tr>
<td></td>
<td>3) If I have to wait longer than expected to receive the information on (Team’s) website, I am patient.</td>
</tr>
</tbody>
</table>
4.2.3 Attitudinal Loyalty Construct

Attitudinal loyalty measures a person’s psychological commitment to a brand (or a sports team in this case). The attitudinal loyalty construct was measured here through the five items in Table 4.9. These items, adapted from Kwon and Trail (2003) and Mahony, Madrigal and Howard (2000), were again measured using a seven-point Likert-type scale from strongly disagree to strongly agree.

Table 4.9: Attitudinal loyalty items

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is unlikely I would change my allegiance from (Team)</td>
</tr>
<tr>
<td>It would be difficult to change my beliefs about (Team)</td>
</tr>
<tr>
<td>Nothing could change my allegiance to (Team)</td>
</tr>
<tr>
<td>I am a committed fan of (Team)</td>
</tr>
<tr>
<td>I could never switch my loyalty from (Team) even if my close friends were fans of another team</td>
</tr>
</tbody>
</table>

4.3 Data Collection

4.3.1 Sample Size

In this study, a target sample size of 500 participants was set. According to Hair et al. (2006, p. 741), “model complexity in structural equation modelling leads to the need for larger samples”. Thus, a sample of 500 provided the necessary power to estimate the models being examined here. Further, recent research has suggested that the partial least squares (PLS) approach, which was used to estimate the models in this case, may need larger samples than previously thought (Hair et al. 2012). Consequently, a sample of 500 fans was seen as appropriate.
4.3.2 Sampling Frame and Data Collection Distribution

As noted earlier, the sampling frame for the current study was chosen from three different fan-based footy online communities (BigFooty, Eagles Flying High and Dockerland). These online communities are where fans discuss their favourite team’s on-field (e.g. performance and players) and off-field (e.g. brand, image and profit) activities. Consequently, they were seen as suitable platforms from which to collect the necessary data.

The questionnaire was programmed in Qualtrics, an online survey management platform that provides the tools needed to create and distribute surveys (Nguyen 2015). Three separate surveys were designed (i.e. one for each online community). Unique URLs were created for each survey to ensure the correct questionnaire was distributed to each OC. The first page of the survey provided the UWA ethics approval reference number, an information sheet that briefly described the purpose of the survey, and the respondent consent letter to ensure that the survey met UWA’s ethics requirements. Subsequent sections included the items used to measure the constructs of interest (Tables 4.1 to 4.9), and the final section gathered some background information on the respondents (e.g. age and gender). The final West Coast Eagles questionnaire (as an example) is provided in Appendix A.

Permission was obtained from each online community’s administrators before the surveys were distributed. New threads were opened in each OC with a brief description of the study and a link for those who wished to participate. To increase the response rate, an entry to a draw in a raffle in which the prize was a team shirt was offered as an incentive, as such raffles seem to increase participation in online surveys (Algesheimer, Dholakia & Herrmann 2005; Shiue, Chiu & Chang 2010).
4.3.3 Questionnaire Pre-test

A pre-test was undertaken based on the recommendation by Hair et al. (2006, p. 744) that this should be done “when a model has scales borrowed from various sources reporting other research”. Consequently, the questionnaire was pre-tested on a sample of 20 graduate students who had all participated in at least one OC. They were asked to provide feedback and identify any ambiguous questions, problems with the questionnaire’s flow or other issues. As a result, steps were taken to correct some wording and design mistakes, remove redundant items and correct spelling errors.

4.4 Data Analysis Approach

4.4.1 Descriptive Statistics

Descriptive analysis helps to identify any data issues that may cause problems in subsequent analyses. Outliers, the normality of the data and the presence of missing values were examined before descriptive statistics were computed.

4.4.2 Examining the Constructs’ Measurement Properties

Several tests should be undertaken before estimating models of interest to ensure the model’s constructs have good measurement properties. Only those constructs with good measurement proprieties should be included when estimating any model. Consequently, all of the constructs of interest were assessed in a variety of ways, as outlined in subsequent sections.

4.4.2.1 Reliability

Reliability coefficients identify how the items used to measure a construct relate to each other (Cooper & Schindler 2011). This internal consistency can be assessed by
computing composite reliability (CR) and Cronbach’s alpha coefficients. These reliability coefficients should be 0.70 or higher (Kock 2017).

**4.4.2.2 Convergent validity**

Fornell and Larcker (1981) suggested that convergent validity be assessed by computing the constructs’ average variance extracted (AVE) scores. An AVE score of 0.50 or more suggests that the construct has more information than noise, and is a good measure of convergent validity.

**4.4.2.3 Discriminant validity**

Discriminant validity between two constructs can be assumed if the square root of their AVE scores is greater than their correlation (Fornell & Larcker 1981), and this approach was used here.

**4.4.3 Estimating the Structural Model**

A partial least square (PLS) approach was used to estimate the models of interest. PLS is a variance-based structural equation modelling (SEM) method that maximises the explained variance of a model’s latent constructs and has some advantages in predictive research. PLS procedures are less affected by normality and sample size than other approaches (Henseler, Ringle & Sinkovics 2009; Reinartz, Haenlein & Henseler 2009), which might explain its wide applications in many contexts (Hair et al. 2012). The outer model in PLS focuses on the constructs’ measurement properties, while the inner model examines the relationships between the various constructs. These are termed the model’s structural paths. The WarpPLS 6.0 program (Kock 2017) was used to identify the key factors that determine fans’ perceived value and OCCB with their favourite sporting teams and to see how such value influenced their satisfaction and, consequently, their loyalty to their team.
4.5 The Results

This section presents the results of the data analysis that was undertaken in Study 2 (the online fan communities) and is subdivided into three sections:

1. Section 4.5.1 discusses sample characteristics and descriptive statistics.

2. Section 4.5.2 discusses the constructs’ measurement properties.

3. Section 4.5.3 discusses the results from estimating the model.

4.5.1 The Sample’s Characteristics and some Descriptive Statistics

As was noted earlier, the data for Study 2 were obtained from members of three online AFL fan communities (i.e. www.BigFooty.com, www.EaglesFlying.com and www.dockerland). All respondents lived in Australia and were AFL fans who actively participated in one of the online communities. While 962 individuals commenced the survey, only 500 (58% of the respondents) had been involved in OCCB in the year prior to undertaking the survey. It was these 500 respondents who provided the necessary data.

Of the 500 respondents, 458 respondents (90%) were male and 42 (10%) were female. The reason behind more males than females might be the use of social media and online communities among sports fans is dominated by males (Filo, Lock & Karg 2015), which explained the gender distribution in this case. The mean age group of the respondents was 30–39 years. Other sample characteristics of note were respondents’ employment status, with 65% employed full-time, 19% not in the labour force (student, home duties or retired), 13% employed part-time, and 2% unemployed. Education levels were mixed; approximately 31% had an undergraduate degree, 25%
had a postgraduate qualification, 24% had a trade or technical qualification, 18% had completed high school and 2% had not completed high school.

Seventy-four percent of the respondents were current members of the club they supported (a list of the AFL clubs is provided in Appendix A). Of these, 33% had been members for more than 15 years, 27% for 5 to 10 years, 18% for 10 to 15 years, and 22% for five years or less. Almost all (98%) had visited their teams’ official website and most had bought tickets to at least one of their club’s games during the previous session (83%). Most (88%) wear clothes or carry accessories with team colours to indicate support for their team, read articles about their team (96%) and watch programs on television that feature their favourite teams (95%). Many also participate in unofficial online social media activities related to their team. Based on these reported behaviours, it seemed that most of the respondents identified strongly with their team and were ‘true fans’.

4.5.1.1 Some Descriptive statistics

Missing data and descriptive statistics

There were no missing data, as the data were obtained from an online platform in which all questions were answered. The Kolmogorov-Smirnoff statistics test identified that most of the items were not normally distributed, but negatively skewed, which was not surprising given the strong team identification noted earlier. However, this was not considered a major issue, as the PLS approach used to estimate the model is less affected by normality than other approaches (Henseler, Ringle & Sinkovics 2009; Reinartz, Haenlein & Henseler 2009).
The means and standard deviations for each of the items are in Appendix B. The highest means were for customer loyalty items (e.g. “I often watch my team’s games on TV”, which had a mean of 6.53 on the seven-point scale and “I often follow reports about (Team) in the media”, which had a mean of 5.27). Many of the lower means were for items that asked about value for money (e.g. “My club’s products and services are generally economical”, which had a mean of 4.65 and “My club offers fans good value for money”, which had a mean of 5.00). It seemed that the respondents were loyal to their club but less likely to feel they got good value for money from this relationship (despite the means being above the midpoint of the scale used in this case).

There was a reasonable amount of variation in the respondents’ assessments, with standard deviations ranging from 1.10 (“If I were forced with the same choice again, I would still support my team”) to 1.66 (“I often follow reports about (Team) in the media”). Consequently, it was apparent that there was enough information to make it worthwhile analysing the data. As noted earlier, before estimating the models of interest, the measurement properties of each construct were examined using the WarpPLS program (Kock 2017) and the results from this process are discussed next.

*The Constructs’ measurement properties*

The number of items and the means and standard deviations of the constructs are in Table 4.10. In general and, as expected, the constructs’ means were all relatively high. Loyalty has the highest mean (6.16), while perceived value for money had the lowest mean (4.76), supporting comments from the examination of individual items and noted in the previous section, as it was clear respondents considered themselves loyal to their teams, but they had a lower perceived value for money from this relationship. The largest standard deviation (SD) was for the perceived value for money construct.
(1.39), with the smallest SD being for the loyalty construct (0.99), supporting the earlier suggestion that there was sufficient variation in the constructs to analyse the data further.

Internal consistency was measured for each of the constructs by computing their composite reliability (CR) and Cronbach’s alpha coefficients, which are shown in Table 4.10. The results suggested that all the constructs were reliable, with alpha coefficients ranging from 0.78 (loyalty and satisfaction) to 0.94 (perceived value), with most over 0.80. Similarly, the CR coefficients ranged from 0.86 (loyalty) to 0.95 (perceived value), with most over 0.85. As all of the CR coefficients exceeded the suggested minimum of 0.70 (Kock 2017), most by a considerable margin, all of the constructs were considered reliable and retained at this stage.

Convergent validity was assessed by computing AVE scores and factor loadings (Fornell & Larcker 1981). An AVE score of 0.50 or more implies that the construct has more information than noise, which is a good measure of convergent validity. The AVE scores are in Table 4.10; the constructs’ AVE scores ranged from 0.78 (loyalty) to 0.92 (perceived value). All of the AVE scores were considerably higher than the recommended minimum of 0.50. Moreover, the factor loadings in all of the constructs ranged from a minimum of 0.81 to a maximum of 0.92, well above the suggested cut-off of 0.70, suggesting that all of the constructs had convergent validity and should be retained at this stage.
Table 4.10: The Constructs’ descriptive statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha Coeff.</th>
<th>CR Coeff.</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image</td>
<td>3</td>
<td>5.32</td>
<td>1.22</td>
<td>0.85</td>
<td>0.90</td>
<td>0.83</td>
</tr>
<tr>
<td>Expectation</td>
<td>3</td>
<td>5.69</td>
<td>1.17</td>
<td>0.85</td>
<td>0.91</td>
<td>0.88</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>3</td>
<td>5.16</td>
<td>1.23</td>
<td>0.81</td>
<td>0.88</td>
<td>0.85</td>
</tr>
<tr>
<td>Perceived Value for Money</td>
<td>4</td>
<td>4.76</td>
<td>1.39</td>
<td>0.94</td>
<td>0.95</td>
<td>0.92</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>3</td>
<td>5.76</td>
<td>1.05</td>
<td>0.78</td>
<td>0.87</td>
<td>0.83</td>
</tr>
<tr>
<td>Customer Behaviour Loyalty</td>
<td>3</td>
<td>6.16</td>
<td>0.9</td>
<td>0.78</td>
<td>0.86</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Discriminant validity was also assessed using Fornell and Larcker’s (1981) approach. They suggested that discriminant validity between two constructs could be assumed if the square root of the AVE scores was greater than their correlation (Appendix C). While there were some high correlations, all of the construct pairs met this requirement, suggesting that discriminant validity could be assumed for all of the constructs in this model.

4.5.2 Assessing the ECSI Model

4.5.2.1 Significance and relevance of the model’s relationships

As noted earlier, the ECSI model’s hypothesised relationships (Figure 4.2) were examined using a PLS structural equation modelling (SEM) approach. Here, the WarpPLS program (Kock 2017) was used to estimate the model to identify the key factors that determine fans’ perceived value of their favourite sporting teams and to
see how that value influenced their satisfaction and, consequently, their loyalty to their team.

![Diagram](image)

**Figure 0.2: The ECSI model in the present professional sports-team context**

The initial model had a good fit to the data (GOF), as the GOF statistic was 0.60, which suggested large effects within the model and that the model is performing well (Tenenhaus et al. 2005). Most of the suggested relationships were supported. Image significantly impacted perceived value for money (β = 0.23; p < 0.01) and loyalty (β = 0.15; p < 0.01), while perceived quality significantly impacted perceived value (β = 0.45; p < 0.01) and satisfaction (β = 0.42; p < 0.01). Expectations positively impacted satisfaction (β = 0.15; p < 0.01) but not perceived value for money (β = 0.06; p = 0.09). As expected, perceived value for money significantly impacted satisfaction (β = 0.19; p < 0.01) and satisfaction significantly impacted loyalty (β = 0.54; p < 0.01).
The results suggested that the ECSI model offered a good explanation of AFL fans’ perceived value, satisfaction and loyalty. It seems that a team’s image and perceived quality both play important roles. In particular, perceived quality (i.e. providing fans with a great experience and being willing to meet fans’ demands) influenced fans’ value for money perceptions and their satisfaction. Moreover, image directly impacted fan loyalty.

Interestingly, the model provided a very good explanation for various endogenous variables, as their R-squared statistics ranged from 0.42 (loyalty) to 0.54 (perceived value). This suggests that, in almost all cases, about half of the variation in the endogenous variables is explained by the ECSI model.

**Online co-creation behaviour in ECSI model**

The current study was designed to investigate the factors that impact online customer co-creation behaviour and its influence on customer satisfaction and loyalty using the ECSI model as a starting point. The OCCB scale used in this study was adapted from the OCCB scale suggested by Chou, Lin and Huang (2016) that has two types of OCCB [i.e. in-role (knowledge contribution) behaviour and extra-role (online helping, online feedback, online advocacy and online tolerance) behaviour]. Yi and Gong (2013) modelled co-creation behaviour as a third-order construct made up of two second-order reflective dimensions that they termed knowledge contribution behaviour and citizenship behaviour (online helping, online feedback, online advocacy and online tolerance) and the construct was modelled this way here. The number of items for each of the first-order reflective dimensions and their means, standard deviations and measurement property indices is in Table 4.11. The highest mean was for online tolerance (5.02) and the lowest mean was for online helping.
(3.82). Internal consistency was again measured by Cronbach’s alpha coefficient and the CR coefficient. The results suggested that the constructs were reliable, as all of the CRs exceeded the suggested minimum of 0.70 (Kock 2017). One alpha coefficient (online tolerance) was slightly below the 0.70 benchmark (0.65), but its CR coefficient was 0.81, so the construct was retained at this stage. The AVE scores ranged from 0.77 to 0.90, all of which were well above the suggested minimum of 0.50, indicating that all of the first-order OCCB dimensions could be used in the subsequent analysis (Appendix D).

**Table 4.11: The Co-creation behaviour construct’s descriptive statistics**

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha Coeff.</th>
<th>CR</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Contribution Behaviour</td>
<td>4</td>
<td>3.89</td>
<td>1.76</td>
<td>0.85</td>
<td>0.90</td>
<td>0.83</td>
</tr>
<tr>
<td>Online Helping</td>
<td>4</td>
<td>3.82</td>
<td>1.75</td>
<td>0.92</td>
<td>0.94</td>
<td>0.90</td>
</tr>
<tr>
<td>Online Feedback</td>
<td>3</td>
<td>4.07</td>
<td>1.68</td>
<td>0.75</td>
<td>0.86</td>
<td>0.82</td>
</tr>
<tr>
<td>Online Advocacy</td>
<td>3</td>
<td>3.91</td>
<td>1.67</td>
<td>0.82</td>
<td>0.89</td>
<td>0.86</td>
</tr>
<tr>
<td>Online Tolerance</td>
<td>3</td>
<td>5.02</td>
<td>1.51</td>
<td>0.65</td>
<td>0.81</td>
<td>0.77</td>
</tr>
</tbody>
</table>

The number of items for the second and third-order OCCBs and measurement property indices is in Table 4.12. The second-order and third-order OCCBs were all reliable as all of the CRs exceeded the suggested cut-off.
### Table 4.12: Co-creation behaviour: Second- and third-order information

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Alpha Coeff.</th>
<th>CR</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Order</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Extra-Role (Helping, Feedback, Advocacy, Tolerance)</td>
<td>4</td>
<td>0.70</td>
<td>0.83</td>
<td>0.79</td>
</tr>
<tr>
<td><strong>Third Order</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCCB (In-Role and Extra-Role)</td>
<td>2</td>
<td>0.88</td>
<td>0.94</td>
<td>0.94</td>
</tr>
</tbody>
</table>

#### 4.5.3 Assessing Online Co-Creation Behaviour’s Role

#### 4.5.3.1 Online co-creation behaviour hypotheses

The ECSI model was revised by adding online co-creation behaviour (OCCB) (Figure 4.3). As pointed out in the literature review, OCCB—which is based on customer interactions—can be a source of value for participants and the OC. Online co-creation behaviour may increase satisfaction with and loyalty to a brand (Brodie et al. 2013), which explains why OCCB was included in the model in the way it was.

The revised model, which was also estimated using the WarpPLS program, had a good fit to the data, with a GOF index of 0.54 (Tenenhaus et al. 2005). As seen in Figure 4.3, image and perceived quality both had significant positive direct influences on OCCB. Perceived quality impacted OCCB ($p < 0.01$), with a path coefficient of 0.11, and image also had a positive influence on OCCB ($p < 0.05$), with a path coefficient of 0.08. However, OCCB did not impact perceived value for money, satisfaction or loyalty.
WarpPLS allows the estimation of warped (nonlinear) relationships, and this can improve model fit and is useful for identifying warped relationships in a suggested model. If this is the case, relationships that were not significant when estimated in a linear way can become significant (Kock 2017). Consequently, following Turkyilmaz et al. (2013), the ECSI model was estimated, assuming that there might be some nonlinear relationships. As the greatest concern was with the OCCB relationships, the paths from the OCCB construct were allowed to be nonlinear, and the model was re-estimated. When this occurred, the path between OCCB and satisfaction was significant (path coefficient 0.10, p < 0.01), but other paths were not. Figure 4.4 shows that this nonlinear relationship was U-shaped. That is, there was a negative relationship when OCCB was very low, but a positive relationship as OCCB increased. This suggests that fans must perform a reasonable amount of OCCB to increase their satisfaction with their club.

Figure 0.3: OCCB in the ECSI model
Fans are influenced by a club’s image and the quality they receive from that club (i.e. their experience and a club’s willingness to meet fans’ demands). It is also apparent that the fans involved in considerable OCCB are more satisfied with their club than those who do little OCCB.

As was the case with the ECSI model, the central variable were well explained in the new model. However, the new addition to the model (the OCCB construct) is not well explained, with an R-squared statistic of only 0.03. Further, the relationship between OCCB and behavioural loyalty was not significant (Figure 4.3), perhaps the result of omitting a mediating construct. Tachis and Tzetzis (2015) have suggested that participation (OCCB) may influence attitudinal loyalty and that this, in turn, may affect behavioural loyalty. As such a measure had been included in the questionnaire, it was decided to include it in the model (Figure 4.5). As this construct had good measurement properties (alpha = 0.86; CR = 0.90; AVE score = 0.64), the revised model was re-estimated and the results are in Figure 4.5.
The R-squared statistic for the new construct (attitudinal loyalty) was relatively low (0.02). However, attitudinal loyalty significantly impacted behavioural loyalty (path coefficient 0.09, p < 0.05) and OCCB significantly impacted attitudinal loyalty (path coefficient 0.15, p < 0.01).

![Figure 0.5: The final model]

4.6 Discussion

This study aimed to use the ECSI model to determine the brand-level drivers that motivate sports fans to participate in OCCB and the consequences of this online behaviour. In addressing this gap, the research provides new empirical evidence that supports the use of a third-order OCCB construct with two second-order dimensions [i.e. online in-role (knowledge contribution) behaviour and online extra-role (online helping, online feedback and online advocacy) behaviour]. Several tests showed the reliability and construct validity of this OCCB construct and the results support the suggested positioning of the OCCB construct within the model (despite only a small impact within the overall model).
This study identified that the original ECSI model is a useful framework for examining fan loyalty to their club. Figure 4.2 showed that half of the variation in loyalty was explained, and satisfaction played an important role in explaining fan loyalty. Perceived quality influenced satisfaction, which suggests that enhancing the fan experience and meeting their demands will increase satisfaction. Interestingly, brand image only played a minor role in determining a perceived value for money. There are many other contexts in which the ECSI model has been used where image has been the most important predictor of perceived value for money (e.g. Chitty, Ward & Chua 2007; Mojtaba Kaveh 2012; Revilla-Camacho, Cossio-Silva & Palacios-Florencio 2017), but that was not the case here.

This might come as a surprise to some who would expect that attributes, such as fan beliefs that a club is honest, customer-oriented and professionally run, should influence perceived value for money. This might be because fans evaluated other aspects of team-related services, such as the total benefit of supporting the team and customer service, when it comes to perceived value for money. While Yoshida et al. (2014) found that the relationship between image and fans’ intention-behaviour was not significant, the small but significant impact in this study are in line with other studies where brand image had a positive relationship with behavioural loyalty (Bauer, Sauer & Schmitt 2005; Gladden & Funk 2001; Robinson & Miller 2003). The more favourably a fan rates a brand’s (team’s) image, the more likely that fan is to behave loyally (i.e. visit the stadium, purchase merchandise or provide positive word-of-mouth) (Bauer, Stokburger-Sauer & Exler 2008).
Perceived quality played a vital role in determining a perceived value for money. This differs from some studies that used the ECSI model where brand image was the most important antecedent. Thus, the AFL fans studied here seem to differ from customers in other service industries. If fans’ perceived customer service was high, then they felt they were receiving good value for money. Perceived quality also played an important role in determining customer satisfaction, which is consistent with other sports-related research (Brady et al. 2006; Clemes et al. 2011; Hightower, Brady & Baker 2002).

Fans’ expectations had no impact on perceived value for money, which differs from some studies (Askariazad & Babakhani 2015; Martensen, Gronholdt & Kristensen 2000; Mojtaba Kaveh 2012; Vilares & Coelho 2003). However, as expected, expectation had a positive impact on satisfaction, which is consistent with previous sports-related research (Coye 2004; Robinson 2006).

The addition of the OCCB construct to the ECSI model did not have much impact on the model’s outcome. However, OCCB did significantly impact satisfaction, but only in a nonlinear way. It seems that fan satisfaction increases when people co-create value in online communities, perhaps because these types of behaviours reinforce brand relationships (Brodie et al. 2011). It also seems that brand image and perceived quality are both drivers for fans to undertake OCCBs; The latter result is a new contribution to our knowledge about sports contexts and is consistent with studies in other industries where researchers have found a positive relationship between software quality (part of perceived quality) and co-creation (Chuang & Chen 2015; Lengnick-Hall, Claycomb & Inks 2000). Brand image also works as a driver for customers to participate in OCCB. It seems that a positive team image (internal motivation) and team results (external motivation) (Yoshida et al. 2014) impact fans’ OCCB.
Surprisingly, OCCB did not impact perceived value for money or brand behavioural loyalty, perhaps because the perceived value for money is subjective and individualised (Zeithaml 1988). The lack of a link to behavioural loyalty supports previous research (Cossío-Silva et al. 2016). As mentioned earlier, the perceived value of money of a brand discussed in many areas (France, Merrilees & Miller 2015) found that the perception of brand value is enhanced when customers perform co-creation. However, little is known about the overall value perceived by customers who co-create (France et al. 2018). Consequently, it may be that other value dimensions not measured here may impact people’s OCCB.

The final model included attitudinal, as well as behavioural, loyalty. Little empirical research has investigated the relationships between OCCB and different types of loyalty. A study by Cossío-Silva et al. (2016) explored offline co-creation behaviour as loyalty antecedents. The present study on of the first to examine this relationship in an online context—found that OCCB had a significant (p = 0.01) positive relationship with attitudinal loyalty. As mentioned previously, this finding is new. Attitudinal loyalty also had a significant (p = 0.02) positive relationship with behavioural loyalty, which is consistent with the attitude–behaviour model (Ajzen 1991) and previous sports-related research (Bee & Havitz 2010; Tachis & Tzetzis 2015).

4.7 Conclusions

As the data were collected from a fan-based OC, it is likely respondents who participated were committed fans and committed members of their online communities. This was evident from the constructs’ skewed distributions. Consequently, it was decided to examine these issues in more detail by collecting additional data from a more general sample of AFL fans. This led to the third study, which is discussed in the next chapter.
Chapter 5

Study 3

5.1 The Data Collection Approach

As noted in the previous chapter, following the results in Study 2, it was decided to undertake a further study to assess a revised model with a more general sample. Data were again collected online. However, in this case, a commercial provider (Pureprofile) was used to obtain a more general sample. Pureprofile has a large Australian consumer panel of about 250,000 members, making it possible to find the desired sample from members who supported AFL teams. Panel members are paid a small fee to compensate them for their time, which meant there were some additional costs, but the necessary data were collected within the available budget. The data collection process was managed by Pureprofile, after seeking ethics approval from UWA, and the data were collected in March 2018.

5.2 The Constructs

Based on the results of the previous chapter and the literature review, some new constructs were introduced to this study, which are discussed in subsequent sections.

5.2.1 The Original ECSI Model’s Constructs

As mentioned previously when discussing Study 2, the ECSI model (Figure 4.1) was adapted for use in the present sports-related context. In this case, a multidimensional perceived value scale (PERVAL) that measures perceived quality, emotional, price and social value, was used rather than an overall value for money scale.
The additional items used here and detailed in Table 5.1 were adapted to the present sports-related context from Sweeney and Soutar's (2001) study and measured using a seven-point Likert-type scale that ranged from strongly disagree to strongly agree. Perceived value was modelled in this case as a second-order reflective construct based on PERVAL’s underlying first-order dimensions.

### Table 5.1: Additional constructs (perceived value items)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality Value</strong></td>
<td>1. The products my club sells have consistent quality</td>
</tr>
<tr>
<td></td>
<td>2. The products my club sells are well made</td>
</tr>
<tr>
<td></td>
<td>3. The products my club sells have an acceptable standard of quality</td>
</tr>
<tr>
<td></td>
<td>4. My club's products perform consistently well</td>
</tr>
<tr>
<td><strong>Emotional Value</strong></td>
<td>1. I enjoy being a fan of my club</td>
</tr>
<tr>
<td></td>
<td>2. Being a fan of my club gives me pleasure</td>
</tr>
<tr>
<td></td>
<td>3. I feel relaxed about being a fan of my club</td>
</tr>
<tr>
<td></td>
<td>4. I want to use the products my club sells</td>
</tr>
<tr>
<td><strong>Social Value</strong></td>
<td>1. Being a fan of my club makes me feel acceptable</td>
</tr>
<tr>
<td></td>
<td>2. Being a fan of my club improves the way I am perceived</td>
</tr>
<tr>
<td></td>
<td>3. My being a fan of my club creates a good impression on other people</td>
</tr>
<tr>
<td></td>
<td>4. I get social approval through being a fan of my club</td>
</tr>
</tbody>
</table>

### 5.2.2 The Online Co-Creation Behaviour Construct

As mentioned in the previous chapter, two types of OCCB have been identified (i.e. in-role and extra-role behaviours). Online in-role behaviour, or knowledge contribution behaviour, is necessary for a successful online brand community and online co-creation (Chou et al. 2016). Customer citizenship (extra-role) behaviour is
voluntary behaviour that provides significant value (Yi, Natarajan & Gong 2011; Yi & Gong 2008). Online extra-role behaviour includes online feedback, online helping, online advocacy and online tolerance. These reflective constructs were measured using the same scales as those used in Study 2 (Chou et al. 2016).

5.2.3 The Attitudinal Loyalty Construct

Attitudinal loyalty measures a person’s psychological commitment to a team. The attitudinal loyalty construct in this case was measured using the five items from Study 2 (Kwon & Trail 2003; Mahony, Madrigal & Howard 2000).

5.3 Data Collection

5.3.1 Sample Size and Data Collection

Budget restrictions meant using a smaller sample size in Study 3 than Study 2. In this case, a target sample size of 300 respondents was set, following the suggestion of Hair et al. (2006, p. 741) that a sample size between 150 and 400 responses is sufficient to estimate a model such as those in this study. As noted earlier, the sample for the current study was obtained from members of PureProfile’s online consumer panel. Any Australian male or female AFL fan who was 18 years or older and had participated in a relevant OC in the last year was asked to respond.

The questionnaire was programmed and distributed by Pureprofile. The first page of the survey provided the UWA ethics reference number, an information sheet that briefly described the survey and a respondent consent letter to ensure that the survey met UWA ethics requirements. Subsequent sections included the items used to measure the constructs of interest, and the final section gathered some background information on the respondents (e.g. age and gender). A pre-test was undertaken before
the major collection using a convenience sample of 31 participants. Based on their feedback, the questionnaire was amended slightly (Appendix E).

5.4 Data Analysis Approach

Descriptive analysis helps to identify any data issues that may cause problems on the subsequent analyses. Outliers, normality and the presence of missing values were examined before descriptive statistics were computed. As mentioned in the previous chapter, several tests (Table 5.2) should be undertaken before estimating models of interest to ensure that the model’s constructs have good measurement properties. Only those constructs with good measurement proprieties should be included when estimating any model. Consequently, all of the constructs of interest were assessed in a variety of ways, as outlined in subsequent sections.

Table 5.2: Tests used to examine the constructs’ measurement properties

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Composite reliability (CR) and Cronbach’s alpha coefficients were computed; these reliability coefficients should be 0.70 or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent Validity</td>
<td>AVE scores were computed; a score of 0.50 or more suggests that the construct has more information than noise, which is a good indication of convergent validity</td>
</tr>
<tr>
<td>Discriminant Validity</td>
<td>Discriminant validity between two constructs can be assumed if the square root of the AVE scores is greater than their correlation</td>
</tr>
</tbody>
</table>

A PLS approach was again used to estimate the models of interest. The WarpPLS 6.0 program (Kock 2017) was used to estimate the model, identify the key factors that impact fans’ perceived value with their favourite sporting teams, and determine how
this perceived value influenced their satisfaction and, consequently, their loyalty to their team.

### 5.5 The Results

This section presents the results of the data analysis in Study 3 and is subdivided into three sections:

- Section 5.5.1 discusses the sample characteristics and some descriptive statistics.
- Section 5.5.2 examines the constructs’ measurement properties.
- Section 5.5.3 discusses the results from the model estimation.

#### 5.5.1 Sample Characteristics and Descriptive Statistics

As noted previously, the data for Study 3 were obtained from PureProfile’s online consumer panel. Potential respondents were Australian residents who were 18 years or older, an AFL fan who had participated in at least one OC and had been involved in OCCB in the 12 months prior to data collection. A total of 305 participants were recruited.

Of these 305 respondents, 119 (39%) were male and 186 (61%) were female, which differs from Study 2, perhaps because the sample is more general than that obtained in Study 2. The mean age was 43 years. Other sample characteristics of note were respondents’ employment status, as 40% were employed full-time, 29% were not in the labour force (student, home duties or retired), 24% were employed part-time, and 6% were unemployed. Education levels were mixed; approximately 30% had a trade
or technical qualification, 24% had an undergraduate degree, 17% had a postgraduate qualification, 21% had completed high school, and 6% had not completed high school.

Thirty-six percent of the respondents were current members of the club they supported. Of these, 46% had been a member for five years or less, 33% for 5 to 10 years, and 10% for more than 15 years. About 82% of respondents had visited their teams’ official website, and many (63%) had bought tickets to at least one of their club’s games during the previous season. Many had also worn clothes or carried accessories with team colours to indicate support for their team (82%), read articles about their team (90%) or watched programs on television that featured their favourite team (92%). Most also participated in unofficial online social media activities related to their team (78%). Based on these reported behaviours, it seems that respondents identified with their team, but not as strong as those in Study 2.

5.5.1.1 Statistics

Descriptive statistics

There were no missing data, as the data were obtained from an online questionnaire that required all answers to be completed. Quality checks were made and all those respondents that ‘straight-lined’ were replaced. The Kolmogorov-Smirnoff statistics test suggested that most of the items were not normally distributed but negatively skewed, which was not surprising given the respondents’ strong identification with their AFL team. However, as mentioned in Study 2, this was not considered a major issue, as the PLS approach used to estimate the model is less affected by normality than other approaches.
The means and standard deviations of each of the items from the various rating scales are in Appendix F. The highest means were for customer loyalty items (e.g. “If I were faced with the same choice again, I would still support my club”, which had a mean of 5.75 on the seven-point scale, and “I often watch my team's games on TV”, which had a mean of 5.71). The emotional value items also had high means [“I enjoy being a fan of my club” (5.66), “Being a fan of my club gives me pleasure” (5.54) and “I feel relaxed about being a fan of my club” (5.52)].

Many of the lower means were for items that asked about online helping (extra-role co-creation behaviour) [e.g. “I help other fans in my team's online community if they are having problems” (3.72) and “I teach fans in my team's online community if they need help solving problem” (3.57)]. Respondents were less loyal to their club than those in Study 2, but still indicated loyalty above the midpoint of the seven-point scales used. They were less likely to feel that they did extra online citizenship behaviour, despite these means being around the midpoint of the scale used in this case.

There was a reasonable amount of variation in the respondents’ assessments, with standard deviations ranging from 1.29 (“My overall expectations of my club as an organisation are”) to 1.87 (“I involve myself in discussions of numerous issues in my team's online community”). Consequently, it was apparent there was sufficient information in the data to make it worthwhile analysing. As noted earlier, before estimating the models of interest, the measurement properties of each construct were examined using the WarpPLS program (Kock 2017) and the results from this process are discussed in the next section.
The Constructs’ measurement properties

The Perceived Value Scale (PERVAL)

As mentioned previously, the PERVAL scale was used here. The number of items for each of the first-order dimensions and their means, standard deviations and measurement property indices are shown in Table 5.3. All means were relatively high (above midpoint). Emotional value had the highest mean (5.46) whereas social value had the lowest (4.50). The constructs were reliable, as all of the CRs exceeded the suggested minimum of 0.70 (Kock 2017). The AVE scores ranged from 0.89 to 0.92, which were well above the suggested minimum of 0.50, indicating that all of the first-order PERVAL constructs could be used in the subsequent analysis.

Table 5.3: The PERVAL construct’s descriptive statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha Coeff.</th>
<th>CR</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Value</td>
<td>4</td>
<td>5.26</td>
<td>1.45</td>
<td>0.94</td>
<td>0.96</td>
<td>0.92</td>
</tr>
<tr>
<td>Emotional Value</td>
<td>4</td>
<td>5.46</td>
<td>1.44</td>
<td>0.91</td>
<td>0.93</td>
<td>0.89</td>
</tr>
<tr>
<td>Social Value</td>
<td>4</td>
<td>4.50</td>
<td>1.62</td>
<td>0.93</td>
<td>0.95</td>
<td>0.91</td>
</tr>
<tr>
<td>Value for Money</td>
<td>4</td>
<td>5.05</td>
<td>1.50</td>
<td>0.94</td>
<td>0.96</td>
<td>0.86</td>
</tr>
</tbody>
</table>

The other ECSI constructs

The number of items and the means and standard deviations for each of these constructs is in Table 5.4. As expected, the constructs’ means were generally relatively high. Loyalty and expectation had the highest mean (5.50), while perceived (money, quality, social and emotion) value had the lowest mean (5.00). This indicates that the respondents were loyal to their teams and had high expectations. However, the second-order value dimensions had somewhat lower means. The largest standard deviation
was for the customer satisfaction construct (1.58), with the smallest for perceived value (1.20), supporting the earlier suggestion that there was sufficient variation in the constructs to analyse the data further.

Internal consistency was measured for each of the constructs by computing their composite reliability (CR) and Cronbach’s alpha coefficients (Table 5.4). The results indicated that all of the constructs were reliable, with alpha coefficients ranging from 0.90 (satisfaction) to 0.92 (perceived value and expectations). Similarly, the CR coefficients were 0.94 for all constructs except expectations (0.95). As all exceeded the suggested minimum of 0.70 (Kock 2017) by a considerable margin, the constructs were considered reliable and retained at this stage.

As mentioned in the previous chapter, an AVE score of 0.50 or higher implies that the construct has more information than noise, which is a good indicator of convergent validity. The AVE scores are in Table 5.4; the constructs’ AVE scores ranged from 0.85 (perceived value) to 0.93 (expectations). All of the AVE scores were considerably higher than the recommended minimum of 0.50, suggesting all of the constructs had convergent validity and that they should be retained at this stage (Appendix G).

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha Coeff.</th>
<th>CR</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image</td>
<td>3</td>
<td>5.41</td>
<td>1.49</td>
<td>0.91</td>
<td>0.94</td>
<td>0.92</td>
</tr>
<tr>
<td>Expectation</td>
<td>3</td>
<td>5.52</td>
<td>1.26</td>
<td>0.92</td>
<td>0.95</td>
<td>0.93</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>3</td>
<td>5.14</td>
<td>1.40</td>
<td>0.91</td>
<td>0.94</td>
<td>0.89</td>
</tr>
<tr>
<td>Perceived Value (Quality, Price, Emotion and Social)</td>
<td>4</td>
<td>5.01</td>
<td>1.20</td>
<td>0.92</td>
<td>0.94</td>
<td>0.85</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>3</td>
<td>5.32</td>
<td>1.58</td>
<td>0.90</td>
<td>0.94</td>
<td>0.91</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>3</td>
<td>5.58</td>
<td>1.43</td>
<td>0.91</td>
<td>0.94</td>
<td>0.92</td>
</tr>
</tbody>
</table>
5.5.2 Assessing the ECSI Model

5.5.2.1 Significance and relevance of the model’s relationships

The ECSI model’s hypothesised relationships, shown in Figure 5.1, were examined using a PLS structural equation modelling (SEM) approach. Here, as in the previous study, the WarpPLS program (Kock 2017) was used to estimate the model, identify the key factors that determine fans’ perceived value with their favourite sporting teams, and determine how that value influenced their satisfaction and, consequently, loyalty to their team.

![Figure 5.1: The estimated ECSI model](image)

The initial model had a good fit to the data, with a GOF index of 0.81 (Tenenhaus et al. 2005). All of the suggested relationships were supported. Image had a small, but significant impact on perceived value ($\beta = 0.16; p < 0.01$) and loyalty ($\beta = 0.37; p < 0.01$), while perceived quality significantly impacted perceived value ($\beta = 0.50; p < 0.01$) and satisfaction ($\beta = 0.23; p < 0.01$). Expectation positively impacted satisfaction...
and perceived value ($\beta = 0.26; p < 0.01$). This differed from Study 2, where expectation did not significantly impact perceived value for money. As expected, perceived value significantly impacted satisfaction ($\beta = 0.48; p < 0.01$) and satisfaction significantly impacted loyalty ($\beta = 0.57; p < 0.01$). The model provided an excellent explanation for endogenous variables with the R-squared statistics ranging from 0.47 (PV) to 0.81 (loyalty).

The results again suggested that the ECSI model explained AFL fans’ perceived value, satisfaction and loyalty. It seems that expectations, perceived quality and image play important roles. In particular, perceived quality (i.e. administrative staff care about their fans) influenced value perceptions and satisfaction. Moreover, image directly impacted fan loyalty.

**Online co-creation behaviour in the ECSI model**

As was the case in Study 2, the current project investigated online customer co-creation behaviour and its influence on customer satisfaction and brand loyalty using the ECSI model as a starting point. The OCCB scale was adapted from the co-creation behaviour scale suggested by Chou, Lin and Huang (2016). Yi and Gong (2013) modelled co-creation behaviour as a third-order construct made up of two reflective second-order dimensions, and it was modelled in this way here. The number of items for each of the first-order reflective dimensions and their means, standard deviations and measurement property indices is in Table 5.5. The highest mean was for online tolerance (4.66) and the lowest mean for online helping (3.79). Internal consistency was again measured by composite reliability and Cronbach’s alpha coefficient. The results indicated that the constructs were reliable, as all the coefficient alphas and CRs exceeded the suggested minimum of 0.70 (Kock 2017). The AVE scores ranged from
0.84 to 0.93, which meant that all were well above the suggested minimum of 0.50, indicating that the first-order OCCB constructs could be used in the subsequent analysis. This information is provided in Appendix H.

Table 5.5: Co-creation behaviour construct’s descriptive statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha Coeff.</th>
<th>CR</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Contribution</td>
<td>4</td>
<td>3.92</td>
<td>1.83</td>
<td>0.94</td>
<td>0.96</td>
<td>0.93</td>
</tr>
<tr>
<td>Behaviour</td>
<td>4</td>
<td>3.79</td>
<td>1.83</td>
<td>0.93</td>
<td>0.95</td>
<td>0.90</td>
</tr>
<tr>
<td>Online Helping</td>
<td>4</td>
<td>3.79</td>
<td>1.83</td>
<td>0.93</td>
<td>0.95</td>
<td>0.90</td>
</tr>
<tr>
<td>Online Feedback</td>
<td>3</td>
<td>4.04</td>
<td>1.79</td>
<td>0.88</td>
<td>0.92</td>
<td>0.90</td>
</tr>
<tr>
<td>Online Advocacy</td>
<td>3</td>
<td>4.34</td>
<td>1.75</td>
<td>0.89</td>
<td>0.93</td>
<td>0.90</td>
</tr>
<tr>
<td>Online Tolerance</td>
<td>3</td>
<td>4.66</td>
<td>1.71</td>
<td>0.79</td>
<td>0.88</td>
<td>0.84</td>
</tr>
</tbody>
</table>

The number of items for the second- and third-order OCCBs and measurement property indices are shown in Table 5.6.

Table 5.6: Co-creation behaviour: Second- and third-order information

<table>
<thead>
<tr>
<th>Construct</th>
<th># of Items</th>
<th>Alpha Coeff.</th>
<th>CR</th>
<th>AVE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Order</strong></td>
<td>4</td>
<td>0.84</td>
<td>0.90</td>
<td>0.83</td>
</tr>
<tr>
<td>Online Extra-Role (Helping, Feedback, Advocacy, Tolerance)</td>
<td>4</td>
<td>0.84</td>
<td>0.90</td>
<td>0.83</td>
</tr>
<tr>
<td><strong>Third Order</strong></td>
<td>2</td>
<td>0.93</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>OCCB (In-Role and Extra-Role)</td>
<td>2</td>
<td>0.93</td>
<td>0.96</td>
<td>0.96</td>
</tr>
</tbody>
</table>
5.5.3 **Online Co-Creation Behaviour within the ECSI Model**

5.5.3.1 **Online co-creation behaviour hypotheses**

The model after adding online co-creation behaviour (OCCB) is in Figure 5.3. As noted previously, OCCB, based on customer interactions in online communities, can be a source of value for participants and a brand. OCCB may increase satisfaction with and loyalty to a brand (Brodie et al. 2013), which explains why OCCB was placed in the model in the way it was.

The revised model—also estimated using the WarpPLS program—had a good fit to the data, with a GOF index of 0.73 (Tenenhaus et al. 2005). As in Figure 5.3, perceived quality had a significant (p <0.01) positive and direct influence on OCCB, with a path coefficient of 0.34. Image had a significant impact (p <0.01) and negative effect on OCCB with a path coefficient of –0.20. This result differs from that in Study 1, where brand image had a positive and significant impact on OCCB. A possible explanation is that the sample in Study 3 was more general, meaning that respondents were less attached to their brand (team) than those in Study 2.

OCCB had a significant and positive impact (p <0.01) on perceived value with a path coefficient of 0.16. This also differs from the results in Study 2, where OCCB had no significant impact on perceived value for money. It seems that the addition of other value dimensions (i.e. social, emotion and quality) can change the nature of this relationship (Sweeney & Soutar 2001), but in this case, OCCB did not impact satisfaction or loyalty.
Figure 0.1: OCCB in the ECSI model

It seems that fans are influenced by the quality they receive from their club (i.e. the club’s willingness to meet fans’ demands and provide customer service). It is also apparent that fans who feel they receive more value from their relationship with their club are more likely to be involved in OCCB.

The central variables were well explained in the new model, with the R-squared statistics being higher than in Study 2. While OCCB was not well explained (R-squared 0.12), it still played a role in the model. However, the relationship between OCCB and behavioural loyalty was not significant (Figure 5.3), which, as noted earlier, may be due to the omission of a mediating construct. As noted earlier, Tachis and Tzetzis (2015) suggested that participation in OCCB may influence attitudinal loyalty, which may, in turn, affect behavioural loyalty. As such, a measure had been included in the questionnaire in Study 3, which was included in the model (Figure 5.4). As the attitudinal loyalty construct in this context had good measurement properties (alpha = 0.95; CR = 0.96; AVE score = 0.92), the revised model was re-
estimated, and the results are in Figure 5.4. The central constructs of the final model were well explained, with the ECSI model relationship R-squared statistics ranging from 0.70 (PV) to 0.83 (loyalty). OCCB was not well explained, as no additional antecedent was included. While attitudinal loyalty was not well explained (R-squared 0.07), OCCB significantly impacted attitudinal loyalty (path coefficient 0.27, p < 0.01) and attitudinal loyalty significantly impacted behavioural loyalty (path coefficient 0.20, p < 0.01).

![Figure 0.2: The final model](image)

5.5.4 The Multi-group Analysis

As there were some differences in the results of Study 2 and Study 3, the data were further investigated. Clear differences between the study samples were the level of team identification, with Study 2 respondents “hard-core fans”, while not all Study 3 respondents were considered the same. Consequently, it was decided to see whether the Study 3 sample could be grouped based on their identification with their team and other fans (Reysen & Branscombe 2010). This was seen as worthwhile, as previous
research has found that fanship influences emotion (Trail, Anderson & Fink 2005), purchase behaviour (Özer & Argan 2006) and participation in social media (Wysocki 2012).

A fanship scale was included in this study that focused on fan identification with their favourite team. The scale was measured using five items and asked on a seven-point Likert-type scale from strongly disagree to strongly agree. These items, adapted from previous research (Reysen & Branscombe 2010), are in Table 5.7.

**Table 5.7: Fanship items**

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am emotionally connected to Team</td>
</tr>
<tr>
<td>I would be devastated if I were told I could not support Team</td>
</tr>
<tr>
<td>I identify strongly with Team</td>
</tr>
<tr>
<td>Being a Team supporter is a part of who I am</td>
</tr>
<tr>
<td>I want to be friends with people who support Team</td>
</tr>
</tbody>
</table>

As the fanship construct had good measurement properties (alpha = 0.92; CR = 0.94; AVE score = 0.88), it was decided that the construct could be used in the subsequent analysis. After calculating the fanship score, the two-step cluster method provided in the SPSS program was used to see whether there were distinct subgroups in the sample. This analysis identified two such groups with very good separation, which were termed die-hard fans (mean score of 6.04) and modest fans (mean score of 3.53). The die-hard fans made up the bulk of the sample (66%), suggesting that people who engage in online co-creation (a requirement of the sample) are more likely to be “hard-core” fans.
Given this outcome, it was decided to re-estimate the final model for each of the subgroups to see whether there were any differences in the relationships in each case. WarpPLS (version 6) enables such an analysis to be undertaken using several approaches (constrained latent growth method, Satterthwaite’s method and the pooled standard error method). In this case, the results were consistent between the three methods, so here we report the results from the constrained latent growth method. While the results indicated the ECSI model relationships were stable across the two groups, this was not the case for the OCCB relationships, as all differed significantly well beyond the 1% level (whether a one-tailed or a two-tailed test was used). Consequently, the two estimated models for the two groups were examined.

Figure 5.5 shows that the die-hard fans’ OCCB did not impact their attitudinal loyalty ($\beta = -0.07; p = 0.14$), which suggests that the attitudinal loyalty of die-hard fans is not affected by their OCCB.

![Figure 0.5: The Estimated model for die-hard fans](image-url)
This was not the case for the modest fans (Figure 5.6), where OCCB significantly (p < 0.01) and positively impacted attitudinal loyalty (β = 0.32). For modest fans, an involvement in OCCB activities increased attitudinal loyalty. However, attitudinal loyalty did not lead to behavioural loyalty, perhaps because such fans are less likely to behave loyally, as evidenced in their means (die-hard fans 6.21 vs modest fans 4.59).

All other relationships for the modest fans were significant, except for the brand image to perceived value path (β = 0.25; p = 0.10) and the OCCB to satisfaction path (β = 0.09; p = 0.17).

**Figure 0.6: Estimated model for modest fans**

### 5.6 Discussion

Study 3 was designed to extend the analysis undertaken in Study 2 and investigated the antecedents to participation in OCCB and the consequences of this online behaviour. The study confirmed the usefulness of the ECSI model and suggested that modelling value as a second-order reflective model (with value for money, social, emotional and quality aspects) worked well in the present sports-related context.
All of the ECSI model’s hypotheses were supported, and more than 80% of the variation in behavioural loyalty was explained, with satisfaction playing an important role in fans’ behavioural loyalty. Further, about 75% of the variation in fans’ value perceptions were explained and perceived value impacted fan satisfaction. Perceived quality again played the most important role, significantly impacting perceived value and satisfaction, which suggests that positive experiences enhance perceived value and satisfaction and, consequently, loyalty.

The expectations construct in this case significantly impacted perceived value and satisfaction, which was not the case in Study 2. This may be because the overall perceived value was included in Study 3, but only value for money was included in Study 2. It seems that meeting fans’ expectations improves value perceptions and satisfaction, supporting some previous studies (Coye 2004; Robinson 2006). Image significantly impacted perceived value but was less important than the other antecedents. However, image directly impacted behavioural loyalty, supporting the results in Study 2.

Online co-creation behaviour significantly impacted perceived value. Co-creating in online communities seemed to increase fans’ overall perceived value, which supports previous suggestions that value perceptions are enhanced through co-creation (Vargo & Lusch 2004). However, relatively few studies have explored the value perceptions of customers who co-create, as most of the related research has focused on a brand’s perceived value (Kumar et al. 2010). Thus, this study adds to our knowledge, as it examined value from a customer perspective.
Perceived quality works had a significant impact on OCCB, which is consistent with the results in Study 2, confirming this study’s contribution to the sports literature. Surprisingly, image negatively impacted OCCB, possibly because the sample in Study 3 was more general and did not include only die-hard fans. Thus, some respondents were less attached to their team and, consequently, less willing to engage in OCCBs, such as participating in brand activities or sharing information about the brand.

The relationships between OCCB, satisfaction and behavioural loyalty were not supported, as OCCB did not impact either construct, which differs from some studies (Brodie et al. 2013; McDonald & Karg 2014). Consequently, as was the case in Study 2, attitudinal loyalty was included in the final model as an antecedent to behaviour loyalty and as an OCCB outcome. As mentioned in Chapter 4, few studies have investigated the relationship between OCCB and different types of loyalty, although Cossio-Silva et al. (2016) did explore offline co-creation behaviour as a loyalty antecedent.

The present study—one of the first to examine this relationship in an online context—identified that OCCB significantly impacted attitudinal loyalty, explaining about 30% of its variance. Further, attitudinal loyalty had a positive relationship with behavioural loyalty, explaining about 20% of its variance. This finding is consistent with previous sports-related research that found a positive relationship between attitudinal loyalty and behavioural loyalty (Bee & Havitz 2010; Tachis & Tzetjis 2015).

Dividing the sample into two groups (die-hard and modest fans) added significant value to the study. The results suggested that die-hard fans would not change their attitudinal loyalty by undertaking OCCB. A possible explanation is that, as they strongly identified with their team, they are already loyal and participating in OCCB.
will not increase this. However, for the die-hard group, attitudinal loyalty significantly impacted behavioural loyalty, suggesting a strong attitude–behaviour link in this case. The modest fans who undertook OCCBs had stronger attitudinal loyalty, suggesting that participation impacted this group. However, the relationship between attitudinal and behavioural loyalty was not significant, suggesting that attitudes are not translated into behaviour for this group.

5.7 Conclusions

Study 3 investigated the antecedents to and consequences of OCCB using the ECSI model as an initial framework with more a general sample of AFL fans. It extended and complemented Study 2. It was clear that the ECSI model was a useful framework in the present sports-related context. While the OCCB construct did not play as strong a role as had been expected, people’s participation did increase their overall value perception and attitudinal loyalty. Multi-group analysis showed OCCB impacted the attitudinal loyalty of modest fans, but not die-hard fans. The next chapter discusses the overall results, along with some theoretical and managerial contributions, limitations and future research.
Chapter 6

Summary and Conclusions

6.1 Introduction

This thesis examined online co-creation behaviour (OCCB) from customers’ perspective. The aim was to examine customer perspectives of OCCB and explore OCCB dimensions and its nomological network. The research was designed to address a gap in the literature by integrating value co-creation (e.g. OCCB) and the European Customer Satisfaction Index (ECSI) model and examine whether the OCCB construct added to our understanding of customer loyalty.

Chapters 3 to 5 presented the three studies undertaken as part of this research project. Each chapter outlined the methods used, results obtained and discussed the results. This final chapter provides an overall summary and discussion of the results from the three studies. The next section summarises and discusses the results, followed by some contributions to knowledge and management implications. Some limitations and future research are then identified.

6.2 A Summary of the Findings

The overall aim of the research project was to examine online co-creation behaviour (OCCB) from a customer (fan) perspective. Few studies have investigated the nature of the OCCB concept or its dimensions. This research addressed this gap and then used the ECSI model framework to see whether customer-to-customer online co-creation behaviour adds to our understanding of customer satisfaction and loyalty.
The first exploratory study identified some co-creation behaviours undertaken by members of online communities dedicated to AFL clubs. Two general types of OCCBs were found and termed in-role (knowledge contribution) behaviours and extra-role (feedback, helping, advocacy and tolerance) behaviours. These behaviours were customer-initiated, designed to build relationships with other community members and motivated by enthusiasm for their club. These exploratory results support the appropriateness of the OCCB construct and its potential usefulness. The project’s exploratory phase also helped to operationalise these constructs for the next quantitative study.

Study 2 and Study 3 were related to the project’s major objective, which was to test the role that customers’ OCCBs play within the ECSI framework. In both studies, the ECSI model was estimated first and identified as a useful framework in the present sports-related context, as it explained most of the variation in fan loyalty to their club. The OCCB construct was then added to the model to determine its usefulness within this framework. These two studies differed in the samples used (Study 2 respondents were members of dedicated online AFL fan communities, and Study 3 respondents were recruited from a commercial panel provider and included people who had been involved in OCCB behaviour but were not necessarily members of an online community). The studies also differed in the way value was operationalised, as value for money was measured in Study 2, while a more general multidimensional value scale (PERVAL) was measured in Study 3. A summary of the results from Study 2 and Study 3 are provided in Table 6.1.
Perceived quality impacted most on perceived value, which differed from some prior ECSI model studies that had suggested image was more important. However, brand image still had the greatest overall impact on loyalty, as its total effect was 0.36, while perceived quality’s overall effect was 0.24. Perceived quality also impacted OCCB, as fans who felt they received good quality service were more likely to undertake OCCB, which is a new contribution to the sports literature. It seems that fans are more likely to perform OCCB if the quality they receive from their club interactions is perceived to be good and this will help to increase perceived value.

Table 06.1: A summary of the results obtained in Study 2 and Study 3

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Study 2 (Online Community Members)</th>
<th>Study 3 (General Fans)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand image → PV (H1a)</td>
<td>Supported</td>
<td>¹Supported</td>
</tr>
<tr>
<td>Brand image → Behavioural Loyalty (H1b)</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>Brand image → OCCB (H6)</td>
<td>Supported</td>
<td>**Significant but not supported</td>
</tr>
<tr>
<td>Expectation → PV (H2a)</td>
<td>Not supported</td>
<td>*Supported</td>
</tr>
<tr>
<td>Expectation → Satisfaction (H2b)</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>PQ → PV (H3a)</td>
<td>Supported</td>
<td>*Supported</td>
</tr>
<tr>
<td>PQ → Satisfaction (H3b)</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>PQ → OCCB (H7)</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>OCCB → PV (H8)</td>
<td>Not Supported</td>
<td>*Supported</td>
</tr>
</tbody>
</table>

* The PERVAL construct was used in Study 3
** Significant, but with a negative sign
Study 3 suggested customers’ perceived value was an important outcome of OCCB. While this was not true in Study 2, where value for money was used, when the PERVAL scale was included, it was clear OCCB significantly impacted fans’ overall value perceptions. Co-creation theory focuses on the impact of co-creation on brand value and how firms gain benefits from co-creation (France et al. 2018). A previous co-creation study explored the value of OCCBs to organisations (Kumar et al. 2010). This study took a customer-centric view and found people who undertook OCCB also obtained value from that performance, providing a new orientation for value co-creation research. OCCBs also had some impact on satisfaction. However, this impact was indirect (through perceived value), as the direct effect was small.

Very little prior research has investigated attitudinal loyalty as a consequence of OCCB, although one study did explore offline co-creation behaviour as a loyalty antecedent (Cossío-Silva et al. 2016). The present study was one of the first to examine this relationship in an online context. The findings suggested that OCCB increases attitudinal loyalty, with fans who participated in helping, knowledge sharing and advocating behaviour in online communities having a greater psychological commitment to the brand (team), which also influenced their behavioural loyalty.
To understand the impact team identification has on OCCB participation, the sample in Study 3 was clustered using this construct. The analysis suggested two groups, termed die-hard fans and modest fans. While both groups participated in OCCB, the die-hard group was more active (t-statistic = 6.13, p < 0.01), as expected. In both groups, perceived quality impacted such participation, but the outcomes differed. The attitudinal loyalty of die-hard fans was not influenced by their OCCB, perhaps because they were already very committed fans. On the other hand, the attitudinal loyalty of modest fans, who identified less strongly with their team, increased when they undertook OCCBs, suggesting that teams could use different strategies when interacting with the two groups.

6.3 Theoretical Contributions

One of the objectives of the present project was to explore OCCBs. The project identified that OCCBs have strong reliability and construct validity and should be modelled as a third-order construct, with two second-order dimensions [i.e. in-role (online knowledge contribution) behaviours and extra-role (online helping, online feedback, online advocacy and online tolerance) behaviours)]. Thus, the project answered the call for further research into the conceptualisation and testing of the OCCB construct (Yi & Gong 2013).

Another major contribution was the validation of a customer-centric OCCB approach. While the co-creation theory focuses on the impact of co-creation on brands (teams) and how organisations benefit from co-creation (France et al. 2018), this research took another direction by focusing on customer-to-customer interactions, termed ‘indirect’ co-creation behaviour. The results suggested that undertaking OCCBs enhances people’s value perceptions, providing an additional theoretical contribution.
In this project, the OCCB construct was placed within the ECSI model, allowing an investigation of the antecedents and consequences of OCCBs, which added knowledge in an area that has had very little prior research (Abeza, O’Reilly & Séguin 2015; Vale & Fernandes 2018). Thus, the project added to our understanding of the relationship between OCCB and some brand-related constructs. Specifically, brand image and perceived quality had direct impacts on customers’ OCCB. Perceived quality, in particular, influenced customer participation in OCCB. OCCB also significantly impacted attitudinal loyalty, a relationship that has been rarely tested in an online context (Cossío-Silva et al. 2016). These finding also made a contribution, as these relationships had not been tested this way before in an online context.

As noted earlier, this project used the ECSI model’s framework in an online environment and added the OCCB construct in a revised model. While the ECSI model has been used by many researchers in different contexts and useful in some situations, it has been rarely used in online contexts. This project was one of the first to do so and, by adding the OCCB construct to the model, the project added to our understanding of the drivers and outcomes of OCCB and, specifically, to online co-creation behaviour.

A multidimensional perceived value scale (PERVAL) (Sweeney & Soutar 2001) was included in the extended ECSI model estimated in Study 3. This four-dimensional scale [with emotional, social, monetary (value for money) and quality value dimensions] was added to the model rather than the value for money scale used in Study 2. There was a significant relationship between the OCCB construct and this more general value construct. Thus, it might be that, a customer undertaking OCCBs (e.g. helping or advocacy) enhances their emotional fulfilment and feels more socially
acceptable; thereby enhancing their overall perception of the value they obtain from their interactions with their team and their team’s supporters. This was one of the first studies to include a multidimensional value measure in the ECSI model, and the results showed that this might be a worthwhile addition to the ECSI model in the future.

This study added to the literature on team sports, which has been identified as an important research area (Filo, Lock & Karg 2015). Most sports-related co-creation studies have been undertaken in offline contexts and focused on transactional behaviour (Yoshida et al. 2014). This mixed methods project added to these studies by applying the S-D logic paradigm of Vargo and Lusch (2004) and using the ECSI framework to better understand OCCBs in an online sports-related context.

6.4 Managerial Implications

This project has provided marketing managers with a model that could help them understand fans’ OCCBs, satisfaction and loyalty. Understanding what drives fans to perform online co-creation has implications for the way sports organisations design online platforms, develop marketing campaigns and enhance their relationships with fans.

By conceptualising OCCB, the findings of this thesis provide managers with improved understanding of the OCCB concept. From the managerial perspective, focusing on the in-role and extra role online behaviour performed by customers and facilitate them could help to improve the relationships between customers and brands. Managers may apply these two types of OCCBs on their affiliated online platforms to maximise perceived value and brand loyalty.
The results found that, when fans participated in OCCB, the value that they perceived from their interactions with the team increased. Indeed, perceived quality had the biggest impact on fans’ OCCB, suggesting that sports organisations need to enhance their customers’ experiences. For example, managers are advised to develop more interactive methods to enhance customers’ relationships and provide fans with good and knowledgeable customer service. By doing so, fans will be motivated to interact on OCs and improve consumer-brand relationships.

Managers also need to improve brand image, for example promote the club as an honest and good place to work especially for die-hard fans, as a strong image impacts fan participation in OCCBs.

Based on the importance of fan interactions, clubs need to ensure that their online platforms allow fan-to-fan interactions with no control from the club and provide them with a leading role. By doing so, clubs should attract a stronger fan base. Moreover, the results suggested that OCCBs can increase attitudinal loyalty and that this enhances behavioural loyalty. Interestingly, as OCCBs impacted the attitudinal loyalty of modest (rather than die-hard) fans, sports managers need to increase their efforts when targeting such fans to participate in club-related online platforms, as this will increase their loyalty. The results suggest that the best way to do this is by increasing the quality of the interactions that fans have with their club.

6.5 Limitations and Future Research

The results described in the present project contributed to our existing knowledge about OCCBs in general and in a sports-related context in particular. The project confirmed the dimensionality of the OCCB construct and increased our understanding
of customer co-creation behaviour in an online sports-related environment. However, as with all studies, there are limitations and some areas for future research.

First, in addition to the S-D logic and ECSI frameworks used here, other theories might be relevant to our understanding of OCCB in sports. For example, in future research the Uses and Gratifications theory, which has been widely used in social media studies (e.g. Vale & Fernandes 2018) could shed additional light on what motivates customers to co-create in online platforms.

Second, the results of this project were based on samples of people who were members of online communities or who had recently undertaken relevant OCCBs. Future research might look at other types of ‘online people’ (e.g. visitors or lurkers). Such research could provide a more comprehensive understanding of different types of fans and, hopefully, such research would provide managers with a better understanding of the factors that motivate different types of fans to participate in OCCBs.

Third, the netnography approach undertaken within the qualitative study using a deductive approach (following Brodie et al (2013)) has been criticised, as most qualitative research uses an inductive process (Hyde 2000). However, the netnography served its objective, as it was designed to explore the OCCB construct and advance our understanding of OCCBs by providing information about the types of behaviours that might be included when measuring the OCCB construct and to see whether OCCBs occurred in fan-based online communities. Future research might adopt a more rigorous qualitative research approach, as this is likely to provide more insights into sports fans’ OCCBs.
Fourth, the data collected in Study 2 was obtained from some fan-based online communities. Many of the items had very skewed distributions because these people were very attached (die-hard) fans. This led to the third study that used a more general sample and included modest, as well as die-hard, fans. However, even in this study, most respondents were die-hard fans, as they were required to have undertaken some form of online interaction with their team to be a member of the sample. Future research should examine the relationships examined here with a more general sample of fans to see if the results remain consistent.

Fifth, the relationship between OCCB and both loyalty constructs could be extended. This is one of the first research projects to provide empirical evidence that OCCB enhances attitudinal loyalty in a team sports context. However, behavioural loyalty was not impacted by OCCB, perhaps because the loyalty scale was obtained from a previous study (Chitty, Ward & Chua 2007). Future research should examine behavioural loyalty in more detail to see if a more general scale can be developed, as this would improve our understanding of the relationship between OCCB and behavioural loyalty.

Sixth, the direct impact of the suggested drivers on customers’ OCCB was relatively small. Different drivers should be explored in future research, such as the customer-related drivers recently suggested by France et al. (2018) (e.g. category involvement and brand-self congruity).

Seventh, this study did not include demographic factors when estimating the models of interest, as this was not one of the project’s objectives. However, some sports studies have suggested that demographic factors (e.g. gender and age) may influence participation in offline co-creation (Berndt et al. 2013). Thus, future research should
investigate the role of these factors in online co-creation.

Finally, this study focused only on the behavioural aspect of customers’ online co-creation, future research might examine another facets like customers’ motivation to participate in online co-creation and attitude formation (Findsrud, Bård & Bo 2018).
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Appendix 1 Study Two survey: Online sport fans co-creation behaviour

1. Start of Block: Information and consent

Appendix A Study Two Survey

Dear Participant,

Thank you for participating in this survey. We really appreciate your time and valuable contribution.

Aims of the project: This PhD project is investigating engagement of online customers in sport.

About the questionnaire: The questionnaire will take approximately 10 minutes to complete and most questions only require you to tick a box. Please take as much time as you need to answer the questions.

Protection of privacy: The information you provide will be treated as strictly confidential. Under no circumstances will any information be released about you as an individual.

Voluntary participation: Participation in this study is voluntary. You can withdraw at any point without reason if you feel the need to do so, in which case your questions will not be recorded.

Consent: Completion of the questionnaire will be taken as evidence of consent to participate in the study.

Approval to conduct this research has been provided by the University of Western Australia with reference number (RA/4/1/7111), in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time by contacting the Chief Investigator, Winthrop Professor Geoff Soutar on (08) 6488 7885 or geoff.soutar@uwa.edu.au.

In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Research Ethics Office at The University of Western Australia on (08) 6488 3703 or by emailing to hreo-
All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.

Your participation in this study does not prejudice any right to compensation, which you may have under statute or common law.

Thank you for your participation,
W/Professor Geoff Soutar
The University of Western Australia
UWA Business School
M263, 35 Stirling Highway
Crawley, Western Australia 6009
Email: geoff.soutar@uwa.edu.au
Please DO NOT USE the 'Back' and 'Forward' buttons on your browser. Use the buttons at the bottom of each screen.

End of Block: Information and consent

2. Start of Block: Screening Questions
Q2 Which AFL team do you support?

- Adelaide Football Club (1)
- Brisbane Lions (2)
- Carlton Football Club (3)
- Collingwood Football Club (4)
- Essendon Football Club (5)
- Fremantle Football Club (6)
- Geelong Football Club (7)
- Gold Coast Football Club (8)
- Greater Western Sydney Giants (9)
- Hawthorn Football Club (10)
- Melbourne Football Club (11)
- North Melbourne Football Club (12)
- Port Adelaide Football Club (13)
- Richmond Football Club (14)
- St Kilda Football Club (15)
- Sydney Swans (16)
- West Coast Eagles (17)
- Western Bulldogs (18)
Q3 Are you a member of the club you support?

- Yes (1)
- No (3)

Q4 How long have you been a member of the club?

- Less than one year (4)
- 1-5 years (5)
- 5-10 years (6)
- 10-15 years (7)
- More than 15 years (8)

Q5 Are you a member of the BigFooty online forum?

- Yes (1)
- No (3)

Display This Question:
- If Are you a member of the club you support? = Yes

Display This Question:
- If Are you a member of the BigFooty online forum? = Yes
Q6 How long have you been a member of the BigFooty online Forum (in years)

- Less than one year (4)
- 1-5 years (5)
- 5-10 years (6)
- 10-15 years (7)
- More than 15 years (8)
Q7 Please indicate which of these things you have done in the last year

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes (1)</th>
<th>No (2)</th>
<th>Cannot recall (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you visited the official website for your AFL club? (8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have your bought tickets to any of their games (tick 'Yes' if tickets are included as part of your membership)? (9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you wear clothes or carry accessories with team colours to indicate your support for the team? (10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you read articles about the team? (11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you watched anything on TV featuring your team? (12)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you visited your team’s social network pages? (13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you participated in other unofficial online forums about your team? (14)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

End of Block: Screening Questions
3. Start of Block: online

- Display This Question:
  - If Are you a member of the BigFooty online forum? = Yes
Q8 Please indicate the extent to which you agree or disagree with the following statements
(please answer these questions about your **online behaviour** only)
<table>
<thead>
<tr>
<th>I assist other members of the BigFooty community if they need help (14)</th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I help other members of the BigFooty community if they seem to have problems (15)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>I teach members of the BigFooty community if they need help solving problems (16)</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>I give advice to other members of the BigFooty community (17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If information is not delivered as I expected on the BigFooty, I don't get upset (18)

I am tolerant when other members of the BigFooty community make a mistake (19)

I am patient if I have to wait longer than expected to receive information on the BigFooty website (20)
Q9 Please indicate the extent to which you agree or disagree with the following statements
(please answer these questions about your online behaviour only)
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (36)</th>
<th>(37)</th>
<th>(38)</th>
<th>(39)</th>
<th>(40)</th>
<th>(41)</th>
<th>Strongly agree (42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel I belong to the BigFooty community (1)</td>
<td></td>
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<td></td>
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<tr>
<td>Exchanging opinions with other members of the BigFooty community is important to me (2)</td>
<td></td>
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<tr>
<td>I expect I will continue to participate in the BigFooty website activities (3)</td>
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<tr>
<td>I am an active participant of the BigFooty community (4)</td>
<td></td>
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</tr>
<tr>
<td>I like to share memories about the team with people on the BigFooty website (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
I like to share **pleasant** memories of the team's past with people on BigFooty website (6)

I like to talk about the team's good times from the past with people on BigFooty website (7)

End of Block: online continue

5. Start of Block: Online continue

- Display This Question:

- If Are you a member of the BigFooty online forum? = Yes
Q10 Please indicate the extent to which you agree or disagree with the following statements
(please answer these questions about your online **behaviour** only)
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I spend a lot of time sharing things on the BigFooty website (4)</td>
<td></td>
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<tr>
<td>I actively share my knowledge with others on the BigFooty website (5)</td>
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<td></td>
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</tr>
<tr>
<td>I usually get involved when complicated issues are discussed on the BigFooty website (6)</td>
<td></td>
<td></td>
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<tr>
<td>I involve myself in discussions of numerous issues on the BigFooty website (7)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>If I have additional useful information, I let others on the BigFooty website know (8)</td>
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<td>--------------------------------------------------------------------------</td>
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<td></td>
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</tr>
<tr>
<td>When I receive valuable information from others on the BigFooty Website, I comment on it (9)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>When I experience a problem, I let others know about it on the BigFooty website (10)</td>
<td></td>
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</tr>
<tr>
<td>I say positive things about the BigFooty website to other people (11)</td>
<td></td>
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</tr>
<tr>
<td>I recommend the BigFooty website to others (12)</td>
<td></td>
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</tr>
<tr>
<td>I encourage my friends and relatives to get involved with the BigFooty website (13)</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Q11 Please indicate the extent to which you agree or disagree with the following
statements (please answer these questions about your offline behaviour only)
<table>
<thead>
<tr>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing could change my allegiance to my favorite team (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I am a committed fan to my team (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I could never switch my loyalty from my team, even if my close friends were fans of another team (5)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>It is unlikely I would change my allegiance from my team (6)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>It would be difficult to change my beliefs about my team (7)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I often put up my team's name or banner (16)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Rating</td>
<td></td>
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<tr>
<td>---------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>I often purchase my team's merchandise (17)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I often wear my team's colours (18)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I often sing my team song (19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

End of Block: Offline

7. Start of Block: offline continue

Q12 Please indicate the extent to which you agree or disagree with the following
statements (please answer these questions about your offline behaviour only)
<table>
<thead>
<tr>
<th>I am a responsible fan who respects and complies with all rules (i.e., following instructions and respecting others) (1)</th>
<th>Strongly disagree (15)</th>
<th>(16)</th>
<th>(17)</th>
<th>(18)</th>
<th>(19)</th>
<th>(20)</th>
<th>Strongly agree (21)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I complete all the behaviors required of me as a fan (i.e., cheering) (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I fulfill my responsibilities to my club (attending games and wearing team colours) (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I have a useful suggestion about how to improve things, I let my club know (4)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I receive good service from a club employee, I provide feedback on it (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When I experience a problem, I let a club employee know about it (6)

End of Block: offline continue

8. Start of Block: offline Continue

Q13 Please indicate the extent to which you agree or disagree with the following
statements (please answer these questions about your offline behaviour only)
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I assist other fans of my team if they need my help</td>
<td>(20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I help other fans of the team if they seem to be having problems</td>
<td></td>
<td>(21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I give advice to other fans of the team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I say positive things about my team and their employees to other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I recommend my club and their employees to others</td>
<td>(27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I encourage my friends and relatives to support my club</td>
<td>(28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If service is not delivered by my club the way I expect, I will put up with it (54)

I am willing to be patient if an employee of my club makes a mistake (55)

If I have to wait longer than expected when dealing with my club, I am willing to put up with it (56)

9. Start of Block: Offline continue

Q14 Please indicate the extent to which you agree or disagree with the following
* statements (please answer these questions about your offline behaviour only).
<table>
<thead>
<tr>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am emotionally connected to the team (36)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would be devastated if I were told I could not support my team (40)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I identify strongly with my team (41)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Being a supporter of my team is part of who I am (43)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I want to be friends with people who support my team (44)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am happy about my club mentoring young players in the local community (51)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
I am happy about my team supporting charity initiatives (53)

I am happy about my team promoting volunteering (54)

I am happy that my team promotes their players as role models for the community (55)

I am happy that my team promotes well-being in the local community (56)

End of Block: Offline continue

10. Start of Block: ECSI Expectation
Q15 Please rate the following statements that ask about your expectations about your club

<table>
<thead>
<tr>
<th></th>
<th>Very Low (34)</th>
<th>(35)</th>
<th>(36)</th>
<th>(37)</th>
<th>(38)</th>
<th>(39)</th>
<th>Very High (40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My overall expectations of my club as an organisation are (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My overall expectations of the way my club treats fans are (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My overall expectations of my club to meet my needs are (7)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

End of Block: ECSI Expectation

11. Start of Block: ECSI Model

icable
Q16 Almost done!
please indicate the extent to which you agree or disagree with the
ollowing statements
(please answer these questions about your club environment).
<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>My club is honest (2)</td>
<td></td>
</tr>
<tr>
<td>My club is customer-oriented (3)</td>
<td></td>
</tr>
<tr>
<td>My club is professionally run (5)</td>
<td></td>
</tr>
<tr>
<td>My club would be a good place to work (6)</td>
<td></td>
</tr>
<tr>
<td>My club provides fans with a great experience (12)</td>
<td></td>
</tr>
<tr>
<td>My club is willing to meet fans' demands (13)</td>
<td></td>
</tr>
<tr>
<td>The total benefits I receive as a fan are <strong>competitive</strong> with the benefits received by fans of other professional sport teams (14)</td>
<td></td>
</tr>
<tr>
<td>My club's administrative staff are experienced (15)</td>
<td></td>
</tr>
</tbody>
</table>
My club's administrative staff care about their fans (16)

My club's administrative staff are easy to contact (17)

My club's administrative staff are knowledgeable (18)
Q17 Please indicate the extent to which you agree or disagree with the following statements
(please answer these questions about your club environment).
<table>
<thead>
<tr>
<th>My club offers reasonably priced products and services (19)</th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The products and services available to fans are good for the price (20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club offers fans good value for money (21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's products and services are generally economical (22)</td>
<td></td>
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</tr>
<tr>
<td>I am satisfied with the interactions I have with my club (23)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Score</td>
<td></td>
<td></td>
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<tr>
<td>--------------------------------------------------------------------------</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with the interactions I have with other fans of my club</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(24)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All things considered, I am satisfied that I support my club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(26)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I were faced with the same choice again, I would still support my</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>club (27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often watch my team's games on TV (29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often recommend my team to my friends (30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often follow reports about my team in the media (31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

End of Block: ECSI continue
13. Start of Block: Background information

Q18 Finally, we just have a few background questions. Your answers to these questions are confidential, and cannot be used to identify you personally.

Q19 In what year were you born?

▼ 2010 (131) ... 1915 (94)

Q20 What is your gender?

- Male (1)
- Female (2)

Q21 What is the highest level of education you have completed?

- Some High School (1)
- Completed High School (2)
- Technical diploma/degree (3)
- University degree (undergraduate) (4)
- University degree (postgraduate) (5)
- Trade qualification (6)
- Other, please specify (7)
Q22 Which of the following best describes your work status?

- Employed full-time (1)
- Employed part-time (2)
- Unemployed (3)
- Not in the labour force (e.g. student, home duties, retired) (4)

Q23 Which one of the following categories best describes your total household annual gross income (before tax)?

- $1-$5000 (i.e. $1-$96 a week) (1) ... Prefer not to answer (0)

End of Block: Background information

14. Start of Block: Incentive

Q24 Do you would like to get in the draw for 5 guernseys of your favorite team? (if you answer Yes and to keep your response anonymous, you will be taken to a second survey to enter your email).

- Yes (1)
- No (4)

End of Block: Incentive
### Appendix B  Means and Standard deviations for each item in study Two

<table>
<thead>
<tr>
<th>OCCB Constructs</th>
<th>Construct</th>
<th>items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Online helping</td>
<td>I assist other members of the BigFooty community if they need help</td>
<td>4.05</td>
<td>1.781</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I help other members of the BigFooty community if they seem to have problems</td>
<td>3.91</td>
<td>1.711</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I teach members of the BigFooty community if they need help solving problems</td>
<td>3.53</td>
<td>1.751</td>
</tr>
<tr>
<td></td>
<td>Online tolerance</td>
<td>If information is not delivered as I expected on the BigFooty, I don't get upset</td>
<td>5.16</td>
<td>1.552</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I am tolerant when other members of the BigFooty community make a mistake</td>
<td>5.11</td>
<td>1.423</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I am patient if I have to wait longer than expected to receive information on the BigFooty website</td>
<td>4.80</td>
<td>1.561</td>
</tr>
<tr>
<td></td>
<td>Online knowledge contribution behaviour</td>
<td>I spend a lot of time sharing things on the BigFooty website</td>
<td>3.53</td>
<td>1.816</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I actively share my knowledge with others on the BigFooty website</td>
<td>4.26</td>
<td>1.707</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I usually get involved when complicated issues are discussed on the BigFooty website</td>
<td>3.69</td>
<td>1.753</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I involve myself in discussions of numerous issues on the BigFooty website</td>
<td>4.10</td>
<td>1.781</td>
</tr>
<tr>
<td>OCCB Constructs</td>
<td>Online Feedback</td>
<td>If I have additional useful information, I let others on the BigFooty website know</td>
<td>4.60</td>
<td>1.731</td>
</tr>
<tr>
<td>OCCB Constructs</td>
<td>Online Feedback</td>
<td>When I receive valuable information from others on the BigFooty Website, I comment on it</td>
<td>4.53</td>
<td>1.684</td>
</tr>
<tr>
<td>OCCB Constructs</td>
<td>Online Feedback</td>
<td>When I experience a problem, I let others know about it on the BigFooty website</td>
<td>3.07</td>
<td>1.632</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Online Advocacy</td>
<td>I say positive things about the BigFooty website to other people</td>
<td>4.62</td>
<td>1.611</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Online Advocacy</td>
<td>I recommend the BigFooty website to others</td>
<td>4.11</td>
<td>1.738</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Online Advocacy</td>
<td>I encourage friends and relatives to get involved with the BigFooty website</td>
<td>3.02</td>
<td>1.662</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Expectations</td>
<td>My overall expectations of my club as an organisation are</td>
<td>5.78</td>
<td>1.354</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Expectations</td>
<td>My overall expectations of the way my club treats fans are</td>
<td>5.91</td>
<td>1.333</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Expectations</td>
<td>My overall expectations of my club to meet my needs are</td>
<td>5.38</td>
<td>1.332</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Brand Image</td>
<td>My club is honest</td>
<td>5.13</td>
<td>1.525</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Brand Image</td>
<td>My club is professionally run</td>
<td>5.64</td>
<td>1.429</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Brand Image</td>
<td>My club would be a good place to work</td>
<td>5.53</td>
<td>1.398</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Perceived Quality</td>
<td>The total benefits I receive as a fan are competitive with the benefits received by fans of other professional sport teams</td>
<td>5.06</td>
<td>1.471</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Perceived Quality</td>
<td>My club's administrative staff care about their fans</td>
<td>5.14</td>
<td>1.463</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Perceived Quality</td>
<td>My club's administrative staff are knowledgeable</td>
<td>5.22</td>
<td>1.389</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Description</td>
<td>Mean</td>
<td>Standard Deviation</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Perceived Value for money</strong></td>
<td>My club offers reasonably priced products and services</td>
<td>4.72</td>
<td>1.312</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The products and services available to fans are good for the price</td>
<td>4.68</td>
<td>1.498</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My club offers fans good value for money</td>
<td>5.00</td>
<td>1.558</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My club's products and services are generally economical</td>
<td>4.65</td>
<td>1.493</td>
<td></td>
</tr>
<tr>
<td><strong>Customer Satisfaction</strong></td>
<td>I am satisfied with the interactions I have with my club</td>
<td>5.48</td>
<td>1.532</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am satisfied with the interactions I have with other fans of my club</td>
<td>5.56</td>
<td>1.380</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All things considered, I am satisfied that I support my club</td>
<td>6.26</td>
<td>1.227</td>
<td></td>
</tr>
<tr>
<td><strong>Behavioral loyalty with the brand</strong></td>
<td>If I were faced with the same choice again, I would still support my club</td>
<td>6.48</td>
<td>1.172</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I often watch my team's games on TV</td>
<td>6.53</td>
<td>1.137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I often follow reports about my team in the media</td>
<td>6.38</td>
<td>1.664</td>
<td></td>
</tr>
<tr>
<td><strong>Psychological commitment to the team</strong></td>
<td>Nothing could change my allegiance to my favorite team</td>
<td>6.40</td>
<td>1.197</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am a committed fan to my team</td>
<td>6.60</td>
<td>1.234</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I could never switch my loyalty from my team, even if my close friends were fans of another team</td>
<td>6.70</td>
<td>.837</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It is unlikely I would change my allegiance from my team</td>
<td>6.76</td>
<td>.955</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It would be difficult to change my beliefs about my team</td>
<td>5.96</td>
<td>.760</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix C  Correlations among the ECSI model latent variables for study two

<table>
<thead>
<tr>
<th></th>
<th>Customer satisfaction</th>
<th>Behavioural Loyalty</th>
<th>Brand image</th>
<th>Perceived value for money</th>
<th>Perceived Quality</th>
<th>Expectation</th>
<th>OCCB</th>
<th>Attitudinal loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td>(0.839)</td>
<td>0.641</td>
<td>0.678</td>
<td>0.570</td>
<td>0.652</td>
<td>0.497</td>
<td>0.186</td>
<td>0.359</td>
</tr>
<tr>
<td>Behavioural Loyalty</td>
<td>0.641</td>
<td>(0.856)</td>
<td>0.517</td>
<td>0.235</td>
<td>0.360</td>
<td>0.287</td>
<td>0.080</td>
<td>0.325</td>
</tr>
<tr>
<td>Brand image</td>
<td>0.678</td>
<td>0.517</td>
<td>(0.858)</td>
<td>0.639</td>
<td>0.739</td>
<td>0.574</td>
<td>0.160</td>
<td>0.361</td>
</tr>
<tr>
<td>Perceived value for money</td>
<td>0.570</td>
<td>0.235</td>
<td>0.639</td>
<td>(0.921)</td>
<td>0.711</td>
<td>0.484</td>
<td>0.168</td>
<td>0.317</td>
</tr>
<tr>
<td>Perceived Quality</td>
<td>0.652</td>
<td>0.360</td>
<td>0.739</td>
<td>0.711</td>
<td>(0.847)</td>
<td>0.575</td>
<td>0.167</td>
<td>0.349</td>
</tr>
<tr>
<td>Expectations</td>
<td>0.497</td>
<td>0.287</td>
<td>0.574</td>
<td>0.484</td>
<td>0.575</td>
<td>(0.881)</td>
<td>0.127</td>
<td>0.391</td>
</tr>
<tr>
<td>OCCB</td>
<td>0.186</td>
<td>0.080</td>
<td>0.160</td>
<td>0.168</td>
<td>0.167</td>
<td>0.127</td>
<td>(0.947)</td>
<td>0.145</td>
</tr>
<tr>
<td>Attitudinal loyalty</td>
<td>0.359</td>
<td>0.325</td>
<td>0.361</td>
<td>0.317</td>
<td>0.349</td>
<td>0.391</td>
<td>0.145</td>
<td>(0.802)</td>
</tr>
</tbody>
</table>
### Appendix D  Correlations among the OCCB latent variables for study two

<table>
<thead>
<tr>
<th></th>
<th>Online Helping</th>
<th>Online Tolerance</th>
<th>Knowledge contribution behaviour</th>
<th>Feedback</th>
<th>Online Advocacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Helping</td>
<td>(0.918)</td>
<td>0.114</td>
<td>0.654</td>
<td>0.642</td>
<td>0.259</td>
</tr>
<tr>
<td>Online Tolerance</td>
<td>0.114</td>
<td>(0.770)</td>
<td>0.082</td>
<td>0.131</td>
<td>0.121</td>
</tr>
<tr>
<td>Knowledge contribution behaviour</td>
<td>0.654</td>
<td>0.082</td>
<td>(0.833)</td>
<td>0.806</td>
<td>0.390</td>
</tr>
<tr>
<td>Online Feedback</td>
<td>0.642</td>
<td>0.131</td>
<td>0.806</td>
<td>(0.823)</td>
<td>0.387</td>
</tr>
<tr>
<td>Online Advocacy</td>
<td>0.259</td>
<td>0.121</td>
<td>0.390</td>
<td>0.387</td>
<td>(0.861)</td>
</tr>
</tbody>
</table>
Appendix 2 Study Three Questionnaire

Q1
Dear Participant,

Thank you for participating in this survey. We really appreciate your time and valuable contribution.

Aims of the project: This PhD project is investigating engagement of online customers in sport.

About the questionnaire: The questionnaire will take approximately 10 minutes to complete and most questions only require you to tick a box. Please take as much time as you need to answer the questions.

Protection of privacy: The information you provide will be treated as strictly confidential. Under no circumstances will any information be released about you as an individual.

Voluntary participation: Participation in this study is voluntary. You can withdraw at any point without reason if you feel the need to do so, in which case your questions will not be recorded.

Consent: Completion of the questionnaire will be taken as evidence of consent to participate in the study.

Approval to conduct this research has been provided by the University of Western Australia with reference number (RA/4/1/7111), in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time by contacting the Chief Investigator, Winthrop Professor Geoff Soutar on (08) 6488 7885 or geoff.soutar@uwa.edu.au.

In addition, any person not satisfied with the response of researchers may raise ethics issues or concerns, and may make any complaints about this research project by contacting the Human Research Ethics Office at The University of Western Australia on (08) 6488 3703 or by emailing to hreo-research@uwa.edu.au

All research participants are entitled to retain a copy of any Participant Information Form and/or Participant Consent Form relating to this research project.

Your participation in this study does not prejudice any right to compensation, which you may have under statute or common law.
Thank you for your participation

W/Professor Geoff Soutar
The University of Western Australia
UWA Business School
M263, 35 Stirling Highway
Crawley, Western Australia 6009
Email: geoff.soutar@uwa.edu.au
Please DO NOT USE the 'Back' and 'Forward' buttons on your browser. Use the buttons at the bottom of each screen.

End of Block: Information and consent

Start of Block: Screening Questions
Q2 Which AFL team do you support?

- Adelaide Football Club (1)
- Brisbane Lions (2)
- Carlton Football Club (3)
- Collingwood Football Club (4)
- Essendon Football Club (5)
- Fremantle Football Club (6)
- Geelong Football Club (7)
- Gold Coast Football Club (8)
- Greater Western Sydney Giants (9)
- Hawthorn Football Club (10)
- Melbourne Football Club (11)
- North Melbourne Football Club (12)
- Port Adelaide Football Club (13)
- Richmond Football Club (14)
- St Kilda Football Club (15)
- Sydney Swans (16)
- West Coast Eagles (17)
- Western Bulldogs (18)
Q3 Are you a member of the club you support?

- Yes (1)
- No (3)

Display This Question:

If Are you a member of the club you support? = Yes

Q4 How long have you been a member of the club?

- Less than one year (4)
- 1-5 years (5)
- 5-10 years (6)
- 10-15 years (7)
- More than 15 years (8)

Q5 Do you consider yourself to be a member of your club's online community?

- Yes (1)
- No (3)

Skip To: End of Survey If Do you consider yourself to be a member of your club's online community? = No
Q6 Are you a member of your club's official online community?

- Yes (1)
- No (2)

Display This Question:

If Are you a member of your club's official online community? = Yes

Q7 How long have you been a member of this online forum (in years)

- Less than one year (4)
- 1-5 years (5)
- 5-10 years (6)
- 10-15 years (7)
- More than 15 years (8)
Q8 Please indicate which of these things you have done in the last year

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes (1)</th>
<th>No (2)</th>
<th>Cannot recall (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you visited the official website for your AFL club? (8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you bought tickets to any of their games (tick 'Yes' if tickets are included as part of your membership)? (9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you wear clothes or carry accessories with team colours to indicate your support for the team? (10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you read articles about the team? (11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you watched anything on TV featuring your team? (12)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you visited your team's social network pages? (13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you participated in other unofficial online forums about your team? (14)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

End of Block: Screening Questions
If Do you consider yourself to be a member of your club's online community? = Yes
Q9 Please indicate the extent to which you agree or disagree with the following statements

(please answer these questions about your online behaviour only)
<table>
<thead>
<tr>
<th>I assist other fans in my team's online community if they need help (14)</th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I help other fans in my team's online community if they are having problems (15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I teach fans in my team's online community if they need help solving problems (16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I give advice to other fans in my team's online community (17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
If information is not delivered as I expect on my team's online community, I don't get upset (18)

I am tolerant when other fans in my team's online community make mistakes (19)

I am patient if I have to wait longer than expected to receive information from my team's online community (20)
Display This Question:

*If Do you consider yourself to be a member of your club’s online community? = Yes*
Q10 Please indicate the extent to which you agree or disagree with the following statements

(please answer these questions about your online *behaviour* only)
<table>
<thead>
<tr>
<th>Strongly disagree (36)</th>
<th>(37)</th>
<th>(38)</th>
<th>(39)</th>
<th>(40)</th>
<th>(41)</th>
<th>Strongly agree (42)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel I belong to my team's online community (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Exchanging opinions with people in my team's online community is important to me (2)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I expect I will continue to participate in my team's online community (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am an active participant in my team's online community (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
I like to share memories about the team with people in my team's online community.
(5)

I like to share **pleasant** memories of the team's past with people in my team's online community.
(6)

I like to talk about the team's good times from the past with people in my team's online community.
(7)
<table>
<thead>
<tr>
<th>Display This Question:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>If Do you consider yourself to be a member of your club's online community? = Yes</em></td>
</tr>
</tbody>
</table>
Q11 Please indicate the extent to which you agree or disagree with the following statements

(please answer these questions about your online **behaviour** only)
<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I spend a lot of time sharing things with people on my team's online community (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I actively share my knowledge with other people in my team's online community (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually get involved when complicated issues are discussed in my team's online community (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I involve myself in discussions of numerous issues in my team's online community (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If I have additional useful information, I let others in my team's online community know about it (8)

When I receive valuable information from others in my team's online community, I comment on it (9)

When I experience a problem, I let others in my team's online community know about it (10)

I say positive things about my team's online community to other people (11)
<table>
<thead>
<tr>
<th>I recommend my team's online community to others (12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I encourage my friends and relatives to get involved with my team's online community (13)</td>
</tr>
</tbody>
</table>

End of Block: Online continue

Start of Block: Offline
Q12 Please indicate the extent to which you agree or disagree with the following statements (please answer these questions about your offline behaviour only)
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing could change my allegiance to my favorite team (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a committed fan to my team (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I could never switch my loyalty from my team, even if my close friends were fans of another team (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is unlikely I would change my allegiance from my team (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It would be difficult to change my beliefs about my team (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q13 Please indicate the extent to which you agree or disagree with the following statements (please answer these questions about your offline behaviour only).
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am emotionally connected to the team</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would be devastated if I were told I could not support my team</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I identify strongly with my team</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Being a supporter of my team is part of who I am</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I want to be friends with people who support my team</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am happy about my club mentoring young players in the local community</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
I am happy about my team supporting charity initiatives (53)

I am happy about my team promoting volunteering (54)

I am happy that my team promotes their players as role models for the community (55)

I am happy that my team promotes well-being in the local community (56)
Q14 Please rate the following statements that ask about your expectations about your club

<table>
<thead>
<tr>
<th></th>
<th>Very Low (34)</th>
<th>(35)</th>
<th>(36)</th>
<th>(37)</th>
<th>(38)</th>
<th>(39)</th>
<th>Very High (40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My overall expectations of my club as an organisation are (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My overall expectations of the way my club treats fans are (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My overall expectations of my club to meet my needs are (7)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

End of Block: ECSI Expectation

Start of Block: ECSI Model

Q15 Almost done!

please indicate the extent to which you agree or disagree with the
following statements

(please answer these questions about your club environment).
<table>
<thead>
<tr>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My club is honest (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club is customer-oriented (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club is professionally run (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club would be a good place to work (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club provides fans with a great experience (12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club is willing to meet fans' demands (13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total benefits I receive as a fan are <strong>competitive</strong> with the benefits received by fans of other professional sport teams (14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's administrative staff are experienced (15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's administrative staff care about their fans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's administrative staff are easy to contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's administrative staff are knowledgeable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q16 Please indicate the extent to which you agree or disagree with the following statements

(please answer these questions about your club environment).
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My club offers reasonably priced products and services (19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The products and services available to fans are good for the price (20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club offers fans good value for money (21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's products and services are generally economical (22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with the interactions I have with my club (23)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Option 1</td>
<td>Option 2</td>
<td>Option 3</td>
<td>Option 4</td>
<td>Option 5</td>
<td>Option 6</td>
<td>Option 7</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>I am satisfied with the interactions I have with other fans of my club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All things considered, I am satisfied that I support my club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I were faced with the same choice again, I would still support my club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often watch my team's games on TV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often recommend my team to my friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often follow reports about my team in the media</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
End of Block: ECSI continue

Start of Block: Perceived Value
Q17 Please indicate the extent to which you agree or disagree with the following statements

(please answer these questions about your club).
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>Strongly agree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The products my club sells have consistent quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The products my club sells are well made</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The products my club sells have an acceptable standard of quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My club's products perform consistently well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy being a fan of my club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a fan of my club gives me pleasure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel relaxed about being a fan of my club</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Option 1</td>
<td>Option 2</td>
<td>Option 3</td>
<td>Option 4</td>
<td>Option 5</td>
<td>Option 6</td>
<td>Option 7</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>I want to use the products my club sells (27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a fan of my club makes me feel acceptable (29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being a fan of my club improves the way I am perceived (30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My being a fan of my club creates a good impression on other people (31)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get social approval through being a fan of my club (32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

End of Block: Perceived Value

Start of Block: Background information
Q18 Finally, we just have a few background questions. Your answers to these questions are confidential, and cannot be used to identify you personally.

Q19 In what year were you born?

▼ 2010 (131) ... 1915 (94)

Q20 What is your gender?

   O Male (1)

   O Female (2)
Q21 What is the highest level of education you have completed?

- Some High School (1)
- Completed High School (2)
- Technical diploma/degree (3)
- University degree (undergraduate) (4)
- University degree (postgraduate) (5)
- Trade qualification (6)
- Other, please specify (7)

Q22 Which of the following best describes your work status?

- Employed full-time (1)
- Employed part-time (2)
- Unemployed (3)
- Not in the labour force (e.g. student, home duties, retired) (4)
Q23 Which one of the following categories best describes your total household annual gross income (before tax)?

▼ $1-$5000 (i.e. $1-$96 a week) (1) ... Prefer not to answer (0)

End of Block: Background information
# Appendix E  Study three means and standard deviations for the scales’ items

<table>
<thead>
<tr>
<th>Constructs</th>
<th>items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCCB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Helping</td>
<td>I assist other members of (Team’s) website community if they need my help.</td>
<td>3.87</td>
<td>1.852</td>
</tr>
<tr>
<td></td>
<td>I help other members of (Team’s) website community if they seem to have problems</td>
<td>3.84</td>
<td>1.833</td>
</tr>
<tr>
<td></td>
<td>I teach members of (Team’s) website community if they need me to solve problems correctly</td>
<td>3.57</td>
<td>1.834</td>
</tr>
<tr>
<td>Online Tolerance</td>
<td>If information is not delivered as expected on (Team’s) website, I do not get upset</td>
<td>4.63</td>
<td>1.791</td>
</tr>
<tr>
<td></td>
<td>If other members of (Team’s) website community make a mistake, I am tolerant of this</td>
<td>4.75</td>
<td>1.635</td>
</tr>
<tr>
<td></td>
<td>If I have to wait longer than expected to receive the information on (Team’s) website, I am patient</td>
<td>4.63</td>
<td>1.689</td>
</tr>
<tr>
<td>Online knowledge contribution behaviour</td>
<td>I spend a lot of time sharing things on (Team’s) website</td>
<td>3.79</td>
<td>1.841</td>
</tr>
<tr>
<td></td>
<td>I actively share my knowledge with others on (Team’s) website</td>
<td>4.11</td>
<td>1.788</td>
</tr>
<tr>
<td></td>
<td>I am usually involved when complicated issues are discussed on (Team’s) website</td>
<td>3.78</td>
<td>1.853</td>
</tr>
<tr>
<td></td>
<td>I involve myself in discussions of numerous issues on (Team’s) website</td>
<td>4.03</td>
<td>1.870</td>
</tr>
<tr>
<td></td>
<td>If I have additional useful information, I will let others on (Team’s) website know</td>
<td>4.15</td>
<td>1.792</td>
</tr>
<tr>
<td>OCCB Constructs</td>
<td>Online Feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>When I receive valuable information from others on <em>(Team’s)</em> website, I comment about it</td>
<td>4.21</td>
<td>1.769</td>
</tr>
<tr>
<td>ECSI Constructs</td>
<td>Customer Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>I am satisfied with the interactions I have with <em>(Team)</em></td>
<td>5.32</td>
<td>1.490</td>
</tr>
<tr>
<td></td>
<td>I am satisfied with the interactions I have with other <em>(Team)</em> fans</td>
<td>5.26</td>
<td>1.492</td>
</tr>
<tr>
<td></td>
<td>I am satisfied with the interactions I have with other <em>(Team)</em> fans</td>
<td>5.59</td>
<td>1.444</td>
</tr>
<tr>
<td>Behavioral loyalty with the brand</td>
<td>If I were faced with the same choice again, I would still support <em>(Team)</em></td>
<td>5.75</td>
<td>1.431</td>
</tr>
<tr>
<td></td>
<td>I often watch <em>(Team)</em> on TCV</td>
<td>5.28</td>
<td>1.572</td>
</tr>
<tr>
<td></td>
<td>I often follow reports about <em>(Team)</em> in the media</td>
<td>5.49</td>
<td>1.496</td>
</tr>
<tr>
<td>Psychological commitment to the team</td>
<td>Nothing could change my allegiance to my favourite team</td>
<td>5.55</td>
<td>1.626</td>
</tr>
<tr>
<td></td>
<td>I am a committed fan to my team</td>
<td>5.60</td>
<td>1.581</td>
</tr>
<tr>
<td></td>
<td>I could never switch my loyalty from my team, even if my close friends were fans of another team</td>
<td>5.57</td>
<td>1.631</td>
</tr>
<tr>
<td></td>
<td>It is unlikely I would change my allegiance from my team</td>
<td>5.57</td>
<td>1.647</td>
</tr>
<tr>
<td></td>
<td>It would be difficult to change my beliefs about my team</td>
<td>5.42</td>
<td>1.565</td>
</tr>
<tr>
<td>Perceived Value for money</td>
<td>My club offers reasonably priced products and services</td>
<td>5.01</td>
<td>1.593</td>
</tr>
<tr>
<td></td>
<td>The products and services available to fans are good for the price</td>
<td>5.06</td>
<td>1.571</td>
</tr>
<tr>
<td></td>
<td>My club offers fans good value for money</td>
<td>5.15</td>
<td>1.592</td>
</tr>
<tr>
<td></td>
<td>My club's products and services are generally economical</td>
<td>5.03</td>
<td>1.573</td>
</tr>
<tr>
<td>Perceived Value Constructs</td>
<td>Quality Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>The products my club sells have consistent quality</td>
<td>5.26</td>
<td>1.449</td>
</tr>
<tr>
<td></td>
<td>The products my club sells are well made</td>
<td>5.33</td>
<td>1.414</td>
</tr>
<tr>
<td></td>
<td>The products my club sells have an acceptable standard of quality</td>
<td>5.25</td>
<td>1.477</td>
</tr>
<tr>
<td></td>
<td>My club's products perform consistently well</td>
<td>5.29</td>
<td>1.500</td>
</tr>
<tr>
<td></td>
<td><strong>Emotional Value</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I enjoy being a fan of my club</td>
<td>5.66</td>
<td>1.417</td>
</tr>
<tr>
<td></td>
<td>Being a fan of my club gives me pleasure</td>
<td>5.54</td>
<td>1.409</td>
</tr>
<tr>
<td></td>
<td>I feel relaxed about being a fan of my club</td>
<td>5.52</td>
<td>1.444</td>
</tr>
<tr>
<td></td>
<td>I want to use the products my club sells</td>
<td>5.14</td>
<td>1.543</td>
</tr>
<tr>
<td></td>
<td><strong>Social Value</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being a fan of my club makes me feel acceptable</td>
<td>5.03</td>
<td>1.600</td>
</tr>
<tr>
<td></td>
<td>Being a fan of my club improves the way I am perceived</td>
<td>4.71</td>
<td>1.647</td>
</tr>
<tr>
<td></td>
<td>My being a fan of my club creates a good impression on other people</td>
<td>4.81</td>
<td>1.613</td>
</tr>
<tr>
<td></td>
<td>I get social approval through being a fan of my club</td>
<td>4.65</td>
<td>1.663</td>
</tr>
</tbody>
</table>
Appendix F Correlations among the latent variables for study three

<table>
<thead>
<tr>
<th></th>
<th>Brand image</th>
<th>Expectation</th>
<th>Perceived Quality</th>
<th>Satisfaction</th>
<th>PV</th>
<th>OCCB</th>
<th>Attitudinal loyalty</th>
<th>Behavioural loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand image</td>
<td>(0.926)</td>
<td>0.764</td>
<td>0.856</td>
<td>0.825</td>
<td>0.792</td>
<td>0.237</td>
<td>0.655</td>
<td>0.839</td>
</tr>
<tr>
<td>Expectation</td>
<td>0.764</td>
<td>(0.934)</td>
<td>0.722</td>
<td>0.768</td>
<td>0.747</td>
<td>0.304</td>
<td>0.593</td>
<td>0.716</td>
</tr>
<tr>
<td>Perceived Quality (PV)</td>
<td>0.856</td>
<td>0.722</td>
<td>(0.91)</td>
<td>0.802</td>
<td>0.83</td>
<td>0.339</td>
<td>0.517</td>
<td>0.746</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.825</td>
<td>0.768</td>
<td>0.802</td>
<td>(0.917)</td>
<td>0.851</td>
<td>0.31</td>
<td>0.683</td>
<td>0.873</td>
</tr>
<tr>
<td>PV</td>
<td>0.792</td>
<td>0.747</td>
<td>0.83</td>
<td>0.851</td>
<td>(0.905)</td>
<td>0.427</td>
<td>0.578</td>
<td>0.757</td>
</tr>
<tr>
<td>OCCB</td>
<td>0.237</td>
<td>0.304</td>
<td>0.339</td>
<td>0.310</td>
<td>0.427</td>
<td>(0.968)</td>
<td>0.266</td>
<td>0.199</td>
</tr>
<tr>
<td>Attitudinal loyalty</td>
<td>0.655</td>
<td>0.593</td>
<td>0.517</td>
<td>0.683</td>
<td>0.578</td>
<td>0.266</td>
<td>(0.925)</td>
<td>0.730</td>
</tr>
<tr>
<td>Behavioural loyalty</td>
<td>0.839</td>
<td>0.716</td>
<td>0.746</td>
<td>0.873</td>
<td>0.757</td>
<td>0.199</td>
<td>0.73</td>
<td>(0.925)</td>
</tr>
</tbody>
</table>

The AVE score is shown in the main diagonal
### Appendix G Correlations among the OCCB aspects (study3)

<table>
<thead>
<tr>
<th></th>
<th>Online Helping</th>
<th>Online Tolerance</th>
<th>Knowledge contribution behaviour</th>
<th>Feedback</th>
<th>Online Advocacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Helping</td>
<td>0.919</td>
<td>0.441</td>
<td>0.774</td>
<td>0.754</td>
<td>0.685</td>
</tr>
<tr>
<td>Online Tolerance</td>
<td>0.441</td>
<td>(0.844)</td>
<td>0.317</td>
<td>0.353</td>
<td>0.397</td>
</tr>
<tr>
<td>Knowledge contribution behaviour</td>
<td>0.774</td>
<td>0.317</td>
<td>(0.936)</td>
<td>0.881</td>
<td>0.782</td>
</tr>
<tr>
<td>Online Feedback</td>
<td>0.754</td>
<td>0.353</td>
<td>0.891</td>
<td>(0.901)</td>
<td>0.839</td>
</tr>
<tr>
<td>Online Advocacy</td>
<td>0.685</td>
<td>0.397</td>
<td>0.782</td>
<td>0.839</td>
<td>(0.906)</td>
</tr>
</tbody>
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