

UNIVERSITÄT
BAYREUTH

Tickets für Sportevents - Die Ermittlung von kontextabhängigen Preisbereitschaften und Value Capture

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Tickets für Sportevents - Die Ermittlung von kontextabhängigen Preisbereitschaften und Value Capture

Dissertation

zur Erlangung des Grades eines Doktors der Wirtschaftswissenschaft
der Rechts- und Wirtschaftswissenschaftlichen Fakultät
der Universität Bayreuth

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Tag der mündlichen Prüfung: 23. Juli 2019

Geleitwort

Ticketpreise für Sportevents werden sowohl in Theorie als auch Praxis intensiv diskutiert, da Ticketeinnahmen eine wichtige Finanzierungsquelle für Sportclubs sind. Deshalb versuchen Sportclubs die Preise an den Preisbereitschaften potentieller Zuschauer auszurichten. Preisbereitschaften entsprechen, den maximalen Preisen, welche die Sportzuschauer und Fans für ein bestimmtes Ticket zahlen. Immer wieder auftretende Fanproteste aufgrund zu hoher Preise zeugen von der hohen Brisanz dieser Thematik. Sie zeigen gleichzeitig, dass die Preisbereitschaften der Fans falsch eingesetzt werden. Könnte man solche Fanproteste durch forschungsbasierte Preisentscheidungen vermeiden?

In der Forschung haben bisherige Studien zur Preisbereitschaft im Sportmanagement Ticketpreise zumeist unter der Annahme homogener Präferenzen potentieller Käufer im Rahmen direkter Abfragen analysiert. Die Annahme homogener Präferenzen und damit homogener Preisbereitschaften dürften in der Realität kaum gegeben sein. Darüber hinaus führen direkte Abfragen zu einer verzerrten Schätzung der Preisbereitschaften. Dies kann durch die Anwendung von dekompositionellen Methoden wie z.B. Conjoint-Analysen verhindert werden. Nicht zuletzt deswegen hat sich die Conjoint-Analyse zu einer der am häufigsten genutzten quantitativen Analysemethoden zur Ermittlung der Preisbereitschaften entwickelt. Die vorliegende Dissertation verwirft die wenig realistische Homogenitäts-Annahme, indem von vorneherein heterogene Zuschauersegmente angenommen und analysiert werden und wendet keine direkte Abfrage von Preisbereitschaften an.

Traditionelle Conjoint-Analysen zur Preisbereitschaft beruhen auf Produkteigenschaften und somit stehen im Zentrum der Analyse die spezifischen Ticket-Eigenschaften. Neuere Ansätze im Dienstleistungsmarketing (z. B. Service-Dominant Logic, Value-in-Social-Context) und auch im Sportmanagement (z.B. Sport Value Framework, Fan Engagement) betonen aber auch die Wichtigkeit des sozialen Kontexts bei Kaufentscheidungen. Der soziale Kontext spielt aber in der bisherigen Forschung zu Ticketpreisen keine

Rolle. Somit stößt die Dissertation von Herrn Kaiser in eine wichtige Forschungslücke mit höchster praktischer Relevanz.

Eine weitere Lücke besteht darin, dass für die Zuschauer und Fans erhebliche Kosten durch die Anreise entstehen können. Dies insbesondere dann der Fall, wenn es sich um Events mit überregionaler Bedeutung handelt, wie z.B. ein NFL-Spiel in Deutschland oder eine Europameisterschaft im Fußball. Fraglich ist jedoch, ob die Reisezeit bei einem Sportevent als Transaktionskosten und somit als Opfer oder aufgrund von Gruppenerlebnissen während der Reise als Benefit bewertet wird. Auch diese Forschungslücke wird durch das Werk von Herrn Kaiser beseitigt und bietet dem Management wichtige Erkenntnisse für fundierte Preisentscheidungen.

Herr Kaiser hat mit seinem Werk wichtige Bausteine zu besserer Theoriebildung gelegt, aber auch gleichzeitig wichtige Anregungen zur Preispolitik im Ticketing für die Praxis geliefert. Man denke dabei nur an die bisherig gängigen Preisnachlässe für größere Gruppen, um die Kapazität von Arenen und Stadien besser auszulasten. Auf Gruppenrabatte sollte aus ökonomischer Sicht verzichtet werden. Sie können jedoch sinnvoll sein, wenn z.B. sozialpolitische Überlegungen eine Rolle spielen.

Man kann sich nur wünschen, dass aufbauend auf dem Werk von Herrn Kaiser weitere Studien im Sportmanagement der Einfluss des sozialen Kontexts auf Preisentscheidungen untersuchen. Die bislang durch die Sportökonomie dominierten Sichtweisen können nur unzureichend die Phänomene im Sportmanagement erklären.

Prof. Dr. Herbert Woratschek

Vorwort

Die vorliegende Dissertationsschrift ist im Rahmen meiner Tätigkeit als wissenschaftlicher Mitarbeiter am Lehrstuhl für Marketing & Dienstleistungsmanagement der Universität Bayreuth entstanden. Im Juli 2019 wurde die Arbeit mit dem Titel „Tickets für Sportevents - Die Ermittlung von kontextabhängigen Preisbereitschaften und Value Capture“ als kumulative Dissertationsschrift an der Rechts- und Wirtschaftswissenschaftlichen Fakultät der Universität Bayreuth angenommen. An dieser Stelle möchte ich allen Menschen danken, die durch Ihre Unterstützung zum Gelingen der Arbeit beigetragen haben.

In erster Linie möchte ich mich bei meinem Doktorvater und akademischen Lehrer Prof. Dr. Herbert Woratschek bedanken. Mit seiner Unterstützung und den vielen konstruktiven Diskussionen hat er maßgeblich zum Gelingen dieser Arbeit beigetragen. Neben seiner fachlichen Expertise schätze ich insbesondere seine Fähigkeiten, Mitarbeiter effektiv zu motivieren. Darüber hinaus möchte ich ihm ganz herzlich für die vielfältigen Möglichkeiten danken, die er mir am Lehrstuhl eröffnet hat. Die Teilnahme an zahlreichen wissenschaftlichen Konferenzen und Workshops steht hierfür stellvertretend. Die sehr guten Rahmenbedingungen hatten nicht nur Einfluss auf meine akademische Qualifikation, sondern haben auch sehr stark zu meiner persönlichen Weiterentwicklung beigetragen.

Des Weiteren danke ich Prof. Dr. Daniel Baier recht herzlich für die Übernahme des Zweitgutachtens, seine zügige Begutachtung und seine wertvollen Anregungen zu den einzelnen Forschungsprojekten. Darüber hinaus danke ich Prof. Dr. Friedrich Sommer für die flexible und bereitwillige Übernahme des Prüfungsvorsitzes.

Besonders geschätzt habe ich das in vielerlei Hinsicht besondere Arbeitsumfeld am Lehrstuhl für Marketing & Dienstleistungsmanagement. Der kollegiale und freundschaftliche Umgang und die gegenseitige Unterstützung gepaart mit wertvollen Anregungen sind nicht selbstverständlich und ein nicht zu unterschätzender Faktor für das Gelingen der Dissertationsschrift. Ich bedanke

mich daher bei allen aktuellen und ehemaligen Kolleginnen und Kollegen, insbesondere bei Carmen Back, Prof. Dr. Chris Horbel, Prof. Dr. Bastian Popp, Prof. Dr. Tim Ströbel, Dr. Christian Durchholz, Dr. Julia Fehrer, Dr. Christopher Maier, Dr. Michael Stadtmann, Dr. David Wawrzinek, Markus Buser, Franziska Kullak, Johanna Mühlbeyer, Jan Schönberner und Marina Sehr sowie bei allen studentischen Hilfskräften.

Darüber hinaus möchte ich mich bei allen aktuellen und ehemaligen Kolleginnen und Kollegen des Arbeitsbereichs Marketing & Services, aber auch den Kolleginnen und Kollegen der Campus-Akademie und dem Institut für Sportwissenschaft für ein jederzeit angenehmes Arbeitsumfeld an der Universität Bayreuth bedanken. Bei allen Teilnehmerinnen und Teilnehmern des Projektseminars „Angewandte Marktforschung im Dienstleistungsmanagement“ 2016/2017 an der Universität Bayreuth sowie Manuel Jakab bedanke ich mich für die Unterstützung und Mitwirkung bei den empirischen Untersuchungen meines Dissertationsvorhabens.

Schließlich möchte ich mich bei den wichtigsten Personen in meinem Leben bedanken, meiner Familie. Meinen Eltern haben mir nicht nur meinen eingeschlagenen Weg ermöglicht, sondern haben mich auf diesem jederzeit bedingungslos unterstützt. Auch mein Bruder hat immer ein offenes Ohr für mich. In meiner besseren Hälfte Magdalena habe ich die ideale Begleiterin in meinem Leben gefunden, die mich immer wieder aufmuntert und motiviert hat und somit immer ein großer Rückhalt war und ist. Danke.

Mario Kaiser

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Kapitel 1: Einführung

1.1 Motivation und Positionierung

Erlöse aus dem Verkauf von Tickets sind mit einem Anteil von 15 bis 25% ein zentraler Umsatztreiber von Profisportclubs (Deloitte, 2015; DFL Deutsche Fußball Liga GmbH, 2019). Um wirtschaftlich und somit auch sportlich konkurrenzfähig zu sein, streben Profisportclubs eine Optimierung ihrer Einnahmen aus dem Ticketing als ein zentrales wirtschaftliches Ziel an. Ein erfolgreiches Ticketing und eine daraus resultierende hohe Auslastung tragen darüber hinaus zu einer besseren Atmosphäre und dadurch zu einem höheren wahrgenommenen Wert der Kunden bei (Durchholz, 2012). Eine hohe Auslastung führt aufgrund von Cross-selling Effekten auch indirekt zu Mehreinnahmen (Coates & Humphreys, 2007; Marburger, 1997).

Im Bereich des Ticketing ist eine Optimierung der Einnahmen häufig mit einer Steigerung der Ticketpreise verbunden. Zu hohe Ticketpreise oder zu starke Preiserhöhungen können jedoch Widerstände hervorrufen, die sich unter anderem in Fanprotesten äußern können. Um solche negativen Effekte zu vermeiden, ist es von großer Bedeutung, dass Clubs die Präferenzen und Preisbereitschaften ihrer Besucher genau kennen, um die Ticketingangebote an die Bedürfnisse der Zuschauer anzupassen.

Trotz der dargestellten hohen praktischen Relevanz gibt es nur wenig Forschung zur Preisbereitschaft von Zuschauern für Sporteventtickets. Die vorliegende Dissertation positioniert sich daher innerhalb des Sportmanagements und knüpft insbesondere an die bestehende Literatur zum Ticketing sowie der Preisbereitschaft für Sporteventtickets an. Sie greift dabei verschiedene Forschungslücken in diesem Bereich auf, welche im Nachfolgenden aufgezeigt und in den anschließenden Kapiteln intensiv bearbeitet und dementsprechend geschlossen werden.

1.2 Forschungsziele und Aufbau der Arbeit

Die vorliegende Arbeit gliedert sich neben diesem Kapitel eins, welches in die Arbeit einführt, in vier Hauptkapitel (Kapitel zwei bis fünf). Alle vier Hauptkapitel befassen sich mit spezifischen Fragestellungen zum erwarteten Value Capture und der Preisbereitschaft von Zuschauern für Sporttickets. Dabei bauen sie kontinuierlich auf den Ergebnissen und Limitationen der vorangegangenen Kapitel auf.

Kapitel zwei nähert sich in grundlegender Weise der Ermittlung von Präferenzen und Preisbereitschaften für Sporteventtickets. Im empirischen Teil des Kapitels wird zudem die Bereitschaft für Preisaufläge und -abschläge verschiedener Sportevents untersucht, bei denen Wettbewerbe mit unterschiedlicher sportlicher Relevanz im Fokus stehen.

Für die Erhebung von Preisbereitschaften ist eine Anwendung kompositioneller und dekompositioneller Methoden denkbar. Im Gegensatz zu dekompositionellen Methoden, wie der Conjoint-Analyse, müssen sich kompositionelle Methoden mit zwei zentralen Kritiken auseinandersetzen: Zum einen werden diese Methoden unter anderem wegen Verzerrungen aufgrund einer direkten Befragung der Preisbereitschaften kritisch diskutiert (Walker & Mondello, 2007); zum anderen können die kompositionelle Herangehensweisen lediglich die Präferenzen für ein einziges spezifisches Produkt abfragen (Lyu & Hwang, 2017). Beide Kritikpunkte werden durch die Anwendung der Conjoint-Analyse eliminiert.

Auf der anderen Seite ist aber auch die Conjoint-Analyse nicht uneingeschränkt anwendbar. So sollen die betrachteten Eigenschaften und deren Ausprägungen das zu untersuchende Objekt möglichst vollständig abbilden und für Anbieter steuerbar sein (Weiber & Mühlhaus, 2009). Die Berücksichtigung zu vieler Eigenschaften und dazugehöriger Ausprägungen kann jedoch zu einer Informationsüberflutung der Befragten und somit zu verzerrten Ergebnissen führen (Green & Srinivasan, 1990). Für die Conjoint-Analyse sind Produkte und Dienstleistungen insbesondere dann geeignet, wenn sie standardisiert sind, die Integrativität externer Produktionsfaktoren nur gering

ausgeprägt ist und die Verhaltensunsicherheit bei Abschluss eines Kaufvertrages als niedrig empfunden wird (Woratschek, 1998). Die Eignung der Conjoint-Analyse für die Ermittlung von Preisbereitschaften von Zuschauern für Sporteventtickets wird unter anderem in diesem Kapitel geklärt. Die theoretischen Überlegungen werden mit Hilfe eines schlanken Fragebogens für Fußballspiele der deutschen Frauen-Nationalmannschaft empirisch ermittelt. Dabei wird unter anderem der Einfluss der Relevanz des sportlichen Wettbewerbs auf den erwarteten Value Capture (EVC) und die Preisbereitschaft empirisch ermittelt. Der EVC wird dabei als Trade-Off zwischen wertstiftenden und wertmindernden Attributen in einem bestimmten Kontext verstanden.

In Kapitel drei wird auf die Heterogenität von Sportzuschauern sowie auf den Einfluss innovativer Ticketmerkmale auf den EVC und Preisbereitschaften von Zuschauern eingegangen. Wie im Sportmanagement weitläufig bekannt, sind Sportfans nicht nur hinsichtlich ihrer sozio-demografischen Merkmale heterogen, sondern unterscheiden sich auch hinsichtlich ihrer Motive oder Einstellungen (Mullin, Hardy, & Sutton, 2014; Rosas & Orazem, 2014; Wann & Branscombe, 1990). Aufgrund der Heterogenität aus unterschiedlichen Sichtweisen ist davon auszugehen, dass Zuschauer sich auch hinsichtlich ihrer Präferenzen und Preisbereitschaften für Sporteventtickets unterscheiden. Bisherige empirische Studien zur Preisbereitschaft von Zuschauern für Sporteventtickets gehen jedoch davon aus, dass diese homogene Strukturen aufweisen, also über alle Zuschauer hinweg gleich ist. Nur in einzelnen Fällen wird eine Heterogenität zwischen den Zuschauern angenommen (Lee & Kang, 2011). In diesen Fällen wird jedoch auf Basis von vorab bekannten sozio-demografischen oder psychografischen Variablen segmentiert. Diese können aber die Präferenzheterogenität der Zuschauer und somit auch die Heterogenität ihrer Preisbereitschaft nicht widerspiegeln (Paetz, 2016).

Die aktuelle Literatur zum Ticketing im Sportmanagement zeigt auch, dass Ticketpreise zumeist auf Basis von Vergangenheitsdaten gebildet werden. Diese hängen neben Qualitätsmerkmalen wie der Sitzkategorie oder sozio-demografischen Variablen auch von der Leistung der eigenen Mannschaft oder der Attraktivität des Gegners ab. Dies gilt sowohl für Studien zur variablen als

auch zur dynamischen Ticketpreisgestaltung (Kemper & Breuer, 2015; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014). Die Preisbildung auf Basis von Vergangenheitsdaten stellt, insbesondere für den europäischen Sportkontext, eine Limitation dar. Durch das System zur Regelung von Auf- und Abstieg von Klubmannschaften in den europäischen Sportligen drängen immer wieder neue Mannschaften in verschiedene Ligen, bei denen aufgrund fehlender Vergangenheitsdaten eine derartige Preisgestaltung nicht möglich ist. Schwerwiegender ist jedoch, dass bei diesem Preisbildungsmechanismus eine Orientierung an den Preisbereitschaften der Zuschauer ausbleibt.

Die vorliegende Arbeit geht diesen beiden zentralen Limitationen in Kapitel drei nach und führt zum ersten Mal in der Sportmanagementliteratur eine Benefitsegmentierung von Zuschauern hinsichtlich ihrer Präferenzen und Preisbereitschaften für Sporteventtickets durch. Dabei werden auch innovative Ticketmerkmale, wie z.B. neue Gegner in einer Liga, explizit berücksichtigt. Dies geschieht in zwei identisch aufgebauten Studien im Forschungskontext von regulären Saisonspielen zweier Teams in der deutschen Basketball Bundesliga. Zur Erreichung dieser Forschungsziele wird die Choice-Based Conjoint-Analyse eingesetzt, da diese sich insbesondere für die Ermittlung der Relevanz innovativer Merkmale eignet und darüber hinaus Verzerrungen aufgrund einer direkten Erhebung der Preisbereitschaft vermieden werden können.

In Kapitel vier wird die Bedeutung von Begleitpersonen auf den EVC und die Preisbereitschaft untersucht. Im Sportmanagement ist man bislang grundsätzlich der Auffassung, dass die einzelnen Ticketmerkmale vollständig durch den Anbieter kontrolliert werden. Sullivan (2004, p. 129) bezeichnet diese Bereitstellung von Sportprodukten oder Sportdienstleistungen als „the nature of sport marketing“, um die Bedürfnisse der Kunden zu befriedigen. Vargo und Lusch (2004) bezeichnen diese konventionelle Betrachtungsweise als Goods-Dominant Logic, da Güter im Vordergrund stehen. Der Wert eines Produkts oder einer Dienstleistung wird nach diesem Verständnis durch die Produktion oder den Verkauf von Gütern geschaffen. Die Werterstellung liegt dabei beim Hersteller oder Anbieter. Die von Vargo und Lusch (2004) eingeführte Service-Dominant Logic kritisiert diese Auffassung und geht davon aus, dass der Wert grundsätzlich

von Kunden und anderen Akteuren gemeinsam geschaffen wird. Nur wenige Wissenschaftler in der Sportmanagementliteratur greifen diesen Gedanken bislang auf, indem sie den Einfluss anderer Akteure auf die Wertschöpfung bei Sportevents untersuchen (Durchholz, 2012; Horbel, Popp, Woratschek & Wilson, 2016; Koenig-Lewis, Asaad & Palmer, 2017; Uhrich & Benkenstein, 2012). Woratschek, Horbel und Popp (2014) fordern, dass die Rolle anderer Akteure, wie z.B. Besucher eines Sportevents, überdacht werden sollte, da Sportzuschauer nichts konsumieren, sondern erheblich zur Wertkreation eines Sportevents beitragen. In ihrem Sport Value Framework entwickeln Woratschek et al. ein neuartiges Verständnis der Wert-Ko-Kreation im Sportmanagement. Dementsprechend erscheint es sinnvoll, beim Kauf eines Tickets für ein Sportevent neben den klassischen Produkteigenschaften auch andere Akteure, die an einem Sportevent teilnehmen, zu berücksichtigen, obwohl sie nur in einem begrenzten Maße oder gar nicht vom Anbieter eines Sportevents beeinflusst werden können. Basierend auf den Gedanken des Sport Value Frameworks ist demnach eine Erweiterung der empirischen Studien im Ticketing von Sportevents um die Perspektive des Value-in-social-context unerlässlich.

Den Einfluss von anderen Zuschauern, eigener und gegnerischer Fans auf den wahrgenommenen Wert der Zuschauer bei einem Sportevent haben unter anderem Durchholz (2012) sowie Uhrich und Benkenstein (2012) untersucht. Der Einfluss von Begleitpersonen als ein Indikator von ‚Value-in-social-context‘ (Edvardsson, Tronvoll, & Gruber, 2011) auf die Preisbereitschaft und den EVC für Tickets ist jedoch bislang weder im Sportmanagement noch in einem anderen Feld empirisch analysiert worden.

Wie bereits oben erwähnt sollen bei der Conjoint-Analyse die Merkmalsausprägungen des zu untersuchenden Objektes vom Anbieter kontrollierbar sein (Weiber & Mühlhaus, 2009). Diese Annahme wird in Kapitel vier hinterfragt und Indikatoren für einen speziellen Value-in-social-context in der Conjoint-Funktion ergänzt, wie dies von Swait et al. (2002) vorgeschlagen wird. Mit Hilfe von zwei identisch strukturierten empirischen Studien, durchgeführt in verschiedenen Sportarten, werden erstmalig Begleitpersonen als ein spezifischer Kontextindikator in die Analyse des EVC und der Preisbereitschaften für

Sporteventtickets aufgenommen. Das in diesem Beitrag neu eingeführte Konzept des EVC erweitert die Betrachtungsweise des Werts der Zuschauer um eine prospektive Komponente und ergänzt damit die retrospektive Betrachtungsweise des wahrgenommenen Werts, die weite Verbreitung in der Sportmanagementliteratur findet (Durchholz, 2012; Horbel et al., 2016). Der EVC erweitert zudem die traditionellen kontext-unabhängigen Nutzenmodelle um den als relevant identifizierten Kontext und wird demnach als kontext-abhängiger Nettowert zwischen wertstiftenden (Benefits) und wertmindernden Attributen (Sacrifices) von Produkten oder Dienstleistungen definiert. Durch die Einführung des EVC leistet diese Arbeit nicht nur theoretisch einen Beitrag, um Value-in-social-context besser zu verstehen. Sie identifiziert darüber hinaus mit der Conjoint-Analyse auch ein geeignetes Verfahren, um den EVC empirisch zu schätzen.

In Kapitel fünf wird der Einfluss von Transaktionskosten auf den EVC und die Preisbereitschaften fokussiert. Neben dem Einfluss anderer Akteure können auch andere Faktoren einen Einfluss auf den EVC und somit die Preisbereitschaft für Tickets haben. Diese sind unter anderem auch von der Art des Sportevents abhängig. Die am häufigsten betrachteten Sportevents in der Sportmanagementliteratur sind reguläre Saisonspiele eines definierten Wettbewerbs. Für ein umfassendes Verständnis des EVC und der Preisbereitschaft für Sporteventtickets sind jedoch auch andere Eventformate zu berücksichtigen, die andere Besonderheiten mit sich bringen. So finden immer wieder innovative Events in neuen und aufstrebenden Märkten statt. Solche Einzelevents finden an einem vorab festgelegten Ort statt, sodass für diese Events erhebliche Transaktionskosten anfallen können, die für Besucher substanziell sind. Im Falle eines möglichen Spiels der NFL International Series in Deutschland könnten dies zum Beispiel Reisekosten der Besucher sein, da diese aus dem gesamten Bundesgebiet zum vorab festgelegten Stadion anreisen. Daher wird dieser Untersuchungsgegenstand genutzt, um, ergänzend zu den bisher analysierten Einflussfaktoren, den Value-in-temporal-context als weitere Opferkomponente auf den EVC und die Preisbereitschaft zu analysieren. Die Studie berücksichtigt damit die in Arbeiten zur Nachfrage nach Sportevents

geäußerte Kritik, dass eine Nichtberücksichtigung weiterer Kosten zu verzerrten Schätzungen führen kann (Fort, 2006; Gratton & Taylor, 2000; Noll, 1974).

Fraglich ist allerdings, inwiefern Reisekosten von Zuschauern als Opfer wahrgenommen werden. Lange Reisen bieten für sogenannte „Fantouristen“ eine Möglichkeit, sich von anderen Fans abzugrenzen oder Teil eines besonderen Gruppenerlebnisses zu sein (Hoye & Lillis, 2008; Woratschek, Horbel, & Popp, 2018). Offensichtlich bringt das Reisen nicht nur Opfer mit sich, sondern enthält auch nutzenstiftende Komponenten. Stauss (1991) betrachtet Dienstleistungen als Prozesse, die in unterschiedliche Zeiten zerlegt werden können: Transferzeiten (Weg zwischen Kunden- und Anbieterort), Abwicklungszeiten (Informations- und Vertragsaktivitäten), Wartezeiten, Transaktionszeiten (Leistungserstellung und Leistungsnutzung). Folglich können den Transaktionskosten des Transfers auch nutzenstiftende Komponenten des Transfers gegenüberstehen. Aufgrund dieser möglichen nutzenstiftenden Komponenten während der Reise ist davon auszugehen, dass der Value-in-temporal-context geringer ausfällt als die tatsächlich anfallenden Reisekosten. Daher wird der Nettoeffekt von Transaktionskosten und Transaktionsnutzen als Value capture-in-traveling in die Conjoint-Funktion aufgenommen. Diese Nettoeffekte können dann mit tatsächlichen Reisekosten unterschiedlicher Transportmittel verglichen werden, um festzustellen, ob Transaktionsnutzen der Transferzeit tatsächlich in der Lage ist, Transaktionskosten in erheblichem Maße zu reduzieren. Zudem wird in Kapitel vier ermittelt, inwieweit neben dem Value capture-in-transfer auch die Begleitpersonen den EVC beeinflussen.

Die Arbeit schließt in Kapitel sechs mit einer Schlussbetrachtung, welche die zentralen theoretischen und empirischen Erkenntnisse zusammenfassend darstellt.

Basierend auf den aufgezeigten Forschungslücken beantwortet diese Arbeit folgende übergeordneten Forschungsfragen:

1. Inwieweit ist die Conjoint-Analyse geeignet, um die Präferenzen und Preisbereitschaften für Sporteventtickets zu ermitteln?
2. Wie lassen sich Zuschauer von Sportevents hinsichtlich ihrer Ticketpräferenzen segmentieren und wie hoch ist deren Preisbereitschaft?
3. Welchen Einfluss haben ausgewählte Kontextfaktoren (z.B. Begleitpersonen), Ticketmerkmale (z.B. Sitzqualität) und Transaktionskosten (z.B. Transferzeit) auf den erwarteten Value Capture von Zuschauern für Sporteventtickets?

Zur Beantwortung dieser Forschungsfragen bedient sich die vorliegende Arbeit überwiegend des dekompositionellen Ansatzes der Conjoint-Analyse. So werden in den Untersuchungsdesigns der empirischen Studien in Kapitel zwei und drei etablierte Attribute der Präferenzanalyse im Ticketing, angepasst an das jeweilige Untersuchungsobjekt, verwendet. Daneben werden in den Kapiteln vier und fünf weitere Kontextfaktoren aufgenommen, die als nicht kontrollierbare Einflussfaktoren charakterisiert werden können. Diese Attribute lassen sich in Benefits und Sacrifices unterteilen, je nachdem ob sie einen eher positiven oder negativen Beitrag zum EVC leisten. Abb. 1.1 zeigt dabei die verwendeten Eigenschaften innerhalb der Conjoint-Analysen auf, die im Verlauf der Arbeit sukzessive erweitert werden.

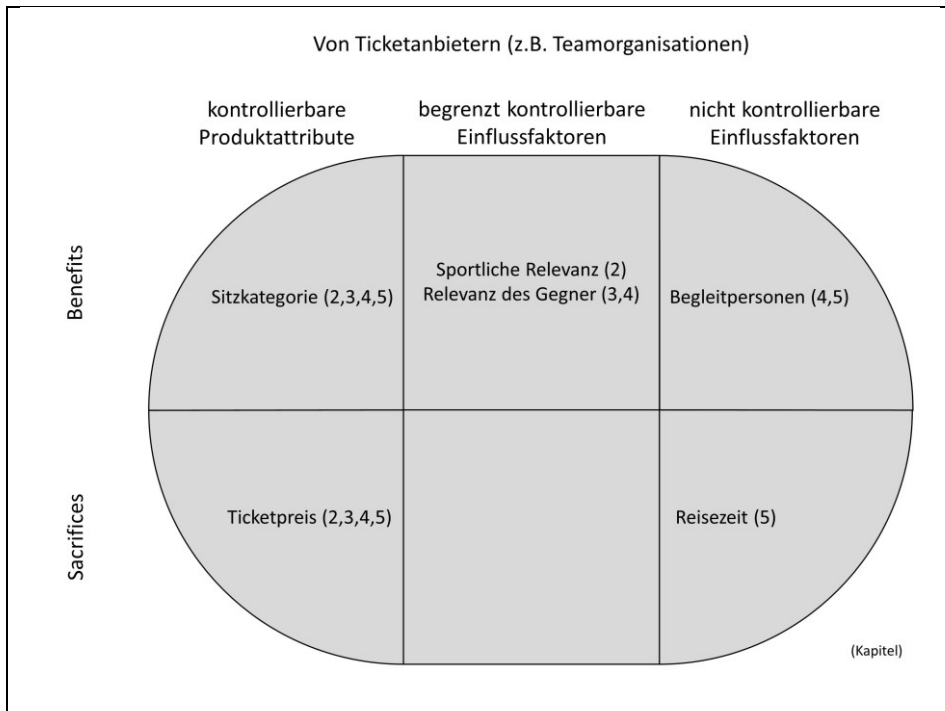


Abb. 1.1: Einordnung berücksichtigter Eigenschaften in den Conjoint-Analysen zur Ermittlung von EVC und Preisbereitschaften für Sporteventtickets

Obwohl eine Anforderung an die integrierten Eigenschaften der Conjoint-Analyse die Beeinflussbarkeit durch den Anbieter ist (Weiber & Mühlhaus, 2009), werden in dieser Arbeit bewusst nicht kontrollierbare Eigenschaften eingesetzt, um ein besseres Verständnis des EVC sowie der kontext- und situationsabhängigen Einflussfaktoren der Preisbereitschaft zu erlangen.

Abb. 1.2 fasst die Beiträge der einzelnen Artikel und die jeweils verwendete Methode zusammen.

Kapitel	Forschungsbeitrag des Artikels	Methode
2	Eignung der Conjoint-Analyse zur Ermittlung von Präferenzen und Preisbereitschaften von Sporteventtickets unter Berücksichtigung der sportlichen Relevanz.	Traditionelle Conjoint Analyse
3	Segmentierung von Zuschauern nach ihren Präferenzen und Preisbereitschaften für Sporteventtickets unter Berücksichtigung etablierter und innovativer Ticketmerkmale.	Choice-Based Conjoint Analyse
4	Segmentierung von Zuschauern im Hinblick auf ihren EVC und Preisbereitschaft für Sporteventtickets unter besonderer Berücksichtigung von Begleitpersonen als ein sozialer Kontext.	Adaptive Choice-Based Conjoint Analyse
5	Segmentierung von Zuschauern im Hinblick auf ihren EVC und ihre Preisbereitschaft für Tickets für überregional bedeutende Sportevents unter besonderer Berücksichtigung des Einflusses der Reisezeit als ein zeitlicher Kontext.	Choice-Based Conjoint Analyse

Abb. 1.2: Zusammenfassung der Forschungsbeiträge

1.3 Erklärung der Eigenleistung

Alle Artikel dieser kumulativen Dissertationsschrift wurden in Co-Autorenschaft verfasst. Die unterschiedlichen Beiträge der jeweiligen Co-Autoren zum Gelingen der Artikel wird im Folgenden erläutert.

Die Studie wurde hauptsächlich von Herbert Woratschek konzeptualisiert. Er und Christian Durchholz haben das empirische Forschungsdesign gemeinsam entwickelt. Die Datenerhebung und deren Auswertung wurde hauptsächlich von Christian Durchholz durchgeführt. Mario Kaiser hat den Artikel auf Basis mehrerer Überarbeitungen des Papiers und konstruktiver Diskussionen mit allen Co-Autoren, darunter auch Tim Ströbel, verfasst.

In Kapitel drei hat Mario Kaiser gemeinsam mit Herbert Woratschek die theoretischen Grundlagen erarbeitet und die Studien konzeptualisiert. Die Datenerhebung, die Analyse der empirischen Daten sowie das Verfassen des Artikels erfolgte überwiegend durch Mario Kaiser. Unterstützt wurde er durch hilfreiche Diskussionen und Hinweise von Christian Durchholz und Tim Ströbel. Alle Co-Autoren beteiligten sich zudem an der Finalisierung des Beitrags.

Der Aufbau der empirischen Studie in Kapitel vier beruht auf den theoretischen Überlegungen von Herbert Woratschek. Dies geschah in enger Absprache und zahlreichen Diskussionen mit Mario Kaiser. Letzterer zeichnete sich für die Erhebung und Auswertung der Daten verantwortlich. Studierende eines dem Forschungsprojekt angeschlossenen Projektseminars unterstützten die Co-Autoren bei der umfangreichen und aufwändigen Datenerhebung. Auch die Recherche relevanter Quellen sowie die Niederschrift des Artikels ist ein wesentlicher Beitrag des Autors der Dissertation, wobei umfangreiche Überarbeitungen von Herbert Woratschek eingeflossen sind. Mit konstruktiven Verbesserungsvorschlägen von Herbert Woratschek wurde der Artikel gemeinsam durch beide Co-Autoren finalisiert.

Die Studie wurde maßgeblich von Mario Kaiser auf Basis der Studien in Kapitel zwei bis vier konzipiert. In enger Abstimmung mit den Co-Autoren unterstützte Manuel Jakob im Rahmen seiner Masterarbeit die Datenerhebung und Datenbereinigung. Für die grundlegenden Theorien und deren Interpretationen hat Herbert Woratschek wesentliche Anregungen gegeben. In mehreren konstruktiven Diskussionsrunden zwischen den beiden Co-Autoren wurde die Datenanalyse mehrfach überarbeitet, konkretisiert und für die Niederschrift finalisiert. Die Niederschrift erfolgte im großen Teil durch Mario Kaiser, unterstützt durch umfangreiche Überarbeitungen von Herbert Woratschek.

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Kapitel 2: Eignung der Conjoint-Analyse und der Einfluss der Relevanz des sportlichen Wettbewerbs

Preisaufläge für die sportliche Relevanz – Eine Conjoint-Analyse für Tickets von Sportevents

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Unveröffentlichtes Manuskript.

Abstract:

Für die Finanzierung von Sportevents ist das Ticketing eine zentrale Einnahmequelle. Es liegen in diesem Bereich jedoch weder in Praxis noch Forschung valide Erfahrungsdaten vor. Der vorliegende Beitrag greift diese Forschungslücke auf und identifiziert die Bereitschaft für Preisaufläge (bzw. -abschläge) von Sporteventzuschauer für Wettbewerbe mit unterschiedlicher sportlicher Relevanz in unterschiedlichen Sitzkategorien am Beispiel des Frauenfußballs. Der Beitrag zeigt auf, dass die Conjoint-Analyse eine geeignete Methode ist, um Preisbereitschaften für Sportevents in Abhängigkeit ihrer sportlichen Relevanz zu schätzen, insbesondere für Sportevents für die bislang noch keine Erfahrungswerte aus der Vergangenheit vorliegen. Durch die Befragung von 278 Stadionbesuchern eines Spiels der deutschen Frauen Fußball-Nationalmannschaft zeigte sich, dass die Präferenzen der Zuschauer sehr unterschiedlich sind. Für die Hälfte der Probanden ist die sportliche Relevanz des Wettbewerbs der dominierende Einflussfaktor auf die Preisbereitschaft. Diese sind bereit einen hohen Preisauflage für sportlich relevante Wettbewerbe in Kauf nehmen. Die Ergebnisse helfen Sportmanagern ihre Preisstrategien zu optimieren und gleichzeitig an den Präferenzen und Preisbereitschaften der Zuschauer auszurichten.

Keywords: Conjoint-Analyse, Preisbereitschaft, Preisgestaltung von Tickets, Sportliche Relevanz, Frauenfußball

2.1 Problemstellung und Forschungsfragen

Einnahmen aus dem Ticketing von Events spielen im Sport eine zentrale Rolle. Mit einem Anteil von 15 bis 25 % sind Erlöse aus dem Ticketing ein elementarer Umsatztreiber in deutschen Profisportligen (Deloitte, 2015; DFL Deutsche Fußball Liga GmbH, 2019). Für Events in Sportarten, die ohne immense Medienerlöse auskommen müssen, liegt dieser Wert deutlich höher. So rechnete man im Rahmen der FIFA Frauen-Weltmeisterschaft 2011 in Deutschland bei einem Gesamtetat der Veranstaltung von 51 Millionen Euro mit Einnahmen in Höhe von 27 Millionen Euro durch den Verkauf von Eintrittskarten (DFB, 2009). Um Erlöse aus dem Ticketverkauf von Sportevents zu optimieren, sind unterstützende Informationen über die Preisbereitschaften und Ticketpräferenzen der Eventbesucher erforderlich. Dies gilt insbesondere in Sportarten, bei denen nur wenig Kenntnisse über die Präferenzen der potenziellen Eventbesucher vorliegen. Bei der Generierung von Einnahmen durch das Ticketing und einer potenziellen Erlösoptimierung können Fanproteste aufgrund zu hoher Ticketpreise nur vermieden werden, wenn man zuverlässig die Preisbereitschaften der potentiellen Zuschauer und Fans abschätzen kann. Die Fan-Initiative "Kein Zwanni für nen Steher" in der Fußball Bundesliga ist ein Beispiel, wie deutsche Fußballfans gegen überhöhte Ticketpreise im Fußball protestieren (Röckenhaus, 2012). So können hohe Ticketpreise zwar das Ziel der Finanzierung des Events gewährleisten, allerdings die Akzeptanz der Fans für das Sportevent gefährden. Zu geringe Ticketpreise riskieren auf der anderen Seite eine nicht ausreichende Finanzierung des Sportevents und damit der Sportteams. Im Idealfall erreicht man optimale Erlöse bei einer vollen Stadionauslastung und möglichst hohen, von den Käufern akzeptierten Ticketpreisen. Volle Stadien erhöhen zudem das Interesse der Medien und ermöglichen höhere Medieneinnahmen, aber auch höhere Vermarktungserlöse im Sponsoring. Die Preisgestaltung für Tickets von Sportevents ist somit von elementarer Bedeutung. Die Ticketpreise sollten daher den Präferenzen und Preisbereitschaften der potenziellen Zuschauer entsprechen. Dennoch werden in den meisten Sportorganisationen Ticketpreise auf Grundlage von

Daumenregeln oder gar dem Bauchgefühl von Entscheidern festgelegt. Darüber hinaus besteht im Sportmanagement Forschungsbedarf in Bezug auf die Preisbereitschaft von Zuschauern für Sportevents mit erhöhter sportlicher Relevanz, bei denen keine historischen Daten über die Preisbereitschaften für Tickets vorliegen.

Die sportliche Relevanz bezeichnet den Grad der Bedeutung eines sportlichen Wettbewerbes für Zuschauer, Medien und Teams oder andere Akteure. So hat zum Beispiel ein Spiel zwischen denselben Mannschaften eine unterschiedliche sportliche Relevanz, je nachdem ob es sich um ein Weltmeisterschaftsfinale oder um Freundschaftsspiel handelt. Von unterschiedlicher Relevanz sind auch Spiele zwischen denselben Mannschaften, je nachdem ob es innerhalb einer Wettbewerbsserie um die Meisterschaft, einen Mittelfeldplatz oder den Abstieg geht (Woratschek & Schafmeister, 2008). Somit wird die sportliche Relevanz wie folgt definiert: Die sportliche Relevanz bezeichnet die unterschiedliche gesellschaftliche Stellung eines singulären sportlichen Wettbewerbs (z.B. Meisterschaftsfinale, Spiel um Auf- und Abstieg) oder einer Wettbewerbsserie (z. B. Weltmeisterschaften, Olympische Spiele, Vorbereitungsturniere).

Eine Option zur Ermittlung dieser Präferenzen und Preisbereitschaften könnte darin bestehen, potenzielle Zuschauer direkt zu fragen, wie viel sie für ein bestimmtes Ticket bereit sind zu bezahlen. Die direkte Befragung liefert jedoch nur unzureichend valide Ergebnisse (Walker & Mondello, 2007). Eine weitere Option sind dekompositionelle Methoden wie die Conjoint-Analyse. Dabei äußern Probanden ihre Präferenzen in Form von Globalurteilen unterschiedlicher Produkt- oder Dienstleistungskombinationen. Die Conjoint-Analyse ist insbesondere zur Erfassung des Trade-Offs zwischen Preis und Qualitätsmerkmalen von Produkten und Dienstleistungen geeignet. Sie wird daher häufig bei der Gestaltung innovativer Produkte oder Dienstleistungen sowie der Bestimmung von Preisbereitschaften eingesetzt (Backhaus, Erichson, Plinke, & Weiber, 2018; Baier & Brusch, 2009a). Dieser innovative Charakter trifft insbesondere auf Events zu, bei denen keine Vergangenheitsdaten vorliegen. Im Sportmanagement wurden mittels Conjoint-Analyse unter anderem die optimale

Ausgestaltung von Merchandising-Artikeln (Lee & Ferreira, 2011) oder Fanclubmitgliedschaften (Theysohn, Hinz, Nosworthy, & Kirchner, 2009) untersucht. Für die präferenzorientierte Gestaltung von Sporteventtickets verspricht die Conjoint-Analyse daher ebenfalls wertvolle Hinweise.

Wie es heterogene Ticketkombinationen aus unterschiedlichen Preisen und Sitzkategorien gibt, so sind auch die Präferenzen und Preisbereitschaften von Sportzuschauern unterschiedlich. Die Berücksichtigung der Heterogenität von Zuschauerpräferenzen und Preisbereitschaften mittels einer Clusteranalyse ist somit auch für die Conjoint-Analyse zu gewährleisten. Vor diesem Hintergrund diskutiert die nachfolgende Studie die Eignung der Conjoint-Analyse zur Bestimmung von heterogenen Zuschauerpräferenzen und Preisbereitschaften für Sporteventtickets. Dazu werden die Präferenzen und Preisbereitschaften von Zuschauern im deutschen Frauenfußball im Rahmen eines Conjoint-Experiments untersucht und anschließend mittels Clusteranalyse in unterschiedliche Segmente unterteilt. Der Beitrag orientiert sich an folgenden Forschungsfragen:

1. Inwiefern ist die Conjoint-Analyse geeignet, um Ticketpräferenzen und Preisbereitschaften von Zuschauern für Sportevent-Tickets zu ermitteln?
2. Welche Zuschauersegmente lassen sich im Rahmen der Frauen-Weltmeisterschaft identifizieren und wie können diese Segmente beschrieben und auf den Frauenfußball insgesamt übertragen werden?
3. Wie unterscheidet sich die Preisbereitschaft der Zuschauersegmente für verschiedene Ticketangebote hinsichtlich der sportlichen Relevanz und der Sitzqualität?

In dieser grundlegenden Studie geht es vor allem darum, Preisaufläge (und ggfs. Preisabschläge) für relevante Ticketmerkmale, wie der sportlichen Relevanz, mit Hilfe der klassischen Conjoint-Analyse zu bestimmen. Untersuchungskontext dieser Studie ist der Frauenfußball. Dabei steht diese Sportart stellvertretend für Sportarten, bei denen nur unzureichende Daten aus der Vergangenheit vorliegen, um daraus präferenzorientierte Ticketpreise abzuleiten.

2.2 Methodische Grundlagen der Conjoint-Analyse

Diese Studie verfolgt das Ziel, die Präferenzen und Preisbereitschaften von Zuschauern im deutschen Frauenfußball zu identifizieren und die Zuschauer auf Basis dessen in Segmente zu unterteilen. Insbesondere im deutschen Frauenfußball mangelt es an Erfahrungswerten und Vergangenheitsdaten über die Ticketpräferenzen von Zuschauern. Um die Präferenzen der Zuschauer und deren Preissensitivität für Sporttickets zu untersuchen, wird hier die traditionelle Conjoint-Analyse in Kombination mit einer Cluster-Analyse eingesetzt. Dekompositionelle Methoden wie die Conjoint-Analyse werden seit den frühen 70er Jahren in breitem Umfang genutzt, um Trade-Offs von Konsumenten zwischen Produkten und Dienstleistungen mit mehreren Merkmalen zu messen (Green & Rao, 1971; Green & Srinivasan, 1990; Johnson, 1974). Voraussetzung für die Conjoint-Analyse ist, dass Kunden ihre Produktbewertung anhand verschiedener Eigenschaften mit unterschiedlichen Ausprägungen treffen. Eine Produktkarte in der Conjoint-Analyse besteht demnach aus einem Bündel von Eigenschaften, die wiederum verschiedene Ausprägungen besitzen (Backhaus et al., 2018). Der Vorteil der Conjoint-Analyse für die Bestimmung von Präferenzen und Preisbereitschaften besteht in der Vermeidung einer direkten Frage nach maximalen Ticketpreisen oder den Wichtigkeiten einzelner Merkmale. Die Validität direkter Befragungen wird ohnehin kritisch diskutiert (Walker & Mondello, 2007). Durch die indirekte Befragung in der Conjoint-Analyse werden die Ergebnisse nicht durch sozial erwünschte Antworten beeinflusst. Aus Managementsicht kann die Conjoint-Analyse helfen, die am meisten präferierten Merkmale von Produkten oder Dienstleistungen zu bestimmen. In Kombination mit einer Clusteranalyse ist dies auch für Segmente mit unterschiedlichen Präferenzen möglich.

Die Vorhersage menschlichen Beurteilungs- und Entscheidungsverhaltens stellt das generelle Ziel der Conjoint-Analyse dar. Die häufigste Anwendung ist die Preisfindung, sowie die Marktsegmentierung. Zudem wird die Conjoint-Analyse häufig bei innovativen Produkten oder Dienstleistungen eingesetzt, da für die Ermittlung von Präferenzen und

Preisbereitschaften keine Vergangenheitsdaten erforderlich sind (Baier & Bruschi, 2009a). Die zentrale Grundannahme besteht darin, dass das zu untersuchende Angebot aus einem Bündel von nutzenstiftenden Merkmalen besteht. So werden bei der Conjoint-Analyse Produktkarten erzeugt (s. bspw. Abb. 2.1), die von den Probanden ganzheitlich beurteilt und in eine Präferenzreihenfolge gebracht werden; die meist präferierte Produktkarte wird auf Rang eins einsortiert, die am wenigsten präferierte auf dem letzten Rang. Dabei wird angenommen, dass die Präferenzreihenfolge zukünftige Kaufentscheidungen zutreffend antizipiert. Die gesamtheitliche Beurteilung der Produktkarten entspricht demnach einer realistischen Kaufentscheidung, die durch die optische Ausgestaltung der Produktkarten unterstrichen wird (Leigh, MacKay, & Summers, 1984). Die hier verwendete traditionelle Conjoint-Analyse ist dabei in der Lage, Preisdifferenzen (Preisaufläge bzw. Preisabschläge) zwischen relevanten Ticketmerkmalen zu bestimmen.

2.3 Eignung der Conjoint-Analyse zur Ermittlung von Preisbereitschaften für Sporteventtickets

Neben den genannten Vorteilen der Conjoint-Analyse sind die Anwendungsmöglichkeiten der Conjoint-Analyse aufgrund ihres dekompositionellen Charakters jedoch auch an unterschiedliche Bedingungen geknüpft. Woratschek (1998, 2000) hat diese für Sportdienstleistungen kritisch diskutiert. Die Erfüllung der nachfolgenden Bedingungen wird für den Einsatz der Conjoint-Analyse zur Ermittlung von Preisbereitschaften für Sporteventtickets als elementar erachtet (Woratschek, 1998, 2000):

2.3.1 Tickets aus dienstleistungstheoretischer Sicht

Sportdienstleistungen lassen sich mit Hilfe der Konstrukte Verhaltensunsicherheit (Risikoebene), Integrativität (Prozessebene) und Individualität (Ergebnisebene) charakterisieren (Woratschek, 2000). Die Conjoint-Analyse ist dann für Preisentscheidungen geeignet, wenn die

Verhaltensunsicherheit, die Integrativität und die Individualität der Dienstleistung als gering eingestuft werden können. Die Verhaltensunsicherheit beschreibt dabei das empfundene Risiko über das zukünftige Verhalten der Vertragspartner zum Zeitpunkt des Kaufvertrags. Die Integrativität steht für das Ausmaß externer Produktionsfaktoren im Erstellungsprozess einer Sportdienstleistung. Die Individualität beschreibt, inwieweit das Leistungsergebnis maßgeschneidert bzw. standardisiert ist.

Die Verhaltensunsicherheit ist ein zentrales Konstrukt der Informationsökonomik und entsteht aufgrund einer asymmetrischen Informationsverteilung beteiligter Vertragspartner bei Vertragsabschluss. Es ist also unklar, ob die eigenen Erwartungen bei Vertragsabschluss aufgrund möglicher versteckter Absichten oder gar versteckter Handlungen des Vertragspartners wirklich erfüllt werden. Bei hoher Verhaltensunsicherheit müsste das Risiko endogenisiert werden, wohingegen die Conjoint-Analyse Risiken als exogene Variablen betrachtet. Zudem stehen unspezifische Erwartungen im Widerspruch zu einer exakten Abwägung der Eigenschaften im Experiment. Der Verkauf von Tickets für Sportevents findet in regelmäßigen Abständen statt. Aufgrund der ständigen nachvollziehbaren Wiederholung der Dienstleistung in einem vergleichbaren Kontext ist die Verhaltensunsicherheit hinsichtlich des Ablaufs eines Sportevents für mögliche Zuschauer als eher gering einzustufen, wenn man vom Verlauf und Ergebnis des sportlichen Wettbewerbs absieht. Aus Perspektive der Verhaltensunsicherheit ist daher die Conjoint-Analyse für die Preisanalyse von Tickets grundsätzlich geeignet.

Die Integrativität bezieht sich auf die Einbeziehung des Kunden als externen Faktor in den Dienstleistungsprozess. Eine hohe Integrativität liegt vor, wenn der Kunde in viele Stufen der Wertschöpfungskette eingreift (Eingriffstiefe) und mit dem Kunden bei der Leistungserstellung häufig und intensiv kommuniziert werden muss (Eingriffsintensität) (Engelhardt, Kleinaltenkamp, & Reckenfelderbäumer, 1993). Eine hohe Integrativität erfordert daher die Modellierung vieler Merkmalsausprägungen in den unterschiedlichen Stufen der Leistungserstellung. Eine zu hohe Anzahl von relevanten Merkmalen gefährdet die Validität einer Conjoint-Analyse. Zudem entscheidet in der Akquisephase oft

die Reputation des Anbieters darüber, welche Dienstleistung ein Nachfrager kauft. Daher ist es fraglich, ob bei einer hohen Integrativität die Faktoren der bei der klassischen Conjoint-Analyse unterstellten Abwägung einzelner Produktmerkmale überhaupt stattfindet und nicht etwa durch ein aus der Reputation abgeleitetes Pauschalurteil ersetzt wird. Wie dem auch sei, beim Kauf von Tickets eines Sportevents ist der Grad der Integrativität niedrig, weil beim Ticketkauf weder ein Eingriff auf viele Wertschöpfungsstufen erfolgt noch eine intensive Kommunikation mit dem Käufer notwendig ist. Zudem sind auch nur relativ wenige Ticketmerkmale kaufentscheidend, so dass auch aus dieser Perspektive einer Anwendung der Conjoint-Analyse für Kaufentscheidungen von Tickets für Sportevents nichts im Wege steht.

Die Individualität kann auf einem Kontinuum zwischen standardisierten und maßgeschneiderten Leistungsergebnissen dargestellt werden. Maßgeschneiderte Sportdienstleistungen (individuelle Trainingspläne oder Investitionsberatungen für Profisportler) gehen dabei auf die individuellen Ansprüche, Wünsche und Bedürfnisse der Kunden ein. Oft sind diese bei Vertragsabschluss nur grob erfasst und werden erst im Laufe der Leistungserstellung näher definiert, so dass die Merkmale nach Vertragsabschluss noch stärker variieren können. Der Verkauf von Tickets eines Sportevents zeichnet sich durch eine geringe Individualität aus. Die aus dem Ticket abzuleitenden Ansprüche zur Leistungserstellung sind weitgehend standardisiert. Daher ist auch aus dieser Perspektive die Conjoint-Analyse für die Ermittlung von Preisbereitschaften von Tickets geeignet.

2.3.2 Geringe Anzahl an Eigenschaften bestimmt die Kaufentscheidung vollständig

Für die valide Durchführung einer Conjoint-Analyse ist es unerlässlich, dass die Kaufentscheidung durch eine möglichst geringe Anzahl an Eigenschaften bestimmt wird. In der Literatur wird diskutiert, dass zu viele Eigenschaften für die Ergebnisse der Befragung kontraproduktiv sein können. Dies ist zum einen auf die begrenzte menschliche Leistungsfähigkeit, zum anderen aber auch auf

forschungsökonomische Gründe zurückzuführen (Weiber & Mühlhaus, 2009). Auch wenn man durchaus reduzierte Designs anwenden kann, führt dennoch die Berücksichtigung einer zu hohen Anzahl an Stimuli zu einer Informationsüberflutung der Befragten (Green & Srinivasan, 1990). Die Umfrage würde zu lange dauern und könnte aufgrund der Überforderung der Probanden auch zu einer hohen Abbruchquote führen. Dementsprechend ist es unerlässlich, sich auf wenige, dafür zentrale Eigenschaften zu konzentrieren. Auch die Anzahl der Eigenschaftsausprägungen muss berücksichtigt werden. Der Number-of-Level-Effect bedeutet, dass eine höhere Anzahl von Eigenschaftsausprägungen eine höhere relative Bedeutung für Eigenschaften mit mehr Ausprägungen nach sich zieht. Dies hat verzerrte Nutzenwerte zur Folge (Verlegh, Schifferstein, & Wittink, 2002; Wittink, Huber, Zandan, & Johnson, 1992).

Im Allgemeinen haben Tickets für Sportevents unterschiedliche Eigenschaften, die die Kaufentscheidung beeinflussen können. Dies kann beispielsweise die sportliche Relevanz (z.B. Ligaspiel vs. Playoffs), der Wochentag, der Startzeitpunkt, die gegnerische Mannschaft, die Sitzkategorie oder sogar der Veranstaltungsort sein. All diese Eigenschaften können die Präferenzen der Verbraucher beeinflussen. Wie jedoch schon diskutiert, führt eine zu hohe Anzahl an Eigenschaften zu einer Überforderung der Probanden. Allerdings sind Eigenschaften wie der Wochentag, die Startzeit und auch der Veranstaltungsort i.d.R. zum Verkaufsstart der Eintrittskarten bekannt und demnach je nach Betrachtungsweise als konstant zu betrachten. Eine Unterscheidung der Tickets für ein Sportevent findet regelmäßig auf Basis unterschiedlicher Sitzkategorien und daraus resultierender unterschiedlicher Preise statt. In dieser Studie gehen wir davon aus, dass der Ticketpreis, die Sitzkategorie und sportliche Relevanz die Kaufentscheidung signifikant determinieren. Insgesamt kann für Tickets eines Sportevents eine realistische Kaufentscheidung bereits mit einer geringen Anzahl an Eigenschaften modelliert werden, so dass eine Conjoint-Analyse mit hoher Validität durchgeführt werden kann.

2.3.3 Hohes Involvement der Kunden

Sportevents sind mit vielen Emotionen verbunden (Biscaia, Correia, Rosado, Maroco, & Ross, 2012; Hanin, 1999). Dementsprechend ist auch die Identifikation mit Sportlern oder Sportteams bei Zuschauern oft stark ausgeprägt (Donavan, Carlson, & Zimmermann, 2005; Ströbel, Woratschek, & Durchholz, 2019; Sutton, McDonald, Milne, & Cimperman, 1997; Wann & Branscombe, 1990, 1993). Ein hohes Involvement der Zuschauer ist bei einem Kauf von Tickets für Sportevents also durchaus anzunehmen. Bei einem hohen Involvement kann man davon ausgehen, dass der in der Conjoint-Analyse unterstellte Trade-Off von Produktmerkmalen gegeben ist.

2.3.4 Keine Make-or-Buy-Entscheidung

Die Conjoint-Analyse bildet keine Make-or-Buy-Entscheidung ab, wie sie sich häufig im Bereich von Dienstleistungen stellen kann. Ein Sportevent auf professionellem Niveau inklusive der Teilnahme beliebter Sportler oder Teams ist nahezu unmöglich nur durch die Eigenleistung des Kunden zu substituieren. Aus diesem Grund kann auch die Frage nach einer Make-or-Buy-Entscheidung ausgeschlossen werden.

2.3.5 Kosten unabhängig der Auslastung

Für die Organisation eines Sportevents fallen hohe Fixkosten an (Masterman, 2014). Mietkosten für die Veranstaltungsstätte sowie die Personalkosten für die Sportler, Teams und weitere Akteure des sportlichen Wettkampfs fallen unabhängig von der Auslastung der Veranstaltungsstätte an. Ebendies gilt auch für die Personalkosten rund um die Organisation des Events. Die variablen Kosten für einen einzelnen Zuschauer eines Sportevents sind daher äußerst gering und tendieren gegen null. Daher sind die anfallenden Kosten eines Sportevents zum größten Teil unabhängig von der Auslastung der Veranstaltungsstätte, so dass man für gewinnoptimale Preisentscheidungen die Kostenseite vernachlässigen kann. Die Conjoint-Analyse ermöglicht die

Modellierung von erlösoptimalen Preiskalkulationen. Daher ist eine weitere Betrachtung der Kostenseite nicht erforderlich.

2.3.6 Konkurrenzverhalten

Die Conjoint-Analyse wird häufig für Produktentwicklungen und -verbesserungen sowie zur Preisfindung eingesetzt. Dabei werden in der klassischen Conjoint-Analyse grundsätzlich keine Konkurrenzreaktionen modelliert. Eine Besonderheit des Sportmanagements ist jedoch die Tatsache, dass professionelle Sportvereine und -verbände als regionale „Quasi“-Monopolisten agieren. Studien zu Fanidentifikation und -loyalität zeigen eindrucksvoll, dass trotz schlechter Leistungen der Sportler oder Teams und der damit verbundenen Unzufriedenheit der Zuschauer und Fans ein Wechsel des Anbieters oder Klubs nahezu ausgeschlossen ist (Woratschek, Horbel, & Popp, 2018). So ist es nahezu undenkbar, dass ein unzufriedener Fan der deutschen Fußball-Nationalmannschaft dieser den Rücken kehrt, um die niederländische Nationalmannschaft zu unterstützen. Der Einbezug der Konkurrenzreaktionen im Ticketing für Sportevents ist somit vernachlässigbar.

Zusammenfassend lässt sich festhalten, dass die von Woratschek (1998, 2000) adressierten Anforderungen zum Einsatz der Conjoint-Analyse im Dienstleistungsbereich für das Dienstleistungsangebot des Ticketings für Sportevents weitgehend erfüllt werden. Somit ist die Conjoint-Analyse grundsätzlich für die gewinnmaximale Bestimmung von Ticketpreise gut geeignet.

2.4 Empirische Untersuchung

2.4.1 Forschungsdesign

Bei der Conjoint-Analyse ist die Konstruktion eines passenden Untersuchungsdesigns von entscheidender Bedeutung, um die Entscheidungsfindung der Probanden so realitätsnah wie möglich abzufragen. Die zentralen Bausteine einer Conjoint-Studie sind Produktkarten, die aus

unterschiedlichen Handlungsalternativen mit definierten Eigenschaften und unterschiedlichen Ausprägungen bestehen (Baier & Bruschi, 2009b). In der nachfolgenden Studie bilden verschiedene Sporteventtickets mit variierenden Merkmalsausprägungen diese Produktkarten. Es ist davon auszugehen, dass die Preisbereitschaft unter anderem von leistungsbezogenen Merkmalen wie der Sitzkategorie abhängt. So ist grundsätzlich zu erwarten, dass Zuschauer für einen vermeintlich besseren Sitzplatz eine höhere Preisbereitschaft aufweisen, als für einen vermeintlich schlechteren Platz. Zudem ist im Fall von Fußballspielen der deutschen Frauen Fußball-Nationalmannschaft insbesondere auch die Eigenschaft „Spielkategorie“ von großer Bedeutung. Diese ist als Indikator für die sportliche Relevanz zu sehen. So werden in der Regel Freundschaftsspiele, sowie Qualifikationsspiele zu Europa- oder Weltmeisterschaften ausgetragen. Im vorliegenden Fall werden diese um Gruppenspiele einer Weltmeisterschaft ergänzt, da diese in der Regel eine höhere sportliche Relevanz genießen als EM-Qualifikationsspiele. Es ist auch hier davon auszugehen, dass sportlich relevantere Spiele wie die einer Weltmeisterschaft zu einem höheren Nutzen bei den Zuschauern führen, als sportlich unbedeutendere Spiele, wie z.B. Freundschaftsspiele (Woratschek & Schafmeister, 2008). Bei einer Kaufentscheidung spielt naturgemäß auch der Kaufpreis eine wichtige Rolle. Da die Erfahrungen zu den Preisbereitschaften der Zuschauer eines Spiels der deutschen Frauen Fußball-Nationalmannschaft nur eine relativ geringe Datenbasis aufweist und zudem die ermittelten Preis-Absatzfunktionen nicht konsistent sind, wurde der Ticketpreis ebenfalls in das Untersuchungsdesign mit aufgenommen.

Weitere Informationen zu den einzelnen Spielen stehen zum Erhebungszeitpunkt nicht zur Verfügung. So ist beispielsweise unbekannt, welche Spielpaarungen in welchem Stadion zu welcher Zeit stattfinden. Dementsprechend wurde ein fiktives Spiel zwischen Deutschland und Dänemark ausgewählt und als standardisierte Informationen in das Feldexperiment aufgenommen. Als Austragungsort wurde das Stadion in Frankfurt am Main ausgesucht, da in diesem auch die Befragung stattfand. Die Anstoßzeit wurde auf 18.15 Uhr festgelegt, ein Wochentag jedoch nicht, um Terminkollisionen mit

privaten Terminen zu vermeiden. Somit wurden drei Hauptmerkmale und ihre Merkmalseigenschaften ausgewählt (siehe Tab. 2.1).

Tab. 2.1: Merkmale und deren Eigenschaften im Conjoint-Forschungsdesign.

Ticketpreis	Sitzkategorie	Spielkategorie
€ 50,00	Kategorie 1: Haupttribüne, Unterrang	WM-Gruppenspiel
€ 35,00	Kategorie 2: Haupttribüne, Oberrang	EM-Qualifikationsspiel
€ 20,00	Kategorie 3: Tribünen hinter den Toren	Freundschaftsspiel

Im Rahmen der empirischen Untersuchung wird dem Ticketpreis eine Opferkomponente zugesprochen (Woratschek, 1998). Dementsprechend wird zwischen den Teilnutzenwerten des Preises ein negativ-linearer Zusammenhang angenommen. Dies bedeutet, dass ein höherer Ticketpreis einen geringeren Nutzen zur Folge hat, wenn die weiteren Merkmale konstant bleiben. Im Gegensatz dazu sind sowohl die Sitzkategorie, als auch die Spielkategorie Qualitätsindikatoren, für die zwischen den Merkmalseigenschaften und dem daraus resultierenden Nutzen ein positiver Zusammenhang angenommen wird.

Das Forschungsdesign besteht somit aus drei Merkmalen mit jeweils drei Eigenschaften, was insgesamt zu 3^3 , also 27 möglichen Ticketkombinationen führt. Die Aufgabenstellung, diese 27 Kombinationen in eine präferierte Reihenfolge zu bringen, würde jedoch zu einer Überforderung der Befragten führen. Nach Addelman (1962) wurden daher diese 27 Kombinationen mit Hilfe eines lateinischen Quadrats auf 9 Ticketvarianten reduziert.

Um die Tickets so realistisch wie möglich zu gestalten, wurde das ursprüngliche Ticketdesign sowie die offiziellen Markenlogos von DFB, FIFA und UEFA verwendet. Entsprechend der Profilmethode sind alle Merkmale auf den Tickets vertreten (Teichert, 2000), sowohl schriftlich als auch visuell. Das fiktive Spiel zwischen Deutschland und Dänemark, die Anstoßzeit und der Austragungsort wurden auf jedem Ticket als konstante Information bereitgestellt. Abb. 2.1 zeigt exemplarisch drei der verwendeten neun Produktkarten.

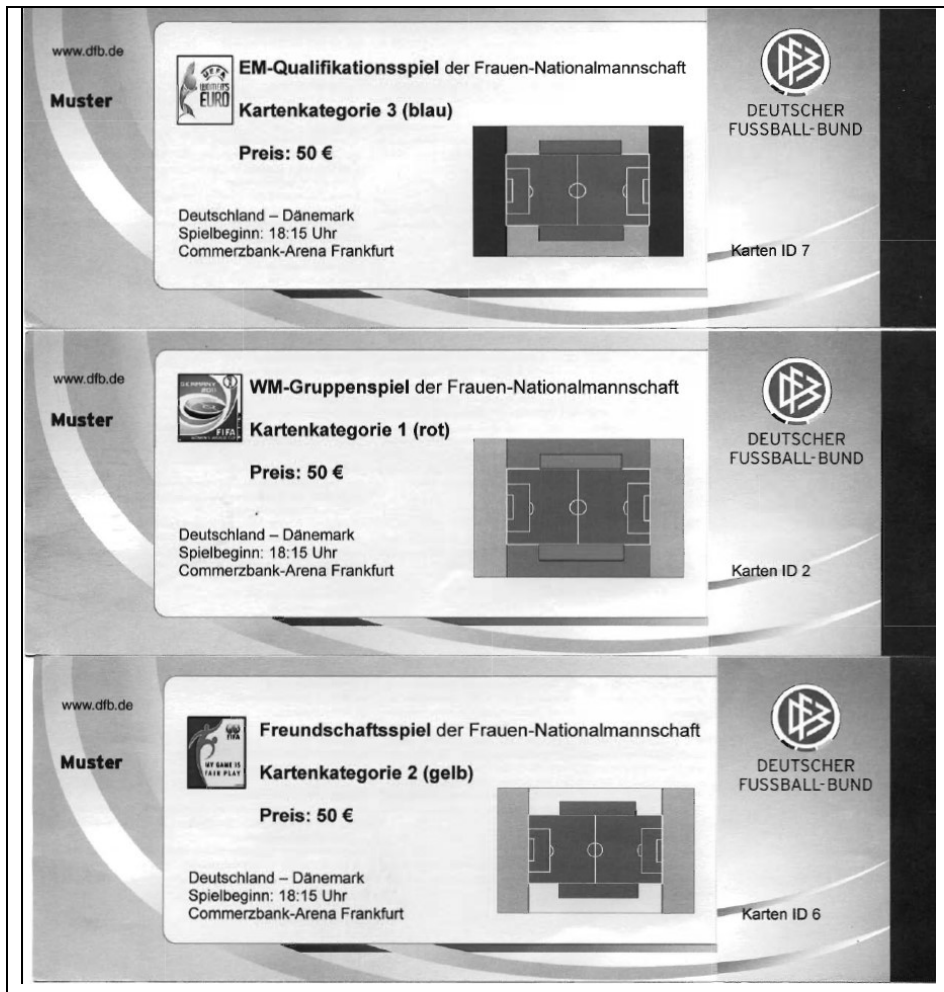


Abb. 2.1: Beispielhaftes Design der Produktkarten.

Da das Ziel dieser empirischen Untersuchung die Ermittlung von Preisaufschlägen bzw. -abschlägen ist und Wert auf ein schlankes Forschungsdesign gelegt wurde, wurde auf eine Limit Conjoint-Analyse (Voeth & Hahn, 1998) verzichtet.

2.4.2 Datenerhebung

Im Hinblick auf die Realisierbarkeit der Befragung ist insbesondere auf die Erreichbarkeit der Grundgesamtheit, Zuschauer von Spielen der deutschen

Frauen Fußball-Nationalmannschaft, zu achten. Ein angemessener Rahmen hierfür stellt ein Länderspiel besagter Mannschaft dar. Aufgrund des schlank gewählten und reduzierten Forschungsdesigns ist auch die Überforderung der Probanden im hektischen Umfeld des Stadions weitestgehend eliminiert. Die Datenerhebung fand daher während eines Freundschaftsspiels zwischen den Frauen Fußball-Nationalmannschaften Deutschlands und Brasiliens am 22. April 2009 in der Frankfurter Commerzbank Arena statt. Die Befragung startete 3 Stunden vor Beginn des Freundschaftsspiels innerhalb des Stadiongeländes und dauerte pro Proband ca. fünf Minuten. Insgesamt konnten 446 Zuschauer mittels Convenience-Sampling befragt werden. Nach einer Datenbereinigung auf unvollständig ausgefüllte Fragebögen (41) und inkonsistente Werte (124 Fälle) konnten 281 Fragebögen für die weitere Analyse verwendet werden.

2.4.3 Ergebnisse

Die Ergebnisse der aggregierten Conjoint-Analyse sind in Tab. 2.2 zu sehen. Durch die Analyse der Spannweiten der Teilnutzenwerte pro Merkmal kann auf die Wichtigkeit geschlossen werden.

Tab. 2.2: Teilnutzenwerte und relative Wichtigkeiten der aggregierten Conjoint-Analyse.

	Teilnutzenwert	Standardfehler	Relative Wichtigkeit
Ticketpreis			39,17 %
50 €	-3,782	,612	
35 €	-2,522	,408	
20 €	-1,261	,204	
Spielkategorie			41,65 %
WM-Gruppenspiel	1,290	,236	
EM-Qualifikationsspiel	,100	,236	
Freundschaftsspiel	-1,390	,236	
Sitzkategorie			19,18 %
Kat. 1 (rot)	,631	,236	
Kat. 2 (gelb)	-,028	,236	
Kat. 3 (blau)	-,603	,236	
Konstante	7,522	,411	

Auf aggregierter Ebene weisen die befragten Zuschauer der Spielkategorie 44 % relative Wichtigkeit zu, gefolgt vom Preis mit 31 % und der Sitzkategorie mit 25 %. Aufgrund der Heterogenität von Sporteventbesuchern (Hunt, Bristol, & Bashaw, 1999; Mullin, Hardy, & Sutton, 2014; Wann & Branscombe, 1990) ist die aggregierte Analyse der gesammelten Daten grundsätzlich mit einem Informationsverlust verbunden. Die Zuschauer wurden daher entsprechend ihrer Präferenzen mittels einem hierarchisch-agglomerativen Clusterverfahren segmentiert, die in sich möglichst homogen sind. Um potenzielle Ausreißer zu identifizieren, wurde zunächst eine Single-Linkage-Clusteranalyse durchgeführt. Dabei wurden drei Ausreißer identifiziert, die von der weiteren Analyse ausgeschlossen wurden. Anschließend folgte eine Average-Linkage-Clusteranalyse mit normalisierten Teilnutzenwerten und der Pearson-Korrelation. Diesen Ansätzen folgend, wurde die Stichprobe zunächst auf eine endgültige Stichprobengröße von 278 Fällen reduziert und daraufhin fünf Cluster identifiziert. Diese Cluster unterscheiden sich hinsichtlich ihrer

Präferenzstruktur deutlich voneinander. Sie werden in Tab. 2.3 im Folgenden genauer beschrieben.

Tab 2.4 zeigt die zusätzlichen Preisbereitschaften der einzelnen Segmente für veränderte Ticketoptionen, die auf den Teilnutzenwerten aus Tab. 2.3 resultieren. Diese gehen von den Ausprägungen mit dem geringsten Nutzen aus.

Tab. 2.3: Teilnutzenwerte der identifizierten Cluster.

	Preis-sensitive Zuschauer	Relevanz-orientierte Zuschauer	Fanblock-Zuschauer	Erlebnis-orientierte EM-Fans	Sitzplatz-orientierte Zuschauer
Größe	35,6 %; n=99	48,9 %; n=136	3,6 %; n=10	2,5 %; n=7	9,4 %; n=26
Ticketpreis					
50 €	-7,136	-1,893	-2,500	-1,429	-2,019
35 €	-4,758	1,262	-1,667	-0,952	-1,346
20 €	-2,379	-0,631	-0,833	-0,476	-0,673
Spielkategorie					
WM-Gruppenspiel	0,273	2,446	0,233	-1,238	0,205
EM-Qualifikationsspiel	0,121	-0,002	-0,467	2,619	0,090
Freundschaftsspiel	-0,394	-2,444	0,233	-1,381	-0,295
Sitzkategorie					
Kat. 1 (rot)	0,354	0,490	0,467	0,619	2,487
Kat. 2 (gelb)	0,061	0,066	-2,200	-0,905	0,218
Kat. 3 (blau)	-0,414	-0,556	1,733	0,286	-2,705
Konstante	9,758	6,262	6,667	5,952	6,346
Relative Wichtigkeiten					
Ticketpreis	58 %	15 %	20 %	12 %	16 %
Spielkategorie	24 %	66 %	17 %	60 %	19 %
Sitzkategorie	18 %	19 %	63 %	28 %	65 %

Tab. 2.4: Zusätzliche Preisbereitschaften für andere Merkmalseigenschaften.

	Preis- sensitive Zuschauer	Relevanz- orientierte Zuschauer	Fanblock- Zuschauer	Erlebnis- orientierte EM-Fans	Sitzplatz- orientierte Zuschauer
Spielkategorie					
WM-Gruppenspiel	+ 4,21 €	+116,21 €	+0,00 €	+4,50 €	+11,14 €
EM-Qualifikationsspiel	+ 3,25 €	+ 58,02 €	-12,60 €	+126,00 €	+ 8,57 €
Freundschaftsspiel	---	---	---	---	---
Sitzkategorie					
Kat. 1 (rot)	+4,84 €	+24,88 €	-22,80 €	+10,50 €	+115,71 €
Kat. 2 (gelb)	+2,99 €	+ 14,80 €	-70,80 €	-37,50 €	+ 65,14 €
Kat. 3 (blau)	---	---	---	---	---

Das erste Cluster, preissensitive Zuschauer, hat eine Größe von 35,6 %. Für sie ist der Preis mit 58 % für die Kaufentscheidung am wichtigsten. Entsprechend toleriert diese Gruppe nur geringe Aufschläge für eine bessere Spielkategorie oder einen besseren Platz. So erhöht sich die Preisbereitschaft lediglich um € 4,21 für ein WM-Gruppenspiel im Vergleich zu einem Freundschaftsspiel, beziehungsweise um € 4,84 für Sitzkategorie 1 im Vergleich zu Sitzkategorie 3. Es lässt sich also deutlich erkennen, dass dieses Cluster nicht bereit ist, für eine bessere Qualität hohe Preiszuschläge in Kauf zu nehmen und deshalb nach günstigen Tickets sucht.

Im Gegensatz dazu dominiert im zweiten Cluster relevanzorientierte Zuschauer, das mit 136 Probanden (48,92 %) das größte Segment darstellt, das Merkmal Spielkategorie die Präferenzen. Dabei sind große Preissprünge zwischen den unterschiedlichen Spielkategorien festzustellen. So erhöht sich die Preisbereitschaft für ein WM-Gruppenspiel um € 116,21 im Vergleich zu einem Freundschaftsspiel. Der Preis spielt mit 15 % relativer Wichtigkeit nur eine untergeordnete Rolle. Es zeigt sich also deutlich, dass für Gruppenspiele bei Weltmeisterschaften für relevanzorientierte Zuschauer deutlich höhere Ticketpreise durchgesetzt werden können, als diese im Frauenfußball bislang üblich waren. Wenn man einen üblichen Ticketpreis bei Spielen im deutschen Frauenfußball in der günstigsten Sitzkategorie von 15 Euro zugrunde legt, kann

die Relevanz eines Spiels zu einem sieben bis achtmal höherem Preis in diesem Zuschauersegment führen.

Für Zuschauer in Cluster 3 ist die Sitzkategorie mit 63 % am wichtigsten. Dabei fällt aber auf, dass die Kategorie 3 (hinter dem Tor) am meisten präferiert wird, gefolgt von Kategorie 1. Es ist anzunehmen, dass Zuschauer dieses Clusters einen Platz in den Fankurven bevorzugen, die üblicherweise hinter dem Tor zu finden sind. Entsprechend kann man dieses Cluster als Fanblock-Zuschauer bezeichnen. Das Cluster ist mit 3,6 % der Gesamtstichprobe sehr klein.

Ein weiteres sehr kleines Cluster wurde als erlebnisorientierte EM-Fans identifiziert. Wie für relevanzorientierte Zuschauer in Cluster zwei, ist die Spielkategorie mit 60 % am wichtigsten, gefolgt von der Ticketkategorie mit 28 %. In den Präferenzen innerhalb der Spielkategorie unterscheiden sich die Cluster jedoch massiv. So schätzen erlebnisorientierte EM-Fans EM-Qualifikationsspiele am meisten. Darüber hinaus werden Plätze in Kategorie 3 denen in Kategorie 2 bevorzugt. Für ein WM-Gruppenspiel steigt die Preisbereitschaft gegenüber einem Freundschaftsspiel nur um 4,50 €.

Im fünften Cluster, den sitzplatzorientierten Zuschauern, dominiert die Sitzkategorie mit einer relativen Wichtigkeit von 65 %. Dabei sind sitzplatzorientierte Zuschauer bereit, einen Aufpreis von 65,14 € zu bezahlen, um in Kategorie 2 anstatt Kategorie 3 zu sitzen. Für einen Platz in Kategorie 1 würden sie sogar einen Aufpreis von 115,71 € im Vergleich zu Kategorie 3 in Kauf nehmen. Der Preis spielt mit 16 % relativer Wichtigkeit eine Nebenrolle. Mit 9,35 % ist dieses das drittgrößte der identifizierten Cluster.

2.5 Diskussion und Implikationen

Die Präferenzen der identifizierten Cluster unterscheiden sich deutlich, sowohl untereinander als auch hinsichtlich der Ergebnisse auf aggregierter Ebene. Es zeigt sich also, dass eine Segmentierung von Zuschauern anhand ihrer Ticketpräferenzen zielführend ist. Um die Nachfrage aller Zuschauer zu befriedigen, ist es unerlässlich, die Preisstrategie an den Präferenzen der

einzelnen Segmente auszurichten. Aus Gründen der Umsetzbarkeit und zur Ableitung von Handlungsempfehlungen für Sportmanager empfehlen wir jedoch, diese fünf Cluster-Lösung mit zwei äußerst kleinen Segmenten zu drei Hauptzuschauersegmenten zu aggregieren: sitzkomfortorientierte Zuschauer (13%, Cluster 3 und 5), preissensitive Zuschauer (36%, Cluster 1), und relevanzorientierte Zuschauer (51%, Cluster 2 und 4).

Im Falle eines repräsentativen Samples sollten somit ca. 10 % der besten Sitzplätze im Stadion für sitzkomfortorientierte Zuschauer vorgesehen werden, da dieses Segment bereit ist, einen hohen Preisaufschlag für die besten Sitzplätze in Kauf zu nehmen. Manager sollten daher auf eine angemessene Zahl qualitativ hochwertiger und hochpreisiger Plätze achten. Zu viele Plätze in dieser Kategorie würden zu einem Überangebot an Tickets mit einem hohen Preis führen, den andere Zuschauer jedoch nicht bereit sind zu bezahlen. Zu wenige Plätze in dieser Kategorie bedeuten einen Verzicht auf zusätzliche Einnahmen.

Die Studie zeigt auch, dass nicht alle Zuschauersegmente die Sitzqualität als besonders relevant einstufen. Für über ein Drittel der Befragten ist der Preis entscheidend. Dabei spielt es für diese preissensitiven Fans nur eine untergeordnete Rolle, in welcher Kategorie des Stadions der Platz ist. Daraus lässt sich ableiten, dass ca. ein Drittel der Tickets zu einem günstigen Preis angeboten werden sollten, um dieses Zuschauersegment nicht zu verärgern.

Dem dritten Segment der spielorientierten Zuschauer ist ein Spiel mit hoher sportlicher Relevanz besonders wichtig. Dies spiegelt sich in den höheren Nutzenwerten von WM-Gruppenspielen im Vergleich zu EM-Qualifikationsspielen und Freundschaftsspielen wider. Für mehr als die Hälfte aller Probanden ist demnach die sportliche Relevanz maßgeblich für die Kaufentscheidung eines Sporteventtickets. Dabei nehmen diese auch einen erheblichen Preisaufschlag in Kauf, so dass Zuschläge für Events mit erhöhter sportlicher Relevanz auf die Akzeptanz von vielen Zuschauern stoßen. Wenn man bedenkt, dass die sportliche Relevanz unter bestimmten Umständen zu einer sieben bis achtmal höheren Preisbereitschaft in bestimmten Zuschauersegmenten führt, wird deutlich, dass zusätzliche Forschungen zur Gestaltung von präferenzorientierten Ticketpreisen von Sportevents mit Hilfe von

Conjoint-Analysen dringend angezeigt sind. Die vorliegende Analyse liefert daher wertvolle Informationen für die Preispolitik und die zukünftigen Marketingaktivitäten und kann u.a. dazu beitragen, dass Fanproteste aufgrund von Preisentscheidungen vermieden werden.

2.6 Fazit

Ziel dieser Studie war es, zunächst die Anwendbarkeit der Conjoint-Analyse zur Ermittlung von Präferenzen und Preisbereitschaften für den Kauf von Tickets im Sport zu diskutieren. Die grundsätzliche Eignung der Conjoint-Analyse in diesem Bereich wurde anhand von aus der Literatur entnommenen Anforderungskriterien festgestellt. Die Anwendung der Conjoint-Analyse ist für die präferenzorientierte Ticketpreisgestaltung insbesondere dann zu empfehlen, wenn es keine zuverlässigen und belastbaren historischen Daten zum Kaufverhalten der Zuschauer gibt. Darüber hinaus wurden in der vorliegenden Studie vor allem auf die sportliche Relevanz abgestellt, mit dem Ergebnis, dass neben den Sitzkategorien erhebliche Aufschläge für Sportevents mit erhöhter sportlicher Relevanz möglich sind. Es konnte herausgestellt werden, dass die Berücksichtigung von heterogenen Ticketpräferenzen bei Zuschauern unentbehrlich ist, da die Preisbereitschaften erheblich von den offerierten Sitzkategorien und der sportlichen Relevanz abhängen. Ein erheblicher Anteil der Zuschauer ist durchaus bereit, erhebliche Preiszuschläge für Sportevents mit hoher sportlicher Relevanz zu bezahlen. Nicht alle Fans sind preissensitiv, d.h. sie reagieren auf Preiserhöhungen mit Protesten oder Nichtkauf. Es gibt zudem Zuschauer, die bereit sind für gute Sitzplätze größere Preisauflschläge zu bezahlen.

Daher würde die Analyse aggregierter Daten zu verzerrten Ergebnissen und somit falschen Entscheidungen bezüglich der Preisgestaltung und der Bedarfsprognose von Sporteventtickets führen. Dementsprechend ist eine Clusteranalyse essentiell, um relevante Implikationen für Sportmanager abzuleiten, die den heterogenen Präferenzen der Zuschauer entsprechen. Demzufolge müssen die Ergebnisse bisheriger Studien zu Ticketpreisen, die von

homogenen Ticketqualitäten (Heilmann & Wendling, 1976; Rascher, McEvoy, Nagel, & Brown, 2007) bzw. homogenen Präferenzen bzw. durchschnittlichen Preisbereitschaften für Tickets ausgehen (Bjørnskov Pedersen, Kiil, & Kjær, 2011; Gershenfeld, 2015; Greenwell, Popp, Brownlee, & Jordan, 2007) kritisch hinterfragt werden.

In dieser Studie wurden jedoch weder erlösmaximale Preise für konkrete Sportevents in unterschiedlichen Kontexten (z.B. unterschiedliche Sportarten, unterschiedliche Ligen) noch konkrete Ticketpreise ermittelt. Für die Ermittlung von Preisbereitschaften für Tickets sind Weiterentwicklungen wie die Limit Conjoint-Analyse zu verwenden (Voeth & Hahn, 1998). Eine weitere signifikante Weiterentwicklung ist die Choice-Based Conjoint-Analyse, in welcher Auswahlentscheidungen zwischen verschiedenen Ticketalternativen getroffen werden (Balderjahn, Hedergott, & Peyer, 2009; DeSarbo, Ramaswamy, & Cohen, 1995). Diese kann auch durch ein latentes Clusterverfahren erweitert werden, um der Heterogenität von Sportzuschauern noch besser gerecht zu werden (DeSarbo, Wedel, Vriens, & Ramaswamy, 1992). Durch die Möglichkeit der Aufnahme weiterer Eigenschaften und Merkmalsausprägungen kann eine Kaufentscheidung noch realitätsnäher modelliert werden. (Green, Krieger, & Wind, 2001). Dennoch zeigt diese grundlegende Studie deutlich, dass die Anwendung der Conjoint-Analyse für die Modellierung von Kaufentscheidungen bei Tickets von Sportevents grundsätzlich sehr gut geeignet ist. Daher sollte zukünftige Forschung im Sportmanagement Conjoint-Analysen zur Ermittlung von konkreten Preisbereitschaften für unterschiedliche Ticket-Alternativen stärker in Erwägung ziehen, um die Spielräume für höhere Einnahmen aus dem Verkauf von Tickets im Sport in unterschiedlichen Kontexten zu erforschen.

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Kapitel 3: Heterogene Präferenzstrukturen und der Einfluss innovativer Ticketmerkmale

How well do you know your spectators? A study on spectator segmentation based on preference analysis and willingness to pay for tickets

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Citation:

Kaiser, M., Ströbel, T., Woratschek, H., & Durchholz, C. (2019). How well do you know your spectators? A study on spectator segmentation based on preference analysis and willingness to pay for tickets. *European Sport Management Quarterly*, 19(2), 178–200.

<https://doi.org/10.1080/16184742.2018.1499790>

This is an Accepted Manuscript of an article published by Taylor & Francis in „European Sport Management Quarterly“ on 02 August 2018, available online: <https://www.tandfonline.com/doi/full/10.1080/16184742.2018.1499790>.

Abstract:

Research question: Do club managers know enough about their spectators? Fan protests against increasing ticket prices in European sports show the ongoing disconnect between fans and clubs. The purpose of this article is to examine sport event spectators' preferences for tickets and their willingness to pay (WTP) considering innovative ticket features. This research contributes to existing research on spectator segmentation and ticket pricing.

Research methods: This study is the first in sport management literature to apply choice-based conjoint analysis in combination with latent classes. We conduct online surveys of two German basketball clubs and collect data of more than 750 spectators.

Results and findings: Benefit segmentation analyses of both spectator groups lead to four spectator segments each, which differ depending on preferences for opposing teams, seat categories, and WTP. The results show that the prevailing assumption of homogeneous spectator preferences in sport management research leads to estimation bias.

Implications: Spectator preferences are heterogeneous. Therefore, club managers need to know and understand their spectators to better adjust ticket options. Furthermore, the results provide theoretical contributions for spectator segmentation and ticket pricing literature.

Keywords: Ticket pricing, benefit segmentation, willingness-to-pay measurement, choice-based conjoint analysis, latent class analysis

3.1 Introduction

In recent years, there is an increasing demand for professional sport events, among other factors caused by technological advances (Shapiro, Drayer, & Dwyer, 2016), growth of resale markets (Drayer & Martin, 2010) and increased leisure orientation (Funk, Filo, Beaton, & Pritchard, 2009). Therefore, sport organizations have developed advanced pricing strategies in order to maximize revenues, frequently leading to increased ticket prices. However, increasing ticket prices can also lead to fan protests, e.g. in German basketball, FC Bayern Munich had to re-evaluate its ticket price strategies because of fan protests. President Uli Hoeneß acknowledged that the club management under-estimated the topic (Galinski, 2011). Fans are also protesting against rising ticket prices at Ratiopharm Ulm. Local fans have protested against high prices during the playoffs, while opposing fans have protested against ticket prices for derbies through a boycott (Lösel, 2015; Meier, 2014). These examples show that pricing is a paramount topic for sport ticket demand.

But do club managers know enough about their spectators' preferences and willingness to pay (WTP)? Information on sport spectators' preferences and WTP is rather sparse. Moreover, sport spectators are heterogeneous. In sport management, spectator and fan segmentation deal with heterogeneity as a specific kind of customer segmentation. Spectator and fan segmentation literature mostly focus on socio-demographic and psychographic variables (Hunt, Bristol, & Bashaw, 1999; Wann & Branscombe, 1990), but not on different preferences and WTP. Research in the field of ticket pricing also dealt with consumer response to ticket prices (Dwyer, Drayer, & Shapiro, 2013; Shapiro, Dwyer, & Drayer, 2016).

Although there is some research on spectator segmentation and ticket pricing, none of the studies focuses on both preferences and WTP. In our research, ticket features like seat categories and WTP determine preferences and serve as segmentation criteria. Furthermore, it is also important to consider innovative ticket features. In the case of open league systems, such as European sport leagues, new teams are an innovative ticket feature. Other examples are

new seating categories, new arenas, or new services (e.g. VIP parking lots, specific catering, lottery).

The purpose of this research is to examine sport event spectators' preferences through benefit segmentation considering price as well as innovative and other ticket features. This is why we introduce choice-based conjoint analysis (CBCA) with latent class analysis (LCA) as a new method in sport management. This exploratory research contributes to the literature on spectator segmentation and ticket pricing in several ways. First, we segment spectators according to their preferences and WTP. By applying the so-called benefit segmentation, we furthermore extend the perspective of segmentation tools in sport management (Haley, 1968). Second, we add to ticket pricing literature in sport management by estimating WTP on the basis of heterogeneous preferences. Third, we improve measurement of WTP in sport management in two ways. On the one hand, we include innovative ticket features, such as new opponents in a league. This is not possible with pricing models based on historical data (Kemper & Breuer, 2015; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014). On the other hand, we avoid bias of direct WTP measurement, because we perform a trade-off experiment of different ticket features. Fourth, we introduce a new methodological combination of CBCA and LCA to the field of sport management. Finally, we provide more precise information about heterogeneous spectator segments and their WTP to improve other marketing strategies, including dynamic ticket pricing (DTP) or (re-)defining seat categories. To date, DTP models often assume homogeneous WTP for tickets (Kemper & Breuer, 2016). Furthermore, 'few, if any, studies currently exist which break down consumer demand based on seat location' (Drayer & Rascher, 2013, p. 126).

Our research questions are as follows: Can spectators be segmented in terms of heterogeneous ticket preferences and WTP, and how many segments do exist? What are the differences between these segments regarding seat categories, opposing teams and WTP? How can preferences and WTP for innovative ticket features (e.g. new opposing teams) be estimated?

3.2 Literature review

3.2.1 *Ticket pricing in sport management*

Only limited research has analysed factors influencing ticket prices for sport events. Reese and Mittelstaedt (2001) as well as Rishe and Mondello (2003, 2004) found that team performance and socio-demographic criteria, such as population size and income level, were positively associated with higher average ticket prices. Heilmann and Wendling (1976) investigated optimal pricing strategies under changing institutional constraints assuming average ticket prices. Rascher, McEvoy, Nagel, and Brown (2007) examined variable ticket pricing (VTP) in Major League Baseball depending on opponent teams. They showed that VTP could generate additional earnings up to 6.7% per game compared with fixed prices. Prices in VTP are based on criteria known in the run-up to the season but omit other performance-specific factors that could change during the season. Thus, VTP is suitable to apply qualitative price differentiation with regard to opposing teams. However, both studies have serious limitations, in that they used average ticket prices of different seat categories. In practice, sport club managers often follow a seat location–based approach for their ticket price structure, in which seats close to the court are more expensive (Drayer, Shapiro, & Lee, 2012). Opponent teams and seat categories are often used for ticket price differentiation (Parris, Drayer, & Shapiro, 2012). Sport management literature shows that ticket demand and revenues change depending on the attractiveness of the opposing teams (Beckman, Cai, Esrock, & Lemke, 2012; Buraimo & Simmons, 2009; Rascher et al., 2007). The choice of seat category also has an impact on ticket prices (Drayer & Shapiro, 2009; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014).

In the newer literature stream of DTP, studies in sport management literature have merely attempted to retrospectively explain ticket price factors using historical data (e.g. in Major League Baseball) (Kemper & Breuer, 2015; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014), but an estimation of spectators' WTP for those tickets is unavailable. Moreover, these studies fail to acknowledge heterogeneous preferences and WTP.

Teams and leagues usually price their primary market tickets in the inelastic portion of demand to augment their non-ticket revenues (Fort, 2004; Krautmann & Berri, 2007; Marburger, 1997). With the number of under-priced tickets, it is not surprising that the secondary market and ticket scalper have experienced a big boom in the past decade (Boyd & Boyd, 1998; Drayer & Shapiro, 2009). Research focusing on secondary ticket markets has also analysed factors influencing WTP within the secondary market. Drayer and Shapiro (2009) found that factors such as high winning percentage, playoff round, or day of the game significantly influenced WTP. Drayer, Rascher, and McEvoy (2012) confirmed these results in their study using secondary market data of National Football League teams. In addition to team performance of home and away teams and time-related variables (e.g. time of game, season), Shapiro and Drayer (2014) showed that ticket-related variables, such as seat location, play an important role.

In the course of the emerging discussion on DTP and resale markets, Drayer, Shapiro et al. (2012, p. 192) state, that 'understanding consumer response to prices and price changes is of critical importance'. Therefore, several authors investigated consumer perceptions and responses to ticket pricing, e.g. different purchase behaviour (Drayer & Shapiro, 2009; Dwyer et al., 2013; Moe & Fader, 2009; Reese & Kerr, 2013; Shapiro, Drayer et al., 2016; Shapiro, Dwyer et al., 2016). Dwyer et al. (2013) examined in their study the impact of time, ticket source and team identification regarding consumers' perception of ticket availability and lower ticket prices. Shapiro, Dwyer et al. (2016) found in their experiment, that perception of ticket price fairness and purchase intention depend on ticket source, reference price, as well as familiarity with DTP and secondary markets. Moe and Fader (2009) stated, that purchasers of high-priced tiers and low- or mid-priced tiers have different purchase behaviours. Reese and Kerr (2013) conceptualized, that price tiers will have a positive influence on perceived venue quality. However, they call for further research focusing on spectators' perception of price and quality.

In general, ticket pricing in sport management has shifted from a cost-based approach in the traditional primary market to a demand-based approach

(e.g. DTP) in the past few years (Shapiro & Drayer, 2012). This is consistent with the developments in general marketing, though service sectors still frequently use cost- or competition-based approaches (Avlonitis & Indounas, 2005). However, ticket pricing literature in sport management is frequently based on secondary and historical data on market prices. These approaches are not suitable in cases of innovative ticket features not reflected in historical data (e.g. new teams in a league). As such and as demanded by Reese and Kerr (2013), it is paramount to investigate preferences and WTP of potential spectator segments in order to optimize pricing strategies.

3.2.2 *WTP in sport management*

Different approaches can serve to estimate WTP. However, those analysing influencing factors on ticket prices are not suitable for estimating spectators' WTP because they use aggregated sales figures, thus neglecting spectators' heterogeneity. In sport management literature, a widely used method analysing WTP is the contingent valuation method, in which respondents are asked directly for their WTP of a specific product. The range of studies applying this method in sports is widespread. For example, research has measured the value of public goods generated by sport stadiums or sport teams (Johnson, Mondello, & Whitehead, 2007; Johnson & Whitehead, 2000). Research has also employed the method to estimate WTP for Olympic Games using intangible impacts of the event (Atkinson, Mourato, Szymanski, & Ozdemiroglu, 2008; Walton, Longo, & Dawson, 2008; Wicker, Hallmann, Breuer, & Feiler, 2012), to measure WTP for amateur sport programs and non-profit sports clubs (Johnson, Whitehead, Mason, & Walker, 2007; Wicker, 2011), or to keep a football club in a city (Castellanos, García, & Sánchez, 2011; Owen, 2006). Carmon and Ariely (2000), Drayer and Shapiro (2011), and Rosas and Orazem (2014) examined WTP for basketball games in college sports and the National Basketball Association.

Despite its frequent use, the contingent valuation method is controversial in sport management literature (Walker & Mondello, 2007). A prominent point of criticism involves the hypothetical bias, which means that people consciously under- or over-state their true WTP (Seip & Strand, 1992). Questions about WTP

are replete with answers that people would pay nothing (Walker & Mondello, 2007).

Decompositional approaches such as conjoint analysis are among the most frequently used quantitative methods for determining WTP in marketing research (Sattler & Hartmann, 2008). In contrast, only limited research has used conjoint analysis in sport management literature. Lee and Kang (2011) applied traditional conjoint analysis in professional team sports in Korea with a focus on ticket price strategies. They analysed WTP for football games in terms of the attributes player, coupon, points, and price. However, they segmented respondents according to socio-demographic aspects only (e.g. age, gender). Bjørnskov Pedersen, Kiil, and Kjær (2011) examined football spectators' preferences in Denmark depending on the quality of the opposing team and other factors (video walls, fully covered stands, sale of refreshments at stands) by using discrete choice analysis. However, the assumption of homogeneous WTP of sport spectators remains, even though heterogeneity of WTP is recognized in calls for future research (Bjørnskov Pedersen et al., 2011). Only one article has used CBCA in a sports-related topic, but it is not related to ticket preferences. Theysohn (2006) analysed WTP for football reports on the Internet. Kemper and Breuer (2016) used data from eBay auctions to determine the WTP of sport spectators in DTP. However, their analysis again assumes homogeneous spectator preferences regarding different ticket features (e.g. seat categories, opponent teams). Literature dealing with WTP in sport management assumes a homogeneous WTP for all respondents. Therefore, the estimation of heterogeneous spectators' WTP by avoiding bias of direct measurement is a necessary contribution to WTP literature in sport management.

3.2.3 Spectator Segmentation in sport management

The idea of segmenting markets dates back to Smith (1956) and is indispensable in marketing. Market segmentation means dividing a heterogeneous market into homogeneous sub-markets for more tailor-made products (Wind, 1978). There are different opportunities to subdivide markets in sport management. Mullin,

Hardy, and Sutton (2014) named four types of segmentation in sport marketing: state of being, state of mind, product usage, and product benefits.

First, most segmentation in sport management literature is based on socio-demographic variables (state of being), such as age, gender, income, and geography (Mullin et al., 2014). For example, Greenwell, Fink, and Pastore (2002) showed significant differences between female and male fans in terms of perceived team performance. Rosas and Orazem's (2014) study, which investigated WTP for men's and women's basketball, showed that WTP for men's competitions was much higher for both men (180%) and women (37%) than WTP for women's basketball games. Westerbeek (2000) investigated the importance of place-specific dimensions of younger and older spectators. In addition, Lee and Kang (2011) examined preferences and WTP for Korean football matches. However, they split their sample a priori into segments, again based on socio-demographic aspects.

Second, segmentation is based on psychographic variables (state of mind), such as personality or lifestyle characteristics (Mullin et al., 2014). For example, Wann and Branscombe (1990) segmented die-hard fans and fair-weather fans. Hunt et al. (1999) identified five different fan segments: the temporary fan, the local fan, the devoted fan, the fanatical fan, and the dysfunctional fan. Both segmentation approaches are generally applicable and widely used in sport management literature.

Third, product usage segmentation investigates the extent and frequency with which consumers use a product (Mullin et al., 2014). For example, Pitta, Kaltcheva, Patino, and Leventhal (2015) identified five different segments based on their sponsorship awareness and intentions to purchase sponsors' brands. Spectators could also be segmented on the basis of their ticket purchase behaviour (e.g. season-ticket holders vs. game ticket purchasers).

Fourth, product benefit segmentation focuses on different benefits customers expect from the product (Mullin et al., 2014). Haley (1968, p. 31) defined benefit segmentation as 'an approach to market segmentation whereby it is possible to identify market segments by causal factors rather than descriptive

factors'. For example, Theysohn (2006) segmented customers in terms of their preferences for reporting football matches on the Internet.

Research in sport management literature mostly uses demographic and psychographic variables to profile segments (Wedel & Kamakura, 2003); however, in such cases there is a lack of information about the economic aspects (e.g. WTP based on preferences). In addition, demographic and psychographic segmentation cannot account for different seat preferences and surcharges for derbies or top rival opponents or for new teams in a league. However, benefit segmentation is appropriate to divide customers into heterogeneous groups based on preferences and WTP (Haley, 1968; Paetz, 2016; Wind, 1978). Therefore, benefit segmentation is necessary 'to understand how consumers may be broken down into smaller segments based on their purchase habits' (Drayer, Shapiro et al., 2012, p. 191). To our knowledge, ours is the first research in sport management to apply benefit segmentation for sport event spectators.

In addition, we contribute to DTP literature. As Gönsch, Klein, and Steinhardt (2009) and Kemper and Breuer (2016) argued, price ceilings and price caps of tickets are important to determine the expected value for a dynamic pricing algorithm. In sport management literature, only one study has dealt with dynamic pricing algorithms. Kemper and Breuer (2016) estimate the necessary demand function on the basis of auction prices on eBay for selected home games of Bayern Munich. However, they assume homogeneous WTP among spectators, as do most of the studies outlined previously. As our literature review reveals, spectators' preferences are heterogeneous. Therefore, we contribute to DTP strategies by providing more precise WTP information of heterogeneous spectators.

Against the background of this literature review, the research presented in this article adds knowledge to sport management literature regarding WTP and spectator segmentation by exploring heterogeneous spectator preferences. We examine sport spectators' responses to pricing by analysing their preferences and WTP for existing and innovative ticket features. Furthermore, we apply CBCA for the first time in sport management. With this method, we introduce an

alternative WTP measurement to sport management literature that enables analysing innovative ticket features and avoids bias of direct WTP measurement.

3.3 Methodological background

In this study, we apply CBCA in combination with LCA to examine spectators' preferences and WTP for sport tickets. During the past decades, decompositional methods have become more popular in preference measurement (Hartmann & Sattler, 2004), with CBCA being one of the most applied methods in general marketing (Orme, 2013; Wittink, Vriens, & Burhenne, 1994). In addition to the methodological discussion on the contingent valuation method (see Walker & Mondello, 2007), CBCA is superior to compositional approaches (Green, Goldberg, & Wiley, 1983; Huber, Wittink, Fiedler, & Miller, 1993) and has a higher validity (Hartmann & Sattler, 2004). This explains its widespread use in scientific and commercial research in general marketing and consumer behaviour literature (e.g. Ascarza, Lambrecht, & Vilcassim, 2012; Erdem, Swait, & Louviere, 2002; Orme, 2013; Papies, Eggers, & Wlömert, 2011; Verma, Iqbal, & Plaschka, 2004). Pricing is very often the subject in conjoint analyses (Wittink et al., 1994). CBCA, as used in the current study, is even used in 75% of applications to determine WTP (Sattler & Hartmann, 2008). For these reasons, the chosen method of CBCA fits well with our research.

CBCA allows an evaluation of the entire product because it considers product features and their levels jointly, to obtain an overall utility. In addition, price is a product feature that can be implemented. Respondents choose the most preferred option from finite choice sets to replicate everyday life situations in a realistic manner. Furthermore, CBCA provides the opportunity to include a no-choice-option (e.g. 'I would not buy any of these alternatives'), which allows respondents to select none of the presented choices. Therefore, CBCA illustrates a more realistic purchase decision than evaluating every single product feature on its own (Louviere & Woodworth, 1983). However, homogeneous preferences, especially WTP, are assumed in CBCA.

CBCA data provide different options to segment respondents. Vriens, Wedel, and Wilms (1996) compared several methods of segmenting respondents. In their study, segmentation techniques ranged from a priori segmentation based on demographic or socio-economic variables to cluster analysis based on the named variables, from Ward's clustering method to the latent class distribution model. Based on a Monte Carlo simulation, latent class performs best with respect to parameter recovery measures and predictive power. Vriens et al. (1996) ascribe this superior performance to its expectation-maximization algorithm to maximize likelihood. Therefore, Vriens et al. prefer latent class if identifying segments is the primary research purpose. In addition, DeSarbo, Ramaswamy, and Cohen (1995) and Moore, Gray-Lee, and Louviere (1998) show that the latent class procedure performs better than other clustering approaches. Compared with cluster analyses, latent class models are probabilistic (DeSarbo, Wedel, Vriens, & Ramaswamy, 1992).

According to DeSarbo et al. (1995), the segment-specific choice probability for an alternative j depends on the utility of the considered alternatives in relation to the utility of the other alternatives:

$$P_s(j \in C_n) = \frac{\exp(\beta_{0js} + \sum_{k=1}^K X_{jk}\beta_{ks})}{\sum_{\alpha \in C_n} \exp(\beta_{0\alpha s} + \sum_{k=1}^K X_{\alpha k}\beta_{ks})} \quad (1)$$

where

j is the 1, ..., J conjoint profiles;

k is the 1, ..., K conjoint attributes;

n is the 1, ..., N choice sets;

C_n is the the specific profiles in the n th choice set;

X_{jk} is the k th dummy variable for the j th conjoint profile;

s is the 1, ..., S segments;

β_{ks} is the the impact coefficient for the attribute k in segment s ;

β_{0js} is the intrinsic utility of profile j to segment s ; and

α_s is the the size of segment s .

CBCA in combination with LCA offers considerable advantages to answer our research questions. We can identify spectators' preferences and their WTP for different ticket options and include innovative ticket features (e.g. new

teams in a league). We can also use different ticket attribute levels, such as different seat categories, which help break down consumer demand. Furthermore, we can determine spectators' WTP without the potential bias of a direct WTP measurement. In combination with LCA, CBCA is also suitable for benefit segmentation because spectators can be segmented according to their preferences. To the best of our knowledge, this is the first application of CBCA with LCA in sport management. In the following analysis, we focus on preferences and WTP of spectators of two German basketball clubs.

3.4 Empirical Analysis

3.4.1 Study design

The most important step in CBCA research is to define attributes and levels. This choice is a crucial and difficult step in the market segmentation process (Frochot & Morrison, 2000). The investigated attributes and levels must reflect preference heterogeneity of respondents (Paetz, 2016). Many variables can affect consumer preferences. For a basketball game, preferences could be the type of game (e.g. regular league session, playoffs), the day of the game, the time of the day, the opposing team, the seat category, and even the venue. Consequently, all attributes need to be considered to analyse spectator preferences. Too many attributes and related levels, however, can lead to information overload for respondents (Green & Srinivasan, 1990). That is, surveys would take too long, not only affecting validity but also leading to respondent dropout. The number-of-levels effect — when attributes do not have the same number of levels (e.g. two opposing teams and five price levels) — must also be taken into account. A different number of levels leads to greater relative importance for attributes with more levels and falsifies the results (Verlegh, Schifferstein, & Wittink, 2002; Wittink, Huber, Zandan, & Johnson, 1992). Therefore, we need to reduce complexity and focus on specific attributes and levels.

In this research, we address the economic aspect of spectator segmentation and integrate different ticket features, as well as an innovative feature. Before beginning our empirical analysis, we investigated typical ticket

price strategies of German basketball clubs. Secondary data analysis and insights from club managers revealed that all investigated professional basketball clubs used seat categories to differentiate prices. As expected, seats in the middle of the arena and close to the court were more expensive. Literature also shows that the choice of seat category has an impact on ticket prices (Drayer & Shapiro, 2009; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014). German basketball clubs also applied qualitative price differentiation, with most charging higher prices for attractive opponents. In addition, our literature review shows that demand and revenues on ticket sales increase or decrease depending on the attractiveness of the opposing teams (Beckman et al., 2012; Buraimo & Simmons, 2009; Rascher et al., 2007). Parris et al. (2012) also confirm that seat location and opponents are often used in sport management practice to pre-define ticket prices. In our study, the opponent is a proxy that includes team performance and winning percentage of the opponent as well as local rivalry. Therefore, to prevent information overload of respondents and owing to the lack of research, our study design contains the attributes opposing team, seat category, and price.

Each attribute has five levels (see Tab. 3.1). Both investigated basketball clubs offer five different seat categories, labelled as category I (in the middle and close to the court) to category V (upper part of the arena and distant from the court). These five seat levels are close to reality. For a better orientation, we provided the respective seat map of the investigated club below the choice tasks in the survey.

In consideration of the number-of-levels effect, we selected five teams that represent all types of league opponents. This selection ranges from high-performance teams or local rivals to less attractive teams close to second-league relegation. Moreover, we wanted to integrate new teams promoted from the second to first division as an innovative feature. To meet all these requirements, we selected the dominant champion team in German basketball in the past years (team A). This top-performing team is also a local rival of our investigated club 1. In addition, we chose an ambitious team with good performance, usually in the playoffs, that was struggling to make the finals (team B). Team B is not a local

rival for any investigated club. As a new team and an innovative ticket feature, we considered a team that had just been promoted to the league (team C). The final two teams had been struggling for several years between playoffs and relegation, with different geographic locations within Germany (team D and E). This selection combines a good mixture of different performance levels and also different locations across Germany. Finally, the selection of the opposing teams was confirmed by experts of the league management to ensure coverage of all types of opponents in the study.

Ticket prices range from €12 to €40 in seven-euro steps. The cheapest price of €12 corresponds to the cheapest ticket price of the investigated clubs. We consciously set the most expensive price higher than the actual maximum ticket price of the clubs to find spectators' maximum WTP. However, the maximum price of €40 is not hypothetical as it is comparable to market prices within the league. With price steps of €7, we ensure that every price level has valence, and we do not distort towards cheap or expensive prices. Moreover, we avoid the number-of-levels effect (Verlegh et al., 2002). This study design makes respondents' choices as realistic as possible, one of the strengths of CBCA.

Tab. 3.1: Attributes and Levels.

Opposing Teams	Seat Categories	Price
Team A	I	€40
Team B	II	€33
Team C	III	€26
Team D	IV	€19
Team E	V	€12

We designed the tickets used in our studies to be as identical as possible to the original tickets of the investigated clubs, including sponsor logos and barcodes. Nevertheless, the ticket designs must be clearly arranged, and the relevant attributes must attract attention. We also ensured that respondents

did not consider time a constraint factor. This is why other relevant attributes (e.g. location, date, time) were constant.

Altogether, for each study we have 53 or 125 different choice sets plus one 'none' option. A ticket dummy displaying an opposing team, a seat category, and a price represents one choice set. The statement 'I would not buy any of these alternatives' represents the 'none' option. Regarding respondents' information overload, the studies use a reduced design. In line with Orme (2010), our study uses 15 different choice tasks with three choice sets per task and the 'none' option. In addition, the respondents reported general demographic characteristics (gender and age) and their team identification at the end of the survey, operationalized by three items on a 7-point Likert scale (see Appendix 1). Finally, we asked the respondents to indicate the distance of their journey to the arena (in km).

3.4.2 Data collection

We conducted the online surveys during the league's off-season, which enabled us to avoid significant matches that might influence respondents' choice (e.g. playoff or relegation scenarios). The online link was sent to fans of two German basketball clubs via social media, forums, and the clubs' website.

In total, 581 surveys were collected for club 1 and 587 surveys for club 2. Of these, convenience samples of, respectively, 370 and 393 completely answered surveys could be used for further analyses. The dataset consisted of, respectively, 293 and 300 men (79.2%/76.3%), 76 and 92 women (20.5%/23.4%), and one person per study who did not specify gender. The distance to the arena ranged from 0 to 600 km for club 1 and 0 to 240 km for club 2, with one missing data each. In both studies, more than 80% of the respondents had journeys to the respective arena of less than 20 km. Respondents' age was between 11 and 65 years for club 1 and 14 and 71 years for club 2, with 13 and 17 missing data, respectively (see Appendix 2).

A survey on sports interest in Germany suggests that 67.5% men and 32.5% women are interested in basketball, with the majority aged between 14 and 49 years (Lagardère Sports, 2016). Although the strong presence of 20- to

29-year-old respondents and the under-representation of 50-year-old respondents and over might be attributed to the online distribution of the surveys, the collected data well represent the structure of 14- to 49-year-old Germans interested in basketball.

3.4.3 Results

We used the software programme Sawtooth for LCA to identify segments of the CBCA. The choice of number of segments is based on quality factors such as consistent Akaike information criterion (CAIC), Bayes information criterion (BIC), and other quality factors (Ramaswamy, DeSarbo, Reibstein, & Robinson, 1993; Schwarz, 1978). To determine the ideal number of segments, we simulated different options extracting two to five segments. For both clubs, we identified the most reasonable number of segments on the basis of the quality factors, as well as practical considerations.

According to the analysis of the quality factors, log-likelihood improves with a growing number of segments, as does the percent-certainty criterion, as Tab. 3.2 and Tab. 3.3 show. In contrast, CAIC and BIC decrease with an increasing number of segments; both have a minimum value in the five-segment solution. However, we also noticed only a small difference in both quality factors (CAIC and BIC) between the four- and five-segment solutions in comparison with the two- and three-segment solutions. This means that the four- and five-segment solutions are comparable, due to quality factors. Because of this and managerial reasons, we focus on the four-segment solution in further analysis.

Tab. 3.2: Club 1: Quality factors of LCA.

No. of Segments	LL	Pct. Cert.	CAIC	BIC
2	-4499,40435	41,52011	9258,59063	9231,59063
3	-4369,78578	43,20479	9134,05525	9093,05525
4	-4263,18231	44,59034	9055,55005	9000,55005
5	-4182,79480	45,63516	9029,47677	8960,47677

Note: LL = log-likelihood; Pct. Cert. = percent-certainty criterion.

Tab. 3.3: Club 2: Quality factors of LCA.

No. of Segments	LL	Pct. Cert.	CAIC	BIC
2	-4804,50205	41,20923	9870,41431	9843,41431
3	-4550,05686	44,32278	9497,06998	9456,06998
4	-4415,31882	45,97151	9363,13993	9308,13993
5	-4295,64521	47,43591	9259,33874	9190,33874

Note: LL = log-likelihood; Pct. Cert. = percent-certainty criterion.

The segment description is based on relative attribute importance. In addition, we use demographic characteristics (e.g. gender, age) and the degree of team identification to describe the identified segments (see Tab. 3.4 and Tab. 3.5).

Tab. 3.4: Club 1: Description of segments.

	Price-sensitive spectators	Price-performance-oriented spectators	Seat-quality-oriented spectators	Top-game-oriented spectators
Size	31.6%	30.6%	10.3%	27.5%
Gender	84% male 16% female	75% male 25% female	84% male 16% female	77% male 23% female
Age	29 years (SD =11.14)	29 years (SD=13.22)	35 years (SD=10.98)	30 years (SD=11.93)
Team identification	2.3 (SD=1.60)	2.7 (SD=1.61)	1.6 (SD=1.60)	2.3 (SD=1.59)
Relative importance				
Opposing team	4.11%	19.62%	20.63%	26.64%
Seat category	6.54%	34.88%	56.04%	24.94%
Price	89.35%	45.50%	23.34%	48.42%

Note: Team identification ranges from 1 (totally agree) to 7 (totally disagree).

Tab. 3.5: Club 2: Description of segments.

	Price-sensitive spectators	Price-performance-oriented spectators	Seat-quality-oriented spectators	Top-game-oriented spectators
Size	28.9%	37.6%	17.0%	16.4%
Gender	75% male 25% female	80% male 20% female	75% male 25% female	75% male 25% female
Age	36 years (SD =12.34)	33 years (SD=12.60)	35 years (SD=14.11)	35 years SD=16.30)
Team identification	3.1 (SD=1.66)	2.6 (SD=1.46)	2.9 (SD=1.45)	3.1 (SD=2.02)
Relative importance				
Opposing team	20.17%	16.97%	11.89%	35.71%
Seat category	7.94%	21.13%	53.08%	19.70%
Price	71.89%	63.90%	35.03%	44.59%

Note: Team identification ranges from 1 (totally agree) to 7 (totally disagree).

The relative importance comes from the range of part-worth utilities of one attribute (e.g. opposing team), reaching from the lowest to the highest part-worth utility in relation to the sum of the ranges of all three attributes. Part-worth

utilities in Tab. 3.6 and Tab. 3.7 are presented in standardized form, which allows comparison of all utility values of the four segments. Each respondent is linked deterministically to the one segment with the highest probability match. Conversely, the respondents are linked probabilistically to the next attribute levels in such a way that they are proportionally divided into the corresponding segment according to the probability of belonging. On average, each respondent could fall into a segment with a probability of 90.41% for club 1 and 93.75% for club 2.

Tab. 3.6: Club 1: Part-worth utilities of LCA.

	Price-sensitive spectators	Price-performance-oriented spectators	Seat-quality-oriented spectators	Top-game-oriented spectators
<i>Opposing Team</i>				
Team A	8.34711	32.30509	29.82969	46.98450
Team B	-2.71717	-3.10251	-15.66389	-5.29346
Team C	2.11752	16.33725	27.25845	21.67110
Team D	-3.76108	-18.98634	-9.37559	-30.42582
Team E	-3.98638	-26.55350	-32.04865	-32.93632
<i>Seat Category</i>				
I	10.13774	57.65967	80.04315	39.06498
II	6.29288	38.26725	91.89701	15.63221
III	-2.98698	-25.51150	-57.87192	-1.34539
IV	-3.95706	-23.42976	-37.84908	-17.59924
V	-9.48658	-46.98567	-76.21915	-35.75256
<i>Price</i>				
€40	-192.45308	-76.94977	-49.64940	-86.18524
€33	21.14644	-37.38845	1.08823	-19.31142
€26	38.78106	11.69476	11.32509	1.96749
€19	56.93646	43.09717	16.87999	44.45276
€12	75.58911	59.54630	20.35610	59.07640
<i>'None' Option</i>				
-	55.83193	39.29083	-39.20213	-42.17946

Tab. 3.7: Club 2: Part-worth utilities of LCA.

	Price-sensitive spectators	Price-performance-oriented spectators	Seat-quality-oriented spectators	Top-game-oriented spectators
<i>Opposing Team</i>				
Team A	11.50245	19.73839	15.19208	38.78264
Team B	0.85084	7.53924	0.56180	14.61334
Team C	7.55849	8.89618	10.22318	26.58733
Team D	-7.25946	-11.01520	-5.48899	-11.62371
Team E	-12.32232	-25.15861	-20.48806	-68.35959
<i>Seat Category</i>				
I	25.68634	21.36561	60.64014	-7.18079
II	14.75879	19.72041	56.98393	-2.85840
III	-2.80667	10.80094	27.74650	2.91840
IV	-2.81645	-9.84256	-46.78199	33.10596
V	-34.82201	-42.04439	-98.58859	-25.98517
<i>Price</i>				
€40	-88.13858	-106.15659	-58.93907	-83.03082
€33	-64.75543	-42.28245	-35.51991	-16.66112
€26	-24.32657	6.20696	6.90774	12.30223
€19	49.69228	56.69566	41.39918	36.65391
€12	127.52830	85.53641	46.15207	50.73580
<i>'None' Option</i>				
-	74.73830	-5.98338	38.55981	-93.34993

In both studies, segment 1 is called price-sensitive spectators. It is dominated by men and has an average age of 29 years in club 1 and 36 years in club 2. Almost one-third of the respondents in both studies are price-sensitive spectators (see Tab. 3.4 and Tab. 3.5). For this segment, price is the most

important attribute, while the opposing team and seat categories are of only minor importance. Therefore, these respondents are highly price sensitive. Price-sensitive spectators have a high utility of using the 'none' option (see Tab. 3.6 and Tab. 3.7), which is the highest value of all four segments. For price-sensitive spectators of club 1, the maximum WTP is €26 for the most attractive ticket (team A, seat category I). Price-sensitive spectators of club 2 are willing to pay a maximum price of €19 for the most attractive ticket.

Segment 2 has a size of 30.6% in club 1 and 37.6% in club 2. The average age of respondents is 29 and 33 years, respectively. The relative importance between the attributes is more balanced in this segment. Price is still the most important attribute, but opposing team and seat category are of greater importance than those in the price-sensitive spectators' segment. Price-performance-oriented spectators characterize themselves as having a keen interest in a good seat and an attractive opposing team and pronounced medium sensitivity to price. The conspicuous price-performance orientation is reflected in the part-worth utilities of the most attractive opponent, team A, and the best seat categories. The price-performance orientation is also reflected by the negative values of the low attribute levels in seat quality and opposing teams. Negative values represent low utility levels. WTP for price-performance-oriented spectators of both clubs is up to €33 for the most attractive ticket.

Segment 3, seat-quality-oriented spectators, is a small segment, with a size of 10.3% in club 1 and 17% in club 2, and has an average age of 35 years for both clubs. In this segment, preferences are dominated by seat quality. Price and opposing team are of minor importance; spectators have low price sensitivity. We find a large gap in the utilities from higher seat categories to lower categories. High visibility and a central seat in the stand are extremely important. Furthermore, for club 1 we observe a higher value for seat category II than for seat category I, as well as a higher value for category IV than for seat category III. This shows that seat-quality-oriented spectators have a different perception of a high-quality seat than the club management and other spectator segments. Thus, a seat-quality-oriented spectator of club 1 will have a positive value for a ticket against the most uninteresting team E and a maximum price of €40 if it

includes a seat in category II. Spectators of club 2 are willing to pay €33 for the most interesting team in the best seat category.

Segment 4, called top-game-oriented spectators, has an average age of 30 years in club 1 and 35 years in club 2. This segment also has medium price sensitivity. Opposing team and seat category follow with a nearly equal importance. The relative importance of the attribute opposing team is the highest among the four segments, as indicated by the highest value of team A and the new team in the league, team C. Thus, respondents are strongly interested in competitive opponents. The weak demand for teams struggling to make the playoffs and relegation confirms this orientation to top-level opponents and explains why the part-worth utilities of team D and E have a strong negative value. Despite the relative low importance of the seating quality for club 2, the positive benefit of category IV stands out. Top-game-oriented spectators have the most negative utility value on the 'none' option. Spectators of both clubs are willing to pay premium prices (€40 and more).

3.5 Discussion and implications

The purpose of this research was to segment spectators according to their preferences and WTP considering innovative ticket features. Therefore, we introduced benefit segmentation to sport management literature. In summary, fans can be segmented into heterogeneous groups according to their preferences. This is confirmed by both studies, which identified diverse clusters with strongly different preference structures. Price-sensitive spectators put more than 70% relative importance on price. Price-quality-oriented spectators are less price sensitive, whereas seat-quality-oriented spectators are barely price sensitive; however, seat-quality-oriented spectators are a relative small spectator group (10%/17%). They are dominated by seat quality with more than 50% of relative importance. Finally, top-game-oriented spectators show the highest relative importance of opposing teams. Abb. 3.1 displays the relative importance of all attributes per segment.

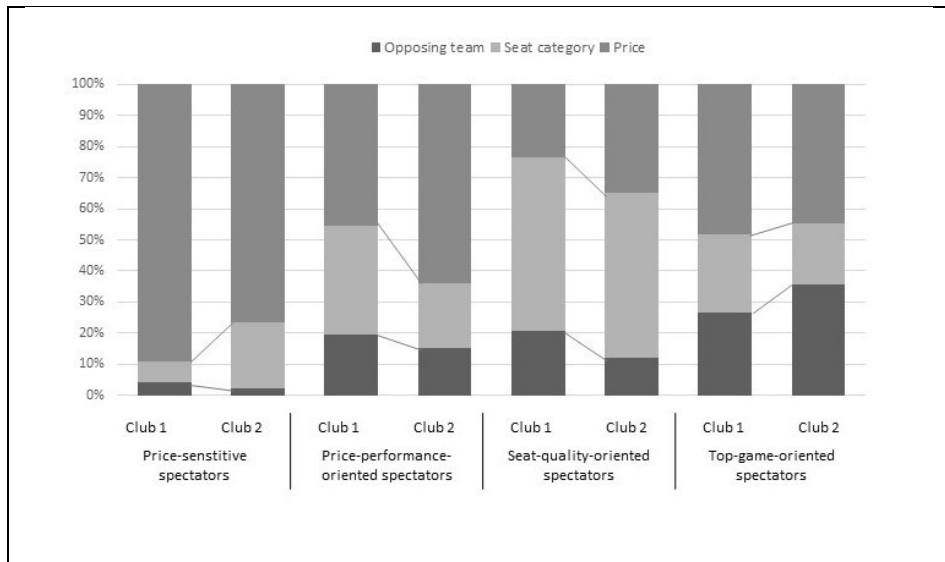


Abb. 3.1: Relative importance of all attributes per segment.

3.5.1 *Opposing team*

This study confirms that the attractiveness of the opponent plays an important role in the preferences of spectators. Nevertheless, the importance of the opposing team varies among the identified segments, though it has the highest relative importance for top-game-oriented spectators (club 1: 27%, club 2: 16%). Furthermore, we can estimate spectators' preferences for innovative ticket features. In our studies, we quantified for different segments the perceived attractiveness of a new team in a league (team C) compared with known teams in the league. For both clubs, team C is an attractive opponent, though it is in its first year in the first division. This attractiveness might be due to the strong brand of team C.

From a practical standpoint, the part-worth utilities of the attribute opposing team indicate a clear order of the five teams in both studies. In each segment, team A, the top-performing team and a local rival for club 1, is the most preferred opponent, followed by team C, which is the new team in the league. Both teams have a high value for all respondents. In contrast, teams B, D, and E, which are not local rivals and have different performance levels, have a lower value for spectators in all segments. Among these three teams, team B, a good-

performing team used to playing in the playoffs, seems more attractive to respondents than team D, which is struggling between playoffs and relegation. Team E has the lowest value in every segment. For managerial purposes, it would seem reasonable to charge different prices for different opposing teams. Therefore, a relative surcharge meets spectators' preferences better than a fixed price premium on top games because price-sensitive spectators would pay less surcharge while top-game-oriented spectators would pay more.

3.5.2 Seat category

This study shows that not all spectator segments find seat quality of high relevance. Approximately 50% of spectators are not willing to pay much more for better seats. Thus, we make an additional contribution to the literature, as this study captures spectators' preferences for different levels of seating quality in more depth, not only at an aggregated level (low, mid-tier, premium seats) as in previous studies (Moe & Fader, 2009; Shapiro & Drayer, 2012, 2014; Shapiro, Drayer et al., 2016). As we show in our studies, the segments have different perceptions of a good seat. This confirms the heterogeneity of spectators, making investigation of this attribute in more detail even more important. That is, price-sensitive spectators and top-game-oriented spectators of club 1 prefer seats behind the baskets over a permanent stand along the courtside. Conversely, price- and seat-quality-oriented spectators prefer a permanent stand along the courtside over seats behind the baskets. Top-game-oriented spectators of club 2 have an extremely high utility value for seat category IV. This is the first empirical result to show that the importance of seat category can vary for different types of spectators. Previous research has determined differences in seating categories on the basis of homogeneous spectator groups (Shapiro, Drayer et al., 2016). However, we basically confirm Reese and Kerr's conceptual model (2013), who show that higher price tiers have a positive influence on perceived venue quality.

For managerial implications, assuming a representative sample and only single-game tickets, we recommend that managers of club 1 and club 2 designate approximately one-third (31.6%/28.9%) of the stands for price-sensitive spectators, another one-third (30.6%/37.6%) for price-quality-oriented

spectators, 10.3%/17.0% for seat-quality-oriented spectators, and 27.5%/16.4% for top-game-oriented spectators. Although this designation has some limitations, club managers can use it as a reference point and compare the study results with their current arena structure. Moreover, club managers should pay attention to the number of seats offered for seat-quality-oriented spectators. Too many seats available would lead to an oversupply of centrally located and expensive tickets, as other spectator segments are not willing to pay the same high ticket prices. Therefore, it is necessary to adjust the arena plan to spectators' preferences, while considering the constructional restrictions of the arena.

3.5.3 Price

Our results show that only a small portion of the available seats can be offered at a high price. Only a small number of respondents (seat-quality-oriented spectators) are not dominated by price in their ticket purchase. For all other spectators, price is the most important feature for a ticket purchase. Basically, this is in line with the findings of Shapiro, Dwyer et al. (2016) who also state that reference prices significantly influence purchase intentions. However, benefit segmentation shows that this does not apply to all spectators.

In addition, the results show that WTP between spectator segments is different. This adds to the research of Moe and Fader (2009), who also found different purchase behaviours depending on price tiers, however, they based their analysis on a homogeneous spectator sample. To meet the demand of all spectators, it is essential to adjust the price strategy to the preferences and WTP of the individual segments. The differences in the perceived attractiveness of the opponents should also be taken into account. Assuming a homogeneous WTP, as done in previous studies, would lead to estimation errors, too high ticket prices, and, thus, to fan protests and empty stands. These results contribute to DTP literature, which also assumes a homogeneous WTP of all spectators, at least within the seat category.

From a managerial perspective, only the price-sensitive spectators of club 1 indicate an approximately linear price-utility function between the price levels €12 and €33. In other segments, an exact determination of respondents'

maximum WTP is difficult. For practical implications, it seems reasonable to assume a linear price-utility function between each price level (e.g. for price-sensitive spectators of club 1). The calculated WTP is thus more accurate than the aforementioned defined price levels with seven euro gaps. This study contributes to helping avoid fan protests because of increasing ticket prices. It is not a big issue to increase ticket prices in premium seat categories. For club 1, premium seat prices were raised significantly (based on this study), whereas prices in lower seat categories were slightly reduced. In response, higher revenues were realised without any protests or negative comments.

3.6 Contributions

This research makes four substantial contributions to extant research in sport management literature. First, our research shows that fans are heterogeneous, not only in socio-demographic or psychographic issues but also in their ticket preferences and WTP. This implies that approaches based on the assumption of homogeneous spectator preferences are inaccurate and lead to estimation bias. In this research, we segmented sport event spectators into heterogeneous groups according to their preferences. Therefore, we applied benefit segmentation and identified spectators' preferences and WTP for different ticket features. The introduction of CBC and LCA enables to examine sport spectators' preferences and their WTP for existing and innovative ticket features. Innovative ticket features have not been focused in past research about preferences and ticket pricing. Demographic and psychographic information helped describe the segments more precisely. Indeed, the results of our research show that spectators with the highest team identification are ready to pay the most. Spectators of club 1, who have a significantly higher team identification than spectators of club 2, show a higher WTP for tickets with the same opposing teams. However, it must be noted that this does not apply for all spectators and all segments. For example, in club 1, price-sensitive spectators have a lower WTP than top-game-oriented spectators, though they identify more highly with the team. In club 2, we find no correlation between team identification and WTP.

As shown, demographics or psychographics as segmentation tools are not sufficient for segmentation in terms of ticket pricing. By applying benefit segmentation in sport management, we introduce a suitable segmentation tool to focus on both preferences and WTP as well as to better understand consumer response to pricing. Furthermore, spectators' responses to innovative ticket features regarding their WTP can be predicted.

Second, we bring ticket pricing and benefit segmentation literature together and extend ticket pricing theory by providing actual and more detailed WTP information. Therefore, we explore heterogeneous preferences and WTP for different spectator segments. The results of our studies confirm that the application of benefit segmentation leads to a strategically better price structure that fits spectators' preferences. By doing this, we better understand spectators' perception of price and quality for sport event tickets, which helps avoiding fan protests caused by pricing decisions.

Third, our study also provides an improvement in measuring WTP in sport management. By using conjoint analysis as a tool for benefit segmentation, we avoid bias of direct WTP measurement. Furthermore, we are able to include innovative ticket features such as new opposing teams when estimating spectators' preferences and WTP, since typical sport-related changes from season to season and from club to club, as well as geographic issues and infrastructural differences of arenas, have an influence in sport management (Drayer, Shapiro et al., 2012).

Fourth, the study design was new to sport management literature. We argue that this design can be applied as a framework for various other sport events. Combining CBCA and LCA for benefit segmentation is a suitable method to segment spectators by their preferences for common ticket features.

Finally, based on named contributions, this study helps to better understand consumer responses to ticket pricing. Therefore, pricing strategies can be developed more accurately. Nevertheless, our study has some limitations that also represent starting points for future research.

3.7 Limitations and future research

It might be possible to determine a more exact WTP with a more detailed price gradation, such as the use of more levels in the attribute price; however, a number-of-levels effect might then occur. Both our studies are based on a convenience sample and might have some selection bias. In light of the complexity and aim of the research, we only investigate spectators' preferences for single games and do not distinguish between season-ticket holders and single-ticket purchasers. Nevertheless, the findings are a starting point for future research on benefit segmentation in different sports as well as in different national and international contexts. Another limitation pertains to temporal price differentiation, which we do not take into account. Future research could investigate the importance of temporal distance to the game with regard to ticket preferences.

3.8 References

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3.9 Appendix

Tab. 3.8: Demographics.

Code	Item	Scale
Id_1	How far is your journey to the arena?	Numeric
Id_2	Your age:	Numeric
Id_3	Your gender:	1 = male 0 = female

Tab. 3.9: Team identification.

Code	Item	Scale
Id_4	I highly identify with the team.	1 = totally agree 7 = totally disagree
Id_5	I have the feeling that I belong to the fans.	1 = totally agree 7 = totally disagree
Id_6	I consider myself as a real fan.	1 = totally agree 7 = totally disagree

Kapitel 4: Der Einfluss von Begleitpersonen als ein sozialer Kontext

Together is better: The impact of social context on spectators' expected value capture and willingness to pay for sport event tickets

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Unveröffentlichtes Manuskript.

Abstract

Although research has addressed the importance of value-in-social-context, investigation into the impact of social context on customers' expected value capture (EVC) and their willingness to pay (WTP) is lacking. The purpose of this research is to explore EVC for sport event tickets and WTP within different social contexts. Therefore, we apply experiments using adaptive choice-based conjoint analysis with hierarchical Bayes estimation and convergent cluster and ensemble analysis, as we expect heterogeneous EVC and heterogeneous WTP among potential sport ticket buyers. The results show that value-in-social-context influences EVC and WTP in all customer segments, though the relative importance of social context differs significantly between the segments. Furthermore, customers' WTP for tickets goes beyond ticket attributes and depends on other actors, who are partly out of sport event providers' control. This is an important insight for researchers to extend theorizing in sport management. We contribute by highlighting the relative importance of social context—here, highlighting accompanying others—on spectators' EVC. However, this insight is also relevant for practitioners in developing customer-oriented strategies and pricing policies, and therefore we also contribute to managerial ticket pricing.

Keywords: Value capture, Willingness to pay, Conjoint analysis, Value-in-social-context, Ticket pricing

4.1 Introduction

Various scholars have highlighted the influence of other people on value indicators of sport spectators (Aiken & Koch, 2009; Bednall, Valos, Adam, & McLeod, 2012; Durchholz, 2012; Fyrberg Yngfalk, 2013; Horbel, Popp, Woratschek, & Wilson, 2016; Koenig-Lewis, Asaad, & Palmer, 2017; Rihova, Buhalis, Moital, & Gouthro, 2013; Uhrich & Benkenstein, 2012; Woratschek, Horbel, & Popp, 2018). Although the central role of other spectators in sport events has been determined, research on the influence of other spectators on value indicators and willingness to pay (WTP) for sport events is lacking. Traditionally, research has measured preferences depending on product (ticket) attributes as value indicators (Bjørnskov Pedersen, Kiil, & Kjær, 2011; Kaiser, Ströbel, Woratschek, & Durchholz, 2019; Lee & Kang, 2011), while largely overlooking the importance of value-in-social-context (Edvardsson, Tronvoll, and Gruber, 2011)—here, the presence of accompanying others during a sport event. Woratschek, Horbel, and Popp (2014, p. 18) criticize that these "traditional models of value creation in sport management fall short of capturing the true nature of value creation since they solely focus on quantities or qualities of goods".

Research findings indicate that the specific social context of other spectators can influence the perceived value of a sport event (Horbel et al., 2016; Koenig-Lewis et al., 2017). Research also showed, that opposing teams have a relevant influence on EVC and WTP (Kaiser et al., 2019). Therefore, we apply two different sources of value-in-social-context relating sport events in our empirical study, value-in-accompanying-others and value-in-opposing-teams, because we regard these sources as paramount in ticket purchase decisions.

This study extends existing research on preferences and WTP for sport event tickets in the direction of empirical validation of the impact of value-in-accompanying-others and value-in-opposing-teams as two selected sources for value-in-social context. The theoretical grounding therefore aligns with sport value framework (SVF) (Woratschek et al., 2014) as well as with value-in-social-

context (Edvardsson et al., 2011). This literature was taken in order to constitute the relevance of value-in-social-context within sport event ticketing.

Building on this, this research contributes to the literature on buyers' preferences, WTP, and value measurement. Preferences are often measured with the help of conjoint analysis, using context-independent utility functions. Consequently, we extend these functions to measure spectators' expected value capture (EVC). By conceptualizing and estimating customers' EVC, this study aims to fill a research gap in the literature by empirically determining the relevance of value-in-social-context in spectator preferences for sport event tickets. So far, previous preference and WTP analyses have disregarded this aspect, especially in ticketing for sport events. We derive three research questions from current research:

RQ1: What is the relative impact of providers' services (seat categories and prices) and different contexts (opposing teams and accompanying others) on customers' EVC?

RQ2: How does customers' EVC differ among customer segments?

RQ3: What is the increase of WTP for different accompanying others?

We contribute to sport management literature in several ways. First, to our knowledge, this study is the first to empirically investigate the quantitative impact of value-in-accompanying-others and value-in-opposing-teams as two indicators for value-in-social-context on customers' EVC and WTP. Second, we provide the first application of adaptive choice-based conjoint analysis (ACBC) in sport management literature. Third, we analyse heterogeneous spectator segments in terms of their context-dependent EVC and WTP. Fourth, we contribute to theorizing in sport management by delineating the relative importance of social context on customers' EVC. Fifth, we calculate the influence of accompanying others and opposing teams on spectators' WTP and therefore contribute to managerial ticket pricing.

4.2 Literature review and theoretical framework

4.2.1 *Ticket pricing and WTP for sport events*

Only a few studies have focused on influencing factors of ticket prices for sport events. Reese and Mittelstaedt (2001) and Rishe and Mondello (2003, 2004) found that team performance and socio-demographic criteria, such as population size and income level, explain higher average ticket prices. Rascher, McEvoy, Nagel, and Brown (2007) showed that variable ticket pricing in Major League Baseball, depending on opponent teams, leads to additional revenues. Ticket prices are fixed in the run-up to the season, based on already-known criteria.

In the recent literature stream of dynamic ticket pricing in sport management, several scholars have used historical data to explain ticket prices retrospectively (Kemper & Breuer, 2015; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014). Harrington (2009) observed a lower ticket price for single tickets in secondary ticket markets than paired tickets or group tickets. An estimation of spectators' WTP remains unavailable.

Sport management literature contains a wide array of studies analysing WTP (Atkinson, Mourato, Szymanski, & Ozdemiroglu, 2008; Castellanos, García, & Sánchez, 2010; Johnson, Mondello, & Whitehead, 2007; Theysohn, 2006; Wicker, 2011). However, research studies on WTP for sport events is more limited. Carmon and Ariely (2000), Drayer and Shapiro (2011), and Rosas and Orazem (2012) focused on WTP for basketball games in the National Basketball Association and college sports. These studies used the contingent valuation method, which is a controversial approach in sport management literature. One reason is the hypothetical bias of respondents' conscious over- or under-estimation of their WTP (Walker & Mondello, 2007).

Some studies have focused on spectators' preferences and WTP for sport events using decompositional approaches. For example, Greenwell, Brownlee, Jordan, and Popp (2007) investigated students' preferences for sport events at US colleges. For them, a good seat location is most important, despite the need to deal with other inconveniences involving the ticket. Bjørnsgov

Pedersen et al. (2011) conducted a discrete choice analysis in the field of football in Denmark. They analysed spectators' preferences and WTP depending on the quality of the opposing team (but with only two groups: A and B matches). They added attributes such as 'video walls', 'fully covered stands', and 'sale of refreshments at the stands' to their research design and found that all led to an increase in WTP. However, they assumed homogeneous spectator preferences and WTP. Lee and Kang (2011) applied traditional conjoint analysis to professional team sports in Korea with a focus on attributes such as 'player' (e.g. with local background), 'coupon' (including offers on stores close to the stadium), 'points' (loyalty programme), and 'price' (expected ticket price). They separated respondents into three a priori segments based on socio-demographic variables; however, these segments fall short of explaining different preferences and WTP of spectators. Gershenfeld (2015) also analysed preferences for sport event tickets, considering seat location, food options, and ticket price. He emphasized that changes in food offering led to an increase in the club's net revenue. Kaiser et al. (2019) segmented spectators in terms of their preferences and WTP depending on the ticket attributes opposing team, seat category, and price. They showed different preferences and WTP for different spectator segments; however, they focused only on ticket attributes, thus neglecting the influence of value-in-social-context on WTP. By contrast, we argue that it is essential to take into account the impact of value-in-social-context on value creation during a sport event.

In summary, research has mainly concentrated on ticket attributes. Extant literature in sport management does not target the influence of value-in-social-context on WTP and ticket pricing. Other actors are usually not considered in previous research or, if so, only in sample descriptions (Zhang et al., 2011). However, Urich and Benkenstein (2012) show that interactions with other spectators at sport events are one of the most critical determinants of emotional experiences. Therefore, it is paramount to empirically investigate the impact of accompanying others as well as opposing teams on EVC and WTP.

4.2.2 Relevance of reference groups on sport events

Many actors integrate resources to co-create value at a sport event (Woratschek et al., 2014). These resources can be both actors on the field (e.g. teams, players, coaches, referees) and actors next to the field (e.g. sponsors, catering staff, security, facility owners, merchandising companies, volunteers, other spectators). As we intend to conduct an empirical analysis of the social context on value, we limit our literature review to social groups as relevant actors next to the field.

Bearden and Etzel (1982, p. 184) defined a reference group as “a person or group of people that significantly influence an individual's behavior”. White and Dahl (2006) distinguished between three types of reference groups: membership groups, aspirational groups, and dissociative groups. Groups (e.g. family, a peer group, a fan club) to which an actor belongs are called ‘membership groups’. Aspirational groups are positively associated, in that an actor is attracted to and aspires to be a member. Dissociative groups are negatively associated, in that an actor wishes not to be identified with them. On the one hand, hard-core fans show extreme identification with their social peers; on the other hand, they do not want to be associated with ‘couch potatoes’ or spectators who only attend home games (Woratschek et al., 2018). However, the role of familiar others in a servicescape as a membership group is widely discussed in reference group literature (Bearden & Etzel, 1982; Childers & Rao, 1992; Escalas & Bettman, 2005; White & Dahl, 2006).

The total number of spectators is also responsible for the event atmosphere (Chang & Horng, 2010; Uhrich & Benkenstein, 2012) and has a positive influence on event enjoyment and satisfaction (Kuenzel & Yassim, 2007; Wann & Wilson, 2016). Previous research in sport management has focused on the influence of anonymous spectators on the service experience (Tombs & McColl-Kennedy, 2003; Wakefield & Sloan, 1995), while studies on the influence of accompanying others are sparse (Koenig-Lewis et al., 2017). However, as studies in both general marketing and sport marketing show, the presence of accompanying others has a positive effect on purchasing behaviour (Spies,

Hesse, & Loesch, 1997; Tai & Fung, 1997; Wakefield & Blodgett, 1999; Westerbeek & Shilbury, 1999; Woodside & Singer, 1994). To our knowledge, no study has examined the influence of reference groups—in particular, accompanying others—on customers' EVC or WTP.

4.2.3 Value-in-context and value capture

In terms of the conceptualization of value in sport management, Woratschek et al. (2014) provide the sport value framework. They defined a sport event as a platform on which spectators and other actors interact and co-create value “primarily by integrating resources from their social groups” (Woratschek et al., 2014, p. 17). Furthermore, they state that value is always value-in-context (Woratschek et al., 2014, p. 19).

There are many different understandings and definitions of context in literature. For example, Belk (1975) distinguished between behavioural settings (period of a time) and situations (a point in time and space). Five general features characterize these situations: physical surroundings, social surroundings, temporal perspective, task definition, antecedent states (Belk, 1975). Belk's understanding of a situation is related to Dey's definition of context “as any information that can be used to characterise the situation of an entity (2001, p. 5). Zimmermann, Lorenz, and Oppermann (2007) subdivided Dey's context information into five categories: individuality, activity, place, time and relationships. Sheth, Newman, and Gross identified different values, which “make differential contributions in specific choice contexts” (1991, p. 163): functional value, conditional value, social value, emotional value, and epistemic value.

Within the marketing literature of value cocreation, Chandler and Vargo (2011, p. 40) defined context “as a set of unique actors with unique reciprocal links among them”. Accordingly, value-in-context explicitly considers all actors who integrate their own and other resources within the service ecosystem and co-create value by exchanging service (Pfisterer & Roth, 2015; Vargo, 2008). These multiple actors and their resources represent the context in which value co-creation occurs (Vargo, 2008). However, Edvardsson et al. suggest that value-

in-context should be understood as 'value-in-social-context', because "social forces have a major impact on value cocreation, and on how value is defined and perceived" (2011, p. 333). In this article context refers to the understanding of value-in-social-context (Edvardsson et al., 2011). Since we have to break down context in order to enable empirical research, we selected value-in-accompanying-others as well as value-in-opposing-teams as two important sources of value-in-social-context.

Value is a fuzzy term having many different meanings related to worth, usefulness, applicability, utility, cost, price, amount of money, and so forth (Löbler & Wloka, 2019; Sánchez-Fernández & Iniesta-Bonillo, 2016). The field of service marketing describes value as the trade-off between benefits and sacrifices (Zeithaml, 1988). Benefits represent product (here, ticket) attributes and other relevant quality factors. Sacrifices include the price paid and any other negative value components (Zeithaml, 1988). This is in line with Kumar and Reinartz (2016, p. 37), who defined perceived value "as customers' net valuation of the perceived benefits accrued from an offering that is based on the costs they are willing to give up for the needs they are seeking to satisfy". However, since "co-created value is always value-in-context" (Woratschek et al., 2014, p. 19), the field needs an understanding of value that covers not only benefits and price but also context. Based on Zeithaml (1988) and Kumar and Reinartz (2016), we conceptualize value capture as the trade-off between customer's benefits and sacrifices driven by service providers' value propositions and value-in-social-context.

This definition is also related to Marshall's widely accepted definition of consumer surplus (2013, p. 103), which is "the excess of the price which he would be willing to pay rather than go without the thing, over that which he actually does pay" as well as to Brandenburger and Stuart's understanding of 'Buyer's share' which is "the amount of value, captured by the buyer, namely the buyer's willingness-to-pay for the firm's products minus the price paid to the firm" (1996, p. 10). Nevertheless, these two concepts considerably differ from our understanding of value capture, because both consumer surplus and buyer's

share are limited to financial values and neglect importance of social contexts in buying decisions.

Although research in sport marketing has measured perceived value-in-context (Horbel et al., 2016), this retrospective measurement is not of relevance in our study. When customers make a purchase decision, they must have an idea of their expectations of the benefits and sacrifices as a result of their decision. This expected value determines whether a customer buys a ticket and, if so, what kind of ticket he or she chooses. Therefore, in our sport event study we measure spectators' expectations of their value capture. Specifically, spectators' EVC refers to the net valuation between expected benefits and expected sacrifices in a specific context.

4.3 Method

4.3.1 Conceptual model

In the scenario of a purchase decision for sport event tickets, sport clubs often use seat categories as product attributes to differentiate tickets and their prices (Parris, Drayer, & Shapiro, 2012). Research confirms that the choice of seat category has an impact on the ticket price (Drayer & Shapiro, 2009; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014). In addition, an investigation of typical ticket price strategies of professional German sport clubs using secondary data analysis showed that sport clubs follow a seat location-based approach for their ticket price structure, in which seats closest to the court are the most expensive (Drayer, Shapiro, & Lee, 2012; Parris et al., 2012; Reese & Kerr, 2013). Therefore, a ticket usually includes a selected seat category at a specific price. In our study, seat category and price represent the provider's services.

However, other actors contribute also to customers' purchase decisions. Previously, we discussed actors on the field and actors next to the field as being relevant to value co-creation at a sport event. In our empirical study, we focus only on one relevant actor of each group as a first step in analysing spectators' EVC empirically. Here, we use value-in-accompanying-others and value-in-

opposing-teams as relevant sources of value-in-social-context. To the best of our knowledge, value-in-accompanying-others has not been empirically analysed in terms of EVC and WTP. This study aims to close this research gap.

Different opposing teams lead to different ticket preferences because of rivalry or the number of star players (Andreff & Scelles, 2015; Buraimo & Simmons, 2009; Jane, 2016; Jewell, 2017). Studies show that both increasing and decreasing demand for tickets and also their revenues depend on the attractiveness of the opponent (Beckman, Cai, Esrock, & Lemke, 2016; Buraimo & Simmons, 2009; Rascher et al., 2007; Theodorakis, Alexandris, Tsigilis, & Karvounis, 2013). These results indicate that opposing teams also have a relevant influence on preferences and WTP. Thus, we conceptualize ticket attributes indicated by seat category and price as well as social context indicated by opposing teams and accompanying others. As a consequence, we can measure the relative importance of ticket attributes and social context on EVC and on WTP.

Following Bjørnskov Pedersen et al. (2011) and Kaiser et al. (2019), we apply conjoint analysis to investigate customers' WTP for tickets. These conjoint models are based on additive, compensatory part-worth utility models to predict preferences and WTP depending on relevant attributes and the price of products or services (Bjørnskov Pedersen et al., 2011; Lee & Kang, 2011; Löffler & Baier, 2015; Orme & Chrzan, 2017; Theysohn, 2006). Additive part-worth utility models can be described as follows (Theysohn, 2006, p. 16):

$$U_{h,i} = \sum_{j \in J} \sum_{m \in M_j} \beta_{h,j,m} \cdot x_{i,j,m} + \beta_{h,Price} \cdot x_{i,Price} \quad (2)$$

where

$U_{h,i}$ = the utility of product i for customer h ,

$\beta_{h,j,m}$ = the parameter of the m th level of the j th attribute of the provider for customer h ,

$\beta_{h,Price}$ = the parameter for the attribute price for customer h (h , $Price < 0$),

$x_{i,j,m}$ = the value of the m th level of the j th attribute of the provider of product i ,

$x_{i,Price}$ = the value of the attribute price of product i ,

H = the index set of customers,

I = the index set of products,

J = the index set of attributes without price, and

M_j = the index set of levels for the j th attribute.

The conceptual model of this study is based on Swait et al. (2002, p. 196), who problematized contextuality and criticized that “predictive models, which ignore context may give a biased prediction”. However, Swait et al. (2002) understood context differently from us, such that they addressed different situations and circumstances (e.g. chooser-dependence, reference prices, complexity effects). Nevertheless, their approach is very general, so we can use accompanying others and opposing teams as two indicators of value-in-social-context to apply in our conjoint model.

Swait et al. (2002) note that the observed behaviour (B) captures actual preferences (P) and a measurement error (ϵ): $B = P + \epsilon$. The measurement error is divided into a context-dependent (Ω) and a context-independent component (η), so that the basic formula expands to $B = P + \Omega + \eta$. In this research, we adopt the sport event ticket with its attributes ‘seat category’ and ‘price’ as the actual preferences (P) and add ‘value-in-accompanying-others’ and ‘value-in-opposing-teams’ as a context variable (Ω) in the preference function. We understand value capture as the overall context-dependent utility of an actor, dependent not only on product characteristics but also on context indicators representing value-in-social-context. Therefore, we can describe our model for spectators’ EVC as follows:

$$V_{h,i} = \sum_{j \in J} \sum_{m \in M_j} \beta_{h,j,m} \cdot x_{i,j,m} + \beta_{h,Price} \cdot x_{i,Price} + \Omega + \eta \quad (3)$$

$$\text{cum } x_{i,j,m} = \begin{cases} 1 & \text{if ticket } i \text{ has level } m \text{ on ticket attribute } j \\ 0 & \text{otherwise} \end{cases}$$

$$\text{and } x_{i,price} = \begin{cases} 1 & \text{if ticket } i \text{ has level } price \\ 0 & \text{otherwise} \end{cases}$$

where

- $V_{h,i}$ = the EVC of product or services i for spectator h ,
- $\beta_{h,j,m}$ = the parameter of the m th level of the j th ticket attribute of the provider for spectator h ,
- $\beta_{h,Price}$ = the parameter for the attribute price for spectator h ,
- H = the index set of spectators,
- I = the index set of provider's products or services,
- J = the index set of attributes of provider's service without price,
- M_j = the index set of levels for the j th attribute of provider's service,
- Ω = the vector of contextual indicators, and
- η = the context-independent response error,

with

$$\Omega = \sum_{(k \in K)} \sum_{(l \in L_K)} \beta_{h,k,l} \cdot x_{i,k,l} \quad (4)$$

cum $x_{i,k,l} = \begin{cases} 1 & \text{if ticket } i \text{ has level } l \text{ on contextual factor } k \\ 0 & \text{otherwise} \end{cases}$

where

- $\beta_{h,k,l}$ = the parameter of the l th level of the k th contextual indicator for spectator h ,
- K = the index set of contextual indicator, and
- L_K = the index set of levels for the k th attribute of contextual indicator

WTP is equal to the ticket price, if benefits and sacrifices are balanced, which means there is no "consumer surplus" (EVC = 0). Therefore, we can calculate WTP as monetary equivalent for each ticket attribute and each context indicator.

4.3.2 Instrument

We conducted this study with two German professional sports clubs. We interviewed spectators of a first division basketball club and also spectators and fans of a second division football club by using tablet computers. Both surveys had an identical structure and study design, though we operationalized the opponent teams according to the respective league and sport. The questionnaire

itself had two sections: (1) ACBC with summed pricing and (2) psychographics and demographics in order to better describe the sample.

ACBC surveys aim to mimic decision-making processes that influence real-world choices as closely as possible. In contrast with conventional choice-based conjoint designs, which create choices between combinations of attribute levels that may appear arbitrary and repetitive, ACBC surveys maximize informant efficiency by tailoring choice tasks to each respondent's preferences. According to the revealed preference theory, respondents reveal their ordinal preferences in this way (Samuelson, 1948). Given a preference function depending on impact factors, impacts on their preferences can be statistically estimated (McFadden, 1974). Furthermore, ACBC can capture more information, especially for complex products or services (Johnson & Orme, 2007). To our knowledge, our study is the first in sport management to apply ACBC.

In the first step of ACBC, the 'build-your-own' task is applied. Respondents are asked which level of ticket attributes and social contexts they would choose most likely. The second step involves six screening tasks with four options per task. Respondents are asked for each option if this will be 'a possibility' to purchase or 'will not work for me' (Sawtooth Software, 2009). The tickets and contexts showed in this step were neighbours to the option specified in the build-your-own task. However, a minimum of one and a maximum of two indicators (attributes and context) varied from the build-your-own task. The respondents could also indicate levels as 'unacceptables' or total requirements, as 'must haves'. In the third step, respondents were presented three options, marked in the screening section as 'possibilities', in order to indicate those, they would prefer most. This task is repeated with different options until the most preferred option is identified by the software (Sawtooth Software, 2009).

In addition to ACBC spectators were asked about their identification and fan engagement as well as their demographic background for sample description. Identification had two variables (identification with the sport and identification with the team) and fan engagement three variables (performance tolerance, management cooperation, and prosocial behaviour). Each concept was measured as a single item because these items are used to describe the sample

(see Tab. 4.2). We adapted fan engagement variables from Yoshida, Gordon, Nakazawa, and Biscaia (2014). All the survey questions used a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). In addition, the respondents reported whether they were season ticket holders and how many games they attended in one season. Finally, the questionnaire contained demographic variables, including gender, age, educational status, and postcode of residence. The response format for the demographic variables was fill-in-the-blank.

4.3.3 Selection of attributes and context indicators including their levels

As noted previously, the study design of ACBC focuses on four attributes with five levels each: 'seat category', 'opposing team', 'accompanying others', and 'price' (see Tab. 4.1). Both investigated clubs offer different seat categories. We adopted those and labeled them as seat category I (in the middle and close to the court) to seat category V (upper part of the arena and farther away from the court). In both studies, the five-seat levels are close to reality. For a better orientation during the study, we provided the respective seat map of the investigated club below the choice tasks.

Tab. 4.1: Research design of the ACBC studies.

Attributes and context indicators	Levels of attributes and context indicators				
Seat category (basketball) (football)	I	II	III	IV	V
Accompanying others	Alone	Spouse	One friend	One family member	Group
Opposing team (categories)	Derby & top-level	Top-level	Derby & medium-level	Medium-level	Low-level
Opposing team (basketball)	brose Bamberg	ratiopharm Ulm	s.oliver Würzburg	Telekom Baskets Bonn	Rasta Vechta
Opposing team (football)	SpVgg Greuther Fürth	VfB Stuttgart	TSV 1860 Munich	1. FC Heidenheim	FC Erzgebirge Aue
Ticket price	Base price of €12 + level price depending on seat category				

Note: The ticket attribute price is applied as a continuous variable. We specified a base price of €12. For the levels of 'seat category', we associated these levels with the median-level price increase between €12/€12 and €36/€44 in €6/€8 increments.

Both leagues of the examined teams consist of 18 teams. To adequately reflect the preferences of the spectators, all teams of the respective league would need to be considered. However, when conducting a conjoint study, the number-of-levels effect must be taken into account. A different number of attribute levels leads to biased relative importance in favour of attributes with more levels (Verlegh, Schifferstein, & Wittink, 2002; Wittink, Huber, Zandan, & Johnson, 1992). Moreover, too many attributes or levels can lead to information overload for respondents (Green & Srinivasan, 1990). Given the five levels of seat category, we conducted preliminary qualitative studies to identify exemplary levels of the attribute opposing team. Therefore, we asked spectators and experts to cluster the 17 opposing teams into six clusters consisting of the characteristics 'derby' (yes/no) and 'playing strength' (top-level/medium-level/low-level). Both characteristics are used in sport management literature to describe the attractiveness of opposing teams (Buraimo & Simmons, 2009; Jane, 2016). In both sports, respondents divided the opponents into five clusters. None of the 19 respondents for the basketball club or the 16 respondents for the football club chose the derby/lowest playing strength cluster. The clubs shown in Tab. 4.1 represent the most frequently assigned clubs in the respective cluster.

In a second qualitative preliminary study, we asked 71 (38 for basketball; 33 for football) spectators during a home game of both clubs about the number and type of accompanying others who used to go to the sport event. Of the respondents, 14% used to go to the game alone, 37% with one accompanying person, and 49% with two or more people. The type of accompanying others ranged from spouses (14%) to friends (30%) and family (34%), with 3% other (a group of co-worker and spouse). From these results, we derived the attribute levels shown in Tab. 4.1.

Finally, for the attribute ticket price, we applied the attribute price as a continuous variable. We specified a base price of €12, representing the lowest ticket price were available for home games of both teams. For the attribute level seat category, we tied the levels to the median-level price increase of €6 (basketball) and €8 (football). To disassociate the effect of these price changes on product choice from the price increments attached to the individual price levels, we summed the prices associated with the seat category and the base price and then varied the summed price by a randomly drawn price variation from +/- 25% (Sawtooth Software, 2009). Finally, we rounded the prices, after being distributed randomly, to the nearest €1. The summed prices correspond to actual market prices of the teams and within the leagues.

4.3.4 Respondents

The main data collection took place during the second half of the 2016–2017 season. Twelve university students helped with survey administration at each of four regular season home games of both the basketball team and the football team. With the help of tablet computers, the survey was distributed to spectators in the arena before the start of a game and during the half-time break. Respondents were selected randomly in all areas of the arenas, to include those from various seating sections that represented different preferences. In total, 466 basketball and 472 football surveys were completed. After data cleansing in terms of response tendencies and lack of logic, 379 basketball and 378 football surveys remained for further analyses.

Each study had a target quota so that all age groups (29 years and under, 30–49 years, and 50 years and over) were well-represented. We also set quota targets for gender so that both sexes were included. For each of the six combinations of gender and age, there was a target quota based on an exclusive analysis of the Allensbach Media Market Analysis from 2015 and 2016 regarding awareness and interest in basketball and football (Lagardère Sports Germany GmbH, 2016). We found only small differences between the quota and the actual sample due to data cleansing.

Tab. 4.2 presents the descriptive statistics for the demographic variables. Approximately 25% of the respondents were female. On average, the basketball respondents ($M = 37.94$, $SD = 15.00$) were younger than the football respondents ($M = 43.16$, $SD = 15.32$). Only 32% of basketball respondents were season ticket holders, whereas 62% of the football respondents owned season tickets. Fan clusters for both basketball and football show high identification with their respective sport as well with their favorite team.

Tab. 4.2: Descriptive statistics for the basketball and football sample.

Variable	Category	Basketball		Football	
		N	%	N	%
Gender	Male	281	74.14%	284	75.13%
	Female	98	25.86%	94	24.87%
Age	29 or younger	140	36.94%	91	24.07%
	30-49	139	36.68%	131	34.66%
	50 or older	100	26.39%	156	41.27%
		M=37.94	SD=15.00	M=43.16	SD=15.32
Education	Without secondary education	13	3.43%	10	2.65%
	9-year secondary education	75	19.79%	73	19.31%
	10-year secondary education	29	7.65%	77	20.37%
	General qualification for university entrance	106	27.97%	113	29.89%
	University degree	17	4.49%	21	5.56%
	Apprenticeship	139	36.68%	84	22.22%
Season ticket holder	Yes	120	31.66%	234	61.90%
	No	259	68.34%	144	38.10%
		M	SD	M	SD
Number of games per season		8.77	6.02	11.36	5.74
Identification	With sport (Basketball or football)	2.15	1.30	1.62	0.98
	With the team	2.12	1.39	1.51	1.11
Fan engagement:	Performance tolerance	4.41	2.57	1.93	1.75
	Management cooperation	3.97	2.27	2.79	1.84
	Prosocial behaviour	3.80	2.13	2.43	1.65

Note: Team identification and fan engagement range from 1 (totally agree) to 7 (totally disagree).

4.3.5 Data analysis

We used the Sawtooth Software module SSI Web to program the survey in a web-based version. For the data analysis, we estimate individual-level part-worth utilities of the basketball and football spectators of the two investigated clubs from

the observed choices through hierarchical Bayes estimation. In our study, part-worth utilities in conjoint analyses correspond to value-in-price, value-in-seat category, value-in-opposing-teams and value-in-accompanying-others. They indicate the relative desirability of an indicator level. To make the findings comparable across individuals, we convert part-worth utilities into quantities such as relative importance and monetary values. Relative importance scores are measured from relative part-worth utility ranges (Orme, 2010). Monetary values are calculated by using estimated WTP as above mentioned (WTP = price, if EVC = 0).

Sport management literature clearly shows that fans are heterogeneous (Hunt, Bristol, & Bashaw, 1999; Kaiser et al., 2019; Mullin, Hardy, & Sutton, 2014; Wann & Branscombe, 1990). Therefore, we applied Sawtooth's convergent cluster and ensemble analysis and identified heterogeneous groups with homogeneous preference structures (DeSarbo, Ramaswamy, & Cohen, 1995; Orme & Johnson, 2008). We characterized them in terms of demographic and behavioural variables and their WTP. In addition, we estimated how much the different clusters would be willing to pay for the opportunity to take different types of accompanying others to the sport event (Orme, 2010).

4.4 Results

4.4.1 Relative importance of ticket attributes and social contexts on spectators' EVC

Tab. 4.3 gives an overview of the zero-centred part-worth utilities as spectators' EVC of each attribute level as measured by the hierarchical Bayes estimation model for the overall sample. The table also shows the attribute importance scores and the attribute levels respondents considered unacceptable.

Tab. 4.3: Results for the aggregated basketball and football sample.

	Basketball			Football		
	Importance (%)	Average EVC	Unacceptable attribute levels (%) ^a	Importance (%)	Average EVC	Unacceptable attribute levels (%) ^a
Seat Category	26.88			27.88		
Category I		34.98	21.90		17.94	26.19
Category II		31.51	8.71		23.04	11.64
Category III		5.88	7.92		2.38	12.43
Category IV		-20.58	12.14		-0.85	10.05
Standing Area		-52.12	25.07		-42.51	28.31
Price	35.45			37.20		
€9 /		+67.60			+72.64	
€44 (basketball)		-67.60				
€55 (football)					-72.64	
Opposing Team	19.01			18.30		
Top-Level & Derby		36.52	0.79		29.48	2.38
Top-Level		9.25	2.11		11.38	0.26
Medium-Level & Derby		-2.43	1.85		11.90	0.26
Medium-Level		-7.70	3.17		-27.78	6.08
Low-Level		-35.64	11.61		-24.97	9.26
Accompanying Others	18.66			16.62		
Alone		-37.41	28.23		-30.51	20.63
Spouse		6.22	5.28		-4.44	5.82
One friend		11.16	2.64		9.67	2.91
One family member		4.26	4.49		10.57	2.38
2+ people		15.77	3.69		14.71	3.70
None Option		31.93			29.36	

^a Percentage of respondents who regard the given attribute levels as 'unacceptable' when choosing a sport event ticket.

The most important factor in our study is price (35.45%/37.20%), followed by seat category (26.88%/27.88%), opposing team (19.01%/18.30%), and accompanying others (18.66%/16.62%). Of all the respondents in the basketball sample, 28.23% (20.63% in football sample) regard 'attend alone' as an unacceptable option, while only 3.69% (3.7%) of the respondents consider 'attend with two or more people' unacceptable. Moreover, 25.07% (28.31%) regard the standing area as unacceptable.

Abb. 4.1 shows that social context (represented by the indicators opposing teams and accompanying others) with more than one-third of relative importance, has a significant impact on sport event spectators' EVC. Ignoring value-in-social-context would, therefore, result in a large distortion of spectators' EVC and also their WTP.

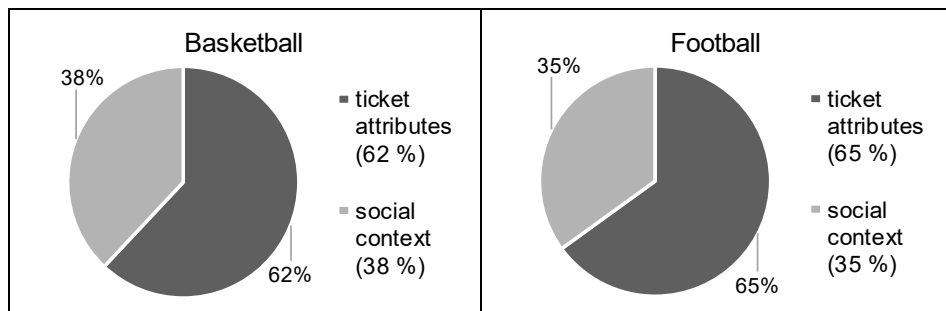


Abb. 4.1: Relative impact of ticket attributes and social context on EVC.

4.4.2 Spectators' EVC of different segments

We use convergent cluster and ensemble analysis to identify groups in the data by using each respondent's part-worth utility estimates of all attributes as a criterion for classifying respondents. We derive a four-segment solution for both samples. In both studies, we can confirm the clusters of Kaiser et al. (2019). Thus, our model also includes (1) seat-quality-oriented spectators (86/66 respondents), (2) price-sensitive spectators (113/156 respondents), (3) price-performance-oriented spectators (123/113 respondents), and (4) top-game-oriented spectators (57/43 respondents). Tab. 4.4 displays the preferences of the four types of sport event spectators.

We find that the preferences of the respective segments of both studies are quite similar. In particular, the relative importance of accompanying others reveals that they are nearly identical in the respective clusters in basketball and football (see Tab. 4.4). Nevertheless, the impact of accompanying others on spectators' EVC is approximately 16% in most segments. This applies to more than 85% of all spectators (seat-quality-oriented spectators, price-sensitive, and price-performance-oriented spectators). Only top-game-oriented spectators grade accompanying others of higher importance. With 33.7% in basketball and 20.2% in football, this cluster shows the strongest influence of accompanying others on spectators' EVC.

As Abb. 4.2 illustrates, social-context does not only play an essential role in the aggregated samples but also significantly influence spectators' EVC in all identified segments of both studies. Particularly noteworthy are the top-game-oriented spectators, for which the social context is equally weighted over the ticket attributes in football (48%) and even dominates in basketball (79%). As such, neglecting social context leads to a large bias in forecasting spectators' EVC and, as a consequence, in forecasting WTP.

It is noteworthy that attending alone has the lowest value-in-accompanying-others (see Tab. 4.4). This applies to all identified segments. The importance of attending a game with one or more accompanying people is also reflected in the high percentage of respondents who regard attending a sport event alone as unacceptable (see Tab. 4.3). This highlights the extreme relevance of considering value-in-social-context in sport management, particularly with regard to value analysis and ticket pricing.

Tab. 4.4: Segment sizes, Part-worth utilities, and relative importance of attribute and context indicators for the basketball and football sample.

	Basketball				Football			
	Seat-quality-oriented spectators	Price-sensitive spectators	Price-performance-oriented spectators	Top-game-oriented spectators	Seat-quality-oriented spectators	Price-sensitive spectators	Price-performance-oriented spectators	Top-game-oriented spectators
Segment Size	23%	30%	32%	15%	18%	41%	30%	11%
Seat Category	50.6%	14.1%	29.2%	11.0%	51.1%	15.7%	31.5%	26.7%
Category I	70.92	12.90	41.48	10.73	78.14	-8.25	20.44	20.40
Category II	56.88	17.66	36.12	6.59	56.91	7.90	27.99	16.09
Category III	11.65	3.85	10.15	-1.33	14.82	2.04	5.21	-13.88
Category IV	-26.62	-12.27	-25.50	-9.79	-13.66	3.48	4.51	-1.74
Standing Area	-112.83	-22.14	-62.25	-6.20	-136.21	-5.17	-58.16	-20.88
Price	14.2%	58.9%	40.7%	10.3%	13.2%	50.9%	36.8%	25.2%
9 €/	+ 28.48	+ 116.87	+ 81.35	+ 13.79	+ 17.33	+ 113.80	+ 65.21	+ 18.67
44 € (basketball)	-28.48	-116.87	-81.35	-13.75				
55 € (football)					-17.33	-113.80	-65.21	-18.67
Opposing Team	18.4%	12.7%	14.2%	45.1%	18.9%	17.6%	15.2%	28.0%
Top-Level & Derby	29.18	26.73	29.90	83.71	17.76	31.26	22.91	63.02
Top-Level	14.15	2.07	6.00	21.53	19.31	6.40	8.36	24.28
Medium-Level & Derby	1.36	-3.89	-5.35	1.08	21.66	7.67	6.43	23.71
Medium-Level	-7.71	-6.15	-6.38	-16.86	-26.94	-24.97	-22.72	-66.59
Low-Level	-36.97	-18.76	-24.17	-89.47	-31.78	-20.35	-14.70	-44.43
Accompanying Others								
Alone	-25.17	-27.82	-32.53	-72.01	-25.31	-27.29	-30.06	-43.27
Spouse	12.42	-0.40	5.19	18.90	-4.15	-4.31	0.07	-7.76
One friend	4.04	10.93	9.97	20.49	4.01	11.68	8.66	12.60
One family member	5.15	1.45	3.55	1.83	14.06	6.34	8.02	15.28
2+ people	3.56	15.83	13.82	30.79	11.39	13.59	13.31	23.15
None Option	30.80	52.60	29.72	10.87	35.53	40.91	38.01	-16.17

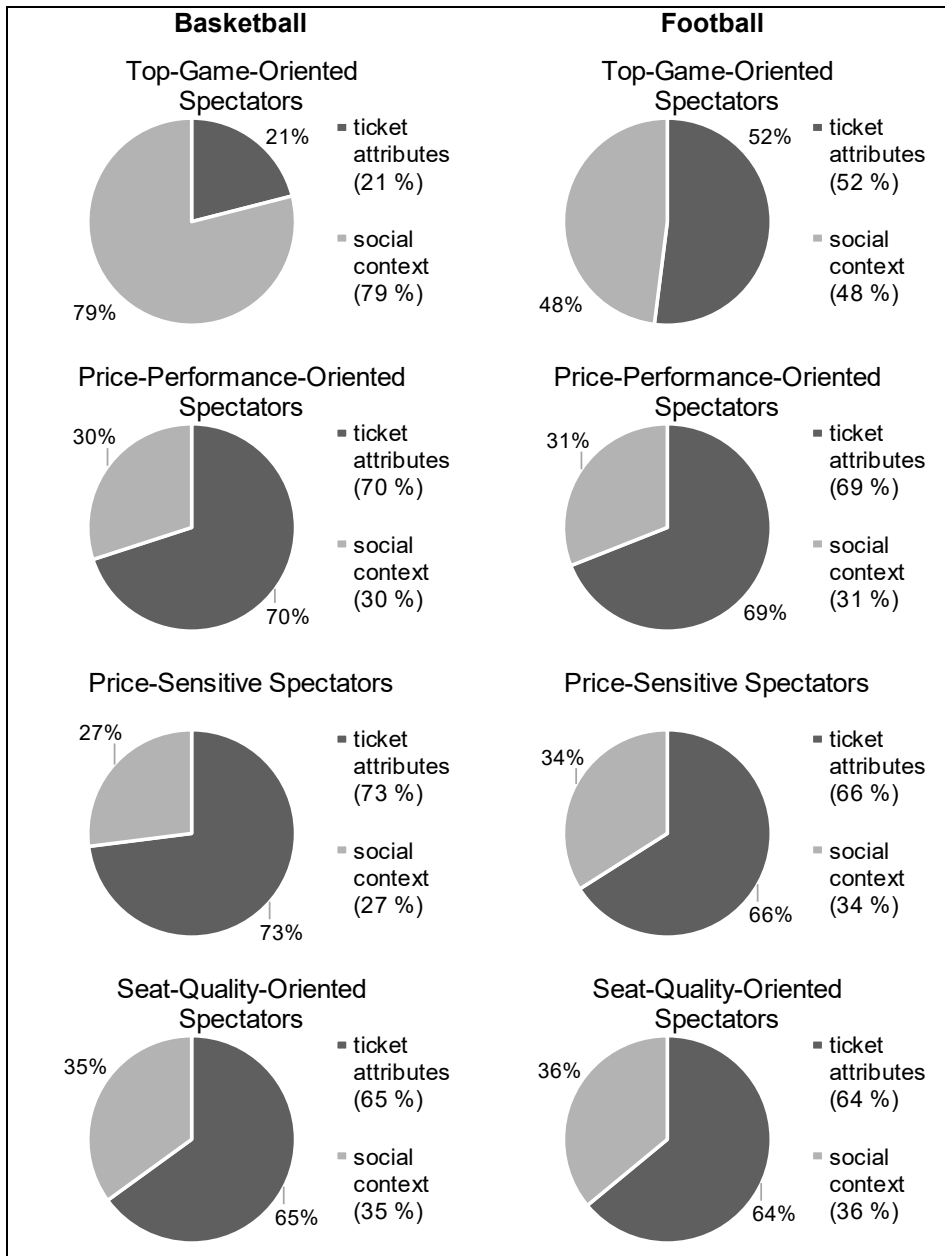


Abb. 4.2: Relative importance of ticket attributes and social context of the identified segments.

4.4.3 Calculation of additional WTP for accompanying others and opposing teams

Tab. 4.5 and Tab 4.6 show the additional WTP that spectators of the four clusters are willing to pay to attend a basketball (football) game, including the opportunity to take others to the sport event compared with attending alone.

Tab. 4.5: Additional WTP for accompanying others in basketball.

	Basketball			
	Seat-quality-oriented spectators	Price-sensitive spectators	Price-performance-oriented spectators	Top-game-oriented spectators
Alone	---	---	---	---
Spouse	+ €23.10	+ €4.11	+ €8.11	+ €115.37
One friend	+ €17.95	+ €5.80	+ €9.14	+ €117.39
One family member	+ €18.63	+ €4.38	+ €7.76	+ €93.71
2+ people	+ €17.65	+ €6.54	+ €9.97	+ €130.46

Note: Given the lowest EVC of the 'Attend alone' level in all clusters, we assume that the associated lowest price is the base price in the respective cluster.

Tab. 4.6: Additional WTP for accompanying others in football.

	Football			
	Seat-quality-oriented spectators	Price-sensitive spectators	Price-performance-oriented spectators	Top-game-oriented spectators
Alone	---	---	---	---
Spouse	+ €28.08	+ €4.64	+ €10.63 €	+ €43.75
One friend	+ €38.91	+ €7.88	+ €13.66 €	+ €68.83
One family member	+ €52.25	+ €6.80	+ €13.43 €	+ €72.13
2+ people	+ €48.71	+ €8.26	+ €15.30 €	+ €81.82

Note: Given the lowest EVC of the 'Attend alone' level in all clusters, we assume that the associated lowest price is the base price in the respective cluster.

We calculate the results in Tab. 4.5 and Tab 4.6 by the rule of proportion (Orme & Chrzan, 2017):

$$\text{Additional WTP} = \frac{\beta_{h,k,l1} - \beta_{h,k,l2}}{\frac{p_{max} - p_{min}}{\beta_{h,p_{max}} - \beta_{h,p_{min}}}}, \quad (5)$$

where

$l1, l2 \in L_K$ and $l1 \neq l2$ and

$p_{max}, p_{min} \in Price$.

With the available data, we can estimate the WTP for different accompanying others (for different opposing teams, see Tab. 4.7 and Tab. 4.8) or ticket attributes ($\beta_{h,j,m}$ instead of $\beta_{h,k,l}$ in Eq. (5)). Overall, we can estimate WTP for 125 different options for each identified segment.

There are substantial differences in the additional WTP between the segments in both samples. For example, for top-game-oriented spectators in basketball, the high importance of accompanying others (33.7%) and the low importance of price (10.3%) affect WTP. Top-game-oriented spectators in basketball are willing to pay an extra €130.46 if they have the opportunity to attend the event with a group. By contrast, the small importance accompanying others (14.3%) and a keen price sensitivity (58.9%) of the price-sensitive spectators only show a slight additional WTP of €6.54 for attending a game with a group compared with attending alone.

Tab. 4.7: Additional WTP for different opposing teams in basketball.

	Basketball			
	Seat-quality-oriented spectators	Price-sensitive spectators	Price-performance-oriented spectators	Top-game-oriented spectators
brose Bamberg (Derby & top-level)	+ €40.65	+ €6.81	+ €11.63	+ €219.77
ratiopharm Ulm (Top-level)	+ €31.41	+ €3.12	+ €4.49	+ €140.86
s.oliver Würzburg (Derby & medium-level)	+ €23.55	+ €2.23	+ €4.05	+ €114.91
Telekom Baskets Bonn (Medium-level)	€17.98	+ €1.89	+ €3.83	+ €92.14
Rasta Vechta (Low-level)	---	---	---	---

Note: Given the lowest EVC of the low-level team Rasta Vechta in all clusters, we assume that the associated lowest price is the base price in the respective cluster.

Tab. 4.8: Additional WTP for different opposing teams in football.

	Football			
	Seat-quality-oriented spectators	Price-sensitive spectators	Price-performance-oriented spectators	Top-game-oriented spectators
SpVgg Greuther Fürth (Derby & top-level)	+ €65.75	+ €11.36	+ €16.09	+ €159.67
VfB Stuttgart (Top-level)	+ €67.81	+ €6.34	+ €10.96	+ €111.94
TSV 1860 Munich (Derby & medium-level)	+ €70.92	+ €6.60	+ €10.28	+ €111.24
FC Heidenheim (Medium level)	+ €6.42	---	---	---
FC Erzgebirge Aue (Low-level)	---	+ €0.93	+ €2.83	+ €27.30

Note: Given the lowest EVC of the medium-level team FC Heidenheim and the low-level team FC Erzgebirge Aue in the clusters, we assume that the associated lowest price is the base price in the respective cluster.

4.5 Discussion and conclusions

4.5.1 Theoretical contributions

This study focused on the relevance of value-in-social-context for sport spectators at a sport event. We present the first empirical research investigating the impact of social context on spectators' EVC and WTP. Furthermore, it is the first application of ACBC in sport management.

The results of the empirical analysis reveal a notable impact of accompanying others on spectators' EVC at the time of a sport event ticket purchase. In addition to ticket attributes, other actors influence spectators' EVC for sport events. By applying the hierarchical Bayes estimation method, we show that the relative importance of social context for the purchase decision of sport event tickets is 38% for basketball (34% football) on an aggregated level. Thus, the social context in which a sport event takes place is a driving force of a purchasing decision. In particular, attending a sport event without accompanying others leads to a low EVC in all spectator segments. This is in line with the work of Horbel et al. (2016) and other studies (Kuenzel & Yassim, 2007; Zhu, Heynderickx, & Redi, 2015) that suggest that spectators prefer watching a game in a public context when they want to interact with other people during the game.

However, customer heterogeneity is essential to take in account, and thus we derive four heterogeneous spectator segments in line with Kaiser et al. (2019). Especially the segment of top-game-oriented spectators shows that value-in-social-context can dominate spectators' EVC when opting for a sport event ticket purchase.

Although spectators of sport events are heterogeneous, social context has a decisive influence on the preferences of all respondents. Therefore, we argue that it is paramount to include indicators of value-in-social-context in value measurement. Our study contributes to the theorizing of value-in-social-context by introducing the concept of EVC. Although we analysed only spectators' EVC, this concept can be generalized to other actors (e.g. in sponsoring decisions by estimating sponsors' EVC). Every actor who decides to participate in value co-creation on a platform, be it a sport event, sport league, or sport competition, likely has an idea of his or her EVC. For this reason, the concept of EVC introduced herein is fundamental to avoid biases in explaining or forecasting decisions, because co-created value is always value-in-social-context.

The concept of EVC can also be extended by considering other actors contributing to value-in-social-context, not only opposing teams and accompanying others. This might be away fans, catering staff, security staff, sponsors, or media or any other actor contributing to a sport event. Thus, the

value of our study is not only about an empirical estimation of EVC but also about extending traditional theories in marketing. Our results clearly show the importance of applying the logic of value co-creation suggested in sport value framework, respectively the logic of value-in-social-context. EVC can serve as a model to forecast actors' decision-making processes when participating on platforms. Thus, we also contribute to a better theoretical understanding of WTP for sport event tickets. To put it in a nutshell: First, we contribute to general marketing theory because this is the first quantitative approach measuring and analysing impact of social context on EVC and WTP by using a quantitative approach. Second, we contribute to sport marketing theory because this is the first study measuring the impact of accompanying others on spectators' EVC and WTP for different segments.

4.5.2 *Managerial implications*

Our findings are significant from a practitioner standpoint, as they indicate that service providers cannot fully control spectators' EVC. Sport managers should be aware of the importance of interaction with other actors, in our case accompanying others at a sport event. These people increase spectators' EVC and therefore lead to increased WTP. Consequently, marketing campaigns or incentives should recommend that spectators bring their friends and family members to the event.

More fundamentally, service providers should ensure that, during ticket sales, no single seats are left open for purchase. To help groups buy contiguous seats, online booking systems could block the booking of available and contiguous seats for single ticket purchasers. Furthermore, we do not recommend discounts for group tickets. As the results show, attending sport events with a group has the highest value capture for a large part of the spectators in basketball and football. Thus, group discounts can lead to missed revenue.

This study also has implications for potentially redesigning seat categories of sport clubs. As the results of both studies show, only a small proportion of spectators (23% in basketball and 18% in football) most prefer the

best seats available and have extremely low price sensitivity. Therefore, service providers should take care to provide adequate space for the respective clusters. It is also important to note the different spectators' EVC of different opposing teams. Therefore, service providers may want to charge higher prices for more attractive teams. In some cases, clubs already implement top-game surcharges. Our method enables managers to calculate more differentiated prices depending on different ticket attributes and contexts. Therefore, we significantly contribute to managerial ticket pricing by providing sound calculations of differentiated spectators' WTP.

Managers should consider: First, accompanying others are relevant to all sport spectators, respectively to their WTP for tickets. Second, importance of accompanying others differs significantly between spectator segments. Third, this is the first approach, simultaneously calculating increases of WTP caused by accompanying others and opposing teams in sport events. This approach can be applied to estimate top game surcharges as well as losses in case of group discounts on ticket prices.

4.5.3 Limitations and future research

This study fills a void in the literature by empirically investigating EVC and WTP. In doing so, it responds to recent calls to consider context in value creation models (Macdonald, Wilson, Martinez, & Toossi, 2011; Swait et al., 2002; Woratschek et al., 2014). By conceptualizing EVC at the time of ticket purchase as the trade-off between customer's benefits and sacrifices driven by value-in-social-context, this study takes into consideration Woratschek et al.'s explanation in sport management that "value is always value-in-context" (2014, p. 19) as well as Edvardsson et al.'s (2011) value-in-social-context.

However, our study has some limitations as we explore only the impact of two indicators of value-in-social context (value-in-accompanying-others and value-in-opposing-teams) on EVC and WTP. Future research could investigate the impact of other actors related to sport events, such as opponent fans, security staff, sponsors, catering providers, club managers, politicians, or even celebrities.

Another limitation is our focus on spectators' EVC. We focus on the intra-level, whereas value is a construct also related to higher levels (Woratschek et al., 2014). On the one hand, we justify our study by the need to "[break] down the nature of phenomenological value" (Vargo, Akaka, & Vaughan, 2017, p. 123) to better understand how value is derived. On the other hand, by doing so, we neglect that other actors' EVC is also decisive for the platform 'sport event'. Everybody's EVC depends on other actors' decisions about participation; therefore, actors' EVC are inter-related. Thus, analyses using game theory may be useful to overcome the limitation on value analysis at the intra-level.

Furthermore, our study addresses single sport events in league competition as a specific context in the sense of situations or circumstances. Future studies could focus on other sport events such as first-time sport competitions or mega-sport events (Olympic Games) and other types of sports.

For our empirical study, we defined customers' EVC as the trade-off between customer's benefits and sacrifices driven by value-in-social-context. According to the more general concept of value cocreation (Vargo et al., 2017; Woratschek et al., 2014), we suggest a more general definition of EVC: actors' EVC is the trade-off between their expected benefits and their expected sacrifices driven by value-in-social-context defined as reciprocal links among actors. Future research could use this definition to analyse actors' participation decisions in value co-creation.

Finally, research in sport management could also analyse other kinds of context, e.g. the influence of travel time to attend at sport events (value-in-temporal-context). In this connection, travel costs and travel efforts could be modelled as sacrifices beyond the price. Alternatively, sponsors pay money not just for using sport events as a communication platform; often, they provide additional payments in kind and other resources that could be analysed in more detail. Given the broad concept of value co-creation in the sport value framework, the high numbers of different contexts including a nearly infinite number of reciprocal links of different actors, our insights lead to open questions that our article cannot entirely answer, and thus we call for future research in this area.

4.6 References

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Kapitel 5: Der Einfluss der Reisezeit als ein zeitlicher Kontext

No Matter How Far, As Long as We Travel Together! Impact of Accompanying Others and of Travel Time on Sport Event Spectators' Expected Value Capture

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Unveröffentlichtes Manuskript.

Abstract

The impact of transaction costs on sport spectators' expected value capture (EVC) has been neglected by researchers. Therefore, we investigate the impact of traveling to supra-regional events, because travel is unavoidable for many spectators in such cases. However, traveling can also lead to transaction benefits as a positive experience. Moreover, the latest marketing research states the benefits of accompanying others to sport events. Accordingly, accompanying others is also included in this study to investigate the impact on EVC and willingness to pay (WTP) for tickets. Applying latent class choice-based conjoint analysis enables differentiating between cost- and quality-orientated spectators. Results show that all sport spectators compensate partially for transaction costs through transaction benefits. If sport spectators travel together, transaction benefits and traveling with others leads to an increased EVC. Consequently, travel-related transaction costs are in fact overcompensated. This leads to an increased WTP for sport event tickets for spectators traveling together.

Keywords: Willingness to pay, Value-in-social-context, Value-in-temporal-context, Sport event tickets, Transaction Costs, Choice-based conjoint analysis

5.1 Introduction

Research on willingness to pay (WTP) in sport management focuses mainly on the impact of ticket price as the only 'sacrifice' of sport event spectators (Bjørnskov Pedersen, Kiil, & Kjær, 2011; Greenwell, Popp, Brownlee, & Jordan, 2007; Kaiser, Ströbel, Woratschek, & Durchholz, 2019; Rosas & Orazem, 2012). However, sport events cause additional costs besides the ticket price, which also influence the demand for sport events (Fort, 2006; Gratton & Taylor, 2000; Wicker & Hallmann, 2013). Especially travel distance has an impact on location choice and purchase behaviour (Kreller, 2000). Hence, ignoring travel cost may lead to biased predictions of the demand for sport event tickets, as well as of WTP. In addition to the monetary price, travel time is a significant investment in itself and plays an important role when attending sport events (Hoye & Lillis, 2008). In particular, this is true for sport events of supra-regional importance, like the Olympic games, FIFA World Cup or Super Bowl, as well as for innovative, irregular or one-off events. Due to the specific pre-determined location of supra-regional events, most of the spectators may incur relatively high travel costs, which may reduce their WTP for a sport event ticket. The reason for ignoring transaction costs in sport management research could also be that regularly recurring home games were the main focus of WTP studies so far. These home games of a specific team usually have a regional catchment area (e.g., regular season games in the U.S. major leagues or European sport leagues). This results in low transaction costs of traveling. Therefore, we investigate the importance of travel-related transaction costs in relation to an innovative supra-regional sport event using the case of a National Football League (NFL) International Series game in Germany where people travel far from home to attend.

From an economic perspective, traveling causes transaction costs. However, we also know from sport management research that so-called "fan tourists" are actually proud of traveling far from home to attend sport events, because "traveling to away games is prestigious and can even lead to achieving a higher status within the fan community" (Woratschek, Horbel, & Popp, 2018, p. 224). Distancing from others is a form of benefit for many fans, which has been

found to be essential for brand communities (Muniz & O'Guinn, 2001) and other subcultures (Kozinets, 2002). Some fans want to differentiate themselves from others by traveling far away to attend sport events, which means they may perceive traveling more as a benefit than a sacrifice.

Sport event spectators can also simply have a good time when traveling to far away games, compared to local venues, as they are part of a unique group experience (Hoye & Lillis, 2008; Woratschek et al., 2018). This is why sport fans are willing to travel long distances (Hughson, 1999; Rinaldi, Sanders, & Sibson, 2013; Wann, Melnick, Russell, & Pease, 2001). Based on these findings, traveling can be regarded as a benefit by some spectator groups. This seems contrast with a purely economic perspective where traveling is conceptualized mainly as a sacrifice, as transaction costs. Therefore, empirical research is needed to clarify whether traveling is in fact evaluated more as benefit or as a sacrifice.

Furthermore, research on WTP in sport management focuses basically on the subjective valuation of different ticket combinations, especially the trade-offs between different ticket features and appropriate prices (Gershenfeld, 2015; Lee & Kang, 2011). However, the purchase decision is not only influenced by attributes of products or services. The sport value framework indicates that other actors, such as teams, players, catering staff, sponsors, or other spectators, also influence sport event experiences (Woratschek, Horbel, & Popp, 2014). The influence of other people on perceived value is shown by various studies in sport management (Aiken & Koch, 2009; Horbel, Popp, Woratschek, & Wilson, 2016; Koenig-Lewis, Asaad, & Palmer, 2017; Uhrich & Benkenstein, 2012). Therefore, 'value-in-social-context' (Edvardsson, Tronvoll, & Gruber, 2011, p. 333) should be considered by analysing expected value capture (EVC) and WTP.

As Woratschek and Kaiser (2018), we conceptualize EVC as the context-dependent valuation of benefits (e.g. ticket features) and sacrifices (e.g. ticket prices) in a specific social context. EVC could be modelled as a kind of part-worth utility model (Löffler & Baier, 2015; Theysohn, 2006), where EVC is the difference between expected benefits and expected sacrifices. We use the term 'value' instead of 'utility' to stress value is mainly value-in-context, or more specifically value-in-social-context (Edvardsson et al., 2011). We also use the term sacrifice

instead of cost, because sacrifices are more than financial costs, e.g. efforts of information-seeking, negotiations or time-consuming.

This study focuses in particular on the impact of travel time and accompanying others on sport spectator EVC and their WTP in cases of supra-regional sport events, in addition to the ticket attributes of seat category and price. Accordingly, and due to the heterogeneity of sport event spectators (Hunt, Bristol, & Bashaw, 1999; Kaiser et al., 2019; Wann & Branscombe, 1990), we address the following research questions:

RQ1: What is the relative impact of expected benefits (seat category and accompanying others) and of expected sacrifices (ticket price and travel time) on EVC of different spectator segments for supra-regional events?

RQ2: To what extent can transaction benefits compensate for the transaction costs of traveling to sport events?

RQ3: To what extent can accompanying persons (as context-dependent benefits) compensate for the travel costs of different spectator segments?

This research contributes to the sport management literature in several ways. First, we extend EVC and WTP measurement by considering transaction costs of travel time as one temporal context. Consequently, we estimate the impact of travel time quantitatively for different spectator segments. Second, the research subject of an innovative supra-regional event is applied for the first time in EVC and WTP measurement for sport event tickets. By contrast, most studies investigate regularly recurring events such as season games (Daniel & Johnson, 2004; Gershenfeld, 2015; Ninomiya, 2015). Third, the results of the study contribute to an enhanced theorizing on value co-creation and value-in-social-context and value-in-temporal-context in sport management, by analysing benefits and sacrifices of 'travel time' and 'accompanying others'. Fourth, the findings provide empirical evidence of the importance of the sport value framework as a new logic in sport management. This logic guides us in considering the relevance of accompanying others' contributions and transaction benefits to value creation relating to sport events. Fifth, the study extends empirical knowledge on influence factors affecting WTP for sport tickets, beyond ticket attributes for different spectator segments, here the influence of transaction

costs and of accompanying others. The findings should help researchers to better understand the value of sport events, and help sport event managers to more effectively target their pricing policies by clarifying the influence of ticket attributes, customers' travel costs and the impact of accompanying others to WTP for sport event tickets.

5.2 Literature review

5.2.1 *Ticket pricing and WTP in professional sports*

Ticket pricing by professional sport organizations is a frequently discussed topic. Reese and Mittelstaedt (2001), for example, found that team performance, the revenue needs of the organization, and public relations issues are the most critical factors influencing ticket prices. Rishe and Mondello (2003, 2004) showed that a new stadium, last year's success and socio-demographic criteria, such as population size and income level, are also important determinants of ticket prices. Rascher, McEvoy, Nagel, and Brown (2007) revealed that different ticket prices, depending on opposing teams, can lead to additional revenue. By applying variable ticket pricing, different prices are set for different opponent teams at the beginning of the season, depending on historical data.

Historical data are also used by several authors to explain ticket prices in the new literature stream of dynamic ticket pricing (Kemper & Breuer, 2015; Paul & Weinbach, 2013; Shapiro & Drayer, 2012, 2014). Investigating secondary ticket markets, research in the context of the NFL shows that performance factors like winning percentage, or time-related variables like playoff round or day of the game have a significant influence on WTP (Drayer, Rascher, & McEvoy, 2012; Drayer & Shapiro, 2009). Furthermore, ticket-related variables, such as seat location, are important (Shapiro & Drayer, 2014).

Also, consumer responses to ticket pricing and price changes is of great importance (Drayer, Shapiro, & Lee, 2012). Dwyer, Drayer, and Shapiro (2013) found that the impact of time, ticket source, and team identification are relevant to consumer perceptions in terms of ticket availability and lower ticket prices.

Shapiro, Dwyer, and Drayer (2016) showed that ticket source, reference price, and familiarity with dynamic ticket pricing and secondary markets influenced perceived ticket price fairness and purchase intention. Furthermore, different price tiers influence perceived venue quality (Moe & Fader, 2009; Reese & Kerr, 2013).

In addition to consumer responses to ticket pricing, for sport organizations, it is paramount to know spectators' WTP for sport events. Therefore, Carmon and Ariely (2000), Drayer and Shapiro (2011), and Rosas and Orazem (2012) analysed spectators' WTP for basketball games at universities and in the National Basketball Association, by applying the contingent valuation method. However, this method is controversial in the sport management literature, because of its hypothetical bias leading to over- and underestimating the WTP (Walker & Mondello, 2007). Methods like conjoint analysis avoid this hypothetical bias.

5.2.2 Conjoint analysis of spectator preferences in sport management

Daniel and Johnson (2004) analysed WTP for a club membership package with new benefits in three a priori specified spectator segments. They found an increased WTP of 20% for new products with additional benefits. When testing this at the football club of Sydney Swans, they found no complaints when raising prices about 20%. Ninomiya (2015) focused on the price elasticity of ticket demand in Japanese Basketball. The attributes of game day, opposing team, and ticket price are examined within three spectator groups, depending on their seat category. Ninomiya stated that price elasticity is greater with a higher-priced ticket. Greenwell et al. (2007) investigated student preferences for sport events at colleges in the US. For them, a good seat location is most important. Lee and Kang (2011) applied traditional conjoint analysis in professional team sports, focusing on ticket price strategies in Korean football. They analysed WTP and preferences for different segments, depending on the attributes of star player (within the team), coupon (discount voucher), points (for future benefits), and

ticket price. By applying discrete choice analysis, Bjørnskov Pedersen et al. (2011) also examined spectator preferences and WTP in Danish football, depending on the quality of opposing team, video walls, fully covered stands, and refreshment sales at the stands. Gershfeld (2015) also analysed preferences for sport event tickets, considering seat location, food options, and ticket price. He emphasized that changes in food offerings led to an increase in the club's net revenue. Kaiser et al. (2019) segmented spectators, based on their preferences and WTP. Focusing on the ticket attributes of seat category, opposing team, and ticket price, they pointed out that spectators are heterogeneous in their preferences, and propose that benefit segmentation should be applied when considering preferences and WTP. However, they neither consider traveling distance-related transaction costs nor the context of accompanying others.

This literature review shows that conjoint analysis is a suitable method for examining preferences and WTP of sport event spectators. Although it is argued that ignoring costs other than price leads to biased estimates (Noll, 1974), ticket prices were the only sacrifices considered in these studies. Accordingly, other sacrifices should be taken into account, such as travel distance (Fort, 2006). In addition, researchers have merely focused on repeated sport events, like regular season home games. The review of the literature reveals a lack of research on irregular and supra-regional sport events, like an NFL International Series game in Germany. Accordingly, we apply a latent class choice-based conjoint analysis (CBCA) to overcome the failure to measure the impact of travel time as one indicator of value-in-temporal-context and accompanying others as one indicator of value-in-social-context on different spectator EVC and WTP at supra-regional sport events.

5.2.3 *The role of travel time when attending sport events*

In addition to the ticket price, other costs arise for spectators of a sport event (Gratton & Taylor, 2000). These costs are reflected in transaction costs incurred as sacrifices required by the customer to achieve a purchase (Picot, 1982). Transaction costs include all costs of customers that extend beyond the price of

the purchased products or services, e.g., costs for information seeking, waiting times, or traveling.

In sport management, Noll (1974) criticized that ignoring travel costs leads to biased results in evaluating the demand for sport event tickets. It is, therefore, to be assumed that travel costs and the associated travel time represent a highly significant type of transaction cost, particularly concerning supra-regional sport events. Hence, the literature has taken travel and other transaction costs associated with sport events or services into account (Burke & Woolcock, 2009; Falter & Perignon, 2000; Forrest, Simmons, & Feehan, 2002; Pawlowski & Anders, 2012; Zimmermann, 2002). Travel costs are shown either directly (e.g., train tickets, fuel costs, parking fees) or indirectly (expenditure of time). Research also indicates that travel distance for sport fans has a negative influence on consumer demand for sport events (Allan & Roy, 2008; Jane, 2014; Mirabile, 2015). However, traveling could also be associated with fun, which is not considered in the literature discussed above. Fun and many other positive aspects compensate for the sacrifices of travel. De Donnea (1972) introduced a utility model depending on satisfaction/dissatisfaction with traveling, among other factors. However, when spectators attend a sport event, travel is not the primary purpose. Therefore, they may only pay for traveling, because benefits connected with attending sport events is higher than the transaction costs of traveling. It may also be that benefits connected with traveling entirely or at least partially compensate for traveling costs. We define these benefits as transaction benefits and assume that travel-related transaction costs could be partly compensated for travel-related transaction benefits. As value can be defined as the trade-off between benefits and sacrifices (Zeithaml, 1988), we define the difference between actors' transaction benefits and the value of actual transaction costs as value capture-in-traveling.

However, there is no research on the influence of travel time on spectators' EVC and WTP for sport event tickets, especially for innovative supra-regional events. To the best of our knowledge, this is the first research to focus on the influence of sacrifices other than ticket price on the EVC and WTP of sport event spectators.

5.2.4 *The role of accompanying others to sport events*

Hoye and Lillis (2008) showed that the frequency of travel has a positive correlation with the need for social interaction with membership groups. In addition, other scholars have revealed that other actors also exert a positive influence on the travel experience (Rinaldi et al., 2013; Smith & Stewart, 2007; Woratschek et al., 2018) as well as on the sport event experience (Aiken & Koch, 2009; Horbel et al., 2016; Koenig-Lewis et al., 2017; Uhrich & Benkenstein, 2012). Woratschek et al. (2014, p. 17) indicate that spectators and other actors co-create value “primarily by integrating resources from their social groups” by presenting the sport value framework. Social groups, other actors, and their reciprocal links represent the social context in which value co-creation occurs (Chandler & Vargo, 2011; Edvardsson et al., 2011; Vargo, 2008). Hence, other actors as indicators for social context also have to be considered when investigating the EVC (Woratschek & Kaiser, 2018). Consequently, accompanying others as one indicator of value-in-social-context can lead to higher EVC and WTP, compared with traveling and attending a sport event alone. This is why we integrate accompanying others as one important social group of sport event spectators into our research.

However, there are different understandings of context in literature (Belk, 1975; Dey, 2001; Sheth, Newman, & Gross, 1991; Swait et al., 2002). Dey defines context “as any information that can be used to characterise the situation of an entity” (2001, p. 5). Based on this definition context information can be subdivided into five categories: Individuality, activity, place, time and relationships (Zimmermann, Lorenz, and Oppermann, 2007). Dey’s understanding of context is in line with Belk’s understanding of a situation as a point in time and space (1975). Physical and social surroundings, temporal perspective, task definition, antecedent states define these situations (Belk, 1975). In both conceptualizations see time and social surroundings as subcategories.

In this study, travel time could be defined as such kind of a temporal context. Besides value-in-temporal-context, we also consider value-social-context when integrating accompanying others into our empirical research. In

particular, we refer to Edvardsson et al.'s (2011) understanding of value-in-social-context. Value-in-social context has many aspects and can be measured by many indicators. However, we focus on two indicators because an empirical study is always limited to some relevant aspects. Hence, we ascribe accompanying others as one indicator (among others) of value-in-social-context, and travel time as one indicator (among others) of value-in-temporal-context. So far, in the sport management literature there is a lack of empirical research on the influence of value-in-temporal-context (indicated in transaction costs caused by travel time) and value-in-social-context (indicated in accompanying others) on sport event spectators' EVC and WTP. We assume that travel-related transaction benefits and accompanying others overcompensate for the actual transaction costs of travel for sport event spectators.

5.3 Research method

5.3.1 *Conjoint analysis*

In this study, CBCA is applied in combination with latent class analysis. Decompositional methods like conjoint analysis are widely used in marketing research to examine customer preferences for products and services, while maintaining a realistic purchase decision (Baier & Brusch, 2009; Louviere & Woodworth, 1983). In our CBCA, respondents are asked independently of one another, for each choice task, to choose the most preferred option from different choice sets and a no-choice-option (e.g. 'I would not buy any of these alternatives'). Maintaining a high degree of realism, CBCA allows respondents to select the most preferred alternative, or none at all. The conjoint analysis considers products jointly, in order to obtain an overall utility score for the entire product. Depending on this information, part-worth utilities can be estimated for each level of each attribute, in order to analyse respondent preference structures. Furthermore, information about the relative impact of the examined attributes of a product can be provided.

By applying latent class analysis in combination with CBCA, researchers can identify heterogeneous customer segments so as to better understand their preferences (Kaiser et al., 2019; Theysohn, 2006). In order to segment according to their preferences and WTP, researchers ascribe latent class analysis a superior performance (DeSarbo, Ramaswamy, & Cohen, 1995; Moore, Gray-Lee, & Louviere, 1998; Vriens, Wedel, & Wilms, 1996). This approach allows segments to be compared with different EVC and therefore, with different value capture-in-traveling. Also, conjoint analysis is suitable for determining the EVC and WTP of innovative products or services. This is appropriate for innovative supra-regional events, since there is no historical data. For this reason, latent class CBCA with was applied in this research.

5.3.2 Research framework

A review of relevant literature shows that conjoint analysis represents a traditional marketing framework for evaluating seat location, ticket price, and other ticket attributes in the context of regularly recurring sport events. These studies are based on additive, compensatory part-worth utility models in order to predict preferences and WTP for products or services, depending on relevant attributes and the price (Aiken & Koch, 2009; Daniel & Johnson, 2004; Lee & Ferreira, 2011; Löffler & Baier, 2015; Ninomiya, 2015; Theysohn, 2006). Although the concepts of value and utility have been equated in economic terms and therefore have not been clearly separated from each other, we differentiate between utility and value capture according to Woratschek and Kaiser (2018). In contrast to utility, value capture includes social context in the sense of reciprocal links among actors. We assume that spectator EVC emerges from a context-dependent trade-off between all expected benefits and all expected sacrifices. This corresponds with the services marketing literature describing value as a trade-off between benefits and sacrifices (Kumar & Reinartz, 2016; Zeithaml, 1988). Our model can be described as follows (based on Theysohn, 2006, p. 16):

$$V_{h,i} = \sum_{j \in J} \sum_{m \in M_j} \beta_{h,j,m} \cdot x_{i,j,m} + \sum_{k \in K} \sum_{l \in L_k} \beta_{h,k,l} \cdot x_{i,k,l} + \eta \quad (6)$$

$$\text{cum } x_{i,j,m} = \begin{cases} 1 & \text{if ticket } i \text{ has level } m \text{ on ticket attribute } j \\ 0 & \text{otherwise} \end{cases}$$

$$\text{cum } x_{i,k,l} = \begin{cases} 1 & \text{if ticket } i \text{ has level } l \text{ on contextual factor } k \\ 0 & \text{otherwise} \end{cases}$$

where

$V_{h,i}$: the EVC of ticket i for spectator segment h

$\beta_{h,j,m}$: the parameter of the m th level of the j th ticket attribute for h

(with $\beta_{h,j,m} > 0$ for benefits and $\beta_{h,j,m} < 0$ for sacrifices)

$\beta_{h,k,l}$: the parameter of the l th level of the k th contextual factor for spectator segment h (with $\beta_{h,k,l} > 0$ for benefits and $\beta_{h,k,l} < 0$ for sacrifices)

H : the index set of spectator segments

I : the index set of tickets

J : the index set of ticket attributes

M_j : the index set of levels for the j th benefit

K : the index set of contextual factors

L_K : the index set of levels for the k th attribute of contextual factors

η : the context-independent response error

According to sport management research, the exclusion of costs other than the ticket price may lead to biased results (Fort, 2006; Gratton & Taylor, 2000; Noll, 1974). Travel time might be a significant sacrifice, in particular at supra-regional sport events, as many spectators may travel long distances to attend them. Although transaction benefits may also occur, we assume that they cannot fully compensate for transaction costs. Therefore, we assume spectator value capture-in-traveling is negative ($\beta_{h,k,l} < 0$ for $k = \text{traveling}$), which means that value capture-in-traveling is a sacrifice concerning supra-regional sport events. We also assume that transaction benefits significantly reduce actual transaction costs. Hence, the monetary equivalent of value capture-in-traveling is significantly lower than actual transaction costs. However, if spectators attend a sport event together with others, we assume that the context overcompensates for negative value capture-in-traveling. This means that spectator EVC for all spectator segments is always increasing when traveling together, no matter how long the travel time.

5.3.3 Conjoint factors and levels

The impact of the attribute seat category has been demonstrated in several studies (Parris, Drayer, & Shapiro, 2012; Shapiro & Drayer, 2014; Veeraraghavan & Vaidyanathan, 2012). Borland and Macdonald (2003) state that the two most important characteristics of a good seat are proximity to the field of play and the perspective of view. Building on this, we operationalize seat category by distinguishing between lower and upper tier (proximity) and by the main grandstand and seats in the end zone (perspective). In order to make orientation easier for the respondents, an appropriate seating map was provided for each choice task scenario.

Tomlinson, Buttle, and Moores (1995) and Hong (2009) showed in their studies that not surprisingly the ticket price has a significant impact on the purchase decision. The determination of the ticket attribute of ticket price used within this study was based on reference prices, determined by the Team Marketing Report 2016, as well as the ticket prices for other NFL International Series games (Hartweg, 2016). Therefore, we defined four price levels: €40, €80, €120, €160.

In addition to these established ticket attributes, the context of a sporting event also plays a crucial role (Woratschek et al., 2014). In particular, the presence of other spectators significantly influences the experience of a sporting event (Horbel et al., 2016; Koenig-Lewis et al., 2017). Accordingly, this study adopts the research design of Woratschek and Kaiser (2018) and also focuses on the influence of accompanying others, which is represented by different membership groups and the number of such others. However, due to the number-of-levels effect, we consolidate this attribute to four levels as shown in Tab. 5.1 (Verlegh, Schifferstein, & Wittink, 2002; Wittink, Huber, Zandan, & Johnson, 1992).

Considering the research objective of this study, it is necessary to present a suitable method for evaluating the stadium location and therefore, the closely related role of travel time. The distance can be operationalized in a spatial, temporal, and economical manner. Due to the different travel possibilities, spatial

distance was seen as an inappropriate operationalization. Likewise, the economic distance does not make sense. According to Zimmermann (2002), consumers have significant problems in adequately assessing the monetary costs and the resulting sacrifices for overcoming space. Burke and Woolcock (2009) used temporal operationalization in order to evaluate the willingness of sports spectators to overcome space. Zimmermann (2002) also confirms time as a suitable indicator of distance in the case of sport services. He furthermore acknowledges conjoint analysis as a suitable method for determining people's willingness to overcome space or time, especially if no actual observable data exists (e.g., innovative events). Hence, in this study, benefits are operationalized by the ticket attribute "seat category" and the factor "accompanying others" as an indicator of value-in-social-context context factor, as well as the sacrifices associated with the ticket attribute "ticket price" and the factor "travel time" as an indicator of value-in-temporal-context. Tab. 5.1 shows the factors and levels of our research design.

Tab. 5.1: Factors and Levels of benefits and sacrifices

Ticket Price	Travel Time	Seat Category	Accompanying others
€40	Less than 1 hour	Upper Tier end zone	Visit alone
€80	1 – 2 hours	Lower Tier end zone	Visit with spouse
€120	2 – 3 hours	Upper Tier main grandstand	Visit with one other person
€160	More than 3 hours	Lower Tier main grandstand	Visit with 2 or more persons

5.3.4 Experimental design

The experimental design was constructed with the help of Sawtooth Software, Inc. Lighthouse Studio, using the traditional full-profile choice-based conjoint design (Sawtooth Software, 2017). The survey includes 12 choice tasks, with four choice sets per task, including the "none option". The complete enumeration design enables minimal overlap of identical attribute levels across different

alternatives in one scenario. A complete enumeration design does not allow two identical concepts to appear within the same task. Each attribute level occurs approximately equally in and across all surveys. This indicates an almost orthogonal design between the attributes.

5.3.5 Data collection

We developed a choice-based conjoint experiment in which NFL fans in Germany are asked to assume that they are attending an NFL game in Germany. This sport event is expected to especially attract people who have a substantial interest in American football, the NFL, or attending sports events in general. Therefore, this online survey was specifically shared in both NFL and American Football forums, as well as in related social media groups. Data were collected from August to November 2017. A total of 1549 people completed the questionnaire. After data cleansing, focusing on incomplete replies, response tendencies, and lack of logic, 1111 questionnaires remained for further analysis.

5.4 Results

5.4.1 EVC of NFL spectators in Germany

The sport management literature clearly shows that sport event spectators are heterogeneous, not only with respect to socio-demographic or psychographic variables (Hunt et al., 1999; Wann & Branscombe, 1990) but also in their preferences and WTP (Kaiser et al., 2019). Given the focus of this study on the trade-off between the benefits and sacrifices of heterogeneous spectator segments, latent class analysis was applied to identify heterogeneous segments within the CBCA. In terms of content, the choice of a 2-cluster solution revealed the different perceptions of the investigated benefits and sacrifices best. Furthermore, the average maximum membership probability within this two-group solution is 0.96 (3-cluster: 0.93; 4-cluster: 0.92). Considering the relative impact of the benefits and sacrifices on the EVC, we differentiated between cost-oriented spectators (64,6% relative importance of sacrifices) and quality-oriented

spectators (65,8% relative importance of benefits), presented in Tab. 5.2.

The more prominent segment, with a size of 71.1% is called quality-oriented spectators and consists of 88.9% men who are on average 28.92 years old. With a relative impact of 42.6%, accompanying others is most important to this segment. The attribute of seat category is also relevant, at 23.2%. Sacrifices cover only about one-third of relative importance. As Figure 1 demonstrates, benefits have a major impact with a two-thirds relative impact on EVC.

Tab. 5.2: Importance and expected value capture of NFL spectators in Germany.

	Cost-oriented spectators	Quality-oriented spectators
Segment Size	28.9%	71.1%
Ticket Price	48.9%	28.0%
€40	95.52	46.07
€80	47.46	30.64
€120	-43.02	-10.80
€160	-99.96	-65.91
Travel Time	15.7%	6.2%
Less than 1 hour	26.21	9.95
1 – 2 hours	24.43	7.49
2 – 3 hours	-14.12	-2.65
More than 3 hours	-36.51	-14.80
Seat Category	11.8%	23.2%
Upper tier end zone	-23.07	-46.16
Lower tier end zone	-15.81	-6.76
Upper tier main grandstand	14.64	6.34
Lower tier main grandstand	24.23	46.58
Accompanying others	23.6%	42.6%
Visit alone	-61.40	-110.72
Visit with spouse	4.96	14.97
Visit with one other person	23.34	35.93
Visit with 2 or more persons	33.10	59.81
None-Option	99.96	-238.63
Gender	87.2 % male 12.8 % female	88.9 % male 11.1 % female
Age	30.72 years SD: 9.56	28.92 years SD: 9.21
Team Identification of preferred team	4.29 SD: 0.86	4.40 SD: 0.76

Note: Team identification ranges from 5 (totally agree) to 1 (totally disagree) and is based on Wann and Branscombe's Team Identification Scale's item: How strongly do you see yourself as a fan of your preferred team? (1993)

For cost-oriented spectators, the dominant attribute is ticket price, with a relative importance of 48.9%. Travel time has an impact of 15.7%. Therefore, costs have a relative impact of more than two-thirds on the EVC of a ticket, as shown in Figure 1. Cost-oriented spectators are dominated by men (87.2%) and have an average age of 30.72 years. Almost 30% of all respondents are cost-oriented spectators.

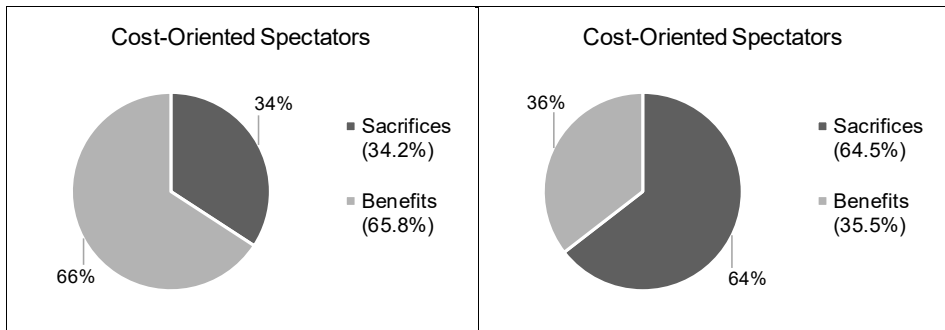


Abb. 5.1: Relative importance of benefits and sacrifices.

5.4.2 Simulation of WTP for different travel times and for accompanying others

The application of conjoint analysis allows us to estimate EVC and WTP for each kind of ticket option in our research design, because price is just one factor among others. Tab. 5.3 and Tab. 5.4 show the WTP of different spectator segments for a first-time NFL International Series game in Germany for different travel times, as well as for different accompanying others. In this connection, we assume a linear price-value regression function, based on the part worth-utilities of the four price points each ($R^2 = 0.99$ for cost-oriented spectators and $R^2 = 0.95$ for quality-oriented spectators).

Tab. 5.3: Differences in WTP for travel time.

	Cost-oriented spectators			Quality-oriented spectators		
	WTP for the least valuable ticket	WTP for the most valuable ticket	Total amount of reduced WTP	WTP for the least valuable ticket	WTP for the most valuable ticket	Total amount of reduced WTP
Less than 1 hour	€6.51	€90.30	---	€197.20	€476.27	---
1 – 2 hours	€5.46	€89.25	- €1.05	€194.60	€473.66	- €2.60
2 – 3 hours	- €17.32	€66.47	- €23.83	€183.85	€462.91	- €13.35
More than 3 hours	- €30.56	€53.23	- €37.07	€170.96	€450.03	- €26.24

Note: Note: The most valuable ticket is the seat category "lower tier main grandstand" and "visit with two or more persons". The least valuable ticket is the seat category "upper tier end zone" and "visit alone". The total amount of reduced WTP is based on the WTP for a journey less than one hour (minimum travel distance).

Tab. 5.4: Differences in WTP for accompanying others.

	Cost-oriented spectators			Quality-oriented spectators		
	WTP for the least valuable ticket	WTP for the most valuable ticket	Total amount of additional WTP	WTP for the least valuable ticket	WTP for the most valuable ticket	Total amount of additional WTP
Visit alone	- €30.56	€34.46	---	€170.96	€295.50	---
Visit with spouse	€8.65	€73.67	€39.21	€304.20	€428.74	€133.24
Visit with one other person	€19.51	€84.53	€50.07	€326.42	€450.95	€155.45
Visit with 2 or more persons	€25.28	€90.30	€55.84	€351.73	€476.27	€180.77

Note: The most valuable ticket is the seat category "lower tier main grandstand" and travel time of "less than 1 hour". The least valuable ticket is the seat category "upper tier end zone" and travel time of "more than 3 hours". The total amount of additional WTP is based on the WTP for a "visit alone" (minimum benefit from accompanying others).

Cost-oriented spectators have a reduced WTP of €1.05 for a travel time of 1-2 hours, compared to less than one hour. On the other hand, the WTP is reduced by €37.07 if travel time is more than 3 hours. This means that cost-oriented spectators would be willing to pay €90.30 for a ticket on the lower tier of the main grandstand and a visit with two or more persons if travel time is less than one hour. However, if the travel time exceeds three hours, it would drop by more than 40% to €53.23. Negative WTP in Tab. 5.3 and Tab. 5.4 signals that cost-oriented spectators would not attend the sport event even if they obtained free tickets (ticket price = €0). This is the case when they have to travel alone and longer than 2 hours.

Regarding accompanying others, cost-oriented spectators are willing to pay additional €39.21 (visit with spouse) up to €55.84 (Visit with 2 or more persons) for a ticket if they visit it with companions, compared to a visit alone. This results in a WTP for a ticket in the lower tier of the main grandstand and travel time of less than one hour of €34.46 for a visit alone and the €90.30 already mentioned for a visit with two or more persons and therefore, in a reduction of more than 60%.

As mentioned above, sacrifices of price and travel time have an accumulated impact of 34% for quality-oriented spectators. Although the WTP for a ticket drops by €26.24 if the travel time exceeds three hours instead of less than

one hour, this is only a relative reduction of about 5%. Hence, the willingness to pay for a ticket in the lower tier of the main grandstand and a visit with 2 or more people is €476.27 for a travel time of less than one hour. For a travel time of more than three hours, this declines to €450.03 for the same ticket.

With a focus on accompanying others, WTP for the most valuable ticket is raised by €180.77 or more than 60% between a visit alone (€295.50) and a visit with two or more people (€476.27). As shown in Tab. 5.3 and Tab. 5.4 with WTP for the most valuable ticket as well as the least valuable ticket, the presented trends and differences in WTP of the results are the same for all ticket options.

5.5 Discussion and implications

A closer look at the sacrifices reveals that the ticket price is the main sacrifice and that travel time is of relatively minor importance for an NFL International Series game in Germany. Both cost-oriented and quality-oriented spectators weight travel time significantly lower than ticket prices. This is surprising as, from an economic standpoint, travel time also leads to high costs and may even exceed the ticket costs. For example, a two-way train ticket from Frankfurt to Munich (approx. 3.30 hours) departing on September 28th, 2019 and arriving on September 29th, 2019 leads to actual travel costs of €214 (accessed on June 14th, 2019 on bahn.de). Traveling by car (VW Golf 1.5 TGI BlueMotion Trendline) cause costs of €0.448 per kilometer, which results in total travel costs of €351.23 for a trip from Frankfurt to Munich (approx. 4 hours) and return (2 x 392 kilometers) (ADAC, 2019). For a travel time of less than one hour, the equivalent price of a day ticket for public transport can be assumed for traveling by train. Within Munich, this rises to €13 (requested on June 14th, 2019 on mvv-muenchen.de). If traveling by car when travel time is less than one hour, we assume a distance of 30 kilometers and return which leads to actual travel costs of €26.88.

Based on the results in Tab. 5.3, we can infer that the monetary equivalent of value capture-in-traveling will be -€37.07 for cost-oriented spectators (-€26.24 for quality-oriented spectators) when traveling more than 3

hours instead of less than one hour. However, actual travel costs by car ($\text{€}351.23 - \text{€}26,88 = \text{€}324.35$) as well as by train ($\text{€}214 - \text{€}13 = \text{€}201$) exceed the monetary equivalent of expected value capture-in-traveling by far ($\text{€}26.24$ or $\text{€}37.07$). Therefore, both cost-oriented and quality-oriented spectators undervalue the actual travel costs tremendously. As a consequence, transaction benefits should not be ignored when determining value capture-in-traveling, as they compensate for a vast portion of actual transaction costs.

The results also show that a travel time of less than two hours could almost be ignored (see Tab. 5.3). Hence, this study shows that sport economists significantly overrate the importance of transaction costs for traveling. Transaction benefits also have to be considered concerning sport events. This is in line with Woratschek et al. (2018) and Hoye and Lillis (2008), who emphasize the importance of transaction benefits through traveling to sport events. As a consequence, the EVC of accompanying spectators can compensate for negative value capture-in-traveling, and thus result in an increased EVC and WTP. Accordingly, transaction benefits in combination with accompanying other overcompensate for actual transaction costs.

Since this is the first research to focus on supra-regional sport events rather than regular occurring sport events, the results should also help sport managers to better align their pricing policies with spectator needs in the context of supra-regional sport events. On this basis, sport event organizers should provide opportunities to increase spectators' transaction benefits from travel. Offers in the run-up to the event should, therefore, go beyond mere ticket sales. These could be platforms for carpooling opportunities, organized and enjoyable bus trips or special trains. In this regard, they could also cooperate with travel agencies specialized in sport events. Furthermore, ticket providers should ensure that tickets for contiguous seats are available during ticket sales, so as to give spectators a higher probability of watching the game together with their accompanying others (Woratschek & Kaiser, 2018). As shown in Tab. 5.4, WTP increases significantly when spectators attend the sport event in the company of others.

5.6 Conclusion, limitations and further research

CBCA with latent class analysis is applied to investigate the EVC and WTP of spectators for a first-time NFL International Series game in Germany. The relevance of benefits as well as sacrifices, were assessed differently, concerning the EVC of spectators. A heterogeneous approach to respondents is therefore necessary.

This research contributes to the sport management literature by analysing for the first time the impact of travel time as an indicator of value-in-temporal-context on spectators' EVC and WTP. In both spectator segments, travel time yields a strictly monotonously decreasing value capture function. Hence, travel time can be confirmed as a sacrifice for supra-regional sport events, in addition to the ticket price. However, transaction benefits tremendously reduce travel-related transaction costs. In combination with accompanying others, transaction costs are very much overcompensated. Furthermore, we contribute to the sport management literature by applying WTP and EVC measurement on the research subject of innovative supra-regional events, whereas most research in sport management focuses on the WTP of home team spectators at regular occurring season games in sport leagues.

By doing this, we provide empirical evidence of the importance of the sport value framework as a new logic for sport management, which contrasts to the traditional logic of sport organizations creating value for their customers (fans and spectators) by providing the product "sport event". In contrast to this perspective, the sport value framework defines sport events as platforms provided by sport organizations, where different actors (sport organizations, spectators, fans, sponsors, media, and others) devote their business and leisure activities to co-creating value. Consequently, we contribute to theorizing on value co-creation and value-in-context in sport management. We also extend empirical knowledge on the factors influencing WTP for sport events. This can help sport managers to improve their ticketing strategies, as well as to develop new services, leading to higher spectator value capture.

This research is limited by exploring only the influence of travel time as another sacrifice, in addition to the ticket price, when attending sport events. Further research could investigate the influence of other sacrifices such as spending on merchandising, or other transaction costs, e.g., information seeking and waiting times. However, actor EVC is certainly an area worthy of more research in sport management. This present research could also be a starting point for further research focusing on the EVC of other actors attending sport events, such as fans from the away team, VIP spectators, sponsors, or the media. Since it has been shown that transaction costs are not only perceived as sacrifices due to transaction benefits, this could also be the case in other cases. In further work, for example, it could be examined whether engagement of spectators during a sporting event (e.g. supporting the team, recommending to others, wearing merchandising) is perceived as benefits or sacrifices.

5.7 References

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Kapitel 6: Schlussbetrachtung

Die vorliegende Arbeit setzt sich mit der Thematik des erwarteten Value Captures (EVC) und der Preisbereitschaft für Sporteventtickets auseinander. Dabei wurde folgenden zentralen Forschungsfragen nachgegangen: Inwieweit ist die Conjoint-Analyse geeignet, um die Präferenzen und Preisbereitschaften für Sporteventtickets zu ermitteln? Wie lassen sich Zuschauer von Sportevents hinsichtlich ihrer Ticketpräferenzen segmentieren und wie hoch ist deren Preisbereitschaft? Welchen Einfluss haben ausgewählte Kontextfaktoren (z.B. Begleitpersonen), Ticketmerkmale (z.B. Sitzqualität) und Transaktionskosten (z.B. Transferzeit) auf den erwarteten Value Capture von Zuschauern für Sporteventtickets?

Um diese Forschungsfragen zu beantworten, wurde in Kapitel zwei zunächst konzeptionell die Eignung der Conjoint-Analyse als geeignete Methode für das Untersuchungsobjekt von Sporteventtickets diskutiert. Durch eine empirische Untersuchung, in der die traditionelle Conjoint-Analyse angewandt wurde, konnten die konzeptionellen Überlegungen zu deren Anwendbarkeit für Tickets bestätigt werden. Darüber hinaus zeigte sich die Relevanz des Wettbewerbs als starker Einflussfaktor auf die Preisbereitschaft. Im Verlauf der Arbeit wurden die methodische Weiterentwicklungen der Choice-Based Conjoint-Analyse und der adaptiven Choice-Based Conjoint-Analyse zum ersten Mal in der Sportmanagementliteratur angewandt. Zu den zentralen Stärken der Conjoint-Analyse zählt dabei ihre realitätsnahe Entscheidungssituation vollständiger Produkte oder Dienstleistungen, die Vermeidung von verzerrten Ergebnissen aufgrund einer direkten Abfrage von Preisbereitschaften sowie die Aufnahme innovativer Merkmale. Im Falle der adaptiven Choice-Based Conjoint-Analyse können zudem inakzeptable und unverzichtbare Merkmalsausprägungen berücksichtigt werden.

In Bezug auf die zweite Forschungsfrage zeigen die Ergebnisse der empirischen Analysen eindeutig, dass die Zuschauer von Sportveranstaltungen unterschiedliche EVC und Preisbereitschaften in Bezug auf verschiedene Ticketkombinationen äußern. Sie unterscheiden sich dabei grundlegend

zwischen den identifizierten Segmenten. Die Heterogenität der Zuschauer von Sportveranstaltungen zeigt sich somit nicht nur anhand von soziodemographischen oder psychographischen Faktoren, sondern auch in Bezug auf EVC und Preisbereitschaften für Tickets. Im Falle von regulären Saisonspielen konnten in allen vier Studien übereinstimmend folgende Segmente identifiziert werden: preissensitive Zuschauer, preis-leistungsorientierte Zuschauer, sitzqualitätsorientierte Zuschauer und topspielorientierte Zuschauer. Darüber hinaus zeigen die Ergebnisse der in dieser Arbeit vorgestellten Studien deutlich auf, dass Zuschauer mit einer vergleichbaren Teamidentifikation völlig unterschiedliche EVC und somit unterschiedliche Preisbereitschaften für Sporteventtickets aufzeigen können. Sozio-demografische und psychografische Segmentierungsansätze sind demnach im Hinblick auf die Heterogenität von EVC und Preisbereitschaften nicht zielführend. Auch die Annahme homogener Preisbereitschaften führt zu verzerrten Ergebnissen. In methodischer Hinsicht wurde sowohl die Latent Class Analyse als auch die Hierarchical Bayes Schätzung in Verbindung mit der Convergent Cluster und Ensemble Analyse angewandt und in das Sportmanagement eingeführt.

Die dritte Forschungsfrage beschäftigt sich mit dem Einfluss verschiedener Benefits und Sacrifices sowie des Kontexts im Sinne von wechselseitigen Beziehungen zwischen Akteuren auf den EVC und Preisbereitschaften von Zuschauern. Insbesondere die empirisch bestätigte Relevanz von Begleitpersonen als ein Indikator für den Value-in-social-context ist ein substantieller Beitrag zur Analyse des EVC und Preisbereitschaften. Nach Kenntnis des Autors wurde der Einfluss von Begleitpersonen auf die Preisbereitschaft und den EVC von Tickets noch nicht untersucht weder im Sportmanagement noch im generellen Marketing untersucht.

Mit der Einführung des Konzepts des EVC trägt die Arbeit auch zur Theoriebildung von Value-in-Context sowie der Wertmessung bei. EVC kann dabei als Modell zur Vorhersage von Entscheidungsprozessen verschiedener Akteure unter Berücksichtigung von einzelnen Kontextindikatoren dienen. Die Operationalisierung erfolgt in dieser Arbeit durch Begleitpersonen als Indikator für einen ausgewählten Value-in-social-context. Es zeigt sich in beiden Studien

(Kapitel vier und fünf), dass dieser einen signifikanten Einfluss auf den EVC und somit den Entscheidungsprozess beim Ticketkauf hat. Insbesondere ist dabei herauszustellen, dass trotz der identifizierten Heterogenität der Zuschauer der Besuch eines Sportevents ohne Begleitperson nur einen äußerst geringen EVC aufweist.

Der Einfluss gegnerischer Teams auf den EVC und die Preisbereitschaft wurde ebenfalls intensiv im Rahmen dieser Arbeit diskutiert. Dabei lag das Hauptaugenmerk dieses Benefits in Kapitel drei insbesondere auf dem Einfluss innovativer Gegner, da diese neu in eine Liga drängen und für diese keine belastbaren Vergangenheitsdaten vorliegen. In Kapitel vier wurde der Einfluss gegnerischer Teams als ein weiterer Indikator für Value-in-social-context untersucht, da gegnerische Teams als soziale Akteure innerhalb eines Events in wechselseitigen Beziehungen mit anderen Akteuren stehen und nur bedingt vom Ticketanbieter kontrolliert werden können.

Darüber hinaus wurden in dieser Arbeit zum ersten Mal die Relevanz anderer Opferkomponenten als dem Preis für die Ticketkaufentscheidung für ein Sportevent berücksichtigt. Insbesondere die Nichtberücksichtigung von Reisekosten wird in der bisherigen Literatur kritisch diskutiert. Dieser Kritik wurde insbesondere in Kapitel fünf Rechnung getragen und der Einfluss von Transaktionskosten in Form der Reisezeit als Indikator für ein Value-in-temporal-context untersucht. Es zeigte sich jedoch, dass tatsächliche Reisekosten, sowohl mit dem Auto als auch mit dem Zug, den Value capture-in-traveling bei Weitem übersteigen. Darüber hinaus können Begleitpersonen in Kombination mit den Transaktionsnutzen anfallende Transaktionskosten überkompensieren.

Die Arbeit untersucht den Einfluss verschiedener Faktoren auf den EVC und die Preisbereitschaft von Sporteventtickets. Insbesondere die Aufnahme der Begleitpersonen als ein Indikator für Value-in-social-context und der Reisezeit als ein Indikator für Value-in-temporal-context tragen zu einem umfassenderen Verständnis des EVC und der Preisbereitschaften bei. Vor allen Dingen nimmt die Anwesenheit unterschiedlicher Akteure einen unmittelbaren Einfluss auf den EVC und die Preisbereitschaft von Zuschauern. Es ist dennoch festzuhalten, dass in dieser Studie mit den Begleitpersonen und gegnerischen Teams nur zwei

Indikatoren für Value-in-social-context und mit der Reisezeit nur ein Indikator für Value-in-temporal-context berücksichtigt wurden. Im Rahmen eines Sportevents tragen jedoch noch viele weitere Akteure und Kontextfaktoren zur Wert-Kokreation bei. Deren Einfluss sollte in weiterführenden Studien untersucht werden. Ebenso zeigt sich, dass Value-in-temporal-context aufgrund von Transaktionsnutzen nicht nur als Sacrifices wahrgenommen werden. Dies ist möglicherweise auch in anderen Fällen der Fall. So ist in weiteren Arbeiten zu überprüfen ob beispielsweise das Engagement von Zuschauern während eines Sportevents (z. B. Anfeuern des Teams, Weiterempfehlung, Tragen von Merchandising) als wertstiftend oder wertmindernd wahrgenommen wird.