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Thorsten Tham

Multisensory Impact of Sport Events

A Comparative Effect Analysis Based
on Soccer Games



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In dieser Schriftenreihe werden aktuelle Forschungsergebnisse aus dem Bereich Unternehmensführung präsentiert. Die einzelnen Beiträge spiegeln die wissenschaftliche Ausrichtung der HHL in Forschung und Lehre wider. Sie zeichnen sich vor allem durch eine ganzheitliche, integrative Perspektive aus und sind durch den Anspruch geprägt, Theorie und Praxis zu verbinden sowie in besonderem Maße internationale Aspekte einzubeziehen.

Thorsten Tham

Multisensory Impact of Sport Events

A Comparative Effect Analysis
Based on Soccer Games

Foreword by Prof. Dr. Manfred Kirchgeorg

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Thorsten Tham
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Foreword

While the advance of digitization remains unstoppable, live events have lost none of their attraction. Indeed, the need for live events seems to be increasing even as digital communication channels grow in importance. Unlike the use of digital communication, live events allow organizers to address and capture their enthusiasm of their target groups in a multisensual form. That is why, for more than a decade, we at the SVI-Endowed Chair of Marketing at HHL Leipzig Graduate School of Management have concerned ourselves with the analysis and design of both live and digital communication. During this period, we have conducted a broad array of theory-based impact analyses for brand lands, trade fairs, showrooms and shopping locations. In this dissertation, Thorsten Tham extends the research focus to include football events as a specific form of live events.

In his introduction, the author highlights the fundamental changes that have swept Germany's footballing landscape in recent years. While more and more well-financed teams push their way into the Bundesliga's top two divisions, traditional clubs in the same divisions are struggling to stay alive. Beside their impact on the acquisition of suitably qualified players, moves to cement the loyalty of interested target groups by staging fascinating live events are of special relevance in the context of football match attendance.

In light of these developments, Tham takes an impact model for multisensual live-communication events developed by the SVI-Endowed Chair of Marketing and applies it to footballing events. Having done so, he then presents theory-based impact hypotheses about forms of stimulus that can raise the loyalty of football-affine target groups before, during and after the game. Based on the example of traditional club VfL Bochum 1848, Tham conducted an online survey to analyze the influence of a Bundesliga match on different visitor target groups. Drawing on the insights gained, he discusses ways in which football clubs can change their multisensual approach to raise the profile of their club brand among football-affine target groups and increase loyalty to the club.

Thorsten Tham's dissertation makes an insightful contribution to the discussion of the multisensual impact of sports events and how ways can be identified to sustain the loyalty of football-affine target groups by optimizing the multisensual appeal of these events. Although a number of the implications derived are specific to the

individual case investigated, the paper also airs a wide range of theoretical and methodological approaches that are open to generalization. My hope is that this dissertation will receive the attention and response it deserves among relevant target groups in the scientific community and among practitioners.

Prof. Dr. Manfred Kirchgeorg

Preface

'Americanization', 'professionalism', 'take-overs' – these are but some of the many key terms currently used to characterize both the landscape of, and the developments in, European soccer. As the number of highly sponsored, professionally managed soccer clubs rises, traditional teams are finding it more and more difficult to defend their places in Europe's top leagues. This increasing competitive pressure is forcing soccer clubs, especially those with tight budgets, to come up with new, innovative marketing concepts to close or at least decrease the widening financial gap between them and their rich competitors.

With 17 home games in the course of a season, German soccer clubs have the unique opportunity to address a large audience before, during, and after the match. While earlier research conducted by the SVI-Endowed Chair of Marketing, esp. to E-Commerce and Cross-Media Management, was able to evidence the impact of multisensory brand management in the automotive industry, the objective of this study is to ascertain to what extent the soccer club VfL Bochum 1848 is able to retain existing and to gain new spectators through the use of monosensory, duosensory, and multisensory stimuli. Their purpose is to increase levels of satisfaction, thus ultimately allowing the club to attain a sustainable competitive advantage in the highly competitive soccer environment.

The completion of my doctoral program at HHL Leipzig Graduate School of Management would not have been possible without the endless support and patience of many people. First of all, I would like to express my special gratitude to my doctoral supervisor Prof. Dr. Kirchgeorg who was at all times willing to take time out of his busy schedule to provide me with valuable feedback and support from the first to the last day of the doctoral program. It was Prof. Dr. Kirchgeorg who gave me the unique opportunity to pursue a doctoral thesis in my favorite field of study, sports, as an external candidate whilst being able to continue to work full-time.

Furthermore, I would like to thank Prof. Dr. Burmann from the University of Bremen's Chair of innovative Brand Management who, at short notice, agreed to take on the role as second assessor of my thesis.

I would also like to express my gratitude to my fellow students and to the assistants from the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, as well as to the members of the Akademische Marketingge-

sellschaft for their valuable contributions and recommendations, especially in the initial stages of my doctoral studies.

Another special thank you goes out to VfL Bochum 1848, in particular to the Marketing department. The team of Andrea Peschke volunteered to partner with me in carrying out the four surveys in the rewirpowerSTADION and generously provided me with various merchandizing articles and entrance tickets to different parts of the stadium free of charge. Indeed, without the help of the club, this study would not have been possible.

I would like to acknowledge with special gratitude my employer United Technologies Corporation (business unit Carrier Transicold) that generously agreed to sponsor my place in the doctoral program and gave me free-time in the final stages of completing my thesis thus helping me across the finishing line.

Finally, I would like to express my deepest gratitude to my father, my brother with his wife and his wonderful daughters, and my step-mother, all of whom supported me relentlessly regardless of my moods and stress levels. Together, they created the circumstances in which I could succeed in my endeavors, even in the most challenging times. Finally, I am grateful to my mother who, while no longer with us, taught me to study in an autonomous and structured way from the earliest stages in my life. It is to her that I dedicate this book.

Thorsten Tham

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Table of abbreviations

AMA	American Marketing Association
appr.	approximately
avg.	average
CBSEM	Covariance-Based Structural Equation Model
DFB	Deutscher Fußball-Bund (German Soccer Association)
DFL	Deutsche Fußball-Liga (German Soccer League)
€	Euro
ed.	editor
edit.	edition
eds.	editors
e.g.	exempli gratia (for example)
et al.	et alii (and others)
etc.	et cetera (and other things)
et seq.	et sequens (and the following one)
et seqq.	et sequentes (and the following ones)
EU	European Union
FA	Football Association
FC	Fußball Club

FV	Frequent Visitors
HR	Human Resource
ibid.	ibidem (in the same place)
i.e.	id est (this means)
IV	Infrequent Visitors
M	Million
MSV	Meidericher Spielverein
No.	Number
p.	page
P&L	Profit & Loss
PLS	Partial Least Squares
pp.	pages
RB	RasenBallSport
RW	Rot-Weiss
SC	Sport Club
SE	Standard Error
SEM	Structural Equation Model
S-O-R	Stimulus-Organism-Response
S-O-R-K-C	Stimulus-Organism-Response-Consequence-Contingency
SPSS	Statistical Package of the Social Sciences
St.	Sankt
SuS	Spiel und Sport

SV	Sportverein
SVI	Siegfried Vögele Institut
TSG	Turn- und Sportgemeinschaft
TV	Television
UEFA	Union of European Football Associations
VAF	Variance Accounted For
VfB	Verein für Bewegungsspiele
VfL	Verein für Leibesübungen
VIF	Variance Inflation Factor
VIP	Very Important Persons
Vol.	Volume
vs.	versus
w/out	without

Index of symbols

α (alpha)	Significance level
B/ β (beta)	Standardized path coefficient between latent endogenous variables
γ (gamma)	Standardized path coefficient between latent exogenous and endogenous variables
δ (delta)	Measurement of error with respect to measurement model of latent exogenous variable (indicator variable X)
ε (epsilon)	Measurement of error with respect to measurement model of latent endogenous variable (indicator variable Y)
ζ (zeta)	Measurement of error with respect to effects on latent endogenous variable (structural model)
η (eta)	Latent endogenous variable
λ (lambda)	Factor loading of latent variable to its indicator variable
ξ (xi)	Latent exogenous variable
D	Omission distance (concerning blindfolding)
df	Degrees of freedom
E	Sum of squares of prediction errors (concerning blindfolding)
f^2	Effect size
N	Number of cases
R^2	Coefficient of determination
R^2_{incl}	Coefficient of determination of a latent endogenous variable, if examined latent exogenous variables are included

R^2_{excl}	Coefficient of determination of a latent endogenous variable, if examined latent exogenous variables are excluded
O	Sum of squares of observations (concerning blindfolding)
Q^2/q^2	Predictive relevance (Stone-Geisser criterion)
Q^2_{incl}	Predictive relevance of a latent endogenous variable, if examined latent exogenous variables are included
Q^2_{excl}	Predictive relevance of a latent endogenous variable, if examined latent exogenous variables are excluded
X/ x	Indicator variable for latent exogenous variable

A Holistic multisensory approach as an opportunity for brand management in soccer

1 Opportunities that holistic sensory approaches open up for the brand management of soccer clubs

As a result of the increasingly rapid commercialization of sports in recent years,¹ many sporting and sport-related associations have achieved record revenues and all-time high employment figures. Their success is especially notable when compared to medium-sized companies in other, more traditional industries.² This growth has occurred alongside a growing professionalism in sports associations and specifically in soccer clubs.³ For many years, the field of sports was considered as a negligible offshoot of other, more reputable academic disciplines. It was thought that sports could be managed by simply importing established managerial knowledge from other fields, without considering any particularities which may exist in this area.⁴ The professionalism of sports organizations differs among countries/ regions and from one type of sport to another.⁵ Nonetheless, the study of sports has moved on from this early phase. The field is now ripe for the application of new, innovative marketing concepts in brand management. While *Albach* and

¹ See BREUER, C., et al. (2008): *Der Wirtschafts- und Wachstumsmarkt Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 34.

² See DESBORES, M. (2007): Introduction: new directions for marketing football, in: DESBORES, M. (ed.): *Marketing & Football: An International Perspective*, Oxford, pp. 1 et seq.; SCHADE, M. (2012): Identitätsbasierte Markenführung professioneller Sportvereine, Wiesbaden, p. 1; EISENBERGER, P. (2004): Fußball-Bundesliga im 21. Jahrhundert, in: ZIESCHANG, K., et al. (eds.): *Unternehmensführung im Profifußball*, Berlin, pp. 13 et seq.; JUERGENS, A. (2009): Umsatzrekord für europäischen Fußball in: SPONSORS, Vol. 14, No. 7, p. 19.

³ See WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 498. Refer also to NUFER, G./ BUEHLER, A. (2008a): *Sportmanagement und Sportmarketing: Einführung und Perspektive*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 15.

⁴ See NUFER, G./ BUEHLER, A. (2008a): *Sportmanagement und Sportmarketing: Einführung und Perspektive*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 4 et seq.

⁵ See *ibid.*, p. 5; refer also to WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 498.

Frick (2002) consider sports as a new academic sub-discipline,⁶ Heinemann (2001) goes one step further and characterizes it as an entirely new field of study.⁷

Soccer is Germany's favorite sport.⁸ For the first time in its over 50 years old history,⁹ in season 2011/ 2012 the 1st Bundesliga exceeded €2 billion's worth of revenue. As shown in Table 1,¹⁰ between 84% and 85% of the total revenues generated by the 36 teams in the 1st and 2nd Bundesliga were accrued by the clubs from the 1st division. This percentage has been constant over the four years stated.

Total revenues (in '000s €)	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012
1st Bundesliga	1.715.165	1.770.178	1.941.980	2.081.522
%	84,24%	84,97%	84,43%	84,41%
2nd Bundesliga	320.939	313.016	358.000	384.479
%	15,76%	15,03%	15,57%	15,59%
Total	2.036.104	2.083.194	2.299.980	2.466.001

Table 1: Total revenues of 1st and 2nd Bundesliga

Source: DFL (2013), p. 42

⁶ See ALBACH, H./ FRICK, B. (2002): Sportökonomie, in: *Zeitschrift für Betriebswirtschaft, Ergänzungsheft 4*, Vol. 4, p. VII.

⁷ See HEINEMANN, K. (2001): *Grundprobleme der Sportökonomie*, in: HERMANN, A., et al. (eds.): *Management-Handbuch Sport-Marketing*, München, p. 17.

⁸ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 346: Behind soccer, the other types of sport handball, basketball, and volleyball all compete for the second most liked sport in Germany.

⁹ For an extensive review of the history of the 1st Bundesliga since its foundation in 1963, see SCHILHANECK, M. (2008b): *Zielorientiertes Management von Fußballunternehmen: Konzepte und Begründungen für ein erfolgreiches Marken- und Kundenbindungsmanagement*, Wiesbaden, pp. 12 et seqq.

¹⁰ Compare to DFL (2013): *Bundesliga Report 2013: Die wirtschaftliche Situation im Lizenzfußball*. URL:http://www.bundesliga.de/media/native/imported/autosync/report_2013_dt_72dpi.pdf, retrieved on: 24 January 2014, p. 42. Please note that, in the entire study, numbers in all tables and figures are shown in European format.

When looking at the exact split of the revenue generated by the 18 teams in the 1st and 2nd Bundesliga (Figure 1),¹¹ it can be seen that all six revenue categories mentioned on the pie charts are considerably higher in the 1st division.¹²

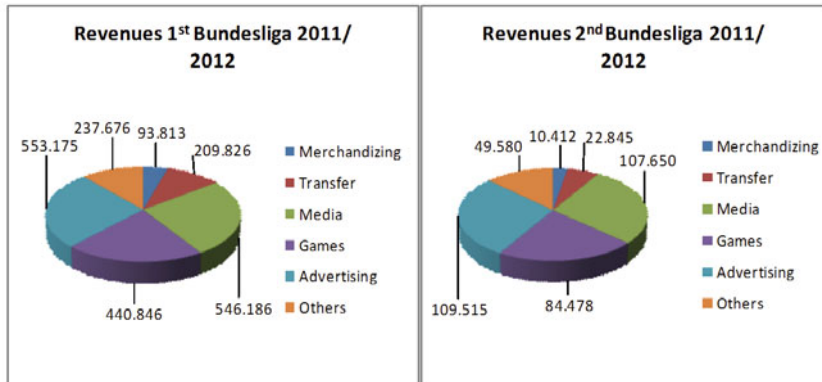


Figure 1: Revenue splits after season 2011/2012

Source: DFL (2013), pp. 22 and 32

Revenue streams in both leagues stem from three key areas: advertising¹³ (€553M and €110M, respectively), media¹⁴ (€546M and €108M, respectively), and sales generated on the day of the games¹⁵ (€441M and €84M, respectively).¹⁶ Reve-

¹¹ See *ibid.*, pp. 22 et seqq.

¹² In general, the sources of revenue of professional sports clubs are relatively heterogeneous. See MOHR, S./ MERGET, J. (2003): *Die Marke als Meistermacher - Strategische Markenführung im Profisport*, in: BERENS, W., et al. (eds.): *Profifußball und Ökonomie*, Hamburg, p. 109; EISENBERGER, P. (2004): *Fußball-Bundesliga im 21. Jahrhundert*, in: ZIESCHANG, K., et al. (eds.): *Unternehmensführung im Profifußball*, Berlin, pp. 13 et seqq.

¹³ Sponsoring is included in here. For a definition of 'sponsoring', see HERMANN, A./ MARWITZ, C. (2008): *Sponsoring: Grundlagen, Wirkungen, Management, Markenführung*, München, p. 44.

¹⁴ See JUERGENS, A. (2009): Umsatzrekord für europäischen Fußball, in: *SPONSORS*, Vol. 14, No. 7, p. 19.

¹⁵ This includes ticketing and hospitality (business & VIP seats).

¹⁶ Concerning the 'other' category, there are several new sources of revenue generated through expanded services in Germany's professional soccer leagues. See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 3; BAUER, H. H., et al. (2007): *Die Rolle von Markenimage und Markencommitment in Online-Brand Communities - Eine empirische Untersuchung in der Fußball-Bundesliga*, in: FLORACK, A., et al. (eds.): *Psychologie der Markenführung*, München, p. 284; WELLING, M. (2008b): Vom Sponsoring zum Co-Branding?, in: *Markenartikel, Sonderdruck aus "Sponsoring Boomt"*, pp. 6 et seqq.

nues from media are strongly linked to sporting performance; e.g. besides a fixed amount which is independent from the recent success of a team, there is also a variable portion paid out by the governing body both at the local (championship, cup competition) and at the international level (Champions League, Europa League).¹⁷

These three main revenue flows largely depend on the team's sporting success, which is surrounded by **high uncertainty**.¹⁸ Therefore, managers need to focus both on the sporting and the economical success of their organizations, while these objectives should be followed independently from each other¹⁹ in order to achieve a sustainable advantage in a highly competitive environment. Whereas there is a general agreement that both success factors need to be aligned and targeted simultaneously,²⁰ Keller (2008) emphasizes the relations of interdependency which exist between soccer clubs' primary aims.²¹ As shown in Figure 2, initial, partial target complementarities can potentially revert through overinvestment²² into partial target competition. Before investing in new players or in the in-

¹⁷ Refer to KELLER, C. (2008a): *Steuerung von Fußballunternehmen: finanziellen und sportlichen Erfolg langfristig gestalten*, Berlin, p. 86. See also SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 3; EISENBERGER, P. (2004): *Fußball-Bundesliga im 21. Jahrhundert*, in: ZIESCHANG, K., et al. (eds.): *Unternehmensführung im Profifußball*, Berlin, p. 18: The allocation of the national revenues from television broadcasts is determined in the following way: The teams from the 1st Bundesliga obtain 77.5% of the total amount, while the 2nd Bundesliga receives 22.5%. 50% of the money allocated to the teams of the 1st division is allocated evenly among all 18 teams. 75% of the other 50% is paid out based on the performance of the clubs over the past three seasons; 12.5% (or 25% of the remaining 50%) is distributed based on the performance in the current season.

¹⁸ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 127: Uncertainty can be considered one of the key characteristics of sports.

¹⁹ See WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, p. 393.

²⁰ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 129.

²¹ Refer to KELLER, C. (2008a): *Steuerung von Fußballunternehmen: finanziellen und sportlichen Erfolg langfristig gestalten*, Berlin, pp. 52 et seqq.

²² See DIETL, H., et al. (2003): Überinvestitionsprobleme in einer Sportliga, in: *Betriebswirtschaftliche Forschung und Praxis*, Vol. 55, No. 5, p. 539: Through a model-theoretical observation, it is shown that the probability of overinvestment of clubs increases (ceteris paribus), the higher the price differences of tournament rankings, the bigger the league, the lower the productivity differences of clubs and the more simultaneous investments clubs are forced into. For an overview of different investment options in sports, see HOVEMANN, G. (2008): *Finanzierung im Sport*, in:

frastructure of a club, it is crucial to compare potential future revenue streams with expected expenses (e.g. transfer fees and upcoming salary payments), while taking into consideration possible time lags between the success of the team and positive economical consequences.²³ Different scenarios should be analyzed²⁴ in order to be able to avoid cash flow problems and, in the worst case, insolvency.²⁵

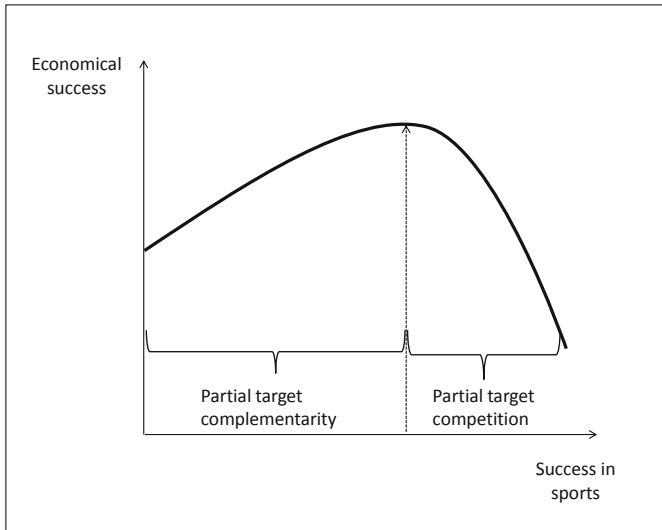


Figure 2: Keller's relation of interdependency between primary targets

Source: Keller, C. (2008), p. 54

NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 215 et seq.

²³ See KELLER, C. (2008b): *Strategisches Management im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport: Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 87.

²⁴ See JORDAN, C. (2008): *Controlling im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 251.

²⁵ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 130.

The generation of revenues through the transfer of players is also affected by eventualities which are very hard to foresee.²⁶ Since 1995,²⁷ professional sportsmen in the EU have been allowed to freely join other clubs at the end of their current contract. This change had a profound impact on the **transfers of professional sportsmen** within the EU. It increased the power held by players over that of the sports clubs²⁸ and resulted in the internationalization of the market.²⁹ Since then, clubs have needed to find ways to convince players to either stay or to sign for them.

The fact that soccer players can also suffer unexpected injuries further increases the uncertainty of revenue streams. It complicates a manager's ability to plan ahead, as long-term absences make it more difficult to sell these players to other soccer clubs at a high profit.

²⁶ See DFL (2013): *Bundesliga Report 2013: Die wirtschaftliche Situation im Lizenzfußball*. URL: http://www.bundesliga.de/media/native/imported/autosync/report_2013_dt_72dpi.pdf, retrieved on: 24 January 2014, p. 7. Since season 2008/ 2009, revenues generated through the transfer of players have been volatile, depending on the market value of players. See also JORDAN, C. (2008): *Controlling im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 250; DOERNEMANN, J. (2002): *Controlling für Profi-Sportorganisationen: dargestellt am Beispiel der Deutschen Fußballbundesliga*, München, p. 164.

²⁷ The change occurred due to the so-called 'Bosman ruling' made by the European Court of Justice. See also CHADWICK, S. (2008): *Internationalisation in Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 495.

²⁸ See KELLER, C. (2008b): *Strategisches Management im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport: Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 95. See also SWIETER, D. (2002): *Eine ökonomische Analyse der Fußball-Bundesliga*, Berlin, pp. 83 et seqq.: There is empirical evidence that the ruling positively impacts average salaries of players and the lengths of their contracts. Today, soccer clubs cannot request reimbursement fees for transferring players, unless the desired move to the new team occurs within the effectual contract period.

²⁹ See WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 496; BUSCHKE, A. (2004): *Ökonomische Implikationen des Bosman-Urteils*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs: Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, pp. 89 et seq.; TROSIEN, G. (2001): *Globalisierung des Sport-Marketings*, in: HERMANN, A., et al. (eds.): *Management Handbuch Sport-Marketing*, München, pp. 651 et seqq.: By establishing the Champions League, new sales channels outside of national borders were opened up. Prior to the Bosman ruling, professional clubs in Germany could prevent players from moving to a club outside of Germany – even if their contracts had ended.

1 st Bundesliga Season	Total revenues (in '000 €)	EBITDA (in '000 €)	After-tax earnings (in '000 €)	# of clubs with profit (out of 18)	Personnel expenses/ total revenues
2008/ 2009	1.715.165	14.553	30.953	11	39,5
2009/ 2010	1.770.178	10.947	-77.864	7	42,4
2010/ 2011	1.941.980	17.176	52.528	12	40,2
2011/ 2012	2.081.522	18.689	55.076	14	37,8

2 nd Bundesliga Season	Total revenues (in '000 €)	EBITDA (in '000 €)	After-tax earnings (in '000 €)	# of clubs with profit (out of 18)	Personnel expenses/ total revenues
2008/ 2009	320.939	255	-19.660	5	44,4
2009/ 2010	313.016	-172	-25.378	6	42,5
2010/ 2011	358.000	531	-18.891	8	39,6
2011/ 2012	384.479	534	-18.790	10	36,7

Table 2: Financial performance summary - 1st and 2nd Bundesliga

Source: author's own illustration, based on DFL (2013), pp. 10 et seqq.

Table 2 provides a summary of the key financial statistics of the two highest professional soccer leagues in Germany, expanding the existing review to the bottom line of the P&L statements.³⁰ Note that, due to relegations, the composition of the two professional leagues changes each season, which has an impact on consolidated figures in the two leagues.³¹ It can be stated that the overall number of clubs which attained profitable figures at the end of a specific season increased from 16

³⁰ See DFL (2013): *Bundesliga Report 2013: Die wirtschaftliche Situation im Lizenzfußball*. URL: http://www.bundesliga.de/media/native/imported/autosync/report_2013_dt_72dpi.pdf, retrieved on: 24 January 2014, pp. 10 et seqq.

³¹ 2-3 new teams join the 1st and 2nd Bundesliga from the next lower division every year, while the same number of teams is relegated from the 1st to the 2nd Bundesliga and from the 2nd Bundesliga to the 3rd Liga.

(after season 2008/ 2009) to 24 (after season 2011/ 2012). This trend is visible in both leagues, confirming the **professionalism** of German soccer,³² and possibly increasing the possibilities for the clubs to invest in new, innovative marketing concepts to differentiate themselves from their competition.³³

Evidenced by after-tax losses, the considerably lower revenue flows generated by the clubs in the 2nd Bundesliga make it difficult for them to achieve profitability. The differences in revenue generation are not only apparent between the two professional leagues, but also within the divisions themselves. As shown in Table 3,³⁴ the six top-ranked teams of the 2nd Bundesliga generated 24% more revenue than the average in that specific league – at the same time, these clubs spent 29% more than the average in the league. Empirical studies confirm that investment in new players - other conditions remaining constant - has a statistically significant positive effect on the sporting success of a club.³⁵ Teams ranking on the lower end (between ranks 13 and 18) ended up with revenues 24% below the average and with expenses 25% below the average. Teams with lower revenues cannot invest as much in new players nor in expanded infrastructure and need to closely monitor their expenses to be able to remain competitive. Following traditional marketing concepts will make it difficult for associations to differentiate themselves from competitors. Instead, innovative new concepts - like the multisensory addressing of senses during live events - could positively impact the generation of new revenue flows facilitated by subsequently increasing satisfaction levels of visitors.

³² The balance scorecard is often referred to as an example of increasing professionalism in German soccer. See JORDAN, C. (2008): *Controlling im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 255 et seq.

³³ Another positive development can be observed in the key ratio 'personnel expenses/ total revenues' of Table 2, where in season 2011/ 2012 a relative expense decrease of 2.4 percentage points could be attained in the 1st Bundesliga, versus a 2.9 percentage point drop in the 2nd division.

³⁴ See DFL (2013): *Bundesliga Report 2013: Die wirtschaftliche Situation im Lizenzfußball*. URL: http://www.bundesliga.de/media/native/imported/autosync/report_2013_dt_72dpi.pdf, retrieved on: 24 January 2014, p. 38.

³⁵ See ZIEBS, A. (2002): *Ist Erfolg käuflich? Analysen und Überlegungen zur sozioökonomischen Realität des Berufsfußballs*, München; FRICK, B. (2005): "... und Geld schießt eben doch Tore" - Die Voraussetzungen sportlichen und wirtschaftlichen Erfolges in der Fußball-Bundesliga, in: *Sportwissenschaft*, Vol. 35, No. 3, pp. 250 et seqq.

Average Revenues - 2 nd Bundesliga	Games		Advertising		Media		Transfer		Merchandizing		Others		Total	
	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %
Rank 1-6	7.398	158	6.019	99	8.132	136	1.510	119	998	173	2.337	85	26.394	124
Rank 7-12	3.860	82	7.619	125	5.061	85	1.437	113	531	92	2.922	106	21.429	100
Rank 13-18	2.822	60	4.615	76	4.749	79	861	68	206	36	3.004	109	16.257	76
Average	4.693	100	6.084	100	5.981	100	1.269	100	578	100	2.754	100	21.860	100

Average Expenses - 2 nd Bundesliga	Personnel Sports		Personnel Other		Transfer		Games		Other teams		Others		Total	
	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %	in '000 €	in %
Rank 1-6	9.985	127	1.638	117	1.763	126	6.231	118	1.718	117	7.567	150	28.901	129
Rank 7-12	7.288	93	1.658	119	1.425	102	5.637	107	1.342	92	4.236	84	21.586	96
Rank 13-18	6.224	79	888	64	1.008	72	3.948	75	1.332	91	3.325	66	16.725	75
Average	7.833	100	1.395	100	1.402	100	5.272	100	1.464	100	5.039	100	22.404	100

Table 3: Split of avg. revenues and avg. expenses in the 2nd Bundesliga – season 2011/ 2012
Source: DFL (2013), p. 38

While revenue streams are highly scarce and uncertain, the **composition of the professional leagues** of the two highest German soccer divisions has simultaneously changed in recent years. For many years, the 1st Bundesliga was composed of what can be considered traditionally strong teams, most of them located in highly populated German cities.³⁶ However, more recently, traditionally well-established teams in the two professional leagues (e.g. VfL Bochum 1848, FC St. Pauli, Karlsruher SC) have been challenged by clubs from smaller cities (e.g. TSG Hoffenheim, SV Sandhausen) and by associations with powerful sponsors (e.g. VfL Wolfsburg, RB Leipzig), resulting in an increasingly competitive situation.³⁷

³⁶ See BREUER, C., et al. (2008): *Der Wirtschafts- und Wachstumsmarkt Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 31: While there are various empirical analyses available, it can generally be assumed that the demand for sporting events increases in line with how high the population in a specific market is.

³⁷ This trend can also be seen in other European countries; e.g. Chelsea FC and Manchester City (both part of the English Barclays Premier League) as well as Paris Saint Germain and Evian Thonon Gaillard (from the French League 1) have attracted significant, financial backing in recent years, which has affected the competition on different levels - in the local leagues in England/ France as well as in European competitions. Chelsea won the Champions League in sea-

The increasing gap between rich and poor soccer teams in the national leagues, indicated by the example of the 2nd Bundesliga in Table 3, is aggravated by financial resources only available to a limited number of clubs.³⁸ Only those clubs which qualify for the European competitions are able to present themselves to a new audience, to generate additional revenues and to build strong national³⁹ or even **global brands**, thus increasing discrepancies in Europe and in the local leagues.⁴⁰ This trend will most likely be accelerated by the **internationalization** taking place in sports, which has seen sports clubs start to look for international resources and customers.⁴¹ Traditional clubs have the potential to strengthen their competitive positioning by taking advantage of the positive brand images they hold thanks to their well-established historical roots.

This increasing gap⁴² and the overall current development of transfer fees were addressed by a European Commission study published in January 2013.⁴³ In order

son 2011/ 2012; Paris Saint Germain reached the quarter-finals of the Champions League in season 2012/ 2013.

³⁸ In season 2012/ 2013, the top 3 teams in the 1st Bundesliga upon completion of season 2011/ 2012 (Borussia Dortmund, Bayern Munich, Schalke 04) directly qualified for the group phase of the Champions League, while Borussia Mönchengladbach (ranked 4th after season 2011/ 2012) failed in the qualification round and played in the Europa League, along with Bayer Leverkusen, VfB Stuttgart, and Hannover 96 (ranked 5th-7th after season 2011/ 2012).

³⁹ See EISENBERGER, P. (2004): *Fußball-Bundesliga im 21. Jahrhundert*, in: ZIESCHANG, K., et al. (eds.): *Unternehmensführung im Profifußball*, Berlin, p. 34: A national or even international brand mainly influences merchandizing activities. However, only a few popular clubs in Germany like Bayern Munich, Schalke 04, Borussia Dortmund, or Werder Bremen are able to address target groups nationwide.

⁴⁰ See DFL (2013): *Bundesliga Report 2013: Die wirtschaftliche Situation im Lizenzfußball*. URL: http://www.bundesliga.de/media/native/imported/autosync/report_2013_dt_72dpi.pdf, retrieved on: 24 January 2014, p. 6: If the revenues from transfers during season 2010/ 2011 (€195M) are excluded from total revenues of the 1st Bundesliga after that specific season (€1.942 billion), the Bundesliga ranks second on a European-wide comparison, behind the English Barclays Premier League and ahead of the Spanish Primera División, the Italian Serie A, and the French Ligue 1. This indicates that leagues with soccer teams which are successful in the Champions and Europa League generate the highest revenues, increasing the gap between rich and poor clubs from one country to another and within the local leagues themselves.

⁴¹ See CHADWICK, S. (2008): *Internationalisation in Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 492 et seqq.: According to Chadwick, the following eight factors have varying effects on different sports: competition and competition formats, socio-cultural shifts, regulatory change, industrial change, resource acquisition, emergence of new technology, market maturity, and mass transportation.

⁴² Breuer et al. refer to the '2-league-problem': See BREUER, C., et al. (2008): *Der Wirtschafts- und Wachstumsmarkt Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 27.

to decrease the gap between rich and poor teams, the EU recommends re-establishing a fair and competitive balance by means of better redistribution rules and capped transfer fees, which could be implemented either through limited excesses in transfer fees after contract extensions or through regulations imposed on the use of ‘buy-out clauses’.⁴⁴

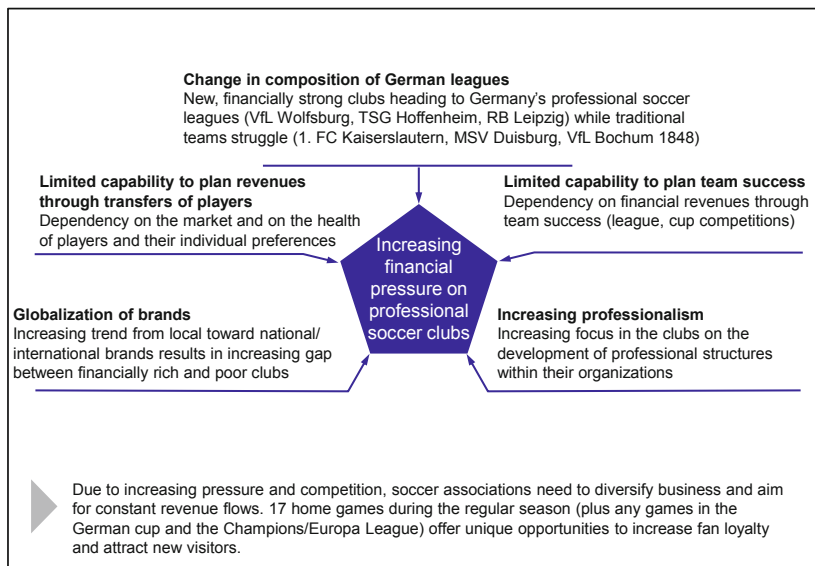


Figure 3: Current environment in German soccer

Source: author's own illustration

⁴³ See the executive summary: EUROPEAN-COMMISSION (2013): *Economic and Legal Aspects of Transfers of Players*. URL: <http://ec.europa.eu/sport/library/documents/cons-study-transfers-final-rpt.pdf>, retrieved on: 24 January 2014, pp. 6 et seqq.: The study highlights the two following issues (out of four main findings): Firstly, the number of transfers in the European Union between 1995 and 2011 has increased 3.2 times, while the total value of the fees relating to these transfers is 7.4 times higher: "Transfer rules do not fight effectively against competitive imbalance," because there is a high relationship between transfer fees and sporting results, especially since 2001. Secondly, the evolution of the transfer market has a significant impact on the openness of sporting competitions and "questions the imperative of uncertainty in sport results."

⁴⁴ Ibid., p. 8.

As can be seen in this study, the competitive and financial pressure on soccer clubs is strongly relevant and is recognized and being discussed as high up as the game's top governing bodies.

Figure 3 summarizes various factors mentioned before, resulting in increasing, financial pressure on professional soccer clubs. In a constantly changing environment, soccer clubs need to find new ways to convince both regular and new fans to attend games. They also need to be able to transmit brand content in an effective and efficient way, to influence future behavior and to increase overall satisfaction in live-communication events. Instead of one-way or short-term communication processes, bilateral communication flows in terms of dialogues may be preferred.⁴⁵ In this way, long-term relations between the club and the supporters can be built.

Due to the aforementioned factors, the increased pressure they cause, and the constantly changing environment, soccer clubs need to diversify their revenue streams and aim for constant flows. The 17 games played at home each season offer the unique opportunity to potentially influence the behavior of visitors after the game, which could in turn ultimately lead to increased fan loyalty and favorable fan behavior after the visits (e.g. merchandizing, tickets),⁴⁶ while strengthening or reemphasizing the club's brand. A strong sporting brand influences the behavior of the relevant target groups, which is ideally steady and independent from the sporting success of the soccer team, and consequently contributes to the economical well-being of a club.⁴⁷ The brand helps to strengthen preferences toward its own service offerings and enables differentiation from the competition.⁴⁸

⁴⁵ See NUFER, G./ BUEHLER, A. (2008b): *Veranstaltungsmarketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 395.

⁴⁶ It is crucial for sports managers to keep existing fans and to gain new visitors in both successful and unsuccessful times. See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 4; BAUER, H. H., et al. (2008): Brand Image and Fan Loyalty in Professional Team Sport: A Refined Model and Empirical Assessment, in: *Journal of Sport Management*, Vol. 22, p. 209.

⁴⁷ Refer to SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 1; BAUER, H. H., et al. (2008): Brand Image and Fan Loyalty in Professional Team Sport: A Refined Model and Empirical Assessment, in: *Journal of Sport Management*, Vol. 22; p. 206; WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Per-*

While the primary target for clubs is therefore to attract as many current and new visitors as possible to their stadium, where the brand of the club can be reemphasized or strengthened, this task has become extremely complex in today's sporting landscape. Various new ways to follow soccer events have evolved in recent years, facilitated through technological innovations.⁴⁹

The following channels are currently available for soccer fans in Germany, enabling them to follow the result of their favorite team in the 1st and 2nd Bundesliga:⁵⁰

- See the game in the stadium
- Follow the game live at home through pay-per-view TV or in a sports bar⁵¹ – either as an individual match or as part of a multi-team broadcast combining all games taking place at that same time in the league
- Follow the result through videotext on TV
- Follow the game on the radio – local or regional channel
- Follow the result through 'ticker'⁵² services on the internet – either offered by the club itself or on sport-related websites
- Keep up with the game through apps on smart-phones (apps are available from the club itself or through other live score app providers)

spektive, Wiesbaden, pp. 394 et seqq.; GLADDEN, J. M./ FUNK, D. C. (2001): Understanding Brand Loyalty in Professional Sport: Examining the Link Between Brand Associations and Brand Loyalty, in: *International Journal of Sports Marketing and Sponsorship*, Vol. 3, p. 68; KAYNAK, E., et al. (2008): An integrated framework linking brand associations and brand loyalty in professional sports, in: *Journal of Brand Management*, Vol. 15, No. 5, p. 206.

⁴⁸ See BURMANN, C., et al. (2005b): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung mit Best Practice-Fallstudien*, Vol. 2, Wiesbaden, p. 12; ALEXA, F. (2009): *Markenpersönlichkeit von Fußballvereinen - Eine empirische Untersuchung*, Göttingen, p. 3.

⁴⁹ See KELLER, C. (2008b): *Strategisches Management im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport: Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 95; CHADWICK, S. (2008): *Internationalisation in Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 496 et seq.

⁵⁰ Note that the games of the 1st and of the 2nd Bundesliga are scheduled at different times; in this way, supporters are able to follow both leagues.

⁵¹ Sport bars with licenses for pay-per-view TV are able to broadcast soccer games in Germany.

⁵² The so-called 'ticker' services provide live information and results about the most crucial moments during a game (e.g. goals, sending-offs, or the substitution of players).

- View summaries of all league games (1st or 2nd Bundesliga) on public TV at the end of the day
- Use printed media, generally the morning after the game

In the first survey carried out by this study, participants were explicitly asked about their sensory preferences and about how frequently they use these different options.⁵³ Further details are given in Chapter C.1.2. In contrast to one-way or short-term communication, **live-communication events** are a bilateral form of communication. As indicated by *Springer* (2008), this follows a general business trend within product communications which took off in the 1960s and which is gradually establishing a new phase of **dialogue communication**.⁵⁴ Through personal, often emotional interactions and a possible exchange with the customers, the requirements of the consumers can be adequately met, interpreted, and integrated in future offerings. In this way, corporations are able to create a stronger bond with, and take care of, their customers.

The effect of this dialogue is extraordinarily strong, in particular if the messages are transmitted and absorbed by the target group in a **multisensory** way.⁵⁵ The sensory organs, which are spatially separated from each other,⁵⁶ mainly receive visual, auditory (or acoustic), haptic (or kinesthetic), olfactory, and gustatory information, which is then combined into a holistic impression in the brain. The simultaneous use of various - or at a minimum three - messages enables the repeated and effective transmission of the same event.⁵⁷ According to *Inden* (1993), the **holistic addressing of senses** can only be performed through forms of dialogue

⁵³ See Questions 4-6 in the 'before'-survey.

⁵⁴ For this, refer to BRUHN, M. (2005): *Unternehmens- und Marketingkommunikation: Handbuch für ein integriertes Kommunikationsmanagement*, München, pp. 71 et seqq.: Although there is no common definition of dialogue communication, all measures of a corporation can be assigned to this form of communication. This enables a long-lasting, interactive information exchange between the corporation and the potential and current customer, with the purpose of building and maintaining profitable customer relations; SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 6.

⁵⁵ Refer to SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 6.

⁵⁶ See STADLER, M., et al. *Psychologie der Wahrnehmung*, München, pp. 84 et seqq.

⁵⁷ See WEINBERG, P./ DIEHL, S. (2005): *Erlebnisswelten für Marken*, in: ESCH, F.-R. (ed.): *Moderne Markenführung - Grundlagen, Innovative Ansätze, Praktische Umsetzungen*, Wiesbaden, p. 281.

communication.⁵⁸ Based on the circumstances described before, the main objective of the study is to find out how soccer clubs are able to retain existing or to attract new visitors through the application of monosensory, duosensory, and multi-sensory stimuli during soccer games, to increase satisfaction levels and to consequently gain a sustainable advantage in a highly competitive environment.

In recent years, soccer clubs have started aiming to appeal to mass customers through new services designed for visitors coming to the stadium to make use of its related facilities; this also includes a range of services offered inside and outside of the stadium.⁵⁹ See Chapter B.3.2 for various stages which a visitor passes on the day of a game.

⁵⁸ See INDEN, T. (1993): *Alles Events?! - Erfolg durch Erlebnismarketing*, Landsberg/ Lech, pp. 66 et seq.

⁵⁹ See HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 189: In this way, soccer clubs became multi-service companies; see also GUENZI, P. (2006): *Sport marketing and facility management: from stadiums to customer-based multipurpose leisure centers*, in: DESBORES, M. (ed.): *Marketing & Football: An International Perspective*, Oxford, pp. 130 et seqq.

2 Definitions of relevant terms in the sporting context

In order to ensure the study will be rigorous and precise, we first need to properly define and elaborate the main terms used throughout the analysis.⁶⁰ For this reason, the following basic terms will be presented in the subsequent order: **marketing, sports marketing, brand, sporting brand, brand management, brand communication, event, event marketing, event branding fit, and multisensuality.**

Initial definitions of the term **marketing** stretch as far back as the early 20th century. This study follows the definition provided by the American Marketing Association (AMA)⁶¹ in 2004, due to its more up-to-date and thorough approach, where “marketing is an organizational function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.”⁶²

In contrast to the term marketing and its definition above, there is no common understanding of how **sports marketing** should be defined. On the one hand, it is understood as an instrument through which to merchandize products under the banner of sports, but where the goods do not necessarily have to be sport-related.⁶³ According to Kaser/ Oelkers (2005), “sports marketing means using sports to market products.”⁶⁴ On the other hand, sports marketing can be considered from the perspective of a sports supplier; sport is the product itself, which needs to be merchandized by means of common marketing techniques.⁶⁵ “Sports

⁶⁰ For this, see KEMPF, W. (2009): *Forschungsmethoden der Psychologie: zwischen naturwissenschaftlichem Experiment und sozialwissenschaftlicher Hermeneutik*, Berlin, p. 159; BOYSEN, N./ RINGLE, C. (2008): Die Definition in der betriebswirtschaftlichen Forschung: Reflexionen und empirischer Befund, in: *Zeitschrift für Betriebswirtschaft*, Vol. 78, No. 1, pp. 9 et seqq.

⁶¹ For the definition, see AMA (2004): *AMA Definition of Marketing*. URL: <http://www.marketingpower.com/AboutAMA/Pages/DefinitionofMarketing.aspx>, retrieved on: 24 January 2014: The AMA updated its definition of ‘marketing’ in July 2013: “Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.”

⁶² MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, pp. 10 et seqq.

⁶³ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 337.

⁶⁴ KASER, K./ OELKERS, D. B. (2005): *Sports and Entertainment Marketing*, Mason, p. 9.

⁶⁵ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 337.

marketing is a social and managerial process by which the sports manager seeks to obtain what sports organizations need and want through creating and exchanging products and value with others.”⁶⁶ Mullin et al. (2007) note that sports marketing has developed two major branches: ‘the marketing of sport products and services directly to consumers of sport’ as well as ‘the marketing of other consumer and industrial products or services through the use of sport promotions’.⁶⁷

The distinction between the two areas of sports marketing is illustrated in Figure 4, indicating the two main branches of sports marketing. This study can be classified under the section ‘marketing of sportsmen and sports associations’, which belongs to the main branch ‘marketing of sports’.

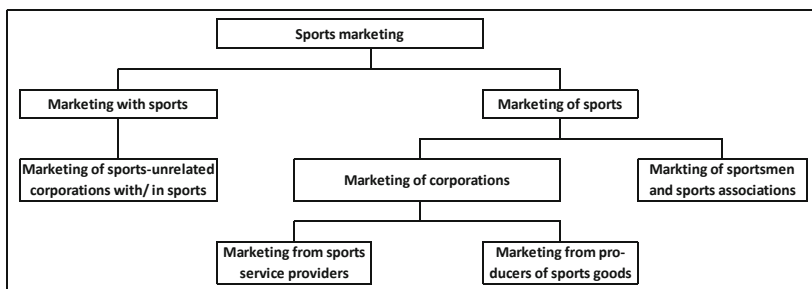


Figure 4: The structure of sports marketing

Source: Feldmann, S. (2004), p. 103⁶⁸

For the purpose of this study, the general components of the AMA classification of marketing from 2004 are used to come up with a new definition of sports marketing.⁶⁹ Sports marketing can therefore be considered as an organizational function within a sports club as well as a common, value-based internally-shared guidance

⁶⁶ SHILBURY, D., et al. (1998): *Strategic Sport Marketing*. Crow Nest, p. 13.

⁶⁷ See MULLIN, B. J., et al. (2007): *Sport Marketing*, Champaign, p. 11.

⁶⁸ See FELDMANN, S. (2004): *Positionierung im Sport*, in: BAUMGARTH, C. (ed.): *Marktorientierte Unternehmensführung, Festschrift zum 60. Geburtstag von Hermann Freter*, Frankfurt a. M., p. 103. Translated from German into English.

⁶⁹ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, pp. 13 et seqq.

for realizing, communicating, and distributing long-term value to supporters and partners in ways that benefit the club and its stakeholders. See Table 4.

Orientation towards...	Marketing...	Sports marketing...
a dual management concept (as function and general concept)	is an organizational function (1)	is an organizational function within a sports club (2)
	and a set of processes (2)	as well as a common, value-based internally-shared guidance (2)
information and actions	for creating (3),	for realizing (3),
	communicating (4),	communicating (4),
	and delivering (5)	and distributing (5)
customer benefit	value to customers (6)	long-term value to supporters and partners (6, 7)
relationships management	and for managing customer relationships (7)	
value creation	in ways that benefit the organization (8)	in ways that benefit the club (8)
stakeholders	and its stakeholders (9).	and its stakeholders (9).

Table 4: Definition of 'sports marketing'

Source: author's own illustration based on AMA (2004) definition of 'marketing'

A 'brand' has been defined in many different ways, both by academic analysts and in the practical world.⁷⁰ With reference to the general identity-based brand management approach,⁷¹ a **brand** is defined as a bundle of benefits with specific characteristics causing a sustainable differentiation in relation to other bundles of benefits which meet the same basic needs from the perspective of relevant target groups.⁷²

⁷⁰ See BURMANN, C., et al. (2005b): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung mit Best Practice-Fallstudien*, Vol. 2, Wiesbaden, pp. 5 et seq.

⁷¹ The identity-based brand management approach is built on the identity-oriented brand management concept. See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 44.

⁷² See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 359; BURMANN, C., et al. (2003): *Konzeptionelle Grundlagen des identitätsbasierten Markenmanagements*, Bremen, p. 3; KELLER, K. L. (2003): *Strategic brand management: building, measuring, and managing brand equity*, Upper Saddle River, pp. 3 et seq.

Taking into consideration the particularities found in sports, *Feldmann* (2007) proposes the following definition for sporting brands: a “**sporting brand** can be characterized as a service that succeeds – as well as by drawing on a distinctive identification - through employing systematic marketing concepts which, on the one hand, are designed to achieve longer-term success in sports and, on the other hand, can realize a sustainable impact on the relevant target group in the market through the fulfillment of its customer expectation.”⁷³ The undying loyalty held by soccer fans is a characteristic which is specific to sporting brands.⁷⁴ A sporting brand serves as an accumulation of characteristics, benefits, and attitudes, which are associated with the sports organization.⁷⁵ *Gladden/ Milne* (1999)⁷⁶ and *Bauer et al.* (2004)⁷⁷ have demonstrated that a strong sporting brand can have a significant impact on the economical success of professional sports organizations.⁷⁸

While a sporting brand can be categorized under the branch ‘marketing of sports’ in Figure 4, Figure 5 shows different examples of ‘brands in sports’⁷⁹ and ‘sport(ing) brands’,⁸⁰ one of them being the emblem of the club VfL Bochum 1848.

⁷³ FELDMANN, S. (2007): *Bewertung von Sportmarken: Messung und Wirkungen der Markenstärke von Fußballbundesligavereinen*, Frankfurt a. M., p. 27. Translated from German into English.

⁷⁴ See WELLING, M. (2008b): Vom Sponsoring zum Co-Branding?, in: *Markenartikel, Sonderdruck aus "Sponsoring Boomt"*, p. 3: A positive attitude toward a brand and repeated purchases are prerequisites of loyalty toward a brand. A fan of VfL Bochum 1848 will most likely never become a supporter of Borussia Dortmund or Schalke 04. See also BURMANN, C., et al. (2005b): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung mit Best Practice-Fallstudien*, Vol. 2, Wiesbaden, p. 9; DAY, G. S. (1969): A Two-Dimensional Concept of Brand Loyalty, in: *Journal of Advertising Research*, Vol. 9, No. 3, pp. 29 et seqq.

⁷⁵ See KELLER, C. (2008b): *Strategisches Management im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport: Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 104 with reference to BAUER, H., et al. (2004a): *Der Beitrag des Markenimage zur Fanloyalität. Eine empirische Untersuchung am Beispiel der Klubmarken der Fußball-Bundesliga*, Mannheim, Scientific working paper No. W81.

⁷⁶ See GLADDEN, J./ MILNE, G. (1999): Examining the importance of brand equity in professional sports, in: *Sport Marketing Quarterly*, Vol. 8, No. 1, pp. 21 et seqq.

⁷⁷ See BAUER, H., et al. (2004b): *Die Erfolgsrelevanz der Markenstärke in der 1. Fußball-Bundesliga*, Mannheim, Scientific working paper No. W75.

⁷⁸ See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 362.

⁷⁹ This is in accordance with the branch ‘Marketing of corporations’ in Figure 4.

⁸⁰ This is in accordance with the branch ‘Marketing of sportsmen and sports associations’, indicated in Figure 4.

This club was kind enough to cooperate and help with the carrying out of this study.⁸¹



Figure 5: Sporting brands

Source: See Feldmann, S. (2007), p. 27⁸²

Depending on the exact definitions one employs, the origins of brand management can be traced as far back as 150 years ago.⁸³ Since then, its definition has undergone frequent revisions. This has involved both the deepening and broadening of its meaning, but also has seen a range of new approaches taken to characterize

⁸¹ An interesting comparison can be made to the music industry. For this, see ENGH, M. (2006): *Popstars als Marke - Identitätsorientiertes Markenmanagement für die musikindustrielle Künstlerentwicklung und -vermarktung*, Wiesbaden.

⁸² Compare to FELDMANN, S. (2007): *Bewertung von Sportmarken: Messung und Wirkungen der Markenstärke von Fußballbundesligavereinen*, Frankfurt a. M., p. 27.

⁸³ See FIEDLER, L. (2007): *Stakeholderspezifische Wirkung von Corporate Brands - Ein Modell zur integrierten Evaluation und Steuerung von Unternehmensmarken*, Wiesbaden, p. 9.

the term - among others, definitions based on function, behavior, image, or strategy.⁸⁴

Today, the identity-based approach is the most popular one.⁸⁵ This defines **brand management** as “various decisions and measures of the institution leading the brand, whereas the institution executes – according to specific targets – a basic orientation of the essential and characteristic bundles of benefits of the brand with the help of planning, coordinating and controlling.”⁸⁶ While most sports organizations state that they possess a strong brand, only a few of them actually manage their brands appropriately.⁸⁷

For brand success, the integration of all instruments with regards to content, technique, and time, utilized within the scope of identity-based brand management, is of utmost importance.⁸⁸ Brand communication plays a decisive role in the transmission of brand identity, which should not be underestimated.⁸⁹ While there have been many different explanations and definitions of the term ‘communication’,⁹⁰ there is a general agreement that it can be considered as some type of concur-

⁸⁴ See MEFFERT, H./ BURMANN, C. (2005): *Wandel in der Markenführung - vom instrumentellen zum identitätsorientierten Markenverständnis*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung; mit Best Practice-Fallstudien*, edit. 2 (revised and expanded version), Wiesbaden, pp. 32 et seq.; for an overview of different approaches used to define the term ‘brand management’, see SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 10 et seqq.

⁸⁵ See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Markenkommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 44. See also Chapter B.1.

⁸⁶ Refer to BURMANN, C., et al. (2005b): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung mit Best Practice-Fallstudien*, Vol. 2, Wiesbaden, p. 9; BRUHN, M. (2004a): *Begriffsabgrenzungen und Erscheinungsformen von Marken*, in: BRUHN, M. (ed.): *Handbuch Markenführung - Kompendium zum erfolgreichen Markenmanagement - Strategien, Instrumente, Erfahrungen*, edit. 2, Vol. 1, Wiesbaden, p. 26.

⁸⁷ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 345.

⁸⁸ See BURMANN, C./ MEFFERT, H. (2005a): *Managementkonzept der identitätsorientierten Markenführung*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, edit. 2, Wiesbaden, p. 86.

⁸⁹ Refer to SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 12.

⁹⁰ For a summary of definitions, see BUEHRER, R. (2004): *Kommunikationsmanagement in Veränderungsprojekten - Eine Methode für die Einführung digitaler Produkte*, Hamburg, p. 155.

rence between individuals or groups.⁹¹ According to the original formula provided by Lasswell (1970), 'who says what in which channel to whom with what effect?', information is exchanged between a communicator on the one side and a recipient on the other side.⁹² Watzlawick et al. (2003) emphasize that communication should also submit some type of content,⁹³ which follows a general trend where the purpose of communication gains in importance.⁹⁴ If this is applied to brand communication, there should be a focus on the unambiguous and cohesive transmission of brand characteristics.⁹⁵ This goal can only be obtained, if the composition of the brand message is consistent when it comes to content, time, and structure.⁹⁶ In this study, **brand communication** is seen as all of the various communication methods and measures employed by a corporation, which are applied according to specific objectives, in order to present the orientation of essential and characteristic bundles of benefits to the relevant internal and external target groups.⁹⁷

⁹¹ For this, refer to KRAMER, R. (1965): *Information und Kommunikation - Betriebswirtschaftliche Bedeutung und Einordnung in die Organisation der Unternehmung*, Berlin, p. 31.

⁹² See LASSWELL, H. D. (1970): *The structure and function of communication in society*, in: SCHRAMM, W. (ed.): *Mass communications*, edit. 2, Urbana, pp. 116 et seqq.; MCQUAIL, D. (2005): *McQuail's Mass Communication Theory*, London, p. 69; MEFFERT, H. (1986): *Marketing - Grundlagen der Absatzpolitik*, Wiesbaden, p. 446; LASSWELL, H. D. (1966): *The structure and function of communication in society*, in: BERELSON, B., et al. (eds.): *Reader in public opinion and communication*, edit. 2, New York, p. 178.

⁹³ See WATZLAWICK, P., et al. (2003): *Menschliche Kommunikation: Formen, Störungen, Paradoxien*, Bern et al., p. 56.

⁹⁴ See also BRUHN, M. (2005): *Unternehmens- und Marketingkommunikation: Handbuch für ein integriertes Kommunikationsmanagement*, München, p. 3: Communication is seen as an exchange of information and of meaningful content for the purpose of the control of opinions, attitudes, expectations, and behavior patterns of certain recipients according to specific targets.

⁹⁵ Refer to SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 13.

⁹⁶ See ESCH, F.-R. (2006): *Wirkung integrierter Kommunikation - Ein verhaltenswissenschaftlicher Ansatz*, Wiesbaden, pp. 69 et seqq.; ESCH, F.-R. (1992): Integrierte Kommunikation - ein verhaltenswissenschaftlicher Ansatz, in: *Thexis*, Vol. 9, No. 6, pp. 36 et seq.

⁹⁷ See BURMANN, C., et al. (2005b): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung mit Best Practice-Fallstudien*, Vol. 2, Wiesbaden, p. 7; BRUHN, M. (2005): *Unternehmens- und Marketingkommunikation: Handbuch für ein integriertes Kommunikationsmanagement*, München, p. 4; BRUHN, M. (1997): *Kommunikationspolitik - systematischer Einsatz der Kommunikation für Unternehmen*, München, p. 2.

As a starting point in his attempt to define the term 'event', Nitschke (2006)⁹⁸ provides a list of different definitions stated by Crowther (1995), Rundell (1995), and Sinclair (1995), where the words 'organized', 'planned', and explanations referring to 'something special' are repeatedly stated. See Table 5.⁹⁹

Explanation	Source(s)
... something that happens, especially something important, interesting or unusual...	CROWTHER (1995), p. 395; RUNDELL (1995), p. 464; SINCLAIR (1995), p. 567
... an important performance, sport competition, party etc., which has been arranged for a particular date and time...	RUNDELL (1995), p. 464
... a planned public or social occasion...	CROWTHER (1995), p. 395
... a planned and organized occasion, for example a social gathering of sports match...	SINCLAIR (1995), p. 567
... any of the races, competitions etc. as part of day's sports...	CROWTHER (1995), p. 395; RUNDELL (1995), p. 464; SINCLAIR (1995), p. 567

Table 5: Definitions of the term 'event'

Source: Nitschke (2006), p. 16

In general, events can be considered as special occasions which are planned and organized for a certain purpose.¹⁰⁰ For corporations (and consequently soccer clubs), only events which contribute to the accomplishment of communication targets are relevant for brand communication.¹⁰¹ There are two main types of

⁹⁸ For this, refer to NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 16.

⁹⁹ Refer to CROWTHER, J. (1995): *Oxford Advanced Dictionary of Current English*, Oxford, p. 395; RUNDELL, M. (1995): *Longmen Dictionary of Contemporary English*, Burnt Mill, p. 464; SINCLAIR, J. (1995): *Collins Cobuild English Dictionary*, London, p. 567.

¹⁰⁰ See NUFER, G. (2002): *Wirkungen von Event-Marketing: theoretische Fundierung und empirische Analyse*, Wiesbaden, p. 20.

¹⁰¹ See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, pp. 16 et seq.; INDEN, T. (1993): *Alles Events?! - Erfolg durch Erlebnismarketing*, Landsberg/ Lech, p. 29; DRENGNER, J. (2003): *Imagewirkungen von Eventmarketing: Entwicklung eines ganzheitlichen Messansatzes*, Wiesbaden, p. 22. See also KIRCHGEORG, M., et al. (2009): *Live Communication Management - Ein strategischer Leitfaden zur Konzeption, Umsetzung und Erfolgskontrolle*, Wiesbaden, p. 26: With 14% of the

events:¹⁰² Occasions that are initiated by the corporations themselves in order to communicate certain aspects are called 'marketing events',¹⁰³ while the singular term 'event' refers to occasions initiated externally which do not take place explicitly for the purpose of supporting the communicative objectives of corporations.¹⁰⁴ These two perspectives are respectively referred to as 'marketing with events' and 'marketing at events' by *Nufer/ Bühler* (2008).¹⁰⁵ For the purpose of this study, an **event** is defined as "a game within a national league or cup competition, organized and planned by the sports club itself, where a positive image transfer from the occasion to the club brand is sought."¹⁰⁶ The club belongs to a professional league or a cup competition, which means the playing schedule and exact time of events is set by an external institution. The final definition provided above thus represents a mixture of both internally and externally initiated occasions. The fact that the study focuses on a club's brand, rather than the brands of external corporations (sponsors), is another important characteristic.

As we can see, the methods employed are crucial to ensuring the effective and efficient transmission of brand messages. *Springer* (2008) provides several choices of communication forms and umbrella terms; her work has been very helpful in

overall budget of corporations in Germany, events rank 3rd as the means of communication with the highest spending, behind classical advertising and exhibitions.

¹⁰² For this, refer to NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 17.

¹⁰³ In these occasions, the primary goal is to impart certain experiences and to provoke emotions, which contribute to the realization of communication targets. See ZANGER, C./ SISTENICH, F. (1996): Eventmarketing: Bestandsaufnahme, Standortbestimmung und ausgewählte theoretische Ansätze zur Erklärung eines innovativen Kommunikationsinstrumentes, in: *Marketing ZFP*, Vol. 18, No. 4, p. 234; NICKEL, O. (1998): *Event - Ein neues Zauberwort des Marketing?*, in: NICKEL, O. (ed.): *Eventmarketing. Grundlagen und Erfolgsbeispiele*, edit. 1, München, p. 7; NUFER, G. (2002): *Wirkungen von Event-Marketing: theoretische Fundierung und empirische Analyse*, Wiesbaden, p. 28.

¹⁰⁴ See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 17: Nitschke refers to LASSLOP, I. (2003): *Effektivität und Effizienz von Marketing-Events: wirkungstheoretische Analyse und empirische Befunde*, Wiesbaden, pp. 15 et seqq.

¹⁰⁵ See NUFER, G./ BUEHLER, A. (2008b): *Veranstaltungsmarketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 387 with reference to NUFER, G. (2007): *Event-Marketing und -Management: Theorie und Praxis unter besonderer Berücksichtigung von Imagewirkungen*, Wiesbaden.

¹⁰⁶ BRUHN, M. (2010): *Sponsoring - Systematische Planung und integrativer Einsatz*, Wiesbaden, p. 8.

drawing up the categorization of methods of communication¹⁰⁷ shown in Table 6. According to this guideline, **event marketing** can be considered as a personal, direct, two-sided, external mass communication method. According to *Bühler/ Nufer* (2008), classical/ above-the-line forms of communication include all types of advertising (e.g. TV, print-media, radio), while corporate identity policy, public relations activities, sales promotion, sponsoring, event marketing, exhibitions, product placement, and direct marketing belong to non-classical/ below-the-line activities.¹⁰⁸ *Nitschke* (2006) adds ambush, mobile, guerilla, and viral marketing to below-the-line techniques.¹⁰⁹

Communication forms (1)/ umbrella terms (2)	Communication instrument: Event marketing
personal vs. impersonal (1)	personal
direct vs. indirect (1)	direct
two-sided vs. one-sided (1)	two-sided
internal vs. external (1)	external
individual vs. mass communication (1)	mass communication
classical vs. non-classical (2)	non-classical
above- vs. below-the-line (2)	below-the-line

Table 6: Characteristics of ‘event marketing’

Source: author’s own illustration with close reference to Springer (2008), p. 14

¹⁰⁷ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 14.

¹⁰⁸ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, pp. 333 et seqq.

¹⁰⁹ See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Markenkommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 7 with reference to WELLING, M. (2005a): *Guerilla Marketing in der Marktkommunikation: eine Systematisierung und kritische Analyse mit Anwendungsbeispielen*, Aachen; GRUNDER, R. (2003): *Viral Marketing*, in: *Wirtschaftswissenschaftliches Studium*, Vol. 32, No. 9, pp. 539 et seqq.

Table 7 helps us to understand the difference between event sponsoring and event marketing, which are both forms of event communication.¹¹⁰ While sponsoring¹¹¹ takes place during events which are organized by independent, outside organizations (e.g. the Olympic Games or the Soccer World Cup),¹¹² event marketing is an interactive communication instrument organized by the institution itself, emphasizing interactive, experience-oriented approaches.¹¹³

The latter communication tool fits the present study, as the club VfL Bochum 1848 is responsible for the organization of the event and for the program of entertainment provided before/ after the game and during half-time. Monosensory, duosensory, and multisensory stimuli will be used to evaluate to what extent these modes of communication can achieve long-term effects.¹¹⁴

¹¹⁰ Note that 'ambush marketing' represents the 3rd event communication instrument besides event sponsoring and event marketing. The AMA defines ambush marketing as a "promotional strategy whereby a non-sponsor attempts to capitalize on the popularity/ prestige of a property by giving the false impression that it is a sponsor" with reference to IEG. See AMA (2013a): *AMA definition of Ambush Marketing*. URL: http://www.marketingpower.com/_layouts/dictionary.aspx?dLetter=A, retrieved on: 13 February 2013. For further information on ambush marketing, see SHANI, D./ SANDLER, D. M. (1998): Ambush Marketing: Is Confusion to Blame for the Flickering of the Flame?, in: *Psychology & Marketing*, Vol. 15, No. 4, pp. 367 et seqq.; LYBERGER, M. R./ MCCARTHY, L. (2001): An Assessment of Consumer Knowledge of, Interest in, and Perception of Ambush Marketing Strategies, in: *Sport Marketing Quarterly*, Vol. 10, No. 2, pp. 130 et seqq.; NUFER, G./ BUEHLER, A. (2008b): *Veranstaltungsmarketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 400 et seqq.

¹¹¹ For a definition of the term 'sponsoring', see MEENAGHAN, T. (1983): Commercial Sponsorship, in: *European Journal of Marketing*, Vol. 17, No. 7, p. 9; BRUHN, M. (1987): Sponsoring als Instrument der Markenartikelwerbung, in: *Markenartikel*, Vol. 49, No. 5, p. 190; HERMANN, A. (1997): *Sponsoring: Grundlagen, Wirkungen, Management, Perspektiven*, München, pp. 36 et seq. See also BAYERL, S./ RENNHAK, C. (2006): *Entwicklungslinien Sponsoring*, in: RENNHAK, C. (ed.): *Unternehmenskommunikation 2.0 - Neue Wege im Marketing*, Hannover, pp. 123 et seqq.; DREES, N. (2003): *Bedeutung und Erscheinungsformen des Sportsponsoring*, in: HERMANN, A., et al. (eds.): *Sponsoring und Events im Sport*, München, pp. 47 et seqq.

¹¹² See NUFER, G./ BUEHLER, A. (2008b): *Veranstaltungsmarketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 387.

¹¹³ See WEINBERG, P./ NICKEL, O. (1998): Emotionales Erleben: Zentrale Determinanten für den Erfolg von Marketingevents, in: NICKEL, O. (ed.): *Marketingevents: Grundlagen und Erfolgsbeispiele*, München, pp. 61 et seqq.; GOBÉ, M. (2002): *Emotional branding: the new paradigm for connecting brands to people*, New York, pp. 219 et seqq.; SILBERER, G./ JAEKEL, M. (1996): *Marketingfaktor Stimmungen: Grundlagen, Aktionsinstrumente, Fallbeispiele*, Stuttgart.

¹¹⁴ See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Markenkommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, pp. 9 et seqq. for trends of sport sponsoring and event marketing in Germany.

Type of realization / Type of communication		unilateral ↔ interactive	
		informative ↔ experience-oriented	
organized by external organization ↔ organized by own organization	integrated in external frame, independent from own organization ↔ specifically designed by own organization	(Event) Sponsoring	Exhibitions
		Sales promotions	Event marketing

Table 7: Categorization of modes of communication used during events

Source: Nufer (2007), p. 30¹¹⁵

The so-called 'image transfer effect' of the event and the brand causes the intensification and the modification of the brand image (or current external perception of the brand) in event communication. Through the collective perception of the event and the brand, positive associations are supposed to be transferred from the event toward the brand.¹¹⁶ While a fit can be defined as the subjective assessment of the relationship between a brand and another image object,¹¹⁷ an **event branding fit** can be referred to as the congruence of an event and the brand image, as per-

¹¹⁵ See NUFER, G. (2002): *Wirkungen von Event-Marketing: theoretische Fundierung und empirische Analyse*, Wiesbaden, p. 30.

¹¹⁶ See MEFFERT, H./ HEINEMANN, G. (1990): Operationalisierung des Imagetransfers: Begrenzung des Transferrisikos durch Ähnlichkeitsmessung, in: *Marketing ZFP*, Vol. 12, No. 1, pp. 5 et seq.; STIPP, H./ SCHIAVONE, N. P. (1996): Modeling the Impact of Olympic Sponsorship on Corporate Image, in: *Journal of Advertising Research - July/ August*, Vol. 36, pp. 22 et seq.

¹¹⁷ See BAUMGARTH, C. (2000): Methoden zur Markenfitanalyse, in: *Planung & Analyse*, Vol. 5, p. 48.

ceived by the recipient (or visitor to the event).¹¹⁸ In the context of this study, we consider the effects of monosensory, duosensory, and multisensory stimuli on satisfaction levels after the visits, as well as on brand attitudes and behavioral intentions after the games. Nevertheless, it is important to note that this study focuses on brand attitude changes of the sporting brand of VfL Bochum 1848, in contrast to brand evaluations of sponsoring brands.

The experience of brands is intensified through multisensory transmission. **Multi-sensuality** denotes the simultaneous addressing of several senses.¹¹⁹ In general, there are different opinions about the following two basic questions:¹²⁰

- How many senses does a human being possess?
- How many senses have to be addressed in order to entail multisensory addressing?

In both cases, this research follows the analyses and recommendations of Müller (2012) and Springer (2008).¹²¹ When it comes to the first question, five different senses are assumed (visual, acoustic, haptic, olfactory, and gustatory), all of them linked to the related sensory organs of a human being (eye, ear, skin, nose, and tongue, respectively).¹²² This survey mainly focuses on acoustic, visual, and haptic

¹¹⁸ A generally positive relationship between the fit and the effectiveness of event communication has been empirically proven in various studies. See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 29; ROY, D. P./ CORNWELL, T. B. (2003): Brand equity's influence on the response to event sponsorships, in: *Journal of Product & Brand Management*, Vol. 12, No. 6, pp. 377 et seqq.; SPEED, R./ THOMPSON, P. (2000): Determinants of Sports Sponsorship Response, in: *Journal of the Academy of Marketing Science*, Vol. 28, No. 2, pp. 226 et seqq.

¹¹⁹ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 16. Springer does also provide a detailed etymological derivation of the term 'multisensuality'.

¹²⁰ See MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden, pp. 12 et seq.; ASHURST, P. R. (1999): *Food flavorings*, Gaithersburg, p. 153.

¹²¹ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden; MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden.

¹²² See MOESLEIN, R., et al. (2004): *Odor profile descriptive analysis (OPDA) - Ein neues Verfahren zur Beschreibung komplexer Düfte: theoretische Grundlagen*, Göttingen-Rosdorf, p. 4;

perceptions before, during, and after a soccer game. However, some questions about olfactory and gustatory preferences were also asked. Selected results are presented in Chapter C.2.4.

Regarding the second question, opinions vary. While some people argue that all senses should be integrated,¹²³ others prefer to argue more vaguely, simply asking for the addressing of several senses or of as many senses as possible.¹²⁴ According to *Springer* (2008),¹²⁵ multisensuality in brand communication can be defined as the simultaneous addressing of at least three senses from the relevant internal and external target groups.

HIRSCHMAN, E. C./ HOLBROOK, M. B. (1982): Hedonic Consumption: Emerging Concepts, Methods and Propositions, in: *The Journal of Marketing*, Vol. 46, No. 3, p. 92.

¹²³ For this, refer to HEHN, P./ SILBERER, G. (2009): *Wirkung von Duft in der Markenführung*, in: BAUMGARTH, C., et al. (eds.): *Impulse für die Markenforschung und Markenführung*, edit. 1, Wiesbaden, p. 43; THIEMER, J. (2004): *Erlebnisbetonte Kommunikationsplattformen als mögliches Instrument der Markenführung - dargestellt am Beispiel der Automobilindustrie*, Kassel.

¹²⁴ See HIRSCHMAN, E. C./ HOLBROOK, M. B. (1982): Hedonic Consumption: Emerging Concepts, Methods and Propositions, in: *The Journal of Marketing*, Vol. 46, No. 3, p. 92; WOLF, A. (2005): *Erfolgsfaktoren industrietouristischer Einrichtungen - Eine Untersuchung zu Erfolgsfaktoren unterschiedlicher Angebotstypen und ausgewählter Einrichtungen in Großbritannien und Deutschland*, Paderborn, p. 67.

¹²⁵ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 17 with reference to WOLF, A. (2005): *Erfolgsfaktoren industrietouristischer Einrichtungen - Eine Untersuchung zu Erfolgsfaktoren unterschiedlicher Angebotstypen und ausgewählter Einrichtungen in Großbritannien und Deutschland*, Paderborn, p. 67 and FOESKEN, S. (2006): Im Reich der Sinne, in: *Absatzwirtschaft, Sonderausgabe Marken 2006*, pp. 72 et seqq.

3 Theoretical definitions in relevant research fields

Having defined the key terms which will be used in this study, this section moves on to present the identity-based brand management approach, in particular examining its two main components of brand identity and brand image. A brief outline of the relevant theoretical influences taken from related fields is also provided.

Following a holistic stakeholder view, identity-based brand management considers the brand perception of external stakeholders, as well as the self-reflection of the brand from internal members and partners of the organization.¹²⁶ This approach currently represents the most 'state of the art' research in the domain of brand management,¹²⁷ developed simultaneously in Europe and in the United States in the 1990s.¹²⁸ Recent adjustments, mainly with the input from human psychology, have turned the identity-oriented concept into an identity-based brand management approach.¹²⁹ In this expanded analytical take, the classical 'outside-in' perspective of a brand is complemented by an 'inside-out' perspective. This analyzes the current self-perception of the brand based on the view of internal target groups within the institution.¹³⁰

¹²⁶ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, pp. 359 et seq.; ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 35.

¹²⁷ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 34; NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Marken-Kommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 44; WELLING, M. (2006): *Ökonomik der Marke: Ein Beitrag zum Theorienpluralismus in der Markenforschung*, Wiesbaden, p. 44; DE CHERNATONY, L. (2006): *From Brand Vision to Brand Evaluation: The strategic process of growing and strengthening brands*, Oxford, pp. 45 et seq.

¹²⁸ See KAPFERER, J. N. (1992): *Die Marke - Kapital des Unternehmens*, Landsberg/ Lech; AAKER, D. A. (1996): *Building Strong Brands*, New York; MEFFERT, H./ BURMANN, C. (1996b): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios*, working paper no. 100, Münster.

¹²⁹ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 34. The latest developments in the identity-based approach can be found in BURMANN, C./ ARNHOLD, U. (2009): *User Generated Branding: State of the Art of Research*, Münster, pp. 41 et seq.; BURMANN, C./ STOLLE, W. (2007): *Markenimage - Konzeptionalisierung eines mehrdimensionalen Konstrukts*, Bremen, LiM working papers No. 28; BURMANN, C./ WENSKE, V. (2007): *Stand der Forschung zu Marke-Kunden-Beziehungen*, Bremen, LiM working papers No. 25; BURMANN, C., et al. (2007): *Identitätsbasierte Markenführung*, in: FLORAK, A., et al. (eds.): *Psychologie der Markenführung*, München, pp. 3 et seq.

¹³⁰ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, pp. 359 et seq. For conceptual foundations, see BURMANN, C./ MEFFERT,

Component of brand identity	Definition	Source
Brand vision	long-term direction of brand development (5-10 years)	Burmam/ Meffert (2005a), p. 61.
Brand heritage	represents the basis of brand identity/ relating to geographic, cultural and organizational influences and brand history	Blinda (2007), p. 104; Blinda (2003), p. 39.
Brand personality	set of human characteristics associated with a brand	Aaker (1997), p. 347
Brand values	reflect the principal conviction of management and employees (emotional identity component)	Burmam/ Meffert (2005a), pp. 62 et seq.
Brand management competencies	an organization's capabilities to generate efficient brand performance and coordinate resources	Burmam/ Halaszovich/ Hemmann (2012); Blinda (2007), p. 174.
Brand performance	total of activities displaying functional and symbolic consumer benefits in order to position the brand	Burmam/ Meffert (2005a), pp. 61 et seq.

Table 8: Components of brand identity

Source: author's own illustration, based on Meffert et al. (2012), pp. 361 et seqq.; Arnhold (2010), pp. 35 et seqq.

As part of the overall identity-based brand management approach, the self-image of a brand is called the **brand identity**. The origins of this term can be located in social-scientific research.¹³¹ Brand identity can be defined as "...those sustainable and homogenous cross-spatiotemporal attributes of a brand which determine the brand's essence from the perspective of the internal stakeholders."¹³²

H. (2005b): *Theoretisches Grundkonzept der identitätsorientierten Markenführung*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: Identitätsorientierte Markenführung und praktische Umsetzung*, Wiesbaden, pp. 37 et seqq.; BURMANN, C./ ZEPLIN, S. (2005): Building brand commitment: A behavioural approach to internal brand management, in: *Journal of Brand Management*, Vol. 12, No. 4, pp. 279 et seqq.; BURMANN, C., et al. (2003): *Konzeptionelle Grundlagen des identitätsbasierten Markenmanagements*, Bremen, LiM working papers No. 1.

¹³¹ For a detailed, historical summary on this topic, see SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 18.

¹³² MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 362 with reference to MEFFERT, H./ BURMANN, C. (1996a): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios*, Münster, p. 31; ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 35.

As shown in Table 8, the brand identity construct is made up of six different components¹³³ on the basis of social-scientific and psychological brand research:¹³⁴ The **brand heritage** is the foundation of the brand identity. It is highly relevant for brand management, as the brand is initially perceived and interpreted by internal and external target groups through an understanding of its historical origins.¹³⁵ The **brand vision** provides the long-term direction for the development of a brand. It asks, and hopes to answer, the question of 'where do we want to go?'. It is less precise than brand objectives, but is characterized by a longer time frame.¹³⁶ Both the brand vision and the brand heritage influence brand personality, brand values, and brand management competencies. **Brand values** reflect the basic conviction of an organization's management and employees. They are considered an emotional identity element.¹³⁷ Brand values are crucial for the authenticity of a brand. **Brand management competencies** represent the specific organizational capabilities of a corporation to generate efficient brand performance.¹³⁸ They address the question 'what are we good at?'. Brand management competencies have a considerable impact on the brand self-perception of employees as well as on the credibility of a brand as perceived by customers (in the case of this study, namely stadium visitors).¹³⁹ The component of **brand personality** has been the focus of much recent research: While Aaker (1997) defines it as "a set of human characteristics associated with a brand,"¹⁴⁰ brand personality is expressed in the verbal and

¹³³ See BURMANN, C./ ZEPLIN, S. (2005): Building brand commitment: A behavioural approach to internal brand management, in: *Journal of Brand Management*, Vol. 12, No. 4, p. 280; Brand identity dimensions relate to organizational values, capabilities, and behavior. See also ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, pp. 35 et seq.

¹³⁴ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 362; BURMANN, C., et al. (2003): *Konzeptionelle Grundlagen des identitätsbasierten Markenmanagements*, Bremen, p. 7; FREY, H./ HAUSSER, K. (1987): *Entwicklungslinien sozialwissenschaftlicher Identitätsforschung*, in: FREY, H., et al. (eds.): *Identität: Entwicklungslinien psychologischer und soziologischer Forschung*, Stuttgart, pp. 3 et seq.

¹³⁵ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 363.

¹³⁶ Ibid.

¹³⁷ Refer to ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 36.

¹³⁸ Ibid.

¹³⁹ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 363.

¹⁴⁰ AAKER, J. L. (1997): Dimensions of Brand Personality, in: *Journal of Marketing Research*, Vol. 34, No. 8, p. 347.

non-verbal communication style of brands and answers the critical question 'how do we communicate?'.¹⁴¹ Original discussions of the term stretch back to 1919, where *Gilmore* stated in the 'Theory of Animism' that people tend to animate objects by assigning them human characteristics.¹⁴² **Brand performance** stands for the totality of all activities displaying functional and symbolic consumer benefits for the ultimate positioning of a brand.¹⁴³ It answers the basic question 'what do we market?'. A strong fit between the brand performance and the other five components of brand identity is crucial for the authenticity of a brand, as the brand is always perceived in a holistic manner.¹⁴⁴

The **brand image**, on the right side of Figure 6, can be considered as the result of the individual, subjective perception and decoding of all signals sent out by the brand.¹⁴⁵ It concerns a multidimensional construct of attitudes that reflects the condensed and judgmental perceptions of a brand, which is firmly anchored in the psyche of the relevant external target groups.¹⁴⁶

¹⁴¹ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 363: Brand personality satisfies emotional needs of the consumer.

¹⁴² See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, pp. 9 et seq. with reference to GILMORE, G. W. (1919): *Animism Or Thought Currents Of Primitive Peoples*, Boston.

¹⁴³ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 36.

¹⁴⁴ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 363.

¹⁴⁵ See *ibid.*

¹⁴⁶ See *ibid.*; with reference to TROMMSDORFF, V. (2009): *Konsumentenverhalten*, Stuttgart, p. 155.

A main pre-condition to the formation of brand image in external stakeholders is the **brand awareness**, which measures the capability of potential consumers to:

- remember a characteristic of a brand or
- first recognize the specific brand after an acoustic and/ or visual aid or recall, and to then assign this information to a product category¹⁴⁷

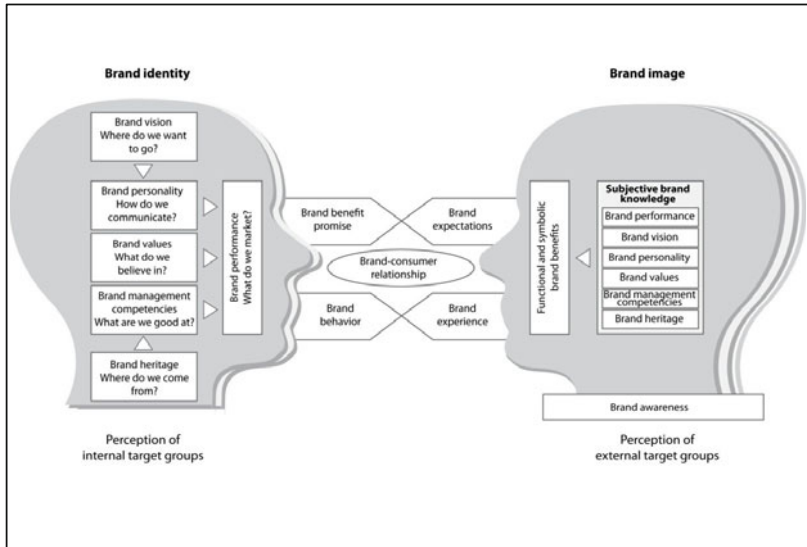


Figure 6: Basic concept of identity-based brand management

Source: author's own illustration based on Meffert et al. (2012), pp. 360/ 362/ 365¹⁴⁸

¹⁴⁷ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 38; MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 364; AAKER, D. A. (1991): *Managing Brand Equity: Capitalizing on the Value of a Brand Name*, New York et al., p. 61; BURMANN, C., et al. (2003): *Konzeptionelle Grundlagen des identitätsbasierten Markenmanagements*, Bremen, p. 6.

¹⁴⁸ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, pp. 360/ 362/ 365 with reference to MEFFERT, H./ BURMANN, C. (1996b): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios, working paper no. 100*, Münster, p. 35; BURMANN, C., et al. (2003): *Konzeptionelle Grundlagen des identitätsbasierten Markenmanagements*, Bremen, p. 7. Translated from German into English; drawn with Adobe Illustrator by E. Erihan.

As brand awareness is an inevitable prerequisite for the formation of perceptions in the mind of (external) target groups, it cannot be considered an actual part of brand image¹⁴⁹ and is therefore shown outside of the brand image construct. The (final) resulting functional and subjective brand benefit associations, which are the most elevated brand information processing stage with relevance toward purchasing behavior,¹⁵⁰ are derived from the **subjective brand knowledge**, which is itself comprised of the same six components as brand identity. The functional benefits contain all benefit dimensions resulting from the physical-functional characteristics of a brand, whereas symbolic benefits refer to all benefits generated beyond the functional ones.¹⁵¹

Within the **brand-consumer relationship**, actual internal and external perceptions - **brand behavior** and **brand experience** - are confronted with desired internal and external perceptions - **brand benefits promise** and **brand expectations**.¹⁵² According to Meffert et al. (2012), these brand-consumer relationships are comprised of subjectively evaluated social interactions with coherent content, in terms of an immediate and/ or reaction-oriented exchange between brands and existing consumers. These relationships underlie cognitive and/ or affective motives of relationship on the part of the existing consumers, which are satisfied through the functional and symbolic brand benefit associations held by the brand.¹⁵³ While brand identity can actively be promoted and anchored, the brand image - in the

¹⁴⁹ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 364.

¹⁵⁰ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 38.

¹⁵¹ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 364.

¹⁵² See MEFFERT, H./ BURMANN, C. (1996b): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios*, working paper no. 100, Münster, p. 361.

¹⁵³ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 361 with reference to WENSKE, A. V. (2008): *Management und Wirkungen von Marke-Kunden-Beziehungen - eine Analyse unter besonderer Berücksichtigung des Beschwerdemanagements und der Markenkommunikation*, Bremen, p. 97: This represents a renewed version, compared to the former definition "...the degree of the subjectively perceived cognitive and affective relatedness of a consumer to a brand." For this definition, see MEFFERT, H., et al. (2008): *Marketing - Grundlagen marktorientierter Unternehmensführung: Konzepte - Instrumente - Praxisbeispiele*, Wiesbaden, p. 367 with reference to BURMANN, C./ MEFFERT, H. (2005a): *Managementkonzept der identitätsorientierten Markenführung*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, edit. 2, Wiesbaden, p. 101.

minds of various external stakeholders - is only formed over time, in reaction to the corporation's brand management activities.¹⁵⁴

Other fields of research have also started to understand the creation of corporate images, and the perception and effect of symbols and value systems as part of modes of communication. Developments in the areas of organizational theory and design, psychology, and sociology have increasingly begun to offer analyses of multisensory brand management.¹⁵⁵ Over the past few years, a strong collaboration could be witnessed among these interdisciplinary research fields.¹⁵⁶

A construct which has been the subject of much discussion in recent years, and which is very similar to the self-perception of a brand, is **corporate identity**. In the broadest sense, corporate identity can be considered as the personality or identity of a corporation, which is expressed through the behavior, communication, and appearance of an organization.¹⁵⁷ It reflects the corporation's current status, its traditions and history of corporate policy, and the attitudes of its executives and employees. The components which make up corporate identity constantly affect internal and external stakeholders and hence produce a certain company-specific image (which more or less resembles brand identity).¹⁵⁸ The strength of the psychological bond which employees hold toward a brand is referred to as **brand**

¹⁵⁴ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 360; MEFFERT, H./ BURMANN, C. (1996b): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios*, working paper no. 100, Münster, p. 34.

¹⁵⁵ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 20 et seq.

¹⁵⁶ See *ibid.* with reference to BALMER, J. M. T. (2001): *Corporate identity, corporate branding and corporate marketing - Seeing through the fog*, in: *European Journal of Marketing*, Vol. 35, No. 3/4, pp. 252 et seqq.

¹⁵⁷ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 246 with reference to MEFFERT, H./ BURMANN, C. (1996b): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios*, working paper no. 100, Münster, pp. 23 et seqq. and BIRKIGT, K., et al. (1998): *Corporate Identity: Grundlagen, Funktionen, Fallbeispiele*, Landsberg/Lech, pp. 20 et seqq.

¹⁵⁸ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 246.

commitment.¹⁵⁹ This is composed of three categories, which we term docility, identification, and internalization.¹⁶⁰

Corporate identity is embodied in the **mission statement** put forward by organizations.¹⁶¹ While visions and mission statements have been introduced and implemented in many corporations throughout the business world, soccer clubs have also started to consult both internal and external stakeholders, in order to attain a clear understanding of what the club stands for.¹⁶² Brand statements derived from the mission statement and the key values of our partner soccer club VfL Bochum 1848 have been integrated into the questionnaires found in this study. They are taken into consideration in the various models and hypotheses which we test in later sections of this study.

Corporate goals represent benchmarks for corporate actions and, simultaneously, expressions of desired future conditions, which are targeted as possible achievements through the implementations of corporate measures.¹⁶³ Outcomes of empirical research have shown that the classical objective of profit maximization has been replaced by a variety of different, simultaneous targets. Profit is now only of relative importance (minimum or adequate profit is targeted), while environment and sustainability considerations have become more and more valued.¹⁶⁴

¹⁵⁹ See ZEPLIN, S. (2006): *Innenorientiertes identitätsbasiertes Markenmanagement: Entwicklung eines integrierten Erklärungsmodells*, Wiesbaden, p. 85.

¹⁶⁰ *Docility* is referred to as the acquiring of brand-compliant behavior in order to receive specific extrinsic awards or to avoid punishment; *identification* is defined as the acceptance of social influence attained through belonging to a brand. Lastly, *internalization* concerns the integration of brand identity into the self-concept of an employee. See MEFFERT, H./ BURMANN, C. (2002): *Managementkonzept der identitätsorientierten Markenführung* in: MEFFERT, H., et al. (eds.): *Markenmanagement*, Wiesbaden, p. 377; PIEHLER, R. (2011): *Interne Markenführung: Theoretisches Konzept und fallstudienbasierte Evidenz*, Wiesbaden, p. 45.

¹⁶¹ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 246.

¹⁶² Refer to THAM, T. (2008): *Einführung eines stakeholderorientierten Leitbildes im Fußball*, in: KLANTE, O. (ed.): *Aktuelle Perspektiven des Marketingmanagements - Reflektionen aus den Bereichen Holistic Branding, Media Management und Sustainability Marketing - Festschrift für Prof. Dr. Kirchgeorg zum 50. Geburtstag*, Wiesbaden, pp. 61 et seqq.

¹⁶³ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 246; KUPSCH, P. (1979): *Unternehmensziele*, Stuttgart et al., pp. 15 et seq.

¹⁶⁴ For this, see MEFFERT, H./ KIRCHGEORG, M. (1998): *Marktorientiertes Umweltmanagement*, Stuttgart, pp. 44 et seqq. For a summary of different types of corporate goals, see MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden,

4 Aim and structure of study

In view of the initial introduction and the highlighting of the need for further theoretical and empirical examination of the subject, the general goal of this thesis is to further contribute to the existing research in the area of multisensory brand management. It also seeks to apply the general approach suggested by *Springer* (2008)¹⁶⁵ to the field of sports. More specifically, the study aims to find out how exactly the soccer club VfL Bochum 1848 could be able to retain existing or to attract new visitors through the application of monosensory, duosensory, and multisensory stimuli at four home games, hoping to ultimately increase the satisfaction levels of visitors and to gain a sustainable edge. For this purpose, a behavior-oriented model will be developed, focusing on the perception and on the effect of a variety of different stimuli on the day of a specific game. If the assumed relationships are confirmed and the use of the multisensory brand management concept during the live-communication events is found to be effective, consistency gaps between the brand identity and the brand image may be minimized.¹⁶⁶

From a methodological point of view, we introduce the preliminary conceptual work, based on existing literature, which is followed by analyses stemming from empirical observations. The final results are expected to provide practical, problem-solving recommendations, rather than abstract, theoretical considerations. Having both established this methodology and the study's objectives, we can derive the following research focus, as shown in Figure 7.

In the first part of this thesis – **Part B** – some general theoretical considerations in regards to identity-based brand management concepts and the area of sports are followed by a discussion of multisensuality and the simultaneous addressing of various senses. This has become a much more focused area of study in recent investigations within economics and other related disciplines. While the majority of

pp. 247 et seqq. In recent years, the integration of objectives relating to environmental protection has become crucial: See KIRCHGEORG, M. (2002): Nachhaltigkeits-Marketing - Integration bestehender Erkenntnisse oder konzeptionelle Erweiterung?, in: *UmweltWirtschaftsForum*, Vol. 10, No. 4, pp. 4 et seqq. and WINN, M./ KIRCHGEORG, M. (2006): Sustainability Marketing for the Poorest of the Poor, in: *Business Strategy and the Environment*, Vol. 15, pp. 171 et seqq.

¹⁶⁵ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden.

¹⁶⁶ See *ibid.*, p. 23; BACKHAUS, K. (2003): *Industriegütermarketing*, München, pp. 35 et seqq.

stimuli which were identified in cooperation with the soccer club VfL Bochum 1848 before each individual game are of visual, oral, and haptic nature,¹⁶⁷ olfactory and gustatory senses are covered in additional questions contained in the surveys.¹⁶⁸ Finally, behavior-oriented multisensory communication models, introduced by Springer (2008),¹⁶⁹ are briefly covered at the end of the theoretical section.

A Problem statement of this study	
<ul style="list-style-type: none"> - Relevance of sensual approaches in brand communications - Definitions of the relevant terms - Classifications into adjacent research fields - Target and course of this analysis 	
B Theoretical principals	C Empirical analysis
<ul style="list-style-type: none"> - Fundamentals of Brand Management - Fundamentals of sports (soccer) - Fundamentals of multisensuality - Development of integrated reference framework - Derivation of theses and hypotheses (to be tested) 	<ul style="list-style-type: none"> - Design and methodology of empirical analysis - Evaluation criteria of statistical evaluation - Empirical results of two areas of a soccer stadium - Descriptive results - Consolidation of all relevant results
D Summary and outlook	
<ul style="list-style-type: none"> - Summary of main findings - Critical appraisal of main results - Implications for practitioners - Implications for further research 	

Figure 7: Design of this study

Source: author's own illustration

Based on the conceptual background, an integrated, theory-based reference framework is derived, taking into consideration the aforementioned brand management approach as well as concepts and constructs from behavioral and communication sciences. This integrated reference framework serves as the

¹⁶⁷ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 24 with reference to KILIAN, K. (2007): *Multisensuales Markendesign als Basis ganzheitlicher Markenkommunikation* in: FLORACK, A., et al. (eds.): *Psychologie der Markenführung*, München, p. 326: In the automotive industry, olfactory and gustatory senses are of minor importance.

¹⁶⁸ Results are presented through descriptive results, which could provide suggestions for further research. See Chapter C.2.4.

¹⁶⁹ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden.

foundation of the basic model applied to measure sensory perception and the effect exerted on two different types of visitor groups during a soccer event: frequent and infrequent visitors.

After elaborating three theses and their related hypotheses, all of which are formulated in accordance with the integrated reference framework mentioned before, different theoretical models are tested in **Part C** of this thesis, with the help of results amassed from complex empirical studies. More specifically, following the observations of *Springer* (2008) in her study of the automotive industry (using the example of the 'Porsche Brand Land'),¹⁷⁰ we ask the following questions:¹⁷¹

- Through which types of stimuli are the sensory elements of verbal and non-verbal representations expressed at a soccer event?
- Which perceived elements most contribute to a positive evaluation of the two stadium areas found both inside and outside of the stadium, and finally to overall satisfaction with the event after the visit?
- How strong an effect does the evaluation of elements in the two stadium areas have on brand attitudes (evaluations of brand statements and brand attributes after the game)?
- Can a general trend be established in brand attitude evaluations before and after a game? Are these changes the same for both visitor groups?
- In what way does a change in the evaluation of a brand attribute influence future behavioral intentions of the two target groups?

Last but not least, the conceptual and empirical results are consolidated in **Part D** of the thesis, in order to derive implications for future multisensory brand live-communication in sports and to indicate potential areas which require further research. From a corporate perspective, various alternatives for the realization of multisensory brand management are focused on.

¹⁷⁰ Brand lands belong to personal, direct, and two-sided communication and to below-the-line measures (compare to Table 6). For more detailed information, see SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 14 et seqq. and pp. 113 et seqq.

¹⁷¹ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 25.

B Theoretical foundations and development of integrated reference framework

1 Theoretical foundations of brand management

The need for precise brand communication techniques has already been underlined in Part A of this thesis. The following explanations build on the identity-based brand management approach, briefly introduced in Chapter A.3, where basic information about the components of the two constructs 'brand identity' and 'brand image' (see Figure 6) was given. If an organization succeeds in developing target-oriented brand communication, a strong fit between the identity and the image of a brand is achieved. In the subsequent sub-chapter, more detailed information about the determination of the brand image is provided. This serves as the foundation of our study. We follow this by emphasizing the need for brand controlling techniques.

1.1 Definition of brand image

In her thesis investigating multisensory brand management in the automotive industry, *Springer* (2008) provides thorough descriptions of the construct 'brand image',¹⁷² which has been addressed in Chapter A.3. Targets relating to the brand image can refer to the content and to the type of associations held in relation to the brand.¹⁷³ Brand image, considered as the external perception of the brand, brings into focus various related associations during the perception and the preference-building phase of a certain brand.

¹⁷² See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 38 et seqq.

¹⁷³ See NITSCHKE, A. (2006): *Der Event-Marken-Fit als Determinante der Wirkung von Markenkommunikation - Eine dyadische Längsschnittanalyse des Sponsorings am Beispiel der FIFA-WM 2006*, Wiesbaden, p. 27.

These associations can be captured and characterized in various ways:¹⁷⁴

- The **type** of associations can be characterized in an affective or cognitive manner.
- The **direction** of associations indicates in what way associations produce positive and/ or negative feelings.¹⁷⁵
- The **number** of associations determines the extent of interconnected associations, where strong brands usually contain more associations than weak ones.¹⁷⁶
- The degree of closeness between the associations and the brand itself influences the **strength** of those associations (which is itself the result of the processing depth of the cognitively and affectively characterized contents).¹⁷⁷
- The **uniqueness** of associations is measured through the degree of differentiation from competitive brands.¹⁷⁸
- The **relevance** of associations is manifested in
 - o how accurately the brand associations meet the needs of the target groups and
 - o how important it is considered by these stakeholders.¹⁷⁹
- The **accessibility** of associations describes how easily a brand can be assigned to certain associated attributes and/ or imaginations.¹⁸⁰

¹⁷⁴ Ibid., p. 38; SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 365.

¹⁷⁵ See STORCKS, H. (2003): *Markenführung im Krankenhaus - eine empirische Analyse am Beispiel eines regionalen Konkurrenzumfeldes*, Hamburg, p. 93: In particular, the perceived suitability of a brand to satisfy needs results in positive feelings, ultimately leading to brand acceptance and brand sympathy.

¹⁷⁶ See KRISHNAN, H. S. (1996): Characteristics of memory associations - A consumer-based brand equity perspective, in: *International Journal of Research in Marketing*, Vol. 13, No. 4, pp. 399 et seq.

¹⁷⁷ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 39.

¹⁷⁸ Ibid, p. 40.

¹⁷⁹ See KRISHNAN, H. S. (1996): Characteristics of memory associations - A consumer-based brand equity perspective, in: *International Journal of Research in Marketing*, Vol. 13, No. 4, p. 397.

¹⁸⁰ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 40.

- The **representations** of associations can be performed in a verbal and/ or non-verbal manner.¹⁸¹ Due to the fact that mental access to non-verbal content can be processed more easily and quickly,¹⁸² strong brands are characterized by a high proportion of non-verbal associations.

Along with brand affinity (or brand sympathy) and brand awareness, the image of a brand influences – directly and indirectly – all other behavioral targets, which themselves subsequently contribute to economical metrics, e.g. brand equity.¹⁸³

The type (affective/ cognitive), direction (positive/ negative), and representation (verbal/ non-verbal) of associations are of critical importance for this study. Various indicators in different areas of the stadium environment are assigned according to these classification types.

1.2 Brand controlling

In order to be able to evaluate gaps between the brand identity and the brand image, a general understanding of brand controlling is required. Brand controlling tools are available in order to help judge the efficiency of brand communication techniques, which makes up a major stage of the whole brand management process.¹⁸⁴

¹⁸¹ A clear distinction between verbal and non-verbal representations does not exist and is subject to much controversial discussion. Non-verbal communications are usually considered as expressed forms of information transmission that are neither written nor linguistic. See BRUHN, M. (2005): *Unternehmens- und Marketingkommunikation: Handbuch für ein integriertes Kommunikationsmanagement*, München, p. 905.

¹⁸² See KROEBER-RIEL, W. (1996): *Bildkommunikation - Imagerystrategien für die Werbung*, München, pp. 74 et seq.; see also ESCH, F.-R. (2005b): *Strategie und Technik der Markenführung*, München, p. 72, and KROEBER-RIEL, W. (1998): *Strategie und Technik der Werbung - Verhaltenswissenschaftliche Ansätze*, Stuttgart et al., p. 17: According to Esch and Kroeber-Riel, emotional communication content can be better transmitted in a non-verbal manner than through verbal means. In this way, a better activation can be achieved. Refer also to SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 40.

¹⁸³ See GEUS, P. (2005): *Wirkungsgrößen der Markenführung - Entwicklung und empirische Prüfung eines verhaltenswissenschaftlichen Wirkungsmodells der Markenführung*, Berlin, p. 14.

¹⁸⁴ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 27.

Brand controlling comprises the supply of information and the guidance of all parties involved in brand management, as well as a high-level coordination of the controlling function.¹⁸⁵ Its objective is to assure the effectiveness, the efficiency, and the existence of an orientation toward results of the utilized brand management techniques, while it constantly supports both strategic and operative brand management at all levels of the planning process. The implementation of operative measures in various departments of an organization is regularly accompanied by controls, determining the current degree of target achievement. This allows organizations to react quickly, if deviations to the schedule are noted.¹⁸⁶

Strategic brand management begins with the establishment and assessment of the current situation, including the wider contextual settings, followed by the derivation of a selection of strategically relevant target segments.¹⁸⁷ With the help of a situation analysis, past and present data is systematically collected in order to identify trends, forces, and conditions, with the objective of influencing business performance and the selection of appropriate strategies.¹⁸⁸ According to the AMA definition, "the situation analysis is the foundation of the strategic planning process. The situation analysis includes an examination of both the internal factors (to identify strengths and weaknesses) and external factors (to identify opportunities and threats)."¹⁸⁹ The formulation of objectives is considered the starting point for the determination of the basic components of brand identity as well as **brand architecture** and organization.¹⁹⁰ After the creation of brand identity, decisions

¹⁸⁵ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 378; KRIEGBAUM, C. (2001): *Markencontrolling: Bewertung und Steuerung von Marken als immaterielle Vermögenswerte im Rahmen eines unternehmenswertorientierten Controlling*, München, pp. 66 et seqq.

¹⁸⁶ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, p. 378.

¹⁸⁷ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 28.

¹⁸⁸ With reference to AMA (2013b): *AMA definition of Situation Analysis*. URL: http://www.marketingpower.com/_layouts/dictionary.aspx?dLetter=S, retrieved on: 15 February 2013; A synonym for situation analysis is the so-called 'SWOT analysis', analyzing the internal strengths and weaknesses of an organization and the external opportunities and threats. See WELGE, M. K./ AL-LAHAM, A. (2003): *Strategisches Management: Grundlagen - Prozess - Implementierung*, Wiesbaden, pp. 235 et seqq.

¹⁸⁹ Ibid.

¹⁹⁰ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 28.

about the **brand positioning** can take place. “Within the [...] brand positioning process the brand identities are condensed and translated into purchase behavior relevant brand promises and communicated to consumers in order to achieve a dominant position in [the] consumer’s mind and an adequate differentiation compared to competitive offers.”¹⁹¹

With the help of strategic guidelines, the precise design of the brand identity and its legal protection can begin.¹⁹² **Operative brand management** techniques aim at introducing strategic objectives by implementing the desired brand identity through the establishment of operative measures.¹⁹³ Brand management instruments, in the form of brand performance, brand pricing, brand communication, and brand distribution, need to be selected in a way such that they can be adjusted over time (if need be).¹⁹⁴ Internally, a consistency between the brand benefit promises of a brand and the behavior of employees needs to be targeted at all **brand touch-points**.¹⁹⁵ In order to influence behavior, three central target measures of internal brand management should be considered: brand knowledge, brand commitment, and brand citizenship behavior. **Brand knowledge** can be defined as the acknowledgment of specific brand-related information, which is relevant for the brand-compliant behavior of employees.¹⁹⁶ When brand knowledge is in the process of operationalization, it can be further divided into **brand awareness** and **brand image**.¹⁹⁷ **Brand commitment** is defined as the degree of psychological

¹⁹¹ ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 45.

¹⁹² See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 28.

¹⁹³ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 46; BURMANN, C./ MEFFERT, H. (2005a): *Managementkonzept der identitätsorientierten Markenführung*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, edit. 2, Wiesbaden, pp. 86 et seqq.

¹⁹⁴ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 28.

¹⁹⁵ See PIEHLER, R. (2011): *Interne Markenführung: Theoretisches Konzept und fallstudienbasierte Evidenz*, Wiesbaden, p. 8.

¹⁹⁶ *Ibid.*, p. 130.

¹⁹⁷ For a more detailed analysis and a discussion of the distinction between brand awareness and brand image within the category of brand knowledge, see SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 35 et seqq.: Quantitative methods

relatedness to the brand¹⁹⁸ and can be exerted through three levers: brand-focused Human Resource (HR) management, internal brand communication, and brand-focused leadership.¹⁹⁹ Finally, **brand citizenship behavior** can be defined as “the intention of each employee to voluntarily exhibit certain generic (brand- and sector-independent) behavioral characteristics outside of the formally defined role expectation system, which strengthens the identity of the brand.”²⁰⁰

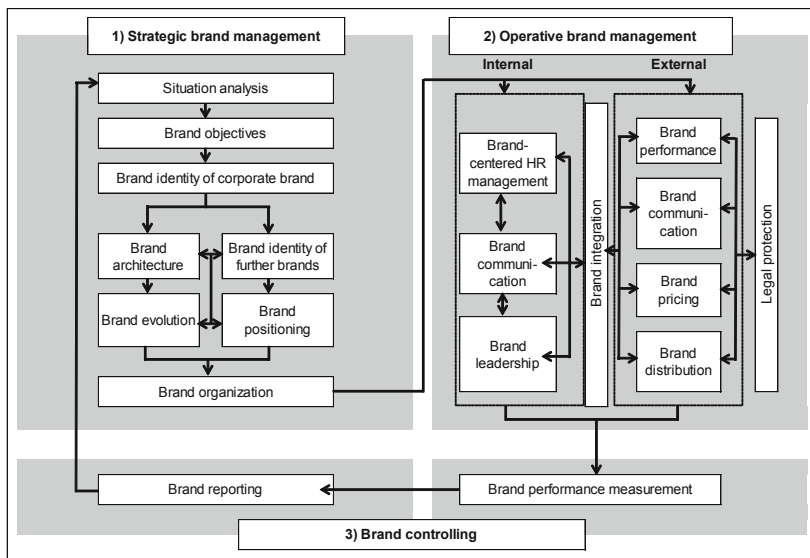


Figure 8: Overview of identity-based brand management process

Source: Arnhold (2010), p. 44²⁰¹

used for the determination of brand awareness include recall and recognition tests, in contrast to image profiling and other innovative approaches utilized for brand image.

¹⁹⁸ See ZEPLIN, S. (2006): *Innengerichtetes identitätsbasiertes Markenmanagement: Entwicklung eines integrierten Erklärungsmodells*, Wiesbaden, p. 85.

¹⁹⁹ See BURMANN, C./ ZEPLIN, S. (2005): Building brand commitment: A behavioural approach to internal brand management, in: *Journal of Brand Management*, Vol. 12, No. 4, p. 286.

²⁰⁰ ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 46 with reference to BURMANN, C., et al. (2008): *Key determinants of internal brand management success: An exploratory empirical analysis*. URL: <http://www.palgrave-journals.com/bm/journal/v16/n4/abs/bm20086a.html>, retrieved on: 10 January 2013.

²⁰¹ With reference to BURMANN, C., et al. (2007): *Identitätsbasierte Markenführung*, in: FLORAK, A., et al. (eds.): *Psychologie der Markenführung*, München, p. 12.

Arnhold (2010) provides an overview of the identity-based brand management process, integrating strategic and operative brand management as well as brand controlling into one consolidated framework. See Figure 8. Brand controlling consists of two main components: **brand reporting** and **brand performance measurement**. While the former encapsulates the structuring and condensing of data as well as the presentation of results to executives/ management to support strategic decisions, the latter is concerned with evaluating the results of brand management. Brand controlling can be considered as the finalization of the identity-based management process and the initiator of the situation analysis as part of a new process cycle.²⁰² In this study, the behavior-oriented survey will be built on work already carried out at the VfL Bochum 1848 soccer club (e.g. situation analysis and determination of brand identity). Meanwhile, the objective is to determine how exactly different visitor groups can be influenced at various brand touch-points through the application of multisensory communication techniques. The results of the analysis will be communicated to club executives, which could serve as support for future strategic and operative brand management decisions.

1.3 GAP-model as evaluation technique for brand positioning

Corporations direct their marketing strategies with a view to creating positive positioning²⁰³ in the mind of internal and external stakeholders over and above other competitors.²⁰⁴ Brand positioning can vary in three different ways:²⁰⁵

- Retention of current positioning
- New positioning
- Repositioning²⁰⁶

²⁰² See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 47.

²⁰³ Regarding brand positioning, see additional information in Chapter B.1.2.

²⁰⁴ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 31.

²⁰⁵ Ibid.

²⁰⁶ See MEFFERT, H., et al. (2012): *Marketing - Grundlagen marktorientierter Unternehmensführung*, Wiesbaden, pp. 367 et seqq. for an overview of different positioning analysis techniques (multi-dimensional scaling, conjoint, and discriminant analysis).

GAP-models are utilized in market research in order to support brand positioning decisions and to enable the appropriate selection of communication tools.²⁰⁷ Figure 9 illustrates the GAP-model based on the identity-based brand management approach. It shows the self-reflection of a brand by internal target groups on the left side and demonstrates how the brand is perceived by external stakeholders on the right side. This integrated model combines internal resources and competencies with a customer- and market-oriented sales perspective.²⁰⁸ It is expanded by the desired self-perception of realization (which is the desired realization of the brand identity during an event) and the desired outside perception of realization (which is the desired realization during an event, as perceived by external stakeholders).

Based on Figure 9, ten consistency gaps of this controlling measure can be detected:

- Three **internal performance gaps** within the brand identity on the left side: The first gap can be found between the current and desired self-perception of the brand (GAP7), the second between the desired self-perception of the brand and the current self-perception of realization representing the actual internal realization of the brand content provided during an event (GAP 2), and finally the gap between the current self-perception of realization and the desired self-perception of realization during a planned event (GAP 8).
- Three **identification gaps** within the brand image on the right side: The first gap is between the current and the desired outside perception of the brand (GAP 5). The second lies between the desired outside perception of the brand and the current outside perception of realization representing the external perception of the actual appearance of the brand at relevant target groups during an event (GAP 4). The final gap exists between the current

²⁰⁷ For the origins of the development of GAP-models, see PARASURAMAN, A., et al. (1985): A conceptual model of service quality and its implications for future research, in: *Journal of Marketing*, Vol. 49, No. 4, pp. 44 et seqq.

²⁰⁸ See ARNHOLD, U. (2010): *User generated branding: integrating user generated content into brand management*, Wiesbaden, p. 35; MEFFERT, H./ BURMANN, C. (2005): *Wandel in der Markenführung - vom instrumentellen zum identitätsorientierten Markenverständnis*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung; mit Best Practice-Fallstudien*, edit. 2 (revised and expanded version), Wiesbaden, p. 31; FREILING, J. (2004): Competence-based View der Unternehmung, in: *Die Unternehmung*, Vol. 58, No. 1, pp. 5 et seqq.

outside perception of realization and the desired outside perception of realization during an event (GAP 10).

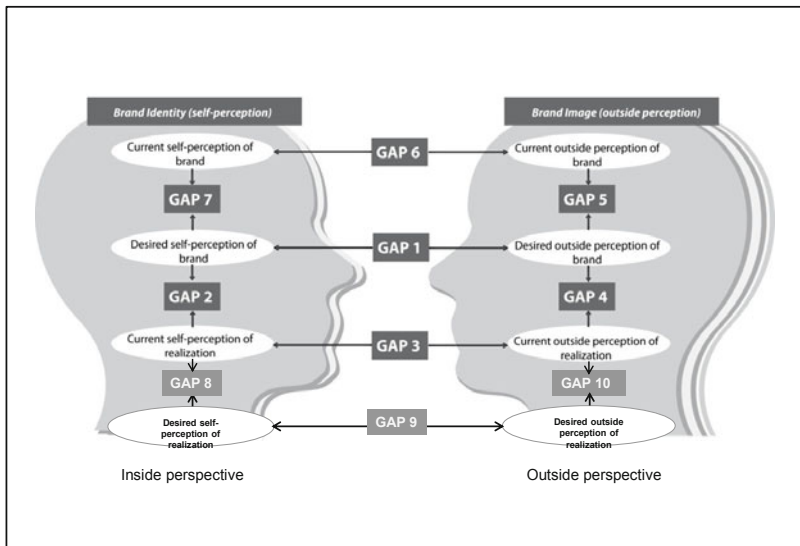


Figure 9: GAP-model for the illustration of gaps in consistency

Source: with reference to Springer (2008), p. 34²⁰⁹

- Two **communication gaps** between brand identity and brand image: One gap is located between the current self-perception of realization (of an organization during an event) and the current external perception of realization at the relevant target groups (GAP 3), while the second gap exists between an organization's desired self-perception of realization during an

²⁰⁹ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 34 with reference to BURMANN, C./ MEFFERT, H. (2005a): *Managementkonzept der identitätsorientierten Markenführung*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, edit. 2, Wiesbaden, p. 108 and BIERWIRTH, A. (2003): *Die Führung der Unternehmensmarke - Ein Beitrag zum zielgruppenorientierten Corporate Branding*, Frankfurt a. M., p. 170. Translated from German into English; drawn with Adobe Illustrator by E. Ercihan.

event and the desired outside perception of this same realization at relevant target groups (GAP 9).

- Two **perception gaps** indicate the difference between the current self-perception of the brand by internal stakeholders and the image currently perceived by external target groups (GAP 6) as well as the difference between the desired brand identity (of management) and the ideal image from external stakeholders (GAP 1).²¹⁰

After introducing the basic concepts and terms featured in brand management, it is critical to understand the characteristics specific to sports, in order to be able to successfully apply this general contextual information to the specific case of live soccer events. In the next chapter, the attributes which are particular to sports will be discussed in more detail. This will be followed by a classification of the target demographics of this study - stadium visitors - and by an illustration of the application of brand management in sports.

²¹⁰ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 34.

2 Sports as an autonomous academic discipline

As indicated before, for a long time sports was not considered as an independent academic discipline, despite its distinctive traits. In this chapter, we provide a summary of four characteristics which are specific to sports, followed by a sub-chapter dealing with the categorization of fans and visitors. At the end of the chapter, the identity-based brand management approach is applied to sports. We also employ a GAP-analysis and offer clarifications of the relationship between the brand identity/ image and brand equity of sports organizations.

2.1 Characteristics specific to sports

Although sports is a form of entertainment which attracts a variety of different demographic groups, *Nufer/ Bühler* (2008) note four particular characteristics which distinguish it from other types of business.²¹¹

First of all, **competition** in professional sports²¹² is coordinated **under certain agreed rules** among a limited number of participants, and available resources are allocated among these bodies in a specific league.²¹³ In the first two professional leagues in Germany, the 1st and the 2nd Bundesliga, 18 teams compete against each other in each league. They are governed by distinct rules about the promotion and relegation of teams at the end of each season. Meanwhile - as shown in Chapter A.1 - monetary funds are assigned to the 36 clubs based on their performance during the current season and on other forms of criteria. *Szymanski/ Kuypers* (1999) state that a market functioning in this way would most likely be judged as illegal in other industries due to the generally strict anti-trust laws.²¹⁴

²¹¹ See NUFER, G./ BUEHLER, A. (2008a): *Sportmanagement und Sportmarketing: Einführung und Perspektive*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 12 et seq.

²¹² In this context, 'professional' is considered an equivalent to 'full-time'. See SCHAFMEISTER, G. (2007): *Sport im Fernsehen: eine Analyse der Kundenpräferenzen für mediale Dienstleistungen*, Wiesbaden, p. 1.

²¹³ For a summary of these institutional arrangements, see DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 126 et seqq.

²¹⁴ See SZYMANSKI, S./ KUYPERS, T. (1999): *Winners and losers - the business strategy of football*, London, pp. 408 et seqq.; EHRKE, M./ WITTE, L. (2002): *Flasche Leer! Die New Economy des Europäischen Profifußballs*, Bonn, p. 4.

While the clubs compete amongst each other for strong brand equity, the brand of the league itself is also of utmost importance – the stronger the brand image of a sporting league (e.g. the 1st Bundesliga), the more competitive its teams in comparison to other European soccer leagues or to other types of sport (e.g. Handball, Ice Hockey).²¹⁵

Secondly, sports teams compete at a number of levels - not only in league and cup competitions, but also for new players and other important resources. Nevertheless, clubs need to cooperate with each other in order to be able to organize attractive events and in order to offer interesting products to their customers,²¹⁶ with the final objective being to differentiate themselves from other types of sport or other professional leagues.²¹⁷ This unique situation is referred to as **coopereance**.²¹⁸ While consolidation amongst corporations is frequently observed in other industries, sports teams that compete in league competitions have a common interest in the continued existence of strong competition.²¹⁹ In this con-

²¹⁵ See BIELING, M., et al. (2004): *Business-to-Business-Marketing im Profifußball - eine Einführung*, in: BIELING, M., et al. (eds.): *Business-to-Business-Marketing im Profifußball*, edit. 1, Wiesbaden, pp. 10 et seq.

²¹⁶ League games are generally characterized by co-branding, where - in the eyes of the consumer - at least two brands cooperate with each other in order to create a common bundle of services and to exist independently before and after the game; see BURMANN, C., et al. (2005a): *Markenevolutionsstrategien*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, edit. 2, Wiesbaden, p. 206.

²¹⁷ See BIELING, M., et al. (2004): *Business-to-Business-Marketing im Profifußball - eine Einführung*, in: BIELING, M., et al. (eds.): *Business-to-Business-Marketing im Profifußball*, edit. 1, Wiesbaden, p. 11; BROOK, S. L. (2006): Evaluating Inelastic Ticket Pricing Models, in: *International Journal of Sport Finance*, Vol. 1, No. 3, pp. 140 et seqq. See also SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 2: Soccer clubs do not only compete against other sports corporations, but also against leisure time offers, e.g. cinemas or zoos.

²¹⁸ This is sometimes also called 'associative competition': See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 126; see also ZIESCHANG, K., et al. (2004): *Kooperanz im Sportmanagement*, Schorndorf; NEALE, W. C. (1964): The Peculiar Economics of Professional Sports, in: *Quarterly Journal of Economics*, Vol. 78, No. 1, pp. 1 et seqq.: "...consider the position of the heavy-weight champion of the world. He wants to earn more money, to maximize his profits. What does he need in order to do so? Obviously, a contender, and the stronger the contender the larger the profits from fighting him. [...] Pure monopoly is disaster: Joe Louis would have had no one to fight and therefore no income."

²¹⁹ See also LEHMANN, E./ WEIGAND, J. (2002): Mitsprache und Kontrolle im professionellen Fußball: Überlegungen zu einer Corporate Governance, in: *Zeitschrift für Betriebswirtschaft, Ergänzungsheft Sportökonomie*, pp. 43 et seqq.; DIETL, H./ PAULI, M. (2002): Die Finanzierung von Fußballstadien - Überlegungen am Beispiel des deutschen Profifußballs, in: *Zeitschrift für Betriebswirtschaft, Ergänzungsheft 4*, pp. 239 et seqq.

text, **co-branding** is referred to as a service involving two differing brands from two different suppliers.²²⁰

Thirdly, for many years sports associations focused on sporting success in professional leagues and in other competitions (e.g. the Champions League) while neglecting their economical success. Due to the fact that sporting success is highly **uncertain**,²²¹ several soccer clubs have recently gotten into financial trouble.²²² In general, the securing of constant quality appears to be a challenge, as the standardization of core performance is hardly possible.²²³ Nevertheless, along with an increasing professionalism in sports, there is a general agreement that both economical prosperity and sporting success need to be aligned and targeted simultaneously, while the former should remain as independent as possible in order to be less prone to the uncertainties faced within the sporting world.²²⁴ The systematic management of brands can support economical success, as sports organizations are thereby able to differentiate themselves from their competitors, thus boosting

²²⁰ See WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, pp. 391 et seq.; BAUMGARTH, C. (2003): *Wirkungen des Co-Brandings*, Wiesbaden, pp. 401 et seq.: The importance of this dual branding can be evidenced in the fact of how much money visitors are willing to spend for games with local rivalry (e.g. Borussia Dortmund vs. FC Schalke 04).

²²¹ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 126: Uncertainty represents one of the key determinants of the attractiveness of sports.

²²² In Germany's soccer leagues, this trend could be particularly seen in the 2nd Bundesliga and in the 3rd Liga, where some clubs could not bear higher-salaried teams or new stadiums after relegations or after periods of little success. Recent examples (season 2012/ 2013) are MSV Duisburg (2nd Bundesliga) and Alemannia Aachen (3rd Liga). Regarding financial difficulties when sporting success is missing, see also PICARILLE, L. (2003): CRM Scores With Sports Fans - It's About The Fan Experience, in: *CRM Magazine*, Vol. 7, No. 8, pp. 42 et seqq.

²²³ See WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 502.

²²⁴ See WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, p. 393; NUFER, G./ BUEHLER, A. (2008a): *Sportmanagement und Sportmarketing: Einführung und Perspektive*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 13.

their competitive positioning.²²⁵ A successfully led brand implies higher loyalty and stronger commitment from the stakeholders as well as the potential opening up of new markets.²²⁶

Lastly, clubs are confronted with **high public interest**. This goes beyond an interest purely in the results in competitions, but also concerns additional areas, e.g. the recruiting of new players or managerial decisions (new coaches/ managers). In contrast to other industries and branches of economical life where decisions can generally be taken after some deliberation - without instantly drawing the public's awareness and only incurring comment in retrospect - there is a strong media focus on sports associations. Soccer clubs are required to instantly defend decisions internally and to supporters, the media, and other external stakeholders.

Acknowledging the numerous characteristics which are specific to sports in turn underscores its autonomy as an academic discipline. As such, the analysis presented in our study makes a similar assumption.

2.2 Visitors

Attending sporting competitions has a long tradition.²²⁷ In England in the first half of the 20th century, soccer already attracted significant crowds. The FA Cup final in

²²⁵ See FIEDLER, L. (2007): *Stakeholderspezifische Wirkung von Corporate Brands - Ein Modell zur integrierten Evaluation und Steuerung von Unternehmensmarken*, Wiesbaden, p. 2; BURMANN, C., et al. (2005b): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement: identitätsorientierte Markenführung und praktische Umsetzung mit Best Practice-Fallstudien*, Vol. 2, Wiesbaden, p. 12.

²²⁶ See ESCH, F.-R. (2005a): *Markenbedeutung und Markenverständnis*, in: ESCH, F.-R. (ed.): *Moderne Markenführung - Grundlagen, Innovative Ansätze, Praktische Umsetzungen*, edit. 4, Wiesbaden, pp. 24 et seqq.

²²⁷ See LAEMMER, M. (1986): *Zum Verhalten von Zuschauern bei Wettkämpfen in der griechischen Antike* in: SPITZER, G., et al. (eds.): *Sport zwischen Eigenständigkeit und Fremdbestimmung. Festschrift für Hajo Bernett*, Bonn, p. 75: Even as far back as the 4th century, the stadium at Olympia held 50,000 spectators.

1913 was attended by 120,000 spectators.²²⁸ In general, soccer's history as a spectator sport can be classified into three different phases:²²⁹

- Soccer as an entertainment marked by a broad class demographic: Initially characterized by strong popularity amongst the British working class, soccer soon became a mass phenomenon in Germany, evoking either devotion amongst the population or drawing strong criticism from certain quarters. In the early years of the Bundesliga, attendance at soccer matches was notably dominated by male fans.
- Soccer as spectator and TV sport: This 2nd phase started in the 1960s and peaked 20 years later. Instead of watching games live in the stadium, fans also began to stay at home and follow soccer games on TV. The so-called 'hard-core fans' continued to go to the stadium, which led to a general separation of fan groups. During this phase, several tragedies occurred.²³⁰
- Soccer as a modern leisure culture: This 3rd phase started in the late 1980s and is once more, like the 1920s and the post-war period, a mass phenomenon, attracting visitors from different social classes to watch games played in professional leagues.

There are four main motivations which bring spectators to watch a game in the stadium:²³¹

- Investment in results: The visitor supports his or her favorite team. The result of the game is of high importance.
- Social occasion: Sporting events are viewed as opportunities to maintain old or to gain new interpersonal relationships.

²²⁸ See SCHULZE-MARMELING, D. (2000): *Fußball: Zur Geschichte eines globalen Sports*, Göttingen, pp. 122 et seqq.

²²⁹ See BREMER, C. (2003): *Fußball ist unser Leben!?: Ein Zuschauersport und seine Fans*, Marburg, pp. 50 et seqq.

²³⁰ As a result of an accident occurring at the Heysel stadium in Brussels, 39 visitors died during the European Cup final in 1985. Four years later, 96 fans lost their lives at Hillsborough stadium during the FA Cup semi-final. Besides these tragedies, hooliganism at soccer games became a major problem in Europe in the 1980s.

²³¹ See MESSING, M./ LAMES, D. (1996): *Zur Sozialfigur des Sportzuschauers*, Niedernhausen, p. 17.

- Footballing purism: Neither the result of the game nor social contacts are of importance. Instead, spectators have a strong expectation to see ‘the perfect example’ of the sport.
- Desire for an experience: The main focus is on the making and breaking of records, unforgettable events, a good atmosphere, suspense, and on pleasure and relaxation more generally.

Pilz/ Schippert/ Silberstein (1990)	<ul style="list-style-type: none"> • visitor: pure observer of the event • supporter: relatively strong bond to the club • soccer-centered fan • event-oriented fan
Heitmeyer/ Peter (1992)	<ul style="list-style-type: none"> • soccer-centered fan: distinct group orientation, belonging to fan-scene • event-oriented fan: Soccer as spectacle/ ‘temporary fashion fan’ – ‘Hooligan’ • consumption-oriented fan: sporting success as main focus/ seated preferred/ following on TV
Bizman/ Yinon (2002)	<ul style="list-style-type: none"> • high(-team-identification) fan: ‘diehard’ fan • low(-team-identification) fan: ‘fair-weather’ fan
Welling (2005) – VfL Bochum 1848	<ul style="list-style-type: none"> • traditional fan: stance visitor • convenience fan: seating visitor • VIP-Fan: visitor from business seats

Table 9: Categorization of soccer visitors

Source: author’s own illustration²³²

²³² See PILZ, G. A., et al. (1990): *Das Fußballfanprojekt Hannover: Ergebnisse und Perspektiven aus praktischer Arbeit und wissenschaftlicher Begleitung*, Münster, p. 41; HEITMEYER, W./ PETER, J.-I. (1992): *Jugendliche Fußballfans: Soziale und politische Orientierungen, Gesellschaftsformen, Gewalt*, Weinheim et al., pp. 30 et seqq.; BIZMAN, A./ YINON, Y. (2002): Engaging in Distancing Tactics Among Sport Fans: Effects on Self-Esteem and Emotional Responses, in: *The Journal of Social Psychology*, Vol. 142, No. 3, pp. 381 et seqq.; WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 515.

Taking the aforementioned categorizations into consideration, there have been several attempts to classify distinct groups of soccer game attendees. Table 9 illustrates four examples from *Pilz et al. (1990)*, *Heitmeyer/ Peter (1992)*, *Bizman/ Yinon (2002)* and *Welling (2005)*. What all attempts have in common is their mention of soccer-centered (or high-team-identification, traditional) and event-oriented (or low-team-identification, convenience) **fans**. Besides these two groups, *Pilz et al. (1990)* note two other sub-groups that show a lower degree of involvement: (passive) **visitors** to the game and 'normal' supporters of a team. In the broadest sense, visitors and supporters can be classified as 'consumption-oriented fans',²³³ who consider a soccer game as one of several attractive leisure pursuits and who prefer to go to events along with family and/ or friends.

Hunt et al. (1999) provide another classification of fans into temporary, local, devoted, fanatical, and dysfunctional sub-groups, based on the specific motivations of the individual.²³⁴

- Temporary fan: linked to a limitation in terms of time duration – only fan for a certain time period (could be a few hours or, equally, some years)
- Local fan: geographically limited – e.g. based on where the fan currently lives
- Devoted fan: in many cases once was a temporary or local fan, but since then has developed strong bonds to the team/ club, independent from time or location
- Fanatical fan: relatively strong emotions toward the club – however, there are other important things in life (job, family, friends)
- Dysfunctional fan: this type of person is only concerned about the club and is hardly able to live a 'normal' life

The aim of this study is to observe frequent and infrequent visitors²³⁵ from the surroundings of Bochum.²³⁶ The first target group - frequent visitors - tends to belong

²³³ See BREMER, C. (2003): *Fußball ist unser Leben!?: Ein Zuschauersport und seine Fans*, Marburg, pp. 61 et seq.

²³⁴ See HUNT, K., et al. (1999): A conceptual approach to classifying sport fans, in: *Journal of Services Marketing*, Vol. 6, pp. 439 et seqq.; see also GENSMUELLER, M. (2008): *Customer Relationship Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 431.

to 'traditional' or 'soccer-centered' fans and can be considered 'double prosumers'. This is because not only are they simply physically present in the stadium, but they also cheer for their favorite team, thereby positively contributing to the overall stadium atmosphere.²³⁷

In contrast to frequent visitors, the infrequent visitor group can generally be categorized as 'convenience' or 'event/ consumption-oriented' fans. Usually, they only visit games when their chosen club is successful or when attractive opponents are hosted.²³⁸ From an economical point of view, infrequent visitors possess the highest potential,²³⁹ as they could possibly be converted into frequent fans in the medium- or long-term. This can be obtained through strong sporting brand equity ratings, which positively influence the behavior of visitors independently of the success of the team and of the attractiveness of opponents.²⁴⁰

²³⁵ Although VIP-fans were not surveyed as part of this study, VfL Bochum 1848 provided descriptive results of a quality survey from 2012 – a partial summary of these results is mentioned in Chapter D.3.

²³⁶ Final results indicate that 48.3% of frequent visitors are originally from Bochum, compared to 24.3% of infrequent visitors.

²³⁷ See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 28: The word prosumer is composed of the two terms 'consumer' and 'producer'. See also RECKENFELDERBAEUMER, M. (2004): *Auswirkungen der Integrativität auf die Qualitätspolitik von Fußballclubs*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, p. 359; WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, p. 397; WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 502; KLEINALTENKAMP, M. (1997): Kundenintegration, in: *Wirtschaftswissenschaftliches Studium*, Vol. 26, No. 7, pp. 83 et seqq.

²³⁸ See BEE, C. C./ KAHLE, L. R. (2006): Relationship Marketing in Sports: A Functional Approach, in: *Sport Marketing Quarterly*, Vol. 15, No. 2, p. 108; MAHONY, D. F., et al. (2000): Using the Psychological Commitment to Team (PCT) Scale to Segment Sport Consumers Based on Loyalty, in: *Sport Marketing Quarterly*, Vol. 9, No. 1, pp. 16 et seqq.; CAMPBELL, R. M., et al. (2004): Beyond BIRGING and CORFing: Continuing the Exploration of Fan Behavior, in: *Sport Marketing Quarterly*, Vol. 13, No. 2, pp. 151 et seqq.

²³⁹ See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 29.

²⁴⁰ See *ibid.*, pp. 29 et seq.; KAYNAK, E., et al. (2008): An integrative framework linking brand associations and brand loyalty in professional sports, in: *Journal of Brand Management*, Vol. 15, No. 5, p. 339. According to SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 366 et seq., the brand of a soccer club holds various attractions for different fans: e.g. for soccer-centered fans the brand stands for

Most previous economical studies have either:

- focused on frequent visitors (or soccer-centered fans) or
- not differentiated at all between different fan groups (e.g. high- vs. low-team-identification fans)²⁴¹

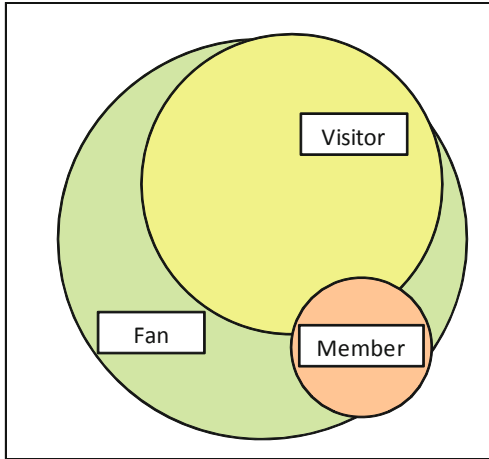


Figure 10: Overlapping of target groups

Source: author's own illustration

Meanwhile, the infrequent visitor target group has mostly been neglected.²⁴²

identification and identity (transfer of brand associations to self-identity constructs/ belonging to a specific fan group), while the prestige of a brand is critical for hospitality customers.

²⁴¹ See WELLING, M. (21 January 2008a), RE: *Unpublished expert interview, e-mail sent to THAM, T.*

²⁴² See also KAYNAK, E., et al. (2008): An integrative framework linking brand associations and brand loyalty in professional sports, in: *Journal of Brand Management*, Vol. 15, No. 5, p. 337; SCHAFMEISTER, G. (2007): *Sport im Fernsehen: eine Analyse der Kundenpräferenzen für mediale Dienstleistungen*, Wiesbaden, p. 47; ROBINSON, M. J., et al. (2005): Fans vs. Spectators: An Analysis of Those Who Attend Intercollegiate Football Games, in: *Sport Marketing Quarterly*, Vol. 14, No. 1, pp. 43 et seqq.; TRAIL, G. T., et al. (2003): Motives and Points of Attachment: Fans Versus Spectators in Intercollegiate Athletics, in: *Sport Marketing Quarterly*, Vol. 12, No. 4, p. 217. See also WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, p. 402: The non-visitor group may or may not be interested in a specific team, but does not watch games in the stadium.

In order to tailor specific target groups, it is crucial for a sports club to understand the composition of its visitors. Figure 10 illustrates three potential target groups of soccer clubs, while the sizes of the circles and the overlapping sections were arbitrarily chosen.

While the majority of **visitors** to soccer games are assumed to be **fans** (or supporters) of a specific team, there are also fans who do not necessarily come to the stadium to watch their favorite team, but who instead follow the results through other communication channels.²⁴³ At the same time, **members** of a sports association are most likely supporters of their team, but do not automatically watch home games live in the stadium. Through a membership, fans receive certain privileges, e.g. preferred purchasing rights for ticketing, discounts on merchandizing items, membership journals, or voting rights at annual general meetings; for the club, the usage of customer retention and relationship instruments is one of the main advantages of the registration of a high number of members,²⁴⁴ which could ultimately lead to the development of a **customer club**.²⁴⁵ Once the exact mix of the population is known, a key objective of sports associations should be to increase the overlapping areas of the circles from Figure 10, i.e. to move target groups which currently belong to only one circle into overlapping sections, e.g.:

- Fans or members of a sports organization²⁴⁶ should be convinced to come to the stadium to watch and support the soccer team, in good and bad times
- Fans or frequent visitors of a club should be convinced to become members of the organization

²⁴³ Compare to statistics in Figures 25 and 26.

²⁴⁴ See GENSMUELLER, M. (2008): *Customer Relationship Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 433.

²⁴⁵ See BRUHN, M. (1999): *Kundenorientierung - Bausteine eines exzellenten Unternehmens*, München, pp. 137 et seqq.; TOMCZAK, T./ DITTRICH, S. (2000): *Kundenbindung durch Kundenclubs*, Wiesbaden, pp. 251 et seqq.: A customer club combines several customer retention techniques (membership card, fan magazines, club events), which enables the club to find out what types of service are expected by stadium visitors.

²⁴⁶ The clubs in the 1st and in the 2nd professional soccer leagues usually have other sporting departments in their organization. As such, e.g. a member of the club playing in the basketball team does not necessarily visit home games of the soccer team.

Ideally, a fan of a soccer team would possess a season ticket and be member of the club.²⁴⁷ According to *Gensmüller* (2008), the member or fan should not only be satisfied by the performance of the team, but also feel some type of pride stemming from being part of his or her club.²⁴⁸

Due to the differences in their involvement during the game, frequent and infrequent visitors are expected to provide different ratings in their assessment of the observed areas. The analysis of their responses toward sensuality preferences (in the 'before'-questionnaire) may allow us to draw distinctions in levels of involvement.

2.3 Brand management in sports

The need for the professionalization of brand management in sports²⁴⁹ has been emphasized by both practitioners²⁵⁰ and academics.²⁵¹ Strong brands enable differentiation and the possibility of becoming more independent from sporting success. As shown before, it is crucial to take into consideration various internal and external stakeholders and to establish a holistic brand management approach by coordinating various expectations.²⁵² In an attempt to combine the general brand

²⁴⁷ Season tickets and memberships provide regular revenue streams for a club, as a specific amount has to be paid in advance of the upcoming season.

²⁴⁸ See GENSMUELLER, M. (2008): *Customer Relationship Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 430.

²⁴⁹ See WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 498.

²⁵⁰ Refer to HOFFMANN, B. (2001): *Die Vermarktung von Rechten im Sport: Dargestellt am Beispiel des Fußballs*, in: HERMANN, A., et al. (eds.): *Management Handbuch Sport-Marketing*, München, pp. 333 et seqq.; ZILS, O. (2002): Die neue Sachlichkeit, in: *Horizont Sport Business*, Vol. 2, No. 9, pp. 12 et seqq.

²⁵¹ See BOONE, L. E., et al. (1995): Applying the Brand Equity Concept to Major League Baseball, in: *Sport Marketing Quarterly*, Vol. 4, No. 3, p. 33; GLADDEN, J. M., et al. (1998): A Conceptual Framework for Assessing Brand Equity in Division I College Athletics, in: *Journal of Sport Management*, Vol. 12, pp. 1 et seqq.

²⁵² See MEFFERT, H., et al. (2002): *Stellenwert und Gegenstand des Markenmanagements*, in: MEFFERT, H., et al. (eds.): *Markenmanagement*, Wiesbaden, pp. 3 et seqq.; WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 500.

management approach with sport-specific particularities, *Schilhaneck* (2008) introduces a brand management model for professional sports clubs which distinguishes between three different aspects: strategic, operative, and result-driven levels.²⁵³

The strategic level is composed of a situation analysis, brand targets, brand positioning, brand philosophy, and brand strategy. The operative level deals with the club's brand essence (which includes all values that the brand primarily stands for)²⁵⁴ and the appropriate application of instruments.²⁵⁵ Finally, the result-driven level refers to the output of the aforementioned brand management processes, namely brand equity (brand awareness, brand associations, and brand loyalty).²⁵⁶

Generally, the stronger the fit between brand identity and brand image within an identity-based brand management approach, the higher brand equity becomes.²⁵⁷ Figure 11 illustrates three different types of situation in a highly simplified manner. While Case 1 represents a situation where there is no fit at all between brand identity and brand image, Case 3 shows the exact opposite.²⁵⁸

Although it is important to look at the overall differences between the current and desired self-perception and the outside perception of the brand, the sub-groups within the internal and external stakeholders should also be considered, as they might possess different expectations. Since perceptions can vary significantly

²⁵³ See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 371 et seqq.; SCHILHANECK, M. (2006): *Markenmanagement im professionellen Teamsport*, in: *Sport und Gesellschaft*, Vol. 3, pp. 283 et seqq.

²⁵⁴ This primarily includes the current sporting success, the club's history/ tradition, the geographic and cultural anchoring of the club, the stadium, and the personalities associated with the club (trainer, players etc.). See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 374.

²⁵⁵ *Ibid.*: This relates to communications (e.g. event marketing, corporate identity, promotions).

²⁵⁶ *Ibid.*, p. 374.

²⁵⁷ See MEFFERT, H./ BURMANN, C. (1996b): *Identitätsorientierte Markenführung - Grundlagen für das Management von Markenportfolios*, working paper no. 100, Münster, pp. 38 et seq.

²⁵⁸ See WELLING, M. (2003): *Bausteine einer integrierten image- und identitätsorientierten Markenführung als Beitrag zur Markentheorie*, Bochum, pp. 33 et seqq.: Due to the individual characteristics of various stakeholders, these types of an extreme case are not possible.

among participants, the consistency gaps within the sub-groups should be analyzed separately.²⁵⁹

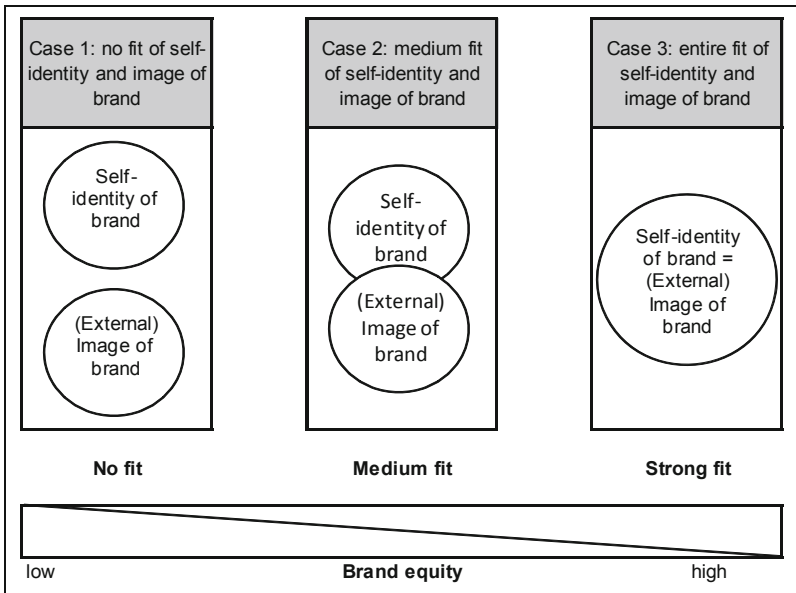


Figure 11: Relationship between identity/ image and brand equity

Source: Welling (2003), p. 35²⁶⁰

Figure 12 illustrates a GAP-model for the brand management of teams in league sports, including the current self-perceptions and outside perceptions of the brand, and the ideal (or desired) self-perceptions and outside perceptions. As can be seen, different stakeholder groups are mentioned within the four cycles, namely 'management', employees from 'area sports' and from 'area non-sports' relating to internal stakeholders, as well as 'fan groups', 'sponsors', and the 'media' referring to external stakeholders. Depending on the situation and the environment of the

²⁵⁹ See MEFFERT, H./ BURMANN, C. (2002): *Managementkonzept der identitätsorientierten Markenführung* in: MEFFERT, H., et al. (eds.): *Markenmanagement*, Wiesbaden, p. 90; PARASURAMAN, A., et al. (1985): A conceptual model of service quality and its implications for future research, in: *Journal of Marketing*, Vol. 49, No. 4, pp. 41 et seqq.

²⁶⁰ Ibid.; translated from German into English.

organization, the model could integrate either more or fewer stakeholders. This framework served as the basis for the initial surveys carried out at VfL Bochum 1848, when the mission statement of the club was created.²⁶¹

In general, the following can be noted: The higher the **external** identification gaps between ideal (or desired) and current perceptions (GAP 3e), the lower the brand loyalty; the higher the **internal** identification gaps between ideal (desired) and current perception (GAP 3i), the lower the brand commitment of internal stakeholders. With reference to the 10 consistency gaps identified in Figure 9 (relating to GAP 1, 5, 6, and 7), the aforementioned approach appears to be an appropriate complementary approach to brand controlling in the area of sports by integrating sub-groups of internal and external stakeholders.

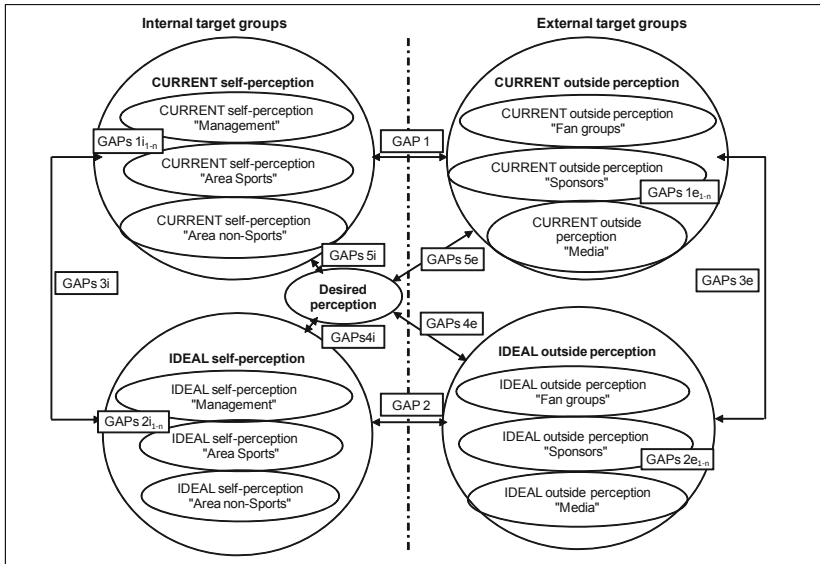


Figure 12: GAP-model for brand management in league sports

Source: Welling (2005), p. 513²⁶²

²⁶¹ See Chapter B.4.2.5.

While Figure 12 represents the basis of previous work performed at VfL Bochum 1848, the GAP-model introduced in Figure 9 will be utilized in this study to allow comparisons with results stemming from the multisensory approach in the automotive industry.²⁶³ Multisensuality is now addressed in the following chapter.

²⁶² WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden: Translated from German into English.

²⁶³ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden.

3 Multisensuality

As several dissertations at the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, have already focused on multisensuality,²⁶⁴ only a brief overview of the findings relating to multisensory stimuli is given, followed by background information regarding the stadium environment and the general process a stadium visitor passes through on the day of a soccer game.

3.1 Classification of senses

While this study focuses on visual, auditory, and haptic stimuli (following the approach applied to the automotive industry by Springer),²⁶⁵ all five senses are taken into consideration in this sub-chapter in order to provide a brief overview of the totality.

Table 10 provides an overview of the five senses and their related sensory organs, stimuli, and receptors. As can be seen under the column 'sensory impression', the visual, auditory, and haptic senses, which are of utmost importance to this study, possess a variety of different types of sensory impression. These stress the complexity and variety of the research topic. While the eye can perceive colors, forms, spatial distances, and motions, the ear is able to absorb loud and quiet sounds, pace and rhythm, tone modes, audio frequencies, and monophonic and polyphon-

²⁶⁴ Detailed summaries and analyses regarding the characteristics of visual, auditory, haptic, and olfactory senses have been provided at the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, including thorough descriptions of sensual organs, sensory impressions (as precursors to perception), and the corresponding design parameters. See specifically SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 42 et seqq.; MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden, pp. 82 et seqq. While Springer has focused on the visual, auditory, and haptic senses, Müller mainly addresses the visual, auditory, and olfactory stimuli.

²⁶⁵ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 24 with reference to KILIAN, K. (2007): *Multisensuales Markendesign als Basis ganzheitlicher Markenkommunikation* in: FLORACK, A., et al. (eds.): *Psychologie der Markenführung*, München, p. 326.

ic instrumentation impressions. Lastly, the haptic sense is able to perceive differences in sizes, weights, forms, surfaces, and materials (temperature).

Sense	Sensory organ	Stimulus	Receptor	Sensory impression	Examples for qualities / quantities
visual	eye	light waves	rodes and cones or retina	color	light vs. dark
				form	angular vs. round
				space	up vs. down
				motion	quick vs. slow
auditory	ear	sound (acoustic) waves	hair cells	sound volume	loud vs. quiet
				pace	quick vs. slow
				rhythm	quick vs. slow
				tone mode and audio frequency	high vs. low
haptic	skin	outside contact	nerve-endings on skin	size	big vs. small
				weight	heavy vs. light
				form	angular vs. round
				surface	rough vs. smooth
				material	warm vs. cold
olfactory	nose	odor-carrying substances	hair cells of olfactory epithelium	smells	musky, flowery, burning, peppermint-like
gustatory	tongue	soluble substances	taste buds of tongue	tastes	sweet vs. sour

Table 10: Overview of senses

Source: Springer (2008), p. 43²⁶⁶

According to a study carried out by *Lindström* (2005),²⁶⁷ the **importance** of the five senses for the absorption of stimuli for human beings can be ranked in the following order:

1. Visual sense
2. Olfactory sense

²⁶⁶ With reference to ZIMBARDO, P. G./ GERRIG, R. J. (2004): *Psychologie*, München et al., p. 120. Translated from German into English.

²⁶⁷ See LINDSTROEM, M. (2005): *Brand sense - Build powerful brands through touch, taste, smell, sight, and sound*, New York, pp. 35 et seqq.: The survey was undertaken in cooperation with the marketing agency Millward Brown.

3. Auditory sense
4. Gustatory sense
5. Haptic sense²⁶⁸

Others classify senses based on the reach,²⁶⁹ the medial usage,²⁷⁰ the voluntariness of usage, and the categorizations 'active vs. passive' and 'conscious vs. unconscious perception'.²⁷¹

Figure 13 places the five senses along a coordinate system with the following three dimensions: reach ('close reach only' vs. 'close and wide reach'), perception ('active only & voluntary' vs. 'active/ passive & involuntary'), and communication form ('below-the-line only' vs. 'above- and below-the-line').²⁷²

According to this classification, visual and auditory senses can be perceived in an involuntary, active, and passive way, while both can be addressed through above-the-line and below-the-line communication forms. The haptic sense is character-

²⁶⁸ See also MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden, p. 83. Kilian provides a similar rank order, with the exception of the gustatory and haptic senses, which switch their ranks. For this, see KILIAN, K. (2007): *Multisensuales Markendesign als Basis ganzheitlicher Markenkommunikation* in: FLORACK, A., et al. (eds.): *Psychologie der Markenführung*, München, p. 325.

²⁶⁹ See KOESTER, E. P. (2005): *The specific characteristics of the sense of smell*, in: ROUBY, C. (ed.): *Olfaction, taste, and cognition*, Cambridge, p. 29; SCHOENHERR, T. (2009): *Erst Design macht Marken (be-)greifbar*, in: KEUPER, F., et al. (eds.): *Das Diktat der Markenführung - 11 Thesen zur nachhaltigen Markenführung und -implementierung*, edit. 1, Wiesbaden, p. 153: Through the visual and auditory senses, relatively high distances can be overcome, while the remaining three senses are more appropriate to observe close objects. See also MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden, p. 83.

²⁷⁰ See KILIAN, K. (2007): *Multisensuales Markendesign als Basis ganzheitlicher Markenkommunikation* in: FLORACK, A., et al. (eds.): *Psychologie der Markenführung*, München, p. 352: While the haptic, olfactory, and gustatory senses are only appropriate for 'below-the-line' communication, senses covering both close and wide ranges can be used for both 'below-the-line' and 'above-the-line' measures. Compare also with Table 6.

²⁷¹ See MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden, pp. 83 et seq. with reference to KASTNER, S. (2008): *Klang macht Marken - Sonic Branding als Designprozess*, Wiesbaden, p. 74 and TROMMSDORFF, V. (2009): *Konsumentenverhalten*, Stuttgart, p. 277: Auditory and olfactory senses cannot be avoided in certain situations, which results in passive perception. However, passive and unconscious perception cannot be used equivalently, as passive perception can occur consciously and unconsciously.

²⁷² See Chapter A.2.

ized through a close reach and a stronger need for non-classical/ below-the-line activities.

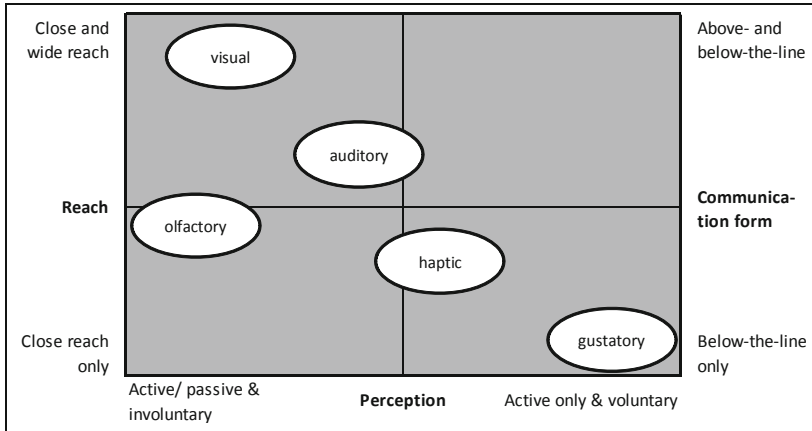


Figure 13: Multidimensional classification of senses

Source: Kilian (2007), p. 352²⁷³

All five senses are captured in this study, with various frequencies and in different combinations. The following sub-chapter starts with a description of which exact areas and phases a soccer fan passes on the day of a soccer game, followed by a categorization of services typically offered by an event organizer. Finally, the various monosensory, duosensory, and multisensory stimuli encountered on a stadium visit are outlined. These were utilized as the foundation for the two questionnaires²⁷⁴ carried out before and after the game.

²⁷³ Refer to MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden, p. 85. Translated from German into English.

²⁷⁴ See Appendices A2 and A3.

3.2 Environmental stimuli of a soccer event

One of the main targets of this study was to capture the various elements which a visitor is confronted with on the day of a game through variables and the corresponding questions in the two surveys. To establish appropriate constructs relating to the two stadium areas ('area outside of the stadium' and 'area inside of the stadium'), it is crucial to have a clear understanding of the process a visitor passes through on the day of a game, starting with the purchase of entrance tickets and ending with the journey back home.

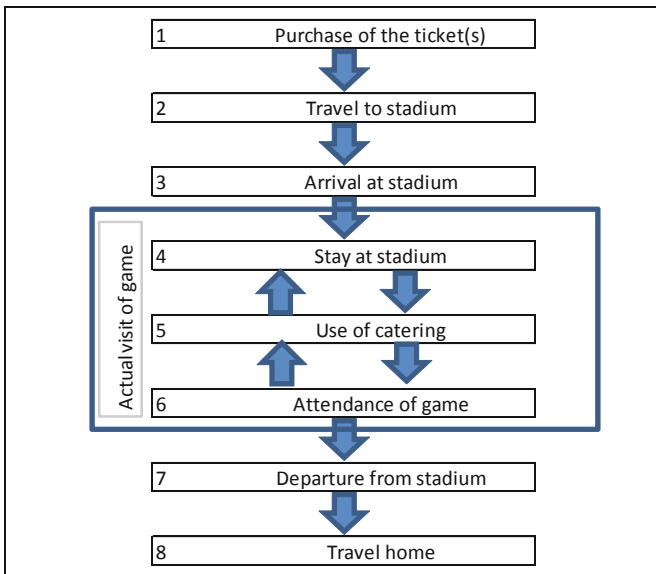


Figure 14: Path taken by a typical visitor to a sporting event

Source: Höck et al. (2010), p. 1,565²⁷⁵

Figure 14 illustrates the path a visitor is generally confronted with when visiting a soccer game. "This kind of systematic approach includes all relevant processes

²⁷⁵ See HOECK, C., et al. (2007): Fußball-Arenen : PLS-Pfadanalyse zur Messung der Besucherzufriedenheit, in: *WISU*, Vol. 36, No. 12, p. 1,565: Translated from German into English.

and interactions with service interfaces that occur during the experience including travel to and return from the stadium,²⁷⁶ while the touch-points during the actual visit can be passed several times and in a different order to that indicated in the figure. To give an example, the touch-point 'use of catering' can be passed before, during, and after the game.²⁷⁷

As noted by Höck et al. (2010),²⁷⁸ a crucial factor determining attendance of an event is customer satisfaction. This mediates the relationship between service quality and satisfaction assessment, in turn affecting the desired behaviors (e.g. customer loyalty²⁷⁹ or customer retention).²⁸⁰ In one of only a few attempts at evaluating the ability of sporting facilities to impact attendance, Wakefield et al. (1996) proved that the physical lay-out of a stadium can indeed influence how eager visitors will be to visit it.²⁸¹ The studies from Hill/ Green (2000)²⁸² and from Wakefield/Sloan (1995)²⁸³ confirm the fact that the (current outside) perception of the sporting landscape (i.e. the event or realization)²⁸⁴ has a significant impact on the desire of fans to attend events.

²⁷⁶ HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 193.

²⁷⁷ See *ibid.*, p. 194: In an updated path, the 'purchase of tickets' is omitted, due to its non-significant relationship toward overall satisfaction after the visit of an event.

²⁷⁸ See *ibid.*

²⁷⁹ See FORNELL, C. G., et al. (1996): The American customer satisfaction index: nature, purpose, and findings, in: *Journal of Marketing* Vol. 60, No. 4, p. 7 et seqq.

²⁸⁰ See GARBARINO, E./ JOHNSON, M. S. (1999): The different roles of satisfaction, trust, and commitment in customer relationships, in: *Journal of Marketing*, Vol. 63, No. 2, pp. 70 et seqq.; HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 190.

²⁸¹ See WAKEFIELD, K. L., et al. (1996): Measurement and management of the sportscape, in: *Journal of Sport Management*, Vol. 10, No. 1, pp. 15 et seqq.; HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 190.

²⁸² See HILL, B./ GREEN, B. C. (2000): Repeat attendance as a function of involvement, loyalty, and the sportscape across three football contexts, in: *Sport Management Review*, Vol. 3, No. 2, pp. 145 et seqq.

²⁸³ See WAKEFIELD, K. L./ SLOAN, H. J. (1995): The effects of team loyalty and selected factors on spectators attendance, in: *Journal of Sport Management*, Vol. 9, No. 2, pp. 153 et seqq.

²⁸⁴ Compare to Figure 9.

Schade (2012)²⁸⁵ separates bundles of services into three different layers (see Figure 15): optional secondary services (e.g. catering or half-time show), obligatory secondary services (e.g. price performance or communication), and the core offering (the game itself). While the event represents the core service on offer, neither the sporting success²⁸⁶ nor the level of the performance²⁸⁷ can be controlled; as a consequence, the core service item is prone to disappointments.²⁸⁸ Hence, it is crucial to be able to standardize²⁸⁹ and expand the core product of 'sports', e.g. by designing an attractive accompanying program of entertainment, sales booths, or play areas for children.²⁹⁰

All obligatory and optional secondary services, whose quality can be actively influenced, should be targeted toward the wishes of customers.²⁹¹ In general, it is crucial to have a good understanding of various elements in the stadium environment, which could have a potentially favorable effect on the satisfaction levels of visitors, ultimately increasing brand equity and in turn leading to positive communicative and/ or consumptive behavioral intentions in the short- or medium-term.²⁹² In this

²⁸⁵ See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 27.

²⁸⁶ Refer to WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 502.

²⁸⁷ See BURMANN, C./ PIEHLER, R. (2007): *Identitätsbasiertes Markenmanagement in der 1. Basketball-Bundesliga - dargestellt am Beispiel der Eisbären Bremerhaven*, Münster, p. 32.

²⁸⁸ See HOMBURG, C., et al. (2003): *Der Zusammenhang zwischen Kundenzufriedenheit und Kundenbindung*, in: BRUHN, M., et al. (eds.): *Handbuch Kundenbindungsmanagement*, edit. 4, Wiesbaden, pp. 95 et seqq.

²⁸⁹ See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 371: This concerns the standardization of material and immaterial input factors (e.g. experience marketing for visitors, quality of service offered), of personal input factors (e.g. appearance of employees, number of stadium personnel), and of selected processes (e.g. sponsoring, ticketing, catering, parking).

²⁹⁰ Refer to BREUER, C., et al. (2008): *Der Wirtschafts- und Wachstumsmarkt Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 29.

²⁹¹ See GENSMUELLER, M. (2008): *Customer Relationship Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 432.

²⁹² For an emphasis of the brand-related importance of various touch-points on the day of a game, see BRUHN, M. (2004b): *Markenführung für Nonprofit-Organisationen*, in: BRUHN, M. (ed.): *Handbuch Markenführung*, Wiesbaden, pp. 2297 et seqq.; BENKENSTEIN, M./ SPIEGEL, T. (2004): *Entwicklungstendenzen der Markenführung aus Dienstleistungsperspektive*, in: BRUHN, M. (ed.), Wiesbaden, pp. 2,747 et seqq. and SCHLEUSER, M. (2002): *Identitätsorientierte Mar-*

context, visitor satisfaction is defined as “the result of a cognitive and affective process of comparison between the expectations of an offered service (targeted performance) and the subjectively perceived benefit after the use of the service (actual performance).”²⁹³

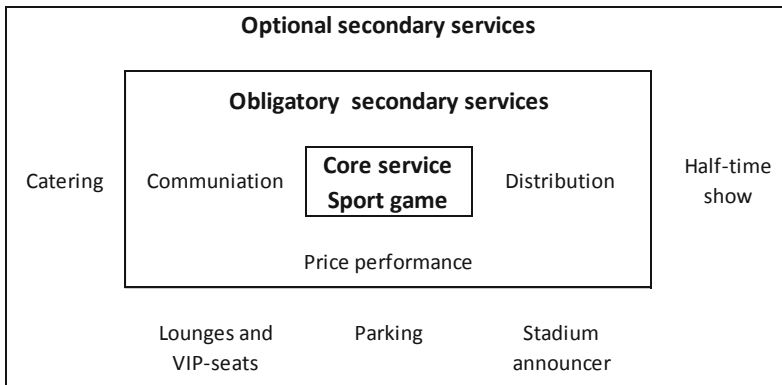


Figure 15: Three layered model of bundle of services in professional team sports

Source: Schade (2012), p. 27²⁹⁴

While the main constructs from the framework provided by Höck et al. (2010) are applied (Figure 14), the experience of a stadium visitor is separated into two different areas for the purpose of this study: ‘the area outside of the stadium’ and ‘the

kenführung bei Dienstleistungen, in: MEFFERT, H., et al. (eds.): *Markenmanagement*, Vol. 2, Wiesbaden, pp. 263 et seqq.

²⁹³ HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 193 with reference to HOMBURG, C., et al. (2006): The role of cognition and affect in the formation of customer satisfaction: a dynamic perspective, in: *Journal of Marketing*, Vol. 70, No. 3, pp. 21 et seqq.; ANDERSON, R. E. (1973): Consumer dissatisfaction: the effect of disconfirmed expectancy on perceived product performance, in: *Journal of Marketing Research*, Vol. 10, No. 2, pp. 38 et seqq.; GUDERGAN, S. P./ ELLIS, R. S. (2007): The link between perceived service value and customer satisfaction, in: *Journal of Customer Behaviour*, Vol. 6, No. 3, pp. 249 et seqq.

²⁹⁴ See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 27; text is translated from German into English. With reference to ALEXA, F. (2009): *Markenpersönlichkeit von Fußballvereinen - Eine empirische Untersuchung*, Göttingen, p. 37 and BURMANN, C./ PIEHLER, R. (2007): *Identitätsbasiertes Markenmanagement in der 1. Basketball-Bundesliga - dargestellt am Beispiel der Eisbären Bremerhaven*, Münster, p. 32.

area inside of the stadium'. Although these two constructs appear to be spatial by nature, they include - in a broader sense - preceding and succeeding activities before and after the stadium visit, which are not necessarily in the immediate surroundings of the stadium (e.g. , ticketing, travel to and from event, parking, public transportation).

3.3 Stadium atmosphere

As will be shown in Chapter B.4.2.4, some indicators in the models directly relate to the atmosphere within a specific area, while other indicators indirectly imply atmospheric dimensions, expressed mainly through the kinesthetic sense. Due to its importance in the context of this study, further explanations about the atmospheric construct follow.

Various observed environmental attributes at a specific location can be referred to as the 'atmosphere'.²⁹⁵ According to the behavioral model of environmental psychology employed by *Mehrabian/ Russel* (1974), the atmospheric construct consists of an object and a subject dimension.²⁹⁶ Whereas the object dimension refers to various stimuli of a spatially and temporally characterized environment, the subject dimension characterizes the feelings of recipients released by those stimuli.²⁹⁷ The soccer game and the frequent and infrequent visitors (as this study's target groups) constitute the object of this research. The event emits various stimuli, e.g. through music songs or presentations from the stadium announcer.²⁹⁸ These stim-

²⁹⁵ Refer to UHRICH, S. (2008): *Stadionatmosphäre als verhaltenswissenschaftliches Konstrukt im Sportmarketing - Entwicklung und Validierung eines Messmodells*, Wiesbaden, p. 4. Kotler introduced the construct 'atmosphere' in 1973, recognizing that the systematic design of the environment can have a high influence on the consumption-related intentions of customers: See KOTLER, P. (1973): Atmospherics as a marketing tool, in: *Journal of Retailing*, Vol. 49, No. 4, pp. 48 et seqq.

²⁹⁶ See SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, pp. 55 et seqq. with reference to MEHRABIAN, A./ RUSSEL, J. A. (1974): *An approach to environmental psychology*, Cambridge, p. 82.

²⁹⁷ Refer to UHRICH, S. (2008): *Stadionatmosphäre als verhaltenswissenschaftliches Konstrukt im Sportmarketing - Entwicklung und Validierung eines Messmodells*, Wiesbaden, p. 53; HELLBRUECK, J./ FISCHER, M. (1999): *Umweltpsychologie - Ein Lehrbuch*, Göttingen, p. 118. For a distinction of feelings and emotions, see SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, pp. 55 et seq. (foot notes).

²⁹⁸ See also WOCHNOWSKI, H. (1996): *Veranstaltungsmarketing - Grundlagen und Gestaltungsempfehlungen zur Vermarktung von Veranstaltungen*, Frankfurt a. M., p. 183.

uli - together with the atmosphere generated inside the stadium through fan behavior - trigger sensory stimulations representing the subject dimension of the atmospheric construct.²⁹⁹ The atmosphere at sporting events, which is characterized through the combination of environmental stimuli addressing emotions in a limited space,³⁰⁰ appears to represent a crucial criterion for assessing the perceived quality of a visit to a sporting event and in contributing to overall satisfaction ratings after the event.³⁰¹

In his thesis, *Uhrich* (2008) demonstrated the general validity and reliability of a model for measuring stadium atmosphere that is made up of:

- Three types of formatively measured stadium constructs transmitting event organizer-, spectator-, and game-related stimuli,³⁰² as well as

- One reflective measurement model for the construct 'emotional conditions of visitors' relating to the stadium environment (great excitement/ suspense and high pleasure).³⁰³

²⁹⁹ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 126. See also SCHADE, M. (2012): *Identitätsbasierte Markenführung professioneller Sportvereine*, Wiesbaden, p. 56; UHRICH, S. (2008): *Stadionatmosphäre als verhaltenswissenschaftliches Konstrukt im Sportmarketing - Entwicklung und Validierung eines Messmodells*, Wiesbaden, pp. 67 et seq.

³⁰⁰ See WOCHNOWSKI, H. (1996): *Veranstaltungsmarketing - Grundlagen und Gestaltungsempfehlungen zur Vermarktung von Veranstaltungen*, Frankfurt a. M., p. 181.

³⁰¹ Refer to RIEDMUELLER, F. (2003): *Dienstleistungsqualität bei professionellen Sportveranstaltungen: Entwicklungen und Überprüfung eines Erklärungsmodells*, Frankfurt a. M., pp. 170 et seqq.

³⁰² See UHRICH, S. (2008): *Stadionatmosphäre als verhaltenswissenschaftliches Konstrukt im Sportmarketing - Entwicklung und Validierung eines Messmodells*, Wiesbaden, pp. 70 and 201. Uhrich differentiates between affective, intensive, and collative stimuli. While affective stimuli result in either comfortable or unpleasant feelings as a consequence of innate or acquired stimuli reaction mechanisms, intensive stimuli exert an activating impact on the visitor due to their specific physical characteristics. Lastly, collative stimuli (or comparable variables) appear only as a constellation of different stimuli, which affect the fans due to their multiplicity and their surprise content.

³⁰³ Research in the areas of hedonic consumption and sports marketing has indicated the validity of relationships between the stadium atmosphere and the emotional conditions/ state of visitors. For a detailed summary, see UHRICH, S. (2008): *Stadionatmosphäre als verhaltenswissenschaftliches Konstrukt im Sportmarketing - Entwicklung und Validierung eines Messmodells*, Wiesbaden, pp. 67 et seqq.

The model represents an appropriate predictor of the overall satisfaction levels of visitors as well as of positive communication intentions after the game. In the questionnaire after the game, the atmospheric construct is explicitly mentioned several times and visible in the variables A_EV_OA_4, A_EV_OA_7, A_EV_OA_15, A_EV_PG_24, and A_EV_PG_28.³⁰⁴

³⁰⁴ See Questions 17-20 and 23-26 in Appendix A3 as well as Tables 13 and 14.

4 Development of integrated reference framework

The summary of the findings derived on the basis of theoretical insights from previous chapters requires the systematic preparation of basic statements regarding the meaning of multisensory brand management. This systematic approach represents the starting point of the empirical study in section C, which is conducted by means of four soccer games played by the German club VfL Bochum 1848 (2nd Bundesliga) during the first half of season 2011/ 2012.³⁰⁵ In order to obey the purposes stated above, essential hypotheses will have to be derived and represented on the basis of an integrated reference framework, which serves as guidance for various explanations. For the integration of the partial models, it is first assessed whether widespread theoretical approaches employed in communication and behavioral sciences can be applied. The particularities of brand management in sports are then addressed, in order to specify relevant aspects to be considered in the empirical context.

4.1 Illustration of current theoretical models

The communication between sending and receiving individuals and the related effects on recipients is a complex process, for which the individual facets cannot entirely be captured.³⁰⁶ Therefore, **theoretical models** are consulted for the illustration of such processes, which need to be understood as simplified images of reality. They possess considerable value for the explanation and designing of corporate structures and behavior.³⁰⁷ In the existing literature, there are models of various characteristics which relate to the mapping of processes in communication and behavioral sciences. Nonetheless, it is not of utmost urgency to deliver an exhaustive inventory of these models. Instead, we want to show whether the integration of multisensuality can improve the quality of the model.³⁰⁸

³⁰⁵ All four games took place in November/ December 2011.

³⁰⁶ The scientific research of communication processes, including their functionality and their effectiveness, is called 'semiotics'. See ECO, U. (1994): *Einführung in die Semiotik*, München, pp. 17 et seqq.

³⁰⁷ See KIESER, A., et al. (1998): *Kommunikation im organisatorischen Wandel*, Stuttgart, p. 144.

³⁰⁸ As mentioned before, previous dissertations at the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, have extensively discussed and analyzed the use of

4.1.1 Discussion of multisensuality in communication models

In order to guide future research and to help expand on existing approaches, *Shannon/ Weaver* (1976) developed a fundamental model,³⁰⁹ attempting to explain the technical processing of information or electro-magnetic signals with the help of mathematical information theory.³¹⁰ According to this linear, one-sided sender-recipient model, information stemming from a transmitter is encoded within a signal and transferred through a communication channel to a receiver or recipient, who subsequently decodes the information. During the exchange of information, noise can impact the signal and create discrepancies in the communication process.

Although several adjustments have been made to this approach, the multisensory detailing of the signal types has only been sporadically addressed.³¹¹ With reference to *Meffert* (1986), *Springer* (2008) integrates the multisensory approach into a fundamental model, which is shown in Figure 16 and slightly adjusted to sports (more specifically, soccer).³¹²

In an ideal world, representatives of a soccer club encode multisensory information for the purpose of transmitting essential, characteristic bundles of beneficial attributes about the brand, while sources of potentially disruptive noise are kept to a minimum. Frequent and infrequent visitors, illustrated on the right-hand side of Figure 16, absorb the signals - consciously or unconsciously - through one or more sensory organs.

multisensuality in communication models. As such, this work will be referred to in the following sub-chapters.

³⁰⁹ See SHANNON, C./ WEAVER, W. (1976): *Mathematische Grundlagen der Informationstheorie*, München et al., pp. 16 et seq.

³¹⁰ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 101.

³¹¹ See *ibid.*, p. 104; PEPELS, W. (2001): *Kommunikations-Management - Marketing-Kommunikation vom Briefing bis zur Realisierung*, Stuttgart, p. 10.

³¹² See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 105.

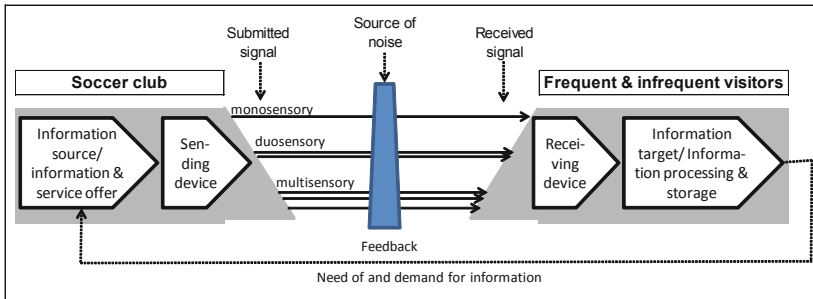


Figure 16: Consideration of multisensory signaling in communication models

Source: with reference to Springer (2008), p. 105³¹³

After the subsequent decoding of the information, feedback toward the sender (in this case, the soccer club) is possible.³¹⁴ This model, adjusted to the context of soccer, serves as the foundation for the remainder of this study and is an important element of the S-O-R models introduced in the next sub-chapter.

4.1.2 Discussion of multisensuality in S-O-R models

Within the behavioral sciences, a range of different approaches has been taken to form the proposed basis for measurement tools within brand controlling.³¹⁵ This sub-chapter aims to give a brief overview of developments in this area, before presenting the S-O-R model adjusted by multisensory signaling.

While the so-called 'S-R models' are stochastic approaches and exclusively focus on the measurable, directly observable reactions of an individual (response R) after an external impulse (stimulus S), proponents of structural approaches include

³¹³ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 105; with reference to MEFFERT, H. (1986): *Marketing - Grundlagen der Absatzpolitik*, Wiesbaden, p. 447. Translated from German into English.

³¹⁴ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 104 et seq.

³¹⁵ *Ibid.*, p. 105.

an organism O as an intervening variable or hypothetical construct that represents invisible, not directly observable, psychological processes which link a stimulus S to a response R.³¹⁶

As shown in Figure 17, controllable marketing stimuli (monosensory, duosensory, and multisensory elements) and uncontrollable environmental stimuli affect the cognitively and affectively characterized processes within the organism that are not directly observable (latent). Sensuality preferences, the value structure held by visitors, and the socio-demographic background of the participants all constitute predisposed variables. Affective and cognitive processes immediately lead to communicative or consumptive intentions, which are considered conative processes.

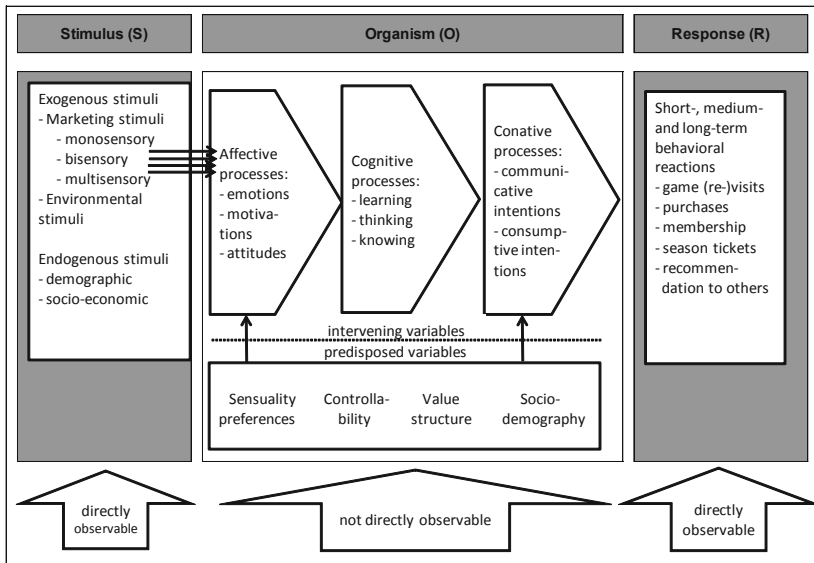


Figure 17: Consideration of multisensory signaling in S-O-R-model

Source: with reference to Springer (2008), p. 108³¹⁷

³¹⁶ In order to observe medium- or long-term consequences of a stimulus, the consequence C and the contingency ratio K are incorporated into the model, resulting in a S-O-R-K-C structure. This helps to evaluate the consistency between changes in attitudes and behavior. See also *ibid.*, p. 107.

While intentions in S-O-R models usually comprise of communication, usage, and purchase as potential short- and long-term (observable) reactions, the latter two are combined into 'consumption' for the purpose of the study.³¹⁸

The conscious usage of sensory elements on the left-hand side of the model (sender) in Figure 17³¹⁹ strongly influences behavioral intentions on the response-side.³²⁰ It needs to be tested now in what ways the implications stemming from the automotive industry can be applied to the particular situation of VfL Bochum 1848 soccer club, by implementing live-communications enriched with multisensory stimuli. As such, before turning to the integrated reference framework, it is crucial for us to understand the background and the specifics of the object under investigation.

4.2 Bochum

In order to understand the scope of this study and to be able to interpret the results accurately, it is important to provide a brief overview of the city of Bochum, the club VfL Bochum 1848 and the rewirpowerSTADION, where the four observed events took place. After this overview, we can then go on to introduce the constructs of the two main stadium areas. The chapter will conclude with detailed information about VfL Bochum 1848's mission statement, which had been drawn up and introduced to the public and which shapes the basis for main questions asked by the survey.

³¹⁷ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 108; with reference to KROEBER-RIEL, W./ WEINBERG, P. (2003): *Konsumentenverhalten*, München, p. 429; JACOBY, J. (2002): Stimulus-Organism-Response reconsidered - An evolutionary step in modeling (consumer) behavior, in: *Journal of Consumer Psychology*, Vol. 12, No. 1, p. 55; BAENSCH, A. (2002): *Käuferverhalten*, München et al., p. 4. Translated from German into English.

³¹⁸ For example, return visits, the purchase of any merchandize, memberships, and the purchase of season tickets can be considered as usage and purchase.

³¹⁹ Compare also with Figure 16.

³²⁰ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 109.

Due to the strong demand for coal and steel in the 1950s and 1960s, the Ruhr area became very prosperous and was famed for its industrious, hardy workforce. These characteristics (“We are unbending. The history of our VfL Bochum 1848 mirrors the history of the Ruhr”) were incorporated in VfL Bochum 1848’s mission statement and form the cornerstone of its identity.

The Ruhr area was hit very hard by the worldwide economical crisis after 1973, as easy-to-reach coal mines became exhausted and German coal was no longer competitive. In times of rising unemployment, soccer became an important part of life for the local population, and traditional teams like Borussia Dortmund, FC Schalke 04, VfL Bochum 1848, or Rot-Weiß Essen became very popular in the region. Soccer helped local people to escape the stress of their everyday lives.

A high percentage of visitors that took the survey were either born in Bochum and its immediate surroundings or currently live in the city. Due to the significance of soccer to their personal lives and the extent to which it shapes their leisure time, frequent visitors to the stadium often perceive elements of the club brand and the match day experience in quite specific ways. In our analysis, differences between two visitor groups will be teased out and analyzed.

4.2.2 VfL Bochum 1848 in the competitive environment of the Ruhr area

The German soccer club Verein für Leibesübungen Bochum 1848 Fußballgemeinschaft, commonly referred to as **VfL Bochum 1848**, is located in the city of Bochum in North Rhine-Westphalia. According to Wikipedia,³²⁴ the club “is one of the oldest sports organizations in the world, claiming a founding date of 26 July 1848, when an article in the Märkischer Sprecher – a local newspaper – called for the creation of a gymnastics club.” On 14 April 1938, the two independent sports organizations Turn- und Sport Bochum 1908 and Sportverein Germania Vorwärts Bochum 1906 were merged into the club which we know today as VfL Bochum 1848.

³²⁴ WIKIPEDIA (2013b): *VfL Bochum 1848*. URL: http://en.wikipedia.org/wiki/VfL_Bochum_1848, retrieved on: 19 January 2014.

Ranking	Team	Seasons	Matches	Won	Tied	Lost	Goals	Points
1.	Bayern München	48	1.636	936	378	322	3.510:1.861	3.186
2.	Werder Bremen	49	1.662	717	413	532	2.834:2.360	2.564
3.	Hamburger SV	50	1.696	701	458	537	2.759:2.377	2.561
4.	VfB Stuttgart	48	1.628	692	398	538	2.760:2.325	2.474
5.	Borussia Dortmund	46	1.560	669	409	482	2.706:2.241	2.416
6.	Bor. Mönchengladbach	45	1.534	608	413	513	2.620:2.259	2.237
7.	Schalke 04	45	1.526	597	383	546	2.253:2.199	2.174
8.	1. FC Köln	43	1.458	593	361	504	2.459:2.170	2.140
9.	1. FC Kaiserslautern	44	1.492	575	372	545	2.348:2.344	2.094
10.	Eintracht Frankfurt	44	1.492	552	377	563	2.376:2.313	2.031
11.	Bayer Leverkusen	34	1.160	485	331	344	1.933:1.559	1.786
12.	VfL Bochum	34	1.160	356	306	498	1.602:1.887	1.374
13.	Hertha BSC Berlin	30	1.012	372	256	384	1.466:1.559	1.372
14.	1. FC Nürnberg	31	1.050	336	265	449	1.365:1.656	1.273
15.	MSV Duisburg	28	948	296	259	393	1.291:1.520	1.147
16.	Hannover 96	25	846	265	215	366	1.193:1.432	1.010
17.	Karlsruher SC	24	812	241	230	341	1.093:1.408	953
18.	Fortuna Düsseldorf	23	786	245	215	326	1.160:1.386	950
19.	TSV 1860 München	20	672	238	170	264	1.022:1.059	884
20.	Eintr. Braunschweig	20	672	236	170	266	908:1.026	878
21.	VfL Wolfsburg	16	544	201	138	205	813:814	741
22.	Arminia Bielefeld	16	544	153	139	252	645:883	598
23.	SC Freiburg	14	476	150	115	211	603:756	565
24.	KFC Uerdingen	14	476	138	129	209	644:844	543
25.	FC Hansa Rostock	12	412	124	107	181	492:621	479
26.	FSV Mainz 05	7	238	78	67	93	307:335	301
27.	SV Waldhof Mannheim	7	238	71	72	95	299:378	285
28.	Kickers Offenbach	7	238	77	51	110	368:486	282
29.	Rot-Weiss Essen	7	238	61	79	98	346:483	262
30.	FC St. Pauli	8	272	58	80	134	296:485	254
31.	1899 Hoffenheim	5	170	55	47	68	240:255	212
32.	Energie Cottbus	6	204	56	43	105	211:338	211
33.	Alemannia Aachen	4	136	43	28	65	186:270	157
34.	SG Wattenscheid 09	4	140	34	48	58	186:248	150
35.	1. FC Saarbrücken	5	166	32	48	86	202:336	144
36.	Dynamo Dresden	4	140	33	45	62	132:211	140
37.	Rot-Weiß Oberhausen	4	136	36	31	69	182:281	139
38.	Wuppertaler SV	3	102	25	27	50	136:200	102
39.	Borussia Neunkirchen	3	98	25	18	55	109:223	93
40.	FC Homburg	3	102	21	27	54	103:200	90
41.	SpVgg Unterhaching	2	68	20	19	29	75:101	79
42.	Stuttgarter Kickers	2	72	20	17	35	94:132	77
43.	FC Augsburg	2	68	16	23	29	69:100	71
44.	SV Darmstadt 98	2	68	12	18	38	86:157	54
45.	Tennis Bor. Berlin	2	68	11	16	41	85:174	49
46.	SSV Ulm	1	34	9	8	17	36:62	35
47.	Fortuna Köln	1	34	8	9	17	46:79	33
48.	Preußen Münster	1	30	7	9	14	34:52	30
49.	SpVgg Greuther Fürth	1	34	4	9	21	26:60	21
50.	Blau-Weiß 90 Berlin	1	34	3	12	19	36:76	21
51.	VfB Leipzig	1	34	3	11	20	32:69	20
52.	Tasmania Berlin	1	34	2	4	28	15:108	10

Table 11: All-time ranking of the 1st Bundesliga after season 2012/ 2013

Source: DFB³²⁵

³²⁵ DFB (2013): *Ewige Tabelle*. URL: <http://www.dfb.de/index.php?id=82907>, retrieved on: 01 February 2014.

The club enjoyed an irresistible rise up the league structure, reaching the 1st Bundesliga, the highest division in German football, in 1971. Bochum increasingly became famed as a club that was tenacious and aggressive on the field. This tied in with, and indeed amplified, the city's existing reputation as a hard-working, rough and ready place, inhabited by a strong-willed working class population. VfL Bochum 1848 stayed in the top division for over twenty seasons in a row, overcoming both their own financial limitations and the monetary muscle wielded by their more heavily sponsored rivals.

After the season 2012/ 2013, VfL Bochum 1848 sat 12th in the all-time ranking of Germany's most successful clubs – see Table 11.

The club suffered its first relegation in 1993, and in the following years often found itself locked in promotion and relegation battles between the 1st and the 2nd Bundesliga (VfL Bochum 1848 became considered as the so-called 'Fahrstuhlmannschaft' or 'yo-yo club').

Season	League	Ranking	Season	League	Ranking
1990/ 1991	1 st Bundesliga	14	1991/ 1992	1 st Bundesliga	15
1992/ 1993	1 st Bundesliga	16	1993/ 1994	2 nd Bundesliga	1
1994/ 1995	1 st Bundesliga	16	1995/ 1996	2 nd Bundesliga	1
1996/ 1997	1 st Bundesliga	5	1997/ 1998	1 st Bundesliga	12
1998/ 1999	1 st Bundesliga	17	1999/ 2000	2 nd Bundesliga	2
2000/ 2001	1 st Bundesliga	18	2001/ 2002	2 nd Bundesliga	3
2002/ 2003	1 st Bundesliga	9	2003/ 2004	1 st Bundesliga	5
2004/ 2005	1 st Bundesliga	16	2005/ 2006	2 nd Bundesliga	1
2006/ 2007	1 st Bundesliga	8	2007/ 2008	1 st Bundesliga	12
2008/ 2009	1 st Bundesliga	14	2009/ 2010	1 st Bundesliga	17
2010/ 2011	2 nd Bundesliga	3	2011/ 2012	2 nd Bundesliga	11
2012/ 2013	2 nd Bundesliga	14			

Table 12: Ranking of VfL Bochum 1848 since season 1990/ 1991

Source: VfL Bochum 1848³²⁶

³²⁶ See VfL-BOCHUM (2013): *Spielzeiten*. URL: http://www.vfl-bochum.de/site/_verein/_historie/spielzeitenp.htm, retrieved on: 1 November 2012.

Bochum managed to immediately bounce back to the 1st Bundesliga directly after five of its relegations in this period. Nonetheless, at the time of the surveys, the club was competing in the 2nd Bundesliga for the past four years in a row, having suffered a sixth relegation in 2010.³²⁷ See the rankings of VfL Bochum 1848 since 1990 in Table 12.

Due to the fact that VfL Bochum 1848 has not succeeded in securing a return to the 1st Bundesliga since the relegation of 2010 (and therefore has been unable to generate as much revenue as before, leading to an uncertain financial situation), it has become more and more difficult for the club to even compete in the second division. At the same time, the local rivals Borussia Dortmund and FC Schalke 04, situated in the immediate vicinity,³²⁸ have won several titles in recent years³²⁹ and have further increased their popularity and fan base, especially in the Ruhr area. In addition, FC Schalke 04 reached the Round of 16 of the Champions League in season 2012/ 2013, while Dortmund only lost in the final against Bayern Munich. In contrast, Bochum ended up 14th in the 2nd Bundesliga, having been perilously close to relegation to the 3rd Liga.

In the fall of 2011 when this study's surveys were carried out (season 2011/ 2012), VfL Bochum 1848 was going through some turbulent times. They sat bottom of Germany's 2nd Bundesliga, at that point the club's worst positioning in over 30 years. This must be taken into consideration when analyzing the results which are presented in later chapters – especially those of frequent visitors. We need to bear in mind that the visitors may have the tendency to be pessimistic and to give answers which are distorted by their past frustrations.

Other local rivals in the Ruhr area include MSV Duisburg (3rd Liga in season 2013/ 2014) and RW Essen (4th division in season 2013/ 2014), ranked 15th and 29th, in the all-time ranking of the 1st Bundesliga, respectively.³³⁰ This emphasizes their traditional roots in this region and illustrates the strong rivalry felt between the clubs who compete in such a highly populated area. Ultimately, this competition necessitates a clear need for differentiation.

³²⁷ In this context, information is given as of season 2013/ 2014.

³²⁸ See map in Figure 18: Schalke is located in the city of Gelsenkirchen.

³²⁹ Borussia Dortmund won the German Championships in 2011 and 2012 and the German Cup (DFB-Pokal) in 2012. Schalke 04 won the German Cup in 2011.

³³⁰ See Table 11.

4.2.3 rewirpowerSTADION

The rewirpowerSTADION, formerly known as Ruhrstadion, is located in a residential district close to downtown Bochum – see the bird’s eye view of the stadium in Figure 19. In the preparations for the Men’s Soccer World Cup tournament hosted by Germany in 2006, many new stadiums were constructed, and various clubs moved to modern, newly built arenas. In contrast, the soccer club VfL Bochum 1848 has played at their home - ‘Castroper Straße’ - for over 100 years. Major renovations were carried out on the ground in 1976.³³¹ The first official soccer game took place there on 8 October 1911, when SuS Bochum hosted VfB Hamm.³³² Also as a result of the stadium’s central location, the club includes the item ‘closeness’ as a major brand characteristic in its mission statement.



Figure 19: rewirpowerSTADION in Bochum

Source: VfL Bochum 1848³³³

³³¹ See WAHLIG, H./ NIENHAUS, D. (2011): *"Anne Castroper": ein Jahrhundert Fußball mitten in Bochum*, Göttingen, pp. 74 et seqq.

³³² *Ibid.*, p. 18.

³³³ See VFL-BOCHUM (2012): *Portrait*. URL: http://www.vfl-bochum.de/site/_verein/portraitp.htm, retrieved on: 10 January 2013.

In the following analysis, satisfaction levels in two main areas of the stadium are accrued to make up the final overall satisfaction level of visitors:³³⁴

- **Area outside of the stadium:** This includes all stages outside of the stadium before, during (if the visitor leaves the interior of the stadium during the game or at half-time), and after the game. It not only concerns the immediate locations around the stadium, but also encompasses travel to and from the match, as well as ticketing, catering, and parking, all of which potentially have an impact on satisfaction levels.



Figure 20: Different sections of the rewirpowerSTADION

Source: Stadionwelt³³⁵

- **Area inside of the stadium within view of the field:** This includes all of the stimuli which visitors encounter during the soccer game, shortly before

³³⁴ As indicated in Chapter B.3.2.

³³⁵ STADIONWELT (2013): *Stadionplan rewirpowerSTADION (VfL Bochum)*. URL: http://www.stadionwelt.de/sw_stadien/index.php?folder=sites&site=stadionplan_d&id=182, retrieved on: 6 March 2013.

and after the game, and when the visitor enters and leaves the interior section of the stadium. A game lasts 90 minutes, plus 15 minutes of half-time, if we assume the visitor stays in the stadium and does not take a break to go to the toilet or to purchase food or drinks. As such, the duration of the stay in this area is almost two hours.

Figure 20 provides an overview of various sections of the rewirepowerSTADION: While the blocks N, O, P, and Q (for home fans) and E1/ H2 (for away fans) are standing areas, all other sections offer seated.³³⁶ The area inside and outside of the stadium provides an appropriate framework for the categorization of stimuli, which is presented in the next sub-chapter.

4.2.4 Determination of model constructs

Having outlined the broad make-up of the stadium environment, Table 13 illustrates the four constructs which constitute the outside area: 'travel to/ from the stadium', 'stay outside of the stadium', 'catering', and 'verbal communications' (i.e. written and linguistic³³⁷ communications) - all measured as formative measurement models.³³⁸

According to *Schilhaneck* (2008), all infrastructural parameters (among them catering, parking, travel to and from stadium) contribute to the uniform perception of quality.³³⁹

³³⁶ See Chapter C.1.1.4/ Table 20 for detailed information about where the survey participants were located.

³³⁷ With direct face-to-face contact with another person or through broadcasts projected through the electronic big screens. See also Chapter B.1.1.

³³⁸ See HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 191: Höck et al. argue that "measuring visitor satisfaction in a formative manner [...] meets the study's objective, which is to assess the influence of various service factors' contribution to visitors' overall satisfaction assessment." While this study adds sport-specific and event-specific monosensory, duosensory, and multisensory elements, the general approach of using a formative measurements model for the constructs which make up satisfaction levels outside and inside of the stadium is followed in later parts of the study.

³³⁹ See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 371.

	Indicator code	Indicator	visual	audi- tory	kines- thetic	olfac- tory	gusta- tory	senses addressed
Travel from/ to stadium	A_EV_TS_AV1	Safety during travel to stadium (car, public transportation, foot)	0	0	1	0	0	1
	A_EV_TS_AV3	Accessibility of stadion (car, public transportation, foot)	0	0	1	0	0	1
	A_EV_TS_AV4	Waiting times for travel to and from stadium	0	0	1	0	0	1
	Multisensuality:							0%
	Indicator code	Indicator	visual	audi- tory	kines- thetic	olfac- tory	gusta- tory	senses addressed
Stay outside of the stadium	A_EV_OA_1	Outside appearance of rewirpowerSTADION	1	0	1	0	0	2
	A_EV_OA_4	Atmosphere in front of stadion center (close to fan shop and und bar 8zehN48)	1	1	1	0	0	3
	A_EV_OA_5	Illumination around the stadium center	1	0	0	0	0	1
	A_EV_OA_7	Atmosphere in fan-bar 8zehN48	1	1	1	0	0	3
	A_EV_OA_13	Waiting-times in front of sanitary arrangements at stadium	0	0	1	0	0	1
	A_EV_OA_14	Waiting-times at security check	0	0	1	0	0	1
	A_EV_OA_15	Atmosphere before admission into stadium area	1	1	1	0	0	3
	Multisensuality:							43%
	Indicator code	Indicator	visual	audi- tory	kines- thetic	olfac- tory	gusta- tory	senses addressed
Cater- ing	A_EV_CO_1	Number of catering booths	0	0	1	0	0	1
	A_EV_CO_AVF1	Choice, price and quality of food	1	0	1	0	1	3
	A_EV_CO_AVD2	Choice, price and quality of drinks	0	0	1	0	1	2
	A_EV_CO_9	Cleanness of catering area	1	0	0	1	0	2
	Multisensuality:							25%
	Indicator code	Indicator	visual	audi- tory	kines- thetic	olfac- tory	gusta- tory	senses addressed
Verbal commu- nica- tions	A_EV_OA_3	Signpostings around stadium	1	0	0	0	0	1
	A_EV_OA_8	Program on projector screen in fan bar	1	0	1	0	0	2
	A_EV_OA_16	Behavior of security during admission	1	1	0	0	0	2
	A_EV_CO_10	Politeness of personnel in catering area	0	0	1	0	0	1
	Multisensuality:							0%

Table 13: Outside area of the stadium, with degree of sensuality indicated³⁴⁰

³⁴⁰ Compare with monosensory, duosensory, and multisensory items in Tables 17, 28, and 37 of SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 144, 155, and 162: While this study separates the stadium environment into areas inside and outside of the stadium, Springer identifies three different sections of the Porsche Brand Land: the customer center, the production facilities, and the driving range.

The construct 'purchasing of ticket' was not integrated in the 'area outside of the stadium', but was instead directly linked to 'overall satisfaction after the event'. It can be assumed that it has only a minimum impact on the satisfaction level after the event, mainly due to the fact that this activity often takes place long before the visit to the stadium.³⁴¹ When looking at the multisensory content of the four constructs in Table 13, the 'stay outside of the stadium' constitutes the area with the highest multisensory percentage (43%) followed by the 'catering' section (25%). The areas 'travel from/ to stadium' and 'verbal communications' only contain monosensory and duosensory stimuli.

When comparing these percentages with the five constructs of the 'inside area of the stadium' ('comfort inside the stadium', 'event inside the stadium before the game', 'the game', 'the event at half-time/ after the game', and 'verbal communications') in Table 14, it can be noted that out of 34 variables, 9 indicators contain multisensory content (in contrast to 4 multisensory indicators in the 'outside area of the stadium'). The game itself represents the construct with the highest multisensory percentage (50%).

The indicators of the constructs were discussed and confirmed with VfL Bochum 1848's Marketing department, while some of them are directly linked to the club's mission statement.

³⁴¹ See HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 193.

	Indicator code	Indicator	visual	auditory	kines- thetic	olfac- tory	gusta- tory	senses	
Comfort inside the stadium	A_EV_SA_1	Cleanness of seating/standing	1	0	0	0	0	1	
	A_EV_SA_2	Comfort of seating/standing area	1	0	1	0	0	2	
	A_EV_SA_4	View to scoreboard	1	0	0	0	0	1	
	A_EV_SA_5	View to soccer field	1	0	0	0	0	1	
	A_EV_SA_6	Quality of scoreboard	1	1	0	0	0	2	
	A_EV_SA_10	Acoustic from loudspeaker	0	1	1	0	0	2	
	A_EV_SA_12	Safety inside the stadium	0	0	1	0	0	1	
Multisensuality:								0%	
Event inside the stadium before the game	A_EV_PG_3	Show-up of the teams for warm-ups - with music (~40 minutes before start of game)	1	1	0	0	0	2	
	A_EV_PG_4	Perceived closeness to the team during warm-up	1	0	1	0	0	2	
	A_EV_PG_8	Music song "Bochumer Jungen" (Jo Hartmann)	0	1	1	0	0	2	
	A_EV_PG_9	Music song "Wir sind die Fans vom VfL" (Jo Hartmann)	0	1	1	0	0	2	
	A_EV_PG_11	Music song "Mein VfL" (Jo Hartmann)	0	1	1	0	0	2	
	A_EV_PG_12	Tip of the score by "Kid of the day"	1	1	1	0	0	3	
	A_EV_PG_14	Cheering names of players during presentation of squads	1	1	1	0	0	3	
	A_EV_PG_16	Grönemeyer-Song "Bochum" just before the start of the game	1	1	1	0	0	3	
	A_EV_PG_19	Raising of VfL scarves in the fan area as club songs are played	1	1	1	0	0	3	
	A_EV_PG_22	Teams arriving along with the referee, and holding hands with the mascots	1	1	0	0	0	2	
	Multisensuality:								40%
	Game	A_EV_PG_23	Perceived closeness of fans to players during game	1	0	1	0	0	2
A_EV_PG_24		Atmosphere during the game	1	1	1	0	0	3	
A_EV_PG_25		Commitment of favorite team	1	0	1	0	0	2	
A_EV_PG_26		Cheering of fans from VfL Bochum	1	1	1	0	0	3	
A_EV_PG_27		Fan-songs during the game	1	1	1	0	0	3	
A_EV_PG_28		Atmosphere coming from fans of opponent	0	1	0	0	0	1	
A_EV_PG_30		Emotional reactions of fans (goals, controversial referee decisions)	1	1	1	0	0	3	
A_EV_PG_37		Fliege-spots on scoreboard during the game (e.g. 18.48 min before end of game)	1	1	0	0	0	2	
Multisensuality:								50%	
Event at half-time and after game	A_EV_PG_36	Music-selection in half-time	0	1	1	0	0	2	
	A_EV_PG_40	Perceived closeness of fans to team after the game	1	0	1	0	0	2	
	A_EV_PG_41	Applause from fans to teams after the game	1	1	1	0	0	3	
	A_EV_PG_42	Music-selection after the game	0	1	0	0	0	1	
Multisensuality:								25%	
Verbal communi- cations	A_EV_SA_3	Signpostings inside of the stadium (seating/standing areas)	1	0	0	0	0	1	
	A_EV_SA_AV1	Program on scoreboard	1	1	0	0	0	2	
	A_EV_PG_29	Presentation of sponsors of the club during the event	1	1	0	0	0	2	
	A_EV_CI_1	Fan-magazine	1	0	1	0	0	2	
	A_EV_CI_3	Informations given through stadium announcer	0	1	1	0	0	2	
Multisensuality:								0%	

Table 14: Inside area of the stadium, with degree of sensuality indicated³⁴²

³⁴² Compare with monosensory, duosensory, and multisensory items in Tables 17, 28, and 37 of SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse*

4.2.5 Mission Statement

While many corporations have introduced codes of ethics and value systems in order to establish norms for employee behavior,³⁴³ this trend has only tentatively made itself felt in the area of sports. Nevertheless, the realization of brand management activities in the German soccer leagues has become more and more important in recent years.³⁴⁴

In season 1996/ 1997, VfL Bochum 1848 achieved total revenue of almost €14 million, and employed 10 administrative staff. 10 years later, 30 employees administered total revenues of €36 million. In both of these seasons, Bochum was part of the 1st Bundesliga. According to *Schwenken* (2008), rapid growth can threaten the culture and value system of a corporation: "A company of only ten employees all share the same implicit understanding of what the club stands for. A larger team, however, needs to attempt to fix a common ideological basis for the range of stakeholders who are involved and to try to determine behavioral rules governing internal communication and ensuring cooperation amongst colleagues."³⁴⁵ As a result, in 2003, the club decided to draw up an official mission statement which applies to all club stakeholders. VfL Bochum 1848 became the first German Bundesliga club to adopt a mission statement and only the third European professional soccer club to do so (after Brøndby of Copenhagen and Glasgow Celtic FC).³⁴⁶

unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft, Wiesbaden, pp. 144, 155, and 162. See also foot note 340.

³⁴³ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 116.

³⁴⁴ Refer to WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, pp. 391 et seqq.; WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, pp. 495 et seqq.

³⁴⁵ SCHWENKEN, A. (10 January 2008), *RE: Unpublished expert interview, e-mail sent to THAM, T.*, translated from German into English. Compare with brand personality and brand values in Figure 6.

³⁴⁶ For the purpose of mission statements, see also UHRICH, P./ FLURI, E. (1995): *Management: Eine konzentrierte Einführung*, Stuttgart, p. 39.

Along with researchers from Ruhr-University Bochum, the club took a 'bottom-up' approach to the creation of its mission statement. To start off, the club had to identify various stakeholders,³⁴⁷ who were then interviewed individually through standardized and pre-tested questionnaires. This was done to determine their current and their desired perceptions – with the current perception further separated into current self- and current outside perception. While the current self-perception was determined by internal stakeholders, the current outside perception was defined through information given by external respondents. In spring 2004, 48 internal and 327 external stakeholders were surveyed in an initial empirical study. A GAP-model was employed to uncover significant gaps among various stakeholders, using statistical comparisons of means. Due to the assumed correlation between the results of the study and the performance of the soccer team at the time of the survey, the decision was made to undertake a second assessment of the condensed results in fall 2006.³⁴⁸ After this second study, additional club stakeholders were surveyed in guided discussion rounds and individual conversations, in order to identify some common denominators from these responses, and to then in turn begin putting together a more formal preliminary mission statement. The following stakeholders were consulted:

- Internal employees (administration and fan shop)
- Coaches and players from junior teams
- Players from the professional squad
- Coaches and assistants of the professional team
- Various club fans
- Partner organizations and sponsors
- Representatives of the city of Bochum
- Journalists

³⁴⁷ For stakeholder approaches in sports, see THAM, T. (2008): *Einführung eines stakeholderorientierten Leitbildes im Fußball*, in: KLANTE, O. (ed.): *Aktuelle Perspektiven des Marketingmanagements - Reflektionen aus den Bereichen Holistic Branding, Media Management und Sustainability Marketing - Festschrift für Prof. Dr. Kirchgeorg zum 50. Geburtstag*, Wiesbaden, p. 61 et seq.; see also FIEDLER, L. (2007): *Stakeholderspezifische Wirkung von Corporate Brands - Ein Modell zur integrierten Evaluation und Steuerung von Unternehmensmarken*, Wiesbaden, pp. 57 et seqq.

³⁴⁸ SCHWENKEN, A. (10 January 2008), RE: *Unpublished expert interview, e-mail sent to THAM, T.*

All participants were promised anonymity in their interviews. The mission statement presented in August 2007 was not meant to be unchangeable after the initial implementation, as the objective was to adjust the content according to the circumstances that had emerged since the interviews. The mission statement is supposed to give a clear understanding of what VfL Bochum 1848 stands for, what its strengths are and how the club differentiates itself from its competitors.³⁴⁹ It serves as guidance for the daily work of internal employees, helping to align internal processes and to standardize the external outlook and appearance of the club. The mission statement was categorized into three sections: vision statement,³⁵⁰ aim, and values.

Under the title 'who we are', the **vision statement** informs all club stakeholders of what exactly defines VfL Bochum 1848: "In Bochum, from Bochum, for Bochum – VfL Bochum 1848 is Bochum through and through. Who we are: We are a real community of supporters, members, staff, players and partners, proud to support, play and work for VfL Bochum 1848. We are committed to providing joy, fascination and enthusiasm through passionate, honest and exciting football, aims and values we can fully identify with."³⁵¹

³⁴⁹ Compare with brand management competencies in Figure 6.

³⁵⁰ For a definition of 'vision', see AMA (2014): *AMA definition of Vision*. URL: http://www.marketingpower.com/_layouts/dictionary.aspx?dLetter=V, retrieved on: 24 January 2014: "A guiding theme that articulates the nature of the business and its intentions for the future. These intentions are based on how management believes the environment will unfold and what the business can and should be in the future. A vision has the following characteristics: (1) informed – grounded in a solid understanding of the business and the forces shaping the future, (2) shared – created through collaboration, (3) competitive – creates an obsession with winning throughout the organization, and (4) enabling – empowers individuals to make meaningful decisions about strategies and tactics."

³⁵¹ Refer to brand performance in Figure 6.

The phrase 'in Bochum, from Bochum, for Bochum' indicates the strength of local roots, which accords with the attributes 'familial' and 'regionally enrooted'.³⁵² These two attributes had already been considered closely associated with the club at the time of the first survey. As far back as 2003, before the actual presentation of the final mission statement, VfL Bochum 1848 decided to introduce the brand by claiming

[MEIN REVIER IST HIER]

which had been shown on the title page of the official website for a long time – targeting a clear distinction from the big rivals FC Schalke 04 and Borussia Dortmund as well as emphasizing the closeness to its own supporters.³⁵³ Furthermore, the brand 'VfL Bochum 1848' is explicitly noted under the section 'who we are'. The founding year 1848, standing for a long and rich heritage and relating to the brand attribute 'traditional', is an explicit component of the brand and is one that has featured on the club's emblem from its very foundation.³⁵⁴ Lastly, in order to stress the common aims and shared passion, all club stakeholders are embraced; hence, all external and internal groups surveyed at the beginning of the project representing the entire population are now included in the final statement.

The next purpose of the mission statement was to clearly define the club's **aim**.³⁵⁵ As mentioned before, the economical well-being of soccer associations highly depends on its sporting success and which league the team belongs to. Therefore, the aim of the club is stated as follows: "Being supporters, it is our ambition and unbending motivation to be permanently first-class in sport and in business!"³⁵⁶

Finally, after the findings of various surveys, the club identified six **values** which represent the biggest common denominator of all observations put forward by the stakeholders. A close relationship could be noted between the originally deter-

³⁵² Refer to brand heritage in Figure 6.

³⁵³ See WELLING, M. (2008b): Vom Sponsoring zum Co-Branding?, in: *Markenartikel, Sonderdruck aus "Sponsoring Boomt"*, pp. 22 et seqq.

³⁵⁴ WELLING, M. (21 January 2008a), RE: *Unpublished expert interview, e-mail* sent to THAM, T.

³⁵⁵ Refer to brand vision in Figure 6.

³⁵⁶ VfL-BOCHUM (2007a): *Our Aim*. URL: http://www.vfl-bochum.de/site/en/_verein/_leitbild/unserzielp.htm, retrieved on: 15 August 2011.

mined attributes 'close to people', 'familial', and 'regionally enrooted' from the first survey and the six values which were finally published:

"Our values:

- We stand up for our local identity and our tradition!
- We are professionals!
- We are close!
- We are rousing!
- We are unbending!
- We declare our social responsibility!"³⁵⁷

To ensure that these basic values are well understood, each of them is defined in further detail. Table 15 summarizes them with their respective definitions.

The 6 **brand statements** utilized in the following study were derived from the club's mission statement.³⁵⁸ The 13 **brand attributes** represent the initial items which were tested in 2003 when the club started to develop its mission statement.³⁵⁹ In order to enable an accurate comparison to former studies of the club VfL Bochum 1848, all 13 attributes have been integrated in this study, although some of them cover different aspects or might not directly be linked to the club's brand identity (e.g. the attributes 'conservative' or 'bland').³⁶⁰

³⁵⁷ VfL-BOCHUM (2007b): *Our Values*. URL: http://www.vfl-bochum.de/site/en/_verein/_leitbild/unserewerte.htm, retrieved on: 15 August 2011.

³⁵⁸ Brand statements relate to the six values introduced before. In the analytical part of this study, the absolute evaluations of, and incremental changes in, the ratings (before and after the game) of the six brand statements directly linked to VfL Bochum 1848's mission statement are utilized to analyze behavioral intentions of the two target groups. To do so, we begin by initially assessing the reflective (e.g. reliability and validity) and formative (e.g. t-test, multicollinearity) measurement models.

³⁵⁹ Refer to Table 8: The 6 values represent the 'brand values' of the club and take into consideration geographic, cultural, and organizational influences ('brand heritage'). Thus, the key components of brand identity are directly reflected in the club's core values.

³⁶⁰ See the final comments regarding the study's limitations in Chapter D.3.

Definition	
We stand up for our local identity and our tradition!	<p>People from Bochum are our supporters and our supporters are from Bochum. Because being from Bochum means to declare one's support for the Ruhr Area and its attitude towards life: to work hard, to be self-confident and to treat each other honestly.</p> <p>For more than 150 years supporters and members, volunteers and employees, players and coaches, partners and the Ruhr mining area have been contributing to the appealing image and the economic soundness. Their commendable achievements are our obligation, their passion is our role model.</p> <p>Our history and origin is our guide: blue and white are our colours, the Ruhr Area our region, Bochum our town, and Castroper Straße our home!</p>
We are professionals!	<p>We accept every challenge and want to win every game – that is what we work for hard and honestly.</p> <p>We set ourselves sporting and economic goals, which we consistently pursue and by which we let ourselves be judged. In this context our economic principles are reliability, continuity and independence.</p> <p>On this compulsory basis, we sustainably improve ourselves in every single sector. We work foresightedly and meet the requirement to serve the supporters' enthusiasm.</p>
We are close!	<p>Our stadium is situated in the heart of town. In Castroper Straße we are within easy reach, the action on the pitch is close at hand and the crampedness creates a unique, emotional atmosphere.</p> <p>At the same time our home is a symbol of our familiar terms and tone. There are no differences between the supporters: we are addressable for each other and within our football community, we treat each other respectfully and honestly. Moreover, we are capable of criticism.</p> <p>Amidst the Ruhr Area we act as a likeable counterbalance: self-confident instead of complacent, feet on the ground instead of head in the clouds, touchable instead of untouchable.</p>
We are rousing!	<p>Traditionally, in the Ruhr Area we obtain successes together – also beyond the football pitch. Therefore, we consider ourselves to be one team of supporters in which everyone encourages one another with unlimited passion. The passion of doing anything at any time for our VfL Bochum 1848, is our engine and power.</p> <p>In good as well as in bad times we stand by each other and motivate one another again and again with our lifeblood.</p> <p>With true dedication we fight side by side and we always build an integrated whole where everyone helps each other out.</p> <p>We consider ourselves to be committed ambassadors of our VfL Bochum 1848 in every situation and due to our enthusiasm, we fascinate others.</p>
We are unbending!	<p>The history of our VfL Bochum 1848 mirrors the history of the Ruhr Area: many times underestimated, pressured by the big and affected by adversities, set backs and defeats – but still there!</p> <p>Yesterday, today and tomorrow: self-confidently we defy adversities, conjointly we fight against set backs and stay fair even while suffering defeats!</p> <p>"Don't let it get you down" is our impetus, "always stand up again" our point, "nevertheless" our slogan.</p>
We declare our social responsibility!	<p>We commit ourselves to the values of sport: we live tolerance, fair play, solidarity and equality.</p> <p>Our community integrates supporters of different origin - irrespective of their religious conviction and their cultural roots.</p> <p>We offer help to people in distress, we demand and promote moral courage and we consistently voice our opposition against any form of discrimination.</p>

Table 15: Definitions of VfL Bochum 1848's six values

Source: VfL Bochum 1848³⁶¹

³⁶¹ See VfL-BOCHUM (2007b): *Our Values*. URL: http://www.vfl-bochum.de/site/en/_verein/_leitbild/unserewertung.htm, retrieved on: 15 August 2011.

4.3 Derivation of integrated reference framework

Previous chapters have analyzed some of the major theoretical considerations at play within brand management, sports, and multisensuality. Following this, we examined some background information regarding the soccer club VfL Bochum 1848, its history, and its local surroundings. This material will now be conceptually transferred into an integrated reference framework, which serves as the foundation for the following empirical observations. Integration involves a purposeful combination of various partial models stemming from brand, communication, and behavioral concepts.

The behavioral-scientific approach and its effects can be assessed using internal and external constructs. The communication of brand content and the tools one selects to do so are the main focus of the study. They can be analyzed by considering the transfer of multisensory content from internal stakeholders toward two target groups, mentioned at the top of the brand image side (above 'organism') in Figure 21. While frequent and infrequent visitors are confronted with several elements in both the inside and outside area of the stadium, the main target of the study is to find out whether (and if so, to what extent) these individual elements contribute to a positive attitude by means of overall satisfaction levels after the event.

Furthermore, through examining the extent to which variables play an influence, it should be possible to predict how brand attitudes will change after the game. This could serve as an indirect relationship between the current outside perception of the realization (at the event) and the current outside perception of the brand. Note that the integrated reference framework from Springer (2008)³⁶² was expanded by two additional constructs: the desired self-perception of realization and the desired outside perception of realization. The latter construct is supposed to be measured through the expectation ratings held before the event by the external stakeholder groups. In order to be able to compare the external ratings stemming from the sur-

³⁶² See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 116; Figure 21 drawn with Adobe Illustrator by E. Ercihan.

veys of brand self-perception, ratings provided by internal stakeholders dating back to 2004 have been considered.³⁶³

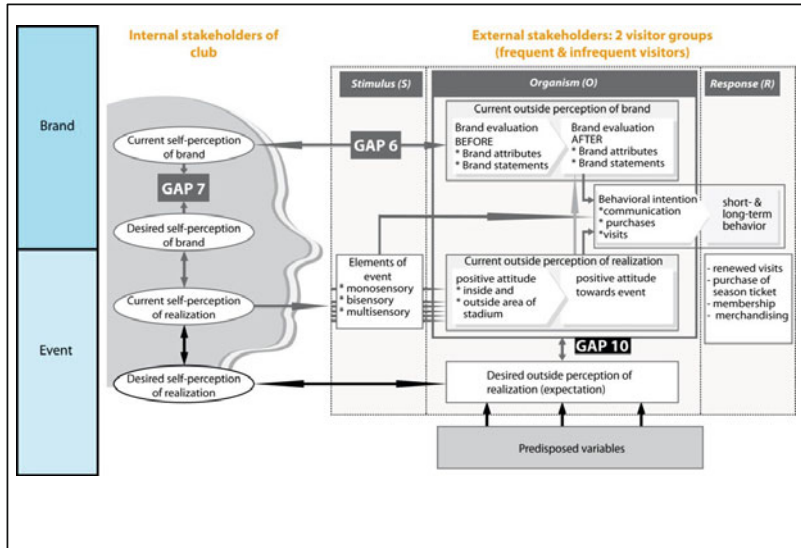


Figure 21: Integrated reference framework

Source: author's own illustration, with close reference to Springer (2008), p. 116

The realized, cognitively and affectively characterized processes will be applied to derive conative reactions (which are listed under short- & long-term behavior attitudes in response R) in terms of communicative and consumptive intentions³⁶⁴ after the event.

³⁶³ This constitutes one of the major limitations of the study. See Chapter D.3.

³⁶⁴ See BUEHLER, A./NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 339: The consumption patterns displayed by soccer fans are considered irrational, as purchase decisions are often based on passion and not on commercial realities. In this context, a soccer fan is called a 'captive consumer' in a 'captive market'. Refer also to PIERPOINT, B. (2000): *Heads above Water: Business Strategies for a*

4.3.1 Determination of theses

We will now apply to the area of sports some theses and hypotheses which were already tested for the automotive industry by *Springer* (2008).³⁶⁵ To be able to compare the results from this study with the results from the automotive industry, the content of the theses and hypotheses are kept identical as far as possible. The theses are based on our previous theoretical considerations and on the integrated reference framework for empirical research into live soccer matches. They apply to both observed fan groups – frequent and infrequent visitors. We seek to determine how VfL Bochum 1848 is able to retain existing or to attract new visitors through the application of monosensory, duosensory, and multisensory stimuli, and what types of difference exist in the results found amongst the two visitor groups. As shown before, the perception and effectiveness of the stimuli deployed in a soccer stadium can be displayed through constructs concerning communication and behavior. Positive attitudes expressed by visitors are an important and reliable way to evaluate experiences felt in a soccer stadium and are therefore defined as the principal target measure within this behavioral-scientific approach. It is assumed that both verbal and non-verbal representations can contribute to final explanations.

Thesis 1: The positive attitude toward the experience in the stadium, as an indicator of behavioral intentions, can to a large extent be explained by the concurrence of identified monosensory, duosensory, and multisensory elements of verbal and nonverbal representations in the two areas ‘exterior of the stadium’ and ‘interior area of the stadium’.³⁶⁶

New Football Economy, in: GARLAND, J., et al. (eds.): *The Future of Football - Challenges for the Twenty-First Century*, London, pp. 29 et seqq.

³⁶⁵ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 117 et seqq.

³⁶⁶ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 117.

The two stadium areas offer distinct spheres of sensory experience, and each hold differing opportunities to push forward the beneficial attributes of the brand. Nevertheless, it can generally be assumed that visitors differently evaluate the main characteristics and statements concerning the club brand after having visited a specific game. In addition to this, it can also be suspected that the areas with a higher ratio of multisensory elements display a stronger, more multifaceted shift in evaluations. The direction of this effect – be it positive or negative – is neglected in the theses.

Thesis 2: The brand attitude concerning VfL Bochum 1848 after the game, as an indicator of behavioral intentions, is explained by the ratings of the monosensory, duosensory, and multisensory elements of the verbal and non-verbal representations of the two areas in the stadium visited by the fans on the day of the game.³⁶⁷

Although representations of stimuli in the stadium areas strongly contribute to the explanations of previously illustrated dependent constructs, behavioral intentions are not inevitably influenced.

Hence, as a last step, it is examined whether elements of the visit to the stadium - which are characterized cognitively as well as affectively – provoke intentions of communications, renewed interest, and purchases/ future investments.

Thesis 3: The behavioral intentions can be explained by the cognitive elements of the attitude toward the club, as well as by the affective elements of the positive attitude toward the experience in the stadium.³⁶⁸

For all three theses of this analysis, it can be expected that results stemming from the study will vary considerably between frequent and infrequent visitors. As such, the results of the two groups will be compared in each exploratory step. In the final

³⁶⁷ See *ibid.*, p. 118.

³⁶⁸ See *ibid.*, p. 118.

stage of this study, the results are also briefly compared to the findings in the automotive industry.

4.3.2 Derivation of hypotheses

The proposed basic theses outlined before are now translated into detailed, operationally testable hypotheses.

Starting from systematic derivations of various sensory elements, it is first planned to postulate a predominant explanation of the verbal and nonverbal representations toward the positive attitude of the experience in the stadium, based on **Thesis 1**. The following two hypotheses are created for this purpose:³⁶⁹

H(posAttFV): The positive attitude of frequent visitors is composed of the perception of two significantly different areas, which visitors are exposed to during a game: the area outside of and inside of the stadium.

H(posAttIV): The positive attitude of infrequent visitors is composed of the perception of two significantly different areas, which visitors are exposed to during a game: the area outside of and inside of the stadium.

If there is proof of such a structure in the empirical analysis, it implies an explanatory contribution of the endogen constructs of at least 30% each.³⁷⁰ As a consequence, two continuative statements can be hypothesized for both frequent and infrequent visitors.³⁷¹

H(posAtt1): On the day of the game, both verbal and non-verbal representations of different sensual elements in the area outside of the stadium contribute to at least 30% of the positive attitude toward this specific area.

³⁶⁹ See *ibid.*

³⁷⁰ See CHIN, W. W. (1998): *The partial least squares approach to structural equation modeling*, in: MARCOULIDES, G. A. (ed.): *Modern methods for business research*, Mahwah, p. 323: According to Chin, coefficients of determinations (R^2) of at least 0.2, 0.3, and 0.7 represent weak, moderate, and substantial effects, respectively.

³⁷¹ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 118 et seq.

H(posAtt2): On the day of the game, both verbal and non-verbal representations of different sensual elements in the area inside of the stadium contribute to at least 30% of the positive attitude toward this specific area.

The verbal representation style involves language and text. As such, we can see the use of abstract and symbolic codes and of differentiated and syntactic composition rules. These codes and rules are only relational descriptions of individually perceived content.³⁷² The distance between linguistically communicated content and reality transferred through primary perception means that it is significantly more complex than the one made accessible through primary perception only. It can thus be assumed that nonverbal representations, which can be processed more easily and more quickly than verbal content,³⁷³ more significantly contribute to explanations of positive attitude in the two stadium areas. Consequently, the following two continuative hypotheses are stated for both frequent and infrequent visitors:³⁷⁴

H(posAtt3): Non-verbal representations outside of the stadium more significantly contribute to the creation of a positive attitude toward this specific area than verbal representations.

H(posAtt4): Non-verbal representations inside of the stadium more significantly contribute to the creation of a positive attitude toward this specific area than verbal representations.

Thesis 2 can be tested by analyzing the relationship between the perceived elements of the two areas visited in the stadium and the ratings of VfL Bochum 1848's brand statements after the game. At minimum, a partial impact on brand

³⁷² See SINGER, W. (2005): *Das Bild im Kopf - aus neurobiologischer Perspektive*, in: GRAF, B., et al. (eds.): *Sichtweisen - Zur veränderten Wahrnehmung von Objekten in Museen*, Wiesbaden, p. 143.

³⁷³ See KROEBER-RIEL, W. (1996): *Bildkommunikation - Imagerystrategien für die Werbung*, München, pp. 179 et seq.

³⁷⁴ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 119.

competency should be observable. As a result, the following statements are hypothesized for this limited brand focus:³⁷⁵

H(InfV): The evaluation of the different sensual elements of verbal and non-verbal representations during the day influences the final evaluation offered of brand competency by frequent visitors after the game.

H(InfIV): The evaluation of the different sensual elements of verbal and non-verbal representations during the day influences the final evaluation offered of brand competency by infrequent visitors after the game.

Additionally, as a result of the complexity of verbal representations, and due to the predominance of non-verbal communications toward brand attitude, the following two hypotheses should be provable for the two visitor groups:³⁷⁶

H(Inf1): The influence of nonverbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area outside of the stadium.

H(Inf2): The influence of nonverbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area inside of the stadium.

According to the existing literature, the brain's performance can be significantly improved through the usage of both cerebral hemispheres and through the continued stimulation of as many senses as possible.³⁷⁷ Through a comparable analysis, it can be tested whether the areas of the stadium with a higher perceivable proportion of multisensory elements exert a stronger influence on brand attitude:³⁷⁸

³⁷⁵ See *ibid.*, p. 120.

³⁷⁶ See *ibid.*

³⁷⁷ See DECKER, F. (1995): *Die neuen Methoden des Lernens und der Veränderung - Lern- und Organisationsentwicklungen mit NLP, Kinesiologie und Mentalpädagogik*, München, p. 132; RUECKRIEM, G. E. A. (1997): *Die Technik des wissenschaftlichen Arbeitens - Eine praktische Anleitung*, Paderborn et al., p. 47; HERRMANN, N. (1997): *Das Ganzhirn-Konzept für Führungskräfte - Welcher Quadrant dominiert Sie und Ihre Organisation?*, Wien, pp. 55 et seqq.

³⁷⁸ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 120.

H(Inf3): The higher the perceivable proportion of multisensory elements is within an area, the more brand statements are influenced after the evaluation of the program.

H(Inf4): The formative measurement model with the highest perceivable proportion of multisensory elements in the 'outside area of the stadium' has the greatest influence on the brand statements after the evaluation of the program.

H(Inf5): The formative measurement model with the highest perceivable proportion of multisensory elements in the 'inside area of the stadium' has the greatest influence on the brand statements after the evaluation of the program.

In order to test **Thesis 3**, a congruent approach can be used. The brand attitude is measured in two different SmartPLS-models.³⁷⁹

- Absolute brand statement evaluations after the game
- Changes in the evaluations of brand statements (before vs. after the game)

This approach takes into consideration the fact that two entirely different target groups are observed. Infrequent visitors might vary more in their ratings of expectations before the game and of the actual experience of the game itself. Meanwhile, regular visitors are familiar with the stadium environment, and so their rating before and after the visit is likely to be more consistent.

Firstly, we set basic hypotheses for the expected relationships:

H(IntFVS): Considering the absolute evaluations of the brand statements, the intentions of frequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.

³⁷⁹ See *ibid.*

H(IntIVS): Considering the absolute evaluations of the brand statements, the intentions of infrequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.

H(IntFVSC): Considering the changes in evaluation of the brand statements, the intentions of frequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.

H(IntIVSC): Considering the changes in evaluation of the brand statements, the intentions of infrequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.³⁸⁰

If the aforementioned hypotheses turn out to be true, the explanatory contribution of the endogen constructs – similar to H(posAtt1) and H(posAtt2) – should exceed 30%. This condition is formulated through two continuative hypotheses for the brand statement evaluations and changes in brand statement evaluation observed amongst frequent and infrequent visitors.³⁸¹

H(Beh1S): Considering the absolute evaluations of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of communicative intention after the game.

H(Beh2S): Considering the absolute evaluations of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of consumptive intention after the game.

H(Beh1SC): Considering the changes in evaluation of the brand statements, the cognitively characterized part of the brand attitude and the affectively

³⁸⁰ The letters S and SC in the brackets stand for the '(brand) statement (evaluations)' and '(brand) statement (evaluation) changes', respectively.

³⁸¹ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 121.

characterized attitude toward the stadium visit contribute to at least 30% of communicative intention after the game.

H(Beh2SC): Considering the changes in evaluation of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of consumptive intention after the game.

Research has shown that for long-lasting consumable durables, the affective components come to the fore and strongly influence a decision to purchase. However, when it comes to the actual purchasing intentions, the affective elements become less relevant; hence, there is a predominance of cognitively characterized components.³⁸² As a consequence, it is assumed that rationality has a higher importance for the purchase intention, while emotional aspects prevail in communications about the brand and in the usage of the brand. This leads to the following hypotheses:³⁸³

H(Beh3S): Considering the absolute evaluations of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the communicative intention after the game than the cognitively characterized part of the brand attitude.

H(Beh4S): Considering the absolute evaluations of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the consumptive intention after the game than the cognitively characterized part of the brand attitude.

H(Beh3SC): Considering the changes in evaluation of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the communicative intention after the game than the cognitively characterized part of the brand attitude.

³⁸² See FREUNDT, T. C. (2006): *Verhaltensrelevanz emotionaler Markenimages - Eine inter-industrielle Analyse auf empirischer Grundlage*, Wiesbaden, pp. 271 et seq.

³⁸³ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 121.

H(Beh4SC): Considering the changes in evaluation of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the consumptive intention after the game than the cognitively characterized part of the brand attitude.

By means of the integrated reference framework and the corresponding theses and hypotheses, we should be able to empirically support the theoretically derived findings of multisensuality and brand management. Through the help of a **path model**, the constructs and variables will be connected based on theory and aforementioned hypotheses/ theses.³⁸⁴

³⁸⁴ See Chapter C.2.3.1 for the respective SmartPLS models. See also SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 121.

C Empirical study of sensory perception and effectiveness during games played by the German soccer club VfL Bochum 1848

1 Design and methodology of the empirical study

Based on the characteristics of multisensory experiences at live sporting events and the conceptualization of brand management, the hypotheses listed in the previous chapter are now empirically tested.

The database and its collection methods are first introduced, along with the statistical tools used for the analysis of the collected data. This is followed by a detailed empirical presentation of the results and their corresponding interpretation, taking into consideration the relevant statistical reliability and validity criteria of the applied methods.

1.1 Data collection methods

A complex process was chosen, with two online surveys carried out before and after soccer games. It was fully understood that it might become difficult to motivate fans to answer a second questionnaire, especially if the team had lost. The two surveys, which are used to test the integrated reference framework and the derived hypotheses presented in the previous sections, were developed in close cooperation with the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, of HHL Leipzig Graduate School of Management and the Marketing department of the soccer club VfL Bochum 1848. The research object, **a live sporting event in a soccer stadium**, represented the main focus of the study.

As indicated before, in 2006, VfL Bochum 1848 conducted various expert interviews and focus group conversations, involving both internal and external stakeholders, to finally derive brand characteristics and brand expressions specifically associated with VfL Bochum 1848.³⁸⁵ In 2007, the club integrated these findings

³⁸⁵ See also WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, pp. 514 et seqq.; THAM, T. (2008): *Einführung eines*

into its mission statement (the so-called 'Leitbild')³⁸⁶, which represented the first publication of that kind in German professional soccer.³⁸⁷

1.1.1 Recruitment of targeted groups

Two main supporter groups were targeted for the empirical study:

- Frequent visitors (FV) of VfL Bochum 1848 soccer games in the rewirpowerSTADION (fans having visited home games more than 5 times). This includes fans with season tickets.
- Infrequent visitors (IV) of VfL Bochum 1848 soccer games in the rewirpowerSTADION (fans having been in the rewirpowerSTADION no more than 5 times) – the majority of this group were first-time visitors.³⁸⁸

In order to confirm the validity of the distinction between these two target groups, several **screening questions** and sections about sensuality preferences were included in the two questionnaires. The following results in the Chapters C.1.1.4 and C.1.2 confirm the general, appropriate, and correct split of these two groups. In the original scope of the study, **VIP guests**³⁸⁹ seated in the luxury sections of the stadium were also included; however, as the club's Marketing department launched a so-called 'quality survey' into its hospitality services shortly before the study and as visitors in the hospitality areas represent a sensitive customer group to the club, the decision was taken to exclude this potential target population from the study. Nevertheless, for the purpose of this analysis, the Marketing department

stakeholderorientierten Leitbildes im Fußball, in: KLANTE, O. (ed.): *Aktuelle Perspektiven des Marketingmanagements - Reflektionen aus den Bereichen Holistic Branding, Media Management und Sustainability Marketing - Festschrift für Prof. Dr. Kirchgeorg zum 50. Geburtstag*, Wiesbaden, pp. 61 et seqq.

³⁸⁶ See DAUMANN, F., et al. (2008): *Planung im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 116.

³⁸⁷ See Chapter B.4.2.5 for further details.

³⁸⁸ For the exact split, see Table 19.

³⁸⁹ Very Important Persons (VIP) have always played an important role in social, cultural, and sporting events: See DIGEL, H./ FAHRNER, M. (2008): *Hospitality Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 445.

of VfL Bochum 1848 was willing to share descriptive results of the quality surveys from 2011 and 2012, from which some aspects are shared in the final section of this study.

One way to recruit participants for the survey was through online means:

- VfL4u- and westline-forum - two fan websites specifically established for VfL Bochum 1848 supporters. If online users wanted to participate in the surveys, they were asked to pre-register before the games by sending their personal e-mail address to the survey administrator, in order to avoid being registered twice in subsequent games³⁹⁰
- Xing – an online forum for professionals with a specific interest group relating to the club VfL Bochum 1848³⁹¹
- Facebook – after coordination with the club, a message was published on the official VfL Bochum 1848 Facebook page appealing for participants shortly before the games

The local Ruhr-University Bochum offered its help for the surveys and recruited first-time visitors through Facebook for the cup match against Bayern Munich – it mainly targeted freshmen students who had arrived in Bochum only a few weeks before the games.³⁹² The following text was used on Facebook (translated from German into English):³⁹³

“Never been to the stadium, but fancy heading along? If so, get involved and take an online survey hosted by our partner VfL Bochum 1848. If you are lucky, you’ll win a free ticket for the cup game against Bayern Munich (only available for first-time visitors) [...]”

³⁹⁰ Only already-registered users of the forums were allowed to participate. See Appendix A4 and VfL4U (2011): *VfL-Umfrage mit attraktiven Preisen!* URL: <http://vfl4u.instinske.de/wbb2/thread.php?threadid=50094&highlightuser=81>, retrieved on: 18 January 2012.

³⁹¹ See Appendix A5 for the message in the VfL4u-forum and XING (2011): *VfL-Umfrage mit attraktiven Preisen (auch Bayern-Tickets)*. URL: <https://www.xing.com/net/prie5dd08x/vflbochum1848/ticketborse-97927/vfl-umfrage-mit-attraktiven-preisen-auch-bayern-tickets-38806115/>, retrieved on: 10 February 2012.

³⁹² See also the demographics of the participants in Table 21 in Chapter C.1.2, where a high population of students can be noted.

³⁹³ See FACEBOOK (2011): *Ruhr-Universität Bochum*. URL: <http://www.facebook.com/ruhrunibochum/posts/344080845606140>, retrieved on: 20 January 2012.

Furthermore, participants were recruited through personal conversations at booths at the Christmas market in downtown Bochum and directly at the stadium before the four games. At the local universities, posters about the surveys were attached in the main entrance area.

1.1.2 Incentivization of participants

In order to recruit the maximum number of participants, the club provided free tickets for the league games against Cottbus, Aue, and Düsseldorf. This was mainly supposed to encourage infrequent visitors without season tickets to participate, at a time when the club was going through a difficult patch of form. The tickets were a mixture of standing and seated.³⁹⁴

After the third game against Düsseldorf, and only a few days before the cup game against Bayern Munich, 5 pairs of tickets for the upcoming match against Bayern Munich were drawn by lot among all participants who had filled out both questionnaires. This prize draw was an alluring incentive, as the game against Bayern Munich was already sold out at that point. The draw was one of the last unique chances to receive tickets.³⁹⁵

254 participants filled out both surveys.³⁹⁶ After the cup game, the following prizes were distributed:

- Official jersey signed by all players of the current squad, sponsored by VfL Bochum 1848
- 4 official books 'Anne Castroper', sponsored by VfL Bochum 1848
- 3 pairs of tickets for an upcoming music concert of Herbert Grönemeyer, taking place in Bochum on 22 May, 2012³⁹⁷

³⁹⁴ See Table 20 in Chapter C.1.1.4.

³⁹⁵ Due to the high demand, tickets were only available for members of the club, official fan groups, and supporters with season tickets. People who did not belong to one of these three groups were barely able to obtain tickets.

³⁹⁶ See Chapter C.1.1.4 for further details.

³⁹⁷ Herbert Grönemeyer is a well-known German singer with strong roots in the city of Bochum. His song 'Bochum' is played in the rewirepowerSTADION a few minutes before each game.

Lastly, all participants were promised a free drink in the second half of season 2011/ 2012. In early 2012, several e-mails were sent out to participants, informing them of the timing and location of this offer.

1.1.3 Carrying out the surveys

After the participants had been recruited, two surveys were conducted:

1. 'Before'-survey

An initial survey had to be filled out before the game. This was made available through an online link which was sent to the participants 5-7 days before the match,³⁹⁸ using their personal e-mail addresses which had been forwarded to the survey administrator during the registration process. Alternatively, a booth was opened at the stadium two hours before each match, so that supporters were also able to fill out a paper version on the day of the game. The survey consisted of 39 sections; the paper version was five pages long.³⁹⁹ All surveys taken at the stadium through paper versions before the game were then digitally recorded by the survey administrator. Nevertheless, the majority of participants used the online option – 67 paper versions were completed and returned at the stadium before the games.

2. 'After'-survey⁴⁰⁰

The second survey could only be filled out online. The link was mailed to all participants shortly after the games, to the e-mail addresses which had been signed up for the 'before'-surveys. Participants were only entered into the prize draw if they had filled in both surveys, and where the same e-mail address appeared on both questionnaires. In order to balance out the potential disproportionate impact of any one specific result (win/ tie/ loss) on the ratings of questions in the 'after'-survey, a

³⁹⁸ See Appendix A1 for survey website chosen (SurveyMonkey).

³⁹⁹ See Appendix A2.

⁴⁰⁰ See Appendix A3.

total of four games was selected in the months of November and December 2011, against teams of different reputations and abilities. See Table 16.⁴⁰¹

	Game 1	Game 2	Game 3	Game 4
Competition	2 nd Bundesliga (Game broadcast on public TV)	2 nd Bundesliga	2 nd Bundesliga	German-Cup (DFB-Pokal)
Day	Nov 21 st , 2011, 8:15pm	Dec 4 th , 2011, 1:30pm	Dec 10 th , 2011, 1:00pm	Dec 20 th , 2011, 7:00pm
Result	VfL Bochum - Energie Cottbus 0:1 (0:0)	VfL Bochum - Erzgebirge Aue 6:0 (3:0)	VfL Bochum - Fortuna Düsseldorf 1:1 (1:0)	VfL Bochum - Bayern München 1:2 (1:0)
Spectators	13.224	9.661 (all-time low in season 2011/ 2012)	17.260	29.299 (sold out)
Goals	0:1 Kucukovic (77 th)	1:0 Maltritz (15 th), 2:0 Aydin (30 th), 3:0 Toski (41 st), 4:0 Toski (50 th), 5:0 Federico (59 th), 6:0 Aydin	1:0 Inui (38 th), 1:1 Rösler (74 th)	1:0 Federico (26 th), 1:1 Kroos (52 nd), 1:2 Robben (90 th +1)
Situation before game (18 teams in both the 1st and 2nd Bundesliga)	Before the game, Bochum was ranked 11 th , Energie Cottbus 9 th .	Bochum was ranked 12 th before the game, Erzgebirge Aue 11 th .	Bochum was ranked 10 th before the game, Fortuna Düsseldorf 1 st .	Bochum was ranked 9 th in the 2 nd Bundesliga before the game, Bayern Munich top-ranked in the 1 st Bundesliga.

Table 16: Games selected for the survey

Source: Kicker website⁴⁰²

The selected games made up four different types of experience – a disappointing loss, a record win, a tie against the top-ranked team of the 2nd Bundesliga (also a game against a local rival), and a thrilling cup game against one of Germany's footballing giants, FC Bayern Munich.

⁴⁰¹ In addition, a dummy variable for the result of the game was included in the PLS-models.

⁴⁰² See KICKER-ONLINE (2011a): *Kucukovic stoppt den Abwärtstrend*. URL: http://www.kicker.de/news/fussball/2bundesliga/spieltag/2-bundesliga/2011-12/15/1143117/spielanalyse_vfl-bochum-8_energie-cottbus-78.html, retrieved on: 3 April 2012; KICKER-ONLINE (2011d): *Toski & Aydin verpassen Aue ein dickes Veilchen*. URL: http://www.kicker.de/news/fussball/2bundesliga/spieltag/2-bundesliga/2011-12/17/1143135/spielanalyse_vfl-bochum-8_erzgebirge-aue-64.html, retrieved on: 3 April 2012; KICKER-ONLINE (2011c): *Rösler sei Dank - die Serie hält*. URL: http://www.kicker.de/news/fussball/2bundesliga/spieltag/2-bundesliga/2011-12/18/1143144/spielanalyse_vfl-bochum-8_fortuna-duesseldorf-13.html, retrieved on: 3 April 2012 and KICKER-ONLINE (2011b): *Robben sichert in der Nachspielzeit das Viertelfinale*. URL: http://www.kicker.de/news/fussball/dfbpokal/spielrunde/dfb-pokal/2011-12/3/1418092/spielanalyse_vfl-bochum-8_bayern-muenchen-14.html, retrieved on: 4 April 2012.



Figure 22: Arjen Robben scoring the decisive goal, representing a multisensory stimulus during the game⁴⁰³

1.1.4 Participation rates

As indicated in Table 17, 507 participants took the initial online survey or filled out the paper version before the games, while 295 fans completed the online questionnaire after the match. The big discrepancy in these two numbers can be explained by the high number of participants looking to win tickets for the match against Bayern Munich, which was lost in the very last seconds of the game (see Figure 22), and therefore completing the 'before'-survey. Since a high percentage of these participants were not able to watch the game in the rewirpowerSTADION, they could not fill out the second questionnaire.

⁴⁰³ See stimulus 'A_EV_PG_30' in Table 14. For more details about the game, see DIE-WELT (2011): *Fürth düpiert Club – FC Bayern müht sich weiter*. URL: <http://www.welt.de/sport/fussball/bundesliga/fc-bayern-muenchen/article13777246/Fuerth-duepiert-Club-FC-Bayern-mueht-sich-weiter.html>, retrieved on: 4 April 2012.

<u>Surveys started</u>	<u>'before'</u>	<u>'after'</u>	<u>Survey-IDs before</u>	<u>Survey-IDs after</u>
VfL - Energie Cottbus	72	67	23023642	23062549
VfL - Erzgebirge Aue	57	49	23300330 & 23340181	23338465
VfL - Fortuna Düsseldorf	96	87	23498221 & 23371082 23571654, 23625102, 23631692, 23646582,	23500652
VfL - Bayern Munich	282	92	23646752, 23654017 & 23702049	23685717, 23685847, 23685918 & 23702157
	507	295		

Table 17: Number of participants who accessed the questionnaires

396 participants completed the first survey, leading to a completion rate of 78.1% (see Table 18). Out of 295 accessing the second online questionnaire, 261 participants or 88.5% finally completed it.

<u>Surveys finished</u>	<u>'before'</u>	<u>'after'</u>
VfL - Energie Cottbus	70	58
VfL - Erzgebirge Aue	50	46
VfL - Fortuna Düsseldorf	88	80
VfL - Bayern Munich	188	77
	396	261
	78,1%	88,5%

Table 18: Number of participants who completed the questionnaires

After final validations, the responses of seven participants had to be excluded from the survey due to incomplete or inaccurate answers (**straight lining**),⁴⁰⁴ leading to the following final mix:

⁴⁰⁴ 'Straight lining' is referred to marking the same answer option for a high proportion of questions (e.g. choosing the rating 5 across all items).

	How often have you visited a game in the rewirpowerSTADION?				Total
	never	1 to 3 times	4 or 5 times	> 5 times	
	VfL - Cottbus	7	4	3	
VfL - Aue	4	3	1	37	45
VfL - Düsseldorf	23	3	4	46	76
VfL - Bayern	44	4	3	24	75
Total	78	14	11	151	254
			103		

Table 19: Final mix of participants

As shown in Table 19, out of 254 participants, 103 or 40.6% had visited the rewirpowerSTADION at the most 5 times before the survey. 78 candidates or 75.7% of this infrequent visitor target group were first-time visitors. 151 participants or 59.4% of the entire sample had visited home games more than 5 times before the specific survey and therefore belong to the frequent visitor group.

Section	Frequent visitors	Infrequent visitors
	151	103
Seating M outer section	4,0%	1,0%
Seating A	11,9%	26,2%
Seating N1	6,0%	10,7%
Standing N2	9,3%	3,9%
Standing O	25,8%	3,9%
Standing P	18,5%	45,6%
Standing Q	10,6%	4,9%
Other section - Seating	12,6%	2,9%
Other section - Standing	0,7%	1,0%
No response	0,7%	
Seating	34,4%	40,8%
Standing	64,9%	59,2%
No response	0,7%	

Table 20: Sections of the stadium where participants were located

Table 20 indicates the sections where the two target groups followed the four games. 64.9% of all frequent visitors were located in standing sections, in contrast to 59.2% of infrequent visitors. 25.8% of frequent visitors watched the specific game in Section O, where the majority of people are strong supporters of VfL Bo-

chum 1848. 45.6% of all infrequent visitors were situated in (standing) section P,⁴⁰⁵ which is next to section O.⁴⁰⁶

1.2 Illustration of database

Table 21 provides an overview of the key socio-demographic characteristics of the frequent and infrequent visitor group. Out of 151 frequent visitors, 130 (or 86.1%) were male, while the proportion of female participants is higher in the infrequent visitor population (21.4%). When looking at the marital status, it can be noted that the majority of frequent visitors are in a relationship (37.1%), while 50.5% of the infrequent visitors are single. This could be explained by the older average age (in average 33.2 years) of the frequent visitor group (vs. an average of 26.2 years for infrequent visitors).⁴⁰⁷ As indicated before, a high proportion of the infrequent target group was recruited at the local Ruhr-University Bochum, which explains the average age difference of seven years. Interestingly, the age difference between male and female participants is small (1.2 years for frequent and 0.1 for infrequent visitors) within the two main target samples. 72.8% of the frequent visitor sample does not have children, compared to 82.5% of infrequent visitors. 38.8% of the target group having been to the rewirpowerSTADION five or fewer times has a grammar school degree (German 'Gymnasium'); the same amount of infrequent visitors was pursuing further studies.

⁴⁰⁵ A high proportion of free tickets, which were made available by VfL Bochum 1848 to infrequent visitors, were located in section P.

⁴⁰⁶ See Chapter B.4.2.3 and Figure 20 for an overview of the seating and standing sections in the rewirpowerSTADION.

⁴⁰⁷ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 344: The composition of visitors has changed in recent years (age, sex etc.).

		Frequent visitors		Infrequent visitors		Total		
		Σ	%	Σ	%	Σ	%	
		Sex	male	130	86,1%	81	78,6%	211
female	21		13,9%	22	21,4%	43	16,9%	
Marital status	single	51	33,8%	52	50,5%	103	40,6%	
	married	44	29,1%	15	14,6%	59	23,2%	
	in partnership	56	37,1%	36	35,0%	92	36,2%	
Children	none	110	72,8%	85	82,5%	195	76,8%	
	1	16	10,6%	5	4,9%	21	8,3%	
	2	16	10,6%	8	7,8%	24	9,4%	
	3	6	4,0%	1	1,0%	7	2,8%	
	4	1	0,7%	3	2,9%	4	1,6%	
	more than 4	2	1,3%	1	1,0%	3	1,2%	
Education	Pupil (targeted degree from 5- or 6-year secondary school) - Haupt-/ Realschule	3	2,0%	4	3,9%	7	2,8%	
	Pupil (targeted degree from grammar school) - Gymnasium	9	6,0%	8	7,8%	17	6,7%	
	Degree from 5-year secondary school - Hauptschule	3	2,0%	7	6,8%	10	3,9%	
	Degree from polytechnic school	1	0,7%	0	0,0%	1	0,4%	
	Degree from 6-year secondary school - Realschule	20	13,2%	9	8,7%	29	11,4%	
	Degree from grammar school - Gymnasium	38	25,2%	40	38,8%	78	30,7%	
	Vocational education	16	10,6%	8	7,8%	24	9,4%	
	Master craftsman or technical degree	7	4,6%	1	1,0%	8	3,1%	
	Higher education or technical college degree	50	33,1%	23	22,3%	73	28,7%	
	PhD	1	0,7%	0	0,0%	1	0,4%	
Occupation	Other education	3	2,0%	3	2,9%	6	2,4%	
	Farmer	0	0,0%	2	1,9%	2	0,8%	
	Self-employed	11	7,3%	6	5,8%	17	6,7%	
	Official (lower level or intermediate service)	1	0,7%	0	0,0%	1	0,4%	
	Official (general service)	6	4,0%	1	1,0%	7	2,8%	
	Employee (qualified work)	35	23,2%	16	15,5%	51	20,1%	
	Worker (unskilled or with acquired skills)	1	0,7%	6	5,8%	7	2,8%	
	Foremen/ Master craftsmen	1	0,7%	0	0,0%	1	0,4%	
	Free-lance academic	2	1,3%	0	0,0%	2	0,8%	
	Official (higher civil service)	5	3,3%	1	1,0%	6	2,4%	
	Employee (executive function)	16	10,6%	4	3,9%	20	7,9%	
	Employee (manager) - Leitender Angestellter	16	10,6%	2	1,9%	18	7,1%	
	Specialized worker	1	0,7%	2	1,9%	3	1,2%	
	Student	27	17,9%	40	38,8%	67	26,4%	
	Pupil	8	5,3%	8	7,8%	16	6,3%	
	in education	9	6,0%	8	7,8%	17	6,7%	
	unemployed	5	3,3%	5	4,9%	10	3,9%	
	other position	7	4,6%	2	1,9%	9	3,5%	
	per category Σ		151	100,0%	103	100,0%	254	100,0%
			Frequent visitors		Infrequent visitors		Total	
average			not stated	average	not stated	average	not stated	
Age	male	33,1	2	26,2	0	30,4	2	
	female	34,3	0	26,1	0	30,1	0	
	total	33,2	2	26,2	0	30,3	2	

Table 21: Composition of sample of visitor panel

33.1% of the frequent visitor group has obtained a higher education or technical college degree, while 23.2% of all participants in this target group are employed with a qualified work. 17.9% of the frequent visitors are students.⁴⁰⁸

Due to the sensitivity of the information, no question regarding average income was included in the two questionnaires. Illustrating all of the descriptive results would be too extensive; hence, a few sections have been selected, which are expected to be useful as a snapshot toward understanding the multivariate analyses and conclusions drawn later on.

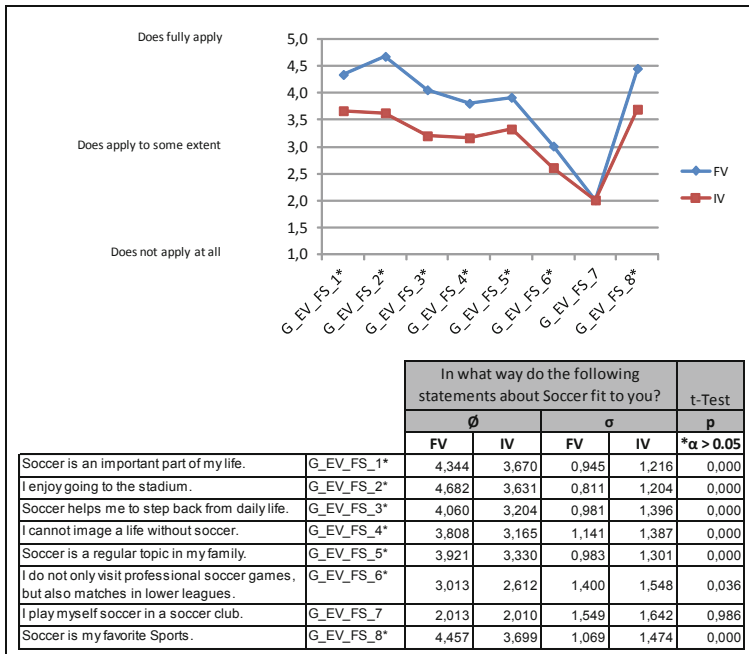


Figure 23: The attitudes of both target groups toward soccer

Figure 23 shows the average mean and standard deviation of eight expressions about soccer, which had to be rated by the participants in the 'before'-

⁴⁰⁸ Therefore, a major proportion of the participants have been involved in academia and are likely to be familiar with empirical studies and questionnaires.

questionnaire.⁴⁰⁹ For all eight statements, the ratings of the frequent visitor groups are superior, indicating a higher overall engagement with soccer, while the dispersion in all cases is higher for the infrequent visitors, indicating this target sample's greater heterogeneity. The statement 'I enjoy going to the stadium' rated 4.682, making it the highest score for frequent visitors, compared to the top-ranked statement of infrequent visitors 'Soccer is my favorite Sports' with a mean of 3.699. The t-tests on the right-hand side of Figure 23 indicate whether the differences in the average ratings are significant. Due to low p-values, the differences in the averages for 7 out of 8 statements are significant (indicated by the symbol '**' next to the variable names, e.g. 'G_EV_FS_1**'). For both groups, the expression 'I play myself soccer in a soccer club' obtained the lowest average ratings. Overall, these results confirm that the frequent visitor group has a higher involvement in soccer,⁴¹⁰ while the infrequent visitors certainly represent a group with general interest and a potential to be turned into frequent visitors in the medium- or long-term.

In order to obtain a better understanding of the sensory preferences of the visitor panel, the participants had to rate how well they absorb new information when different senses are addressed.⁴¹¹ For both target samples, information is absorbed best when it is transmitted through experiences (arithmetic means of 4.543 for frequent and 4.456 for infrequent visitors). For the infrequent visitor group, 'testing out' achieves the same average of 4.456.⁴¹² Interestingly, the ranking order of the six sensuality types is almost the same for both target groups (with the exception of 'G_EV_SG_1' and 'G_EV_SG_4'), as can be seen by the parallel curve progressions in Figure 24. The t-tests show that the differences in average ratings are all non-significant.

⁴⁰⁹ Referring to Question 1 of the 'before'-questionnaire. See Appendix A2.

⁴¹⁰ This confirms the differences expected at the end of Chapter B.2.2 (last paragraph).

⁴¹¹ Referring to Question 4 of the 'before'-questionnaire. See Appendix A2.

⁴¹² See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 128: Similar results were achieved in the study of the Porsche Brand Land, where 'testing out' scored the highest for drivers and non-drivers, and where oral communications were ranked last for both target groups.

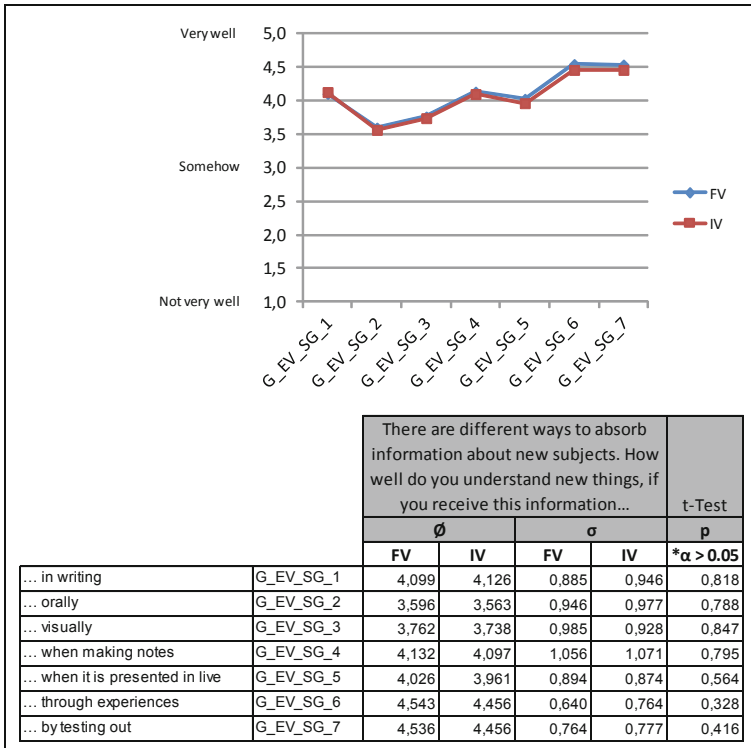


Figure 24: General sensory preferences of frequent and infrequent visitors

Next, the survey participants were asked which modes of communication they prefer to use when following their team’s results.⁴¹³ Clearly, when reviewing the results in Figure 25, frequent visitors prefer to watch their favorite club’s game live in the stadium, followed by ‘watching the game of my team on TV - with friends at home’.

⁴¹³ Referring to Question 5 of the ‘before’-questionnaire. See Appendix A2.

The outcome is the same for infrequent visitors. They too prefer to watch the game at the stadium, followed by ‘watching the game of my team on TV - with friends at home’.

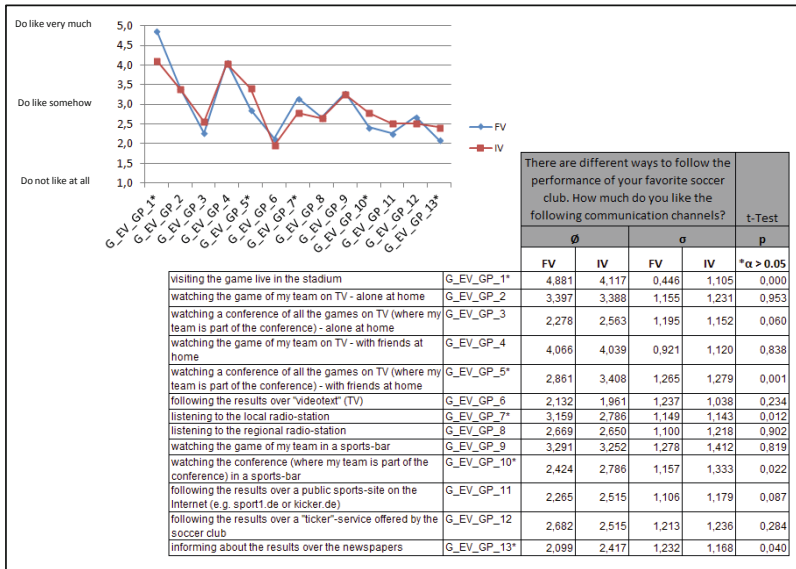


Figure 25: Preferred means of communication for following favorite team's results

The least preferred option for frequent visitors is ‘informing about the results over the newspapers’, with an arithmetic mean of 2.099. For infrequent visitors, ‘following the results over “videotext” (TV)’ ranks last, with an average score of 1.961. The difference in the average ratings is significant for 5 out of 13 statements. In 9 out of 13 items, σ_{IV} is larger than σ_{FV} , indicating a higher dispersion in the ratings of infrequent visitors.

To understand how often various communication channels are used, another question was added to the ‘before’-questionnaire, asking about how frequently various alternatives were used.⁴¹⁴

⁴¹⁴ Referring to Question 6 of the ‘before’-questionnaire. See Appendix A2.

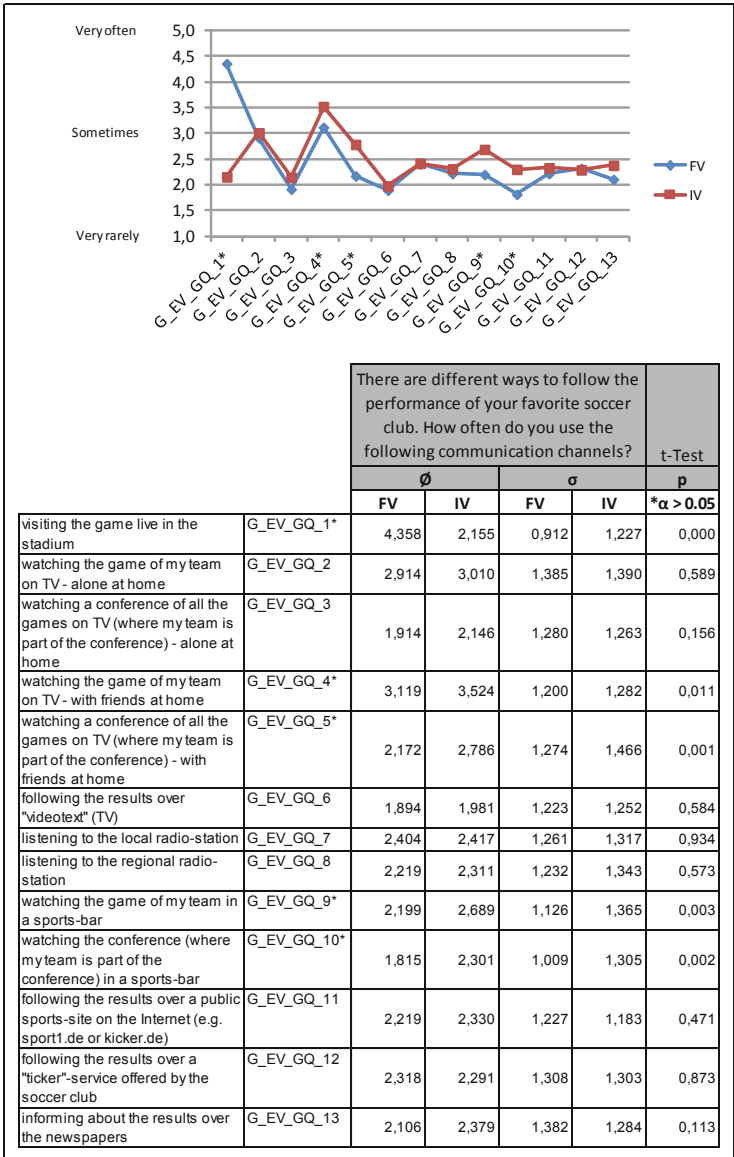


Figure 26: How frequently different means of communication are used to follow favorite team's results

See Figure 26. As expected, the biggest difference between the frequent and infrequent visitor group can be noted for 'visiting the game live in the stadium', confirming the expected characteristics of the two target groups, while indicating the strong potential lying in the infrequent visitor group keeping in mind that this alternative was the most preferred in Figure 25.

Interestingly, following the game alongside the results from other matches in a live, multi-team broadcast – either at home or in a sports bar – achieves low ratings for frequent visitors (1.914 and 1.815, respectively), emphasizing the strong focus on their favorite team at the expense of an interest in other matches. Other than services offered by VfL Bochum 1848 (the game live in the stadium and live ticker through the internet), all other eleven alternatives show a higher arithmetic mean for infrequent visitors, which underlines the more general interest of these participants. They like to watch and to follow soccer, but do not specifically link this broad interest to VfL Bochum 1848 yet. Finally, in 9 out of 13 cases, σ_{IV} is larger than σ_{FV} . For 5 out of 13 statements, the difference in the average ratings is significant.

In Question 17 of the 'before'-questionnaire,⁴¹⁵ the participants were asked which club VfL Bochum 1848 resembles the most. In this open question, 22 different clubs were mentioned by frequent visitors, while infrequent visitors - the target group with fewer participants - named 29 clubs. See Table 22. The top four ranked responses are the same for both groups with a slightly different ranking order. According to frequent visitors, VfL Bochum 1848 is truly unique and does not resemble any other club (21.1% of all responses). This emphasizes VfL Bochum 1848's strong brand image in the eyes of its supporters. According to infrequent visitors, MSV Duisburg - a club located in the immediate neighborhood of Bochum⁴¹⁶ and also competing in the 2nd Bundesliga at the time of the survey - resembles VfL Bochum 1848 the most. The top four responses for frequent visitors make up 67.3% of all mentions, while they represent only 41.7% of all mentions for infrequent visitors.

⁴¹⁵ See Appendix A2.

⁴¹⁶ See map in Figure 18. Duisburg is located to the west of Bochum.

Which club does VfL Bochum 1848 resemble the most?			
Frequent visitors		Infrequent visitors	
No-one	21,1%	MSV Duisburg	14,6%
MSV Duisburg	19,0%	SC Freiburg	11,5%
SC Freiburg	17,0%	No-one	8,3%
FC St. Pauli	10,2%	FC St. Pauli	7,3%
Arminia Bielefeld	6,8%	FC Schalke 04	6,3%
Union Berlin	4,8%	Alemannia Aachen,	
Rot-Weiß Essen	3,4%	Rot-Weiß Essen, 1. FC	4,2%
Fortuna Düsseldorf	2,7%	Nürnberg et al.	

Table 22: Results regarding question ‘Which club does VfL Bochum 1848 resemble the most?’

1.3 Methods and evaluation criteria of statistical analyses

The software package SPSS Statistics 21⁴¹⁷ and SmartPLS version 2.0 M3⁴¹⁸ were utilized to carry out the questions deployed by the study. Univariate, bivariate, and test statistics were used, as were multivariate approaches of the dependence analysis. These assume causal relationships between independent and (re-)related dependent variables⁴¹⁹ and were used for the sorting, processing, and analysis of the empirical database.⁴²⁰

⁴¹⁷ Originally developed for social sciences, the software SPSS has grown massively in the sciences and in the practical world due to its multifaceted analytical possibilities. See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 129; BACKHAUS, K., et al. (2006): *Multivariate Analysemethoden*, Berlin, p. 15. For an overview of the multivariate analysis options in SPSS, see BUEHL, A. (2008): *SPSS 16 - Einführung in die moderne Datenanalyse*, München, pp. 439 et seqq.

⁴¹⁸ RINGLE, C. M., et al. (2005): SmartPLS 2.0.

⁴¹⁹ See BACKHAUS, K., et al. (2006): *Multivariate Analysemethoden*, Berlin, p. 7: Dependence analysis techniques are referred to as ‘structure-testing methods’, aiming to test relationships among variables. The following multivariate analysis methods represent dependence analysis techniques: regression analysis, variance analysis, discriminant analysis, contingency analysis, structural equation modeling, logistical regression analysis, and conjoint measurement. In contrast to dependence analyses, interdependence analyses are based on reciprocal relationships among groups of variables.

⁴²⁰ See BORTZ, J. (2005): *Statistik für Human- und Sozialwissenschaftler*, Heidelberg, pp. 439 et seqq.

As will be explained in more detail later on, this study includes both reflective and formative measurement models, which are based on simple and multiple regressions, respectively.

With the help of regression analyses, it is possible to observe and quantify dependencies among metrically scaled variables,⁴²¹ with the final objective to find causal relationships and to predict effects and time series.

	Valuation criterion	Requirement
Regression function	Coefficient of determination R^2	$\geq 0,3$
	F-statistics (F-test)	$F_{emp} > F_{tab}$
	Standard error (SE)	$\rightarrow 0$
Regression coefficients	t-statistics (t-Test)	$ t_{temp} > t_{tab}$
	Beta-weight (β)	Magnitude, sign, and significance of path relationships according to theoretical expectations

Table 23: Goodness criteria of regression analysis⁴²²

After the regression functions have been estimated, the goodness needs to be validated according to Table 23. The coefficient of determination R^2 , F-statistics, and the standard error (SE) are used as criteria for the regression equations, while t-statistics and the beta-weight β test the regression coefficients. R^2 determines how well the dependent variable can be explained by the regressors.⁴²³ F-statistics evaluate whether the postulated relationships can be empirically confirmed through the regression output. The standard error of the estimator determines the goodness of the estimate through a comparison of the observed value Y and the calculated estimated value \hat{Y} . As long as there is a significant impact on the inde-

⁴²¹ For the purpose of the analysis, ordinal data (e.g. Likert or rating scales) are considered metric, while equidistance is assumed. See Chapter C.1.4 on scaling.

⁴²² See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 131; BACKHAUS, K., et al. (2006): *Multivariate Analysemethoden*, Berlin, pp. 63 et seqq.

⁴²³ See COHEN, J. (1988): *Statistical power analysis for the behavioral sciences*, Hillsdale, pp. 77 et seqq.: A value $R^2 \geq 0.3$ represents a strong effect.

pendent variable by means of t-statistics, the magnitude and the sign of the regression coefficients indicate the marginal effect toward the dependent variable, resulting from a change of an independent variable.

In the following four sub-chapters 1.3.1-1.3.4, detailed information about the causal analysis, the distinction of variance-based and covariance-based structural equation modeling, the difference between reflective and formative measurement models, and the assessment criteria for reflective, formative, and structural measurement models are explained.

1.3.1 Causal analysis

According to *Backhaus et al. (2006)*,⁴²⁴ the main objective in many areas of both the academic and the practical world is to observe causal dependencies among variables. When causalities are observed by means of a dataset, the exercise is usually referred to as a **causal analysis**. In the course of such an analysis, it is of utmost importance to meticulously think about the relationships among the variables, before statistical techniques are consulted. On the basis of thoroughly raised theoretical hypotheses, a causal analysis can be used to test the ways in which the assumed theoretical relationships agree with the empirical dataset. As such, the causal analysis can be assigned to statistical methods testing hypotheses and possesses the ability to confirm results. Similarly, structural equation models allow the testing of relationships between latent, non-observable variables.

Rigdon (1998) states that structural equation modeling (SEM) is “a methodology for representing, estimating, and testing a theoretical network of (mostly) linear relations between variables.”⁴²⁵ As *Henseler et al. (2009)* note, “the advent of structural equation modeling (SEM) with latent variables has changed the nature of research in international marketing and management. Researchers acknow-

⁴²⁴ See BACKHAUS, K., et al. (2006): *Multivariate Analysemethoden*, Berlin, p. 338.

⁴²⁵ RIGDON, E. E. (1998): *Structural Equation Modeling*, in: MARCOULIDES, G. A. (ed.): *Modern Methods for Business Research*, Mahwah, pp. 251 et seqq. For further definitions, see also HOYLE, R. H. (1995): *The structural equation modeling approach: Basic concepts and fundamental issues*, in: HOYLE, R. H. (ed.): *Structural equation modeling: Concepts, issues, and applications*, Thousand Oaks, pp. 1 et seqq. and MACCALLUM, R. C./ AUSTIN, J. T. (2000): Applications of structural equation modeling in psychological research, in: *Annual Review of Psychology*, Vol. 51, pp. 201 et seqq.

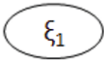
ledge the possibilities of distinguishing between measurement and structural models, and explicitly taking measurement error into account.⁴²⁶

Classical statistical methods (e.g. cluster analysis, multiple regressions, exploratory factor analysis) are often referred to as first-generation techniques.⁴²⁷ They are used to confirm theories which are established a priori, or to identify relationships and data patterns. More recently, second-generation techniques, known as structural equation modeling, have become more and more sophisticated. They enable researchers to integrate unobservable variables in a model, which are then measured in an indirect way through indicator variables.⁴²⁸

Figure 27 illustrates the main components of a structural equation model, where the symbols are defined in the following way:



representing an indicator (manifest/ observed) of an exogenous variable



representing a latent/ unobserved, exogenous variable



representing an error term (unobserved) relating to indicator x_1



representing an error term (unobserved) relating to indicator y_1

⁴²⁶ HENSELER, J., et al. (2009): *The Use of Partial Least Squares Path Modeling in International Marketing*, in: SINKOVICS, R. R., et al. (eds.): *Advances in International Marketing*, Vol. 20, Bingley, pp. 277 et seqq.; also see GEFEN, D., et al. (2000): Structural equation modelling and regression: Guidelines for research practice, in: *Communications of the Association for Information Systems*, Vol. 4, No. 7, pp. 1 et seqq.

⁴²⁷ See FORNELL, C. G. (1987): *A second generation of multivariate analysis: Classification of methods and implications for marketing research*, in: HOUSTON, M. J. (ed.): *Review of marketing*, Chicago, pp. 407 et seqq.

⁴²⁸ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, pp. 3 et seq.



representing a latent/ unobserved endogenous variable



representing an inner model residual for a latent endogenous variable



representing an indicator (manifest/ observed) of an endogenous variable



indicating linear relationships



indicating covariance or correlations

Ovals in Figure 27 are considered constructs which cannot be directly measured. Indicators, which are also listed as items or manifest (observable) variables, are presented in the models as rectangles and contain the raw data from the questionnaires. They are therefore considered proxy variables. The arrows between the constructs, and between the constructs and the linked indicators (going in both directions), represent the relationships. The **error terms** are linked to the endogenous construct and to various reflectively measured variables with single-headed arrows.⁴²⁹

⁴²⁹ Note that formatively measured variables and exogenous latent variables do not have error terms.

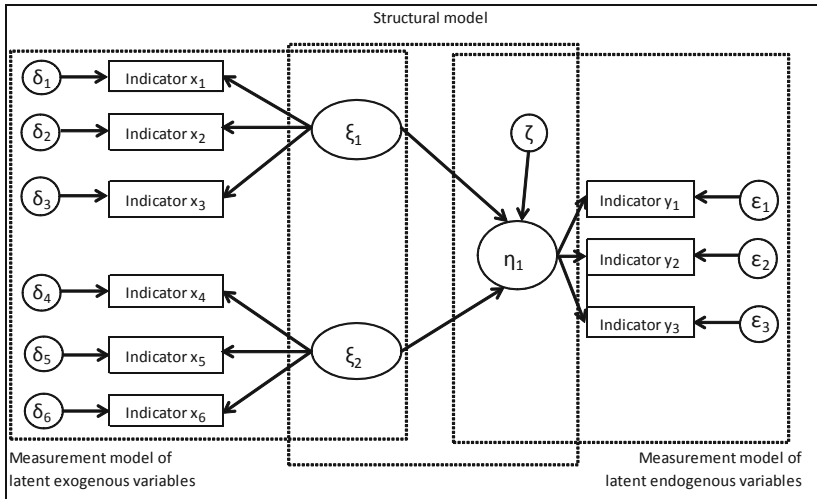


Figure 27: Components of an SEM⁴³⁰

The example above consists of three different models: one **inner, structural model** and two **outer, measurement models**, both in reflective mode. Factory analyses, path analyses, and regressions all represent special cases of structural equation models, which facilitate the modeling of causal relationships within their nomologic context. This includes the testing of theories, the context-sensitive approximation of latent variables, and the inclusion of partial and total effects of factors.⁴³¹ Furthermore, SEM takes measurement errors into account, assessing measurement reliability and validity.

⁴³⁰ HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, pp. 5 et seqq. See also HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, pp. 11 et seqq.: Variables on the left side are indicated as sequentially preceding and forecasting the variables on the right side.

⁴³¹ See HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 10.

1.3.2 Variance-based SEM vs. Covariance-based SEM

There are two basic SEM methods to select from,⁴³² both sharing the same basis:⁴³³

- Variance-based SEM - partial least squares (PLS) path modeling as most prominent representative, also referred to as PLS-SEM⁴³⁴
- Covariance-based SEM (CB-SEM)⁴³⁵ - LISREL⁴³⁶ and AMOS as the most popular software tools to perform CB-SEM analyses

CB-SEM, the most widely applied method in contemporary research,⁴³⁷ calculates model parameter estimates in order to minimize the differences between the estimated and the sample covariance matrices. The PLS-SEM method maximizes the explained variance of the endogenous unobserved variables through estimations of partial model relationships in an iterative sequence of ordinary least squares regressions.⁴³⁸ For many years, CB-SEM was primarily used in market research.⁴³⁹ However, since then, “PLS-SEM applications have expanded in market-

⁴³² See HENSELER, J., et al. (2009): *The Use of Partial Least Squares Path Modeling in International Marketing*, in: SINKOVICS, R. R., et al. (eds.): *Advances in International Marketing*, Vol. 20, Bingley, p. 277. See also HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 415.

⁴³³ See JOERESKOG, K. G./ WOLD, H. (1982): *The ML and PLS techniques for modeling with latent variables: Historical and comparative aspects*, in: JOERESKOG, K. G., et al. (eds.): *Systems under indirect observation: Part I*, Amsterdam, pp. 263 et seqq.

⁴³⁴ PLS-SEM is often referred to as PLS path modeling. See also WOLD, H. (1982): *Soft modeling: The basic design and some extensions*, in: JOERESKOG, K. G., et al. (eds.): *Systems under indirect observations: Part II*, Amsterdam, pp. 1 et seqq.; WOLD, H. (1985): *Partial least squares*, in: KOTZ, S., et al. (eds.): *Encyclopedia of statistical sciences*, New York, pp. 581 et seqq.

⁴³⁵ See JOERESKOG, K. G. (1978): Structural analysis of covariance and correlation matrices, in: *Psychometrika*, Vol. 43, No. 4, pp. 443 et seqq.; JOERESKOG, K. G. (1993): *Testing structural equation models*, in: BOLLEN, K. A., et al. (eds.): *Testing structural equation models*, Newbury Park, pp. 294 et seqq.

⁴³⁶ LISREL stands for Linear Structural Relationship.

⁴³⁷ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 415.

⁴³⁸ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, pp. 414 et seqq.

⁴³⁹ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 415; BAGOZZI, R. P. (1994): *Structural equation models in marketing*

ing research and practice with the recognition that PLS-SEM's distinctive methodological features make it a possible alternative to the more popular CB-SEM approaches."⁴⁴⁰ Table 24 summarizes the main differences of the two techniques.

Criterion	PLS-SEM	CB-SEM
Objective	Prediction-oriented	Parameter-oriented
Approach	Variance-based	Covariance-based
Assumptions	Predictor specification (nonparametric)	Typically multivariate normal distribution and independent observations (parametric)
Parameter estimates	Consistent as indicators and sample size increase (i.e. consistency at large)	Consistent
Latent variable scores	Explicitly estimated	Indeterminate
Epistemic relationship between a latent variable and its measures	Can be modeled in either formative or reflective mode	Typically only with reflective indicators
Implications	Optimal for prediction accuracy	Optimal for parameter accuracy
Model complexity	Large complexity (e.g. 100 constructs and 1.000 indicators)	Small to moderate complexity (e.g. less than 100 indicators)
Sample size	Power analysis based on the portion of the model with the largest number of predictors. Recommendations for the minimum number of observations range from 30 to 100 cases.	Ideally based on power analysis of specific model. Recommendations for the minimum number of observations range from 200 to 800.

Table 24: Comparison of methods used to estimate SEMs⁴⁴¹

research: *Basic principles*, in: BAGOZZI, R. P. (ed.): *Principles of marketing research*, Oxford, pp. 317 et seqq.; BAUMGARTNER, H./ HOMBURG, C. (1996): Applications of structural equation modeling in marketing and consumer research: a review, in: *International Journal of Research in Marketing*, Vol. 13, No. 2, pp. 139 et seqq.; STEENKAMP, J.-B. E. M./ BAUMGARTNER, H. (2000): On the use of LISREL in validating marketing constructs, in: *International Journal of Research in Marketing*, Vol. 17, No. 2/ 3, pp. 195 et seqq.

⁴⁴⁰ HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 415; see also HENSELER, J., et al. (2009): *The Use of Partial Least Squares Path Modeling in International Marketing*, in: SINKOVICS, R. R., et al. (eds.): *Advances in International Marketing*, Vol. 20, Bingley, pp. 277 et seqq.

⁴⁴¹ HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 21. For sample sizes, see CHIN, W. W./ NEWSTED, P. R. (1999): *Structural equation modeling analysis with small samples using partial least squares*, in: HOYLE, R. H. (ed.): *Statistical strategies for small sample research*, Thousand Oaks, pp. 307 et seqq. See also REINARTZ, W. J., et al. (2009b): An empirical comparison of the efficacy of covariance-based and variance-based SEM, in: *International Journal of Research in Marketing*, Vol. 26, No. 4, pp. 332 et seqq.: This simulation study shows that PLS-SEM is an appropriate choice for small sample sizes.

CB-SEM is a parameter-oriented and covariance-based approach, mainly utilized to test theories, i.e. to confirm and reject theories by detecting how good the estimate of the covariance matrix for a data set sample of a suggested theoretical framework is. PLS-SEM is mainly used to develop theories in exploratory research, while focusing on the explanation of the variances within the dependent variables.⁴⁴²

Taking into consideration the different statistical approaches, the two SEM concepts are increasingly considered to be complementary.⁴⁴³ The advantages of one technique are the downside of the other and vice versa.⁴⁴⁴ Depending on the objective of the study, the specifics of the database, and the model, researchers need to weigh up the pros and cons, selecting the tool that best fits their demand.⁴⁴⁵ See Figure 28 for a broad, visual illustration of the two techniques vs. neural networks.⁴⁴⁶

⁴⁴² HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 21. See also HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, pp. 14 et seqq. and CHIN, W. W./ NEWSTED, P. R. (1999): *Structural equation modeling analysis with small samples using partial least squares*, in: HOYLE, R. H. (ed.): *Statistical strategies for small sample research*, Thousand Oaks, pp. 307 et seqq.

⁴⁴³ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 416.

⁴⁴⁴ See SOSIK, J. J., et al. (2009): Silver bullet or voodoo statistics? A primer for using partial least squares data analytic technique in group and organization research, in: *Group & Organization Management*, Vol. 34, No. 1, pp. 5 et seqq.

⁴⁴⁵ See FORNELL, C. G./ BOOKSTEIN, F. L. (1982): Two structural equation models: LISREL and PLS applied to consumer exit-voice theory, in: *Journal of Marketing Research*, Vol. 19, No. 4, pp. 440 et seqq.; GEFEN, D., et al. (2011): Editor's comments: an update and extension to SEM guidelines for administrative and social science research, in: *MIS Quarterly*, Vol. 35, No. 2, pp. III et seqq.; REINARTZ, W. J., et al. (2009b): An empirical comparison of the efficacy of covariance-based and variance-based SEM, in: *International Journal of Research in Marketing*, Vol. 26, No. 4, pp. 332 et seqq. See also HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, pp. 414 et seqq.: The main aim of the analysis in this article was to summarize the usage of PLS-SEM in the field of marketing research. Between 1981 and 2010, PLS-SEM was used in 204 articles and 311 models in the TOP 30 marketing journals – European Journal of Marketing and Industrial Marketing Management had the most (30 and 23 applications, respectively).

⁴⁴⁶ See WIKIPEDIA (2014a): *Artificial neural network*. URL: http://en.wikipedia.org/wiki/Artificial_neural_network, retrieved on: 01 February 2014: "There is no single formal definition of what an artificial neural network is. Commonly, a class of statistical models may be called 'neural' if they consist of sets of adaptive weights, i.e. numerical parameters that are tuned by a learning algorithm, and if they are capable of approximating non-linear functions of their inputs."

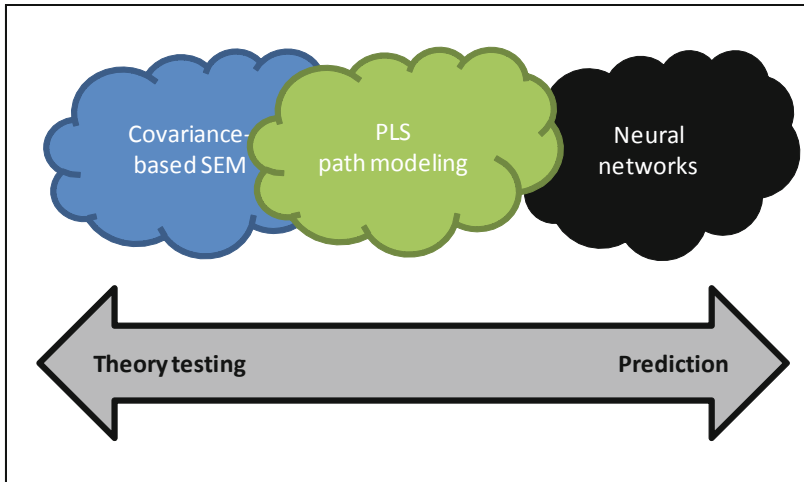


Figure 28: SEM technique depending on research question

Source: Henseler/ Ringle (2012), p. 19⁴⁴⁷

Interestingly, *Hair et al. (2012)* conclude that “PLS-SEM’s methodological properties are widely misunderstood, which at times leads to misapplications of the technique, even in top-tier marketing journals. [...] A potential reason for many researchers’, reviewers’, and editors’ unfamiliarity with the principles of PLS-SEM might be that textbooks on multivariate data analysis do not discuss PLS-SEM at all [...] or only superficially [...]”⁴⁴⁸ Hence, it is crucial to reveal all of the settings used in statistical analyses as well as all reliability and validity measures.⁴⁴⁹ As this study progresses, various statistics and parameters are indicated in detail.

Due to the relatively high complexity of the models used in this context - the integration of both formative and reflective measurement models, the moderate sample size for the two target groups ‘frequent visitors’ and ‘infrequent visitors’, and

⁴⁴⁷ HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 19.

⁴⁴⁸ HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 428.

⁴⁴⁹ See *ibid*, pp. 429 et seq.

PLS-SEM's greater statistical power (compared to CB-SEM) - the Partial Least Square model or variance-based SEM method appears to be preferable over a covariance-based approach. Moreover, there are no distributional assumptions for PLS-SEM, while missing values can be taken into consideration, as long as they are below a reasonable level (which is the case here).⁴⁵⁰

For the purpose of this study, the following '10 times rule' is applied:⁴⁵¹

- Sample size \geq 10 times the largest number of formative indicators used to measure a single construct
- Sample size \geq 10 times the largest number of structural paths directed at a particular latent construct in the structural model

1.3.3 Formative vs. reflective model

As part of the operationalization of various constructs, the researcher needs to decide whether the indicator variables cause the latent variables (formative measurement model) or whether the causality points from the latent variable toward the indicators (reflective measurement model).⁴⁵² Table 25 summarizes the main differences between formative and reflective measurement models.⁴⁵³

Diamantopoulos/ Winklhofer (2001) point out that "whereas reflective indicators are essentially interchangeable (and therefore the removal of an item does not change the essential nature of the underlying construct), with formative indicators 'omitting an indicator is omitting a part of the construct'."⁴⁵⁴

⁴⁵⁰ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 16.

⁴⁵¹ See BARCLAY, D. W., et al. (1995): The partial least squares approach to causal modeling: Personal computer adoption and use as illustration, in: *Technology Studies*, Vol. 2, pp. 285 et seqq.

⁴⁵² See DIAMANTOPOULOS, A., et al. (2008): Advancing formative measurement models, in: *Journal of Business Research*, Vol. 61, No. 12, pp. 1,203 et seqq.

⁴⁵³ Reflective measurement models are often referred to as Mode A measurement in PLS-SEM, while formative measurement models are referred to as Mode B measurement.

⁴⁵⁴ DIAMANTOPOULOS, A./ WINKLHOFER, H. M. (2001): Index construction with formative indicators - An alternative to scale development, in: *Journal of Marketing Research*, Vol. 38, No. 2, p. 271.

	Formative model	Reflective model
1. Direction of causality from construct to measure implied by the conceptual definition	Direction of causality is from items to construct	Direction of causality is from construct to items
Are the indicators (items) (a) defining characteristics or (b) manifestations of the construct?	Indicators are defining characteristics of the construct	Indicators are manifestations of the construct
Would changes in the indicators/items cause changes in the construct or not?	Changes in the indicators should cause changes in the construct	Changes in the indicator should not cause changes in the construct
Would changes in the construct cause changes in the indicators?	Changes in the construct do not cause changes in the indicators	Changes in the construct do cause changes in the indicators
2. Interchangeability of the indicators/items	Indicators need not be interchangeable	Indicators should be interchangeable
Should the indicators have the same or similar content?	Indicators need not have the same or similar content/ indicators need not share a common theme	Indicators should have the same or similar content/ indicators should share a common theme
Would dropping one of the indicators alter the conceptual domain of the construct?	Dropping an indicator may alter the conceptual domain of the construct	Dropping an indicator should not alter the conceptual domain of the construct
3. Covariation among the indicators	Not necessary for indicators to covary with each other	Indicators are expected to covary with each other
Should a change in one of the indicators be associated with changes in the other indicators?	Not necessarily	Yes
4. Nomological net of the construct indicators	Nomological net for the indicators may differ	Nomological net for the indicators should not differ
Are the indicators/items expected to have the same antecedents and consequences?	Indicators are not required to have the same antecedents and consequences	Indicators are required to have the same antecedents and consequences

Table 25: Decision rules used to determine formative and reflective constructs⁴⁵⁵

In other words, while the reflective measurement approach targets the maximization of the overlap between interchangeable indicators, the formative measurement technique emphasizes the minimization of the overlap between complementary indicators.⁴⁵⁶

⁴⁵⁵ See JARVIS, C., et al. (2003): A critical review of construct indicators and measurement model misspecification in marketing and consumer research., in: *Journal of Consumer Research*, Vol. 30, No. 2, pp. 199 et seqq.; see also HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 21.

⁴⁵⁶ See HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 25. See also GUDERGAN, S. P., et al. (2008): Confirmatory

This study follows recent research in the area of visitor satisfaction⁴⁵⁷ and formulates a formative measurement model for this construct, focusing on service interfaces around a stadium, but also on multisensory addressing during a soccer game.

1.3.4 Assessment criteria

As of yet, no universal goodness-of-fit criterion has been established for evaluating PLS results.⁴⁵⁸ Initially, assessments need to focus on the measurement models.⁴⁵⁹ Due to the fact that reflective and formative measurements are based on two different concepts, they require the consideration of different evaluative measures.⁴⁶⁰

A reflective measurement model is assessed on its internal consistency reliability and validity, which includes composite reliability (in order to evaluate the internal consistency reliability), convergent validity, and discriminant validity. As indicated in Table 26, Hair et al. (2012) suggest four different criteria groups for the assessment of reflective measurement models. The arrow on the right-hand side indi-

Tetrad Analysis in PLS Path Modeling, in: *Journal of Business Research*, Vol. 61, No. 12, pp. 1,238 et seqq.: A tetrad test for PLS-SEM is suggested in order to test the null hypothesis that the measures are reflective in nature. If the null hypothesis is rejected in a tetrad test, a formative measurement should be used for the operationalization.

⁴⁵⁷ See HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/3, p. 191.

⁴⁵⁸ See TENENHAUS, M., et al. (2005): PLS path modeling, in: *Computational Statistics & Data Analysis*, Vol. 48, p. 173: Tenenhaus et al. propose a PLS goodness-of-fit index as "operational solution to this problem as it may be meant as an index for validating the PLS model globally." However, Henseler/ Sarstedt challenge the approach and usefulness of this index conceptually and empirically: See HENSELER, J./ SARSTEDT, M. (2013): Goodness-of-fit indices for partial least squares path modeling, in: *Computational Statistics*, Vol. 28, No. 2pp. 1 et seqq.

⁴⁵⁹ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 96.

⁴⁶⁰ For assessment criteria, see also SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 137; FIEDLER, L. (2007): *Stakeholderspezifische Wirkung von Corporate Brands - Ein Modell zur integrierten Evaluation und Steuerung von Unternehmensmarken*, Wiesbaden, pp. 184 et seqq.; DIAMANTOPOULOS, A. (1999): Export performance measurement - Reflective vs. formative indicators, in: *International Marketing Review*, Vol. 16, No. 6, pp. 453 et seq.

cates the order in which the criteria should be looked at. Reliability should always be evaluated before validity.⁴⁶¹

Assessment of reflective measurement model		
Criterion	Recommendations/ rules of thumb	Suggested references
1. Indicator reliability	Standardized indicator loadings $\geq 0,70$; in exploratory studies, loadings of 0,40 are acceptable.	Hulland 1999
2. Internal consistency reliability	Do not use Cronbach's alpha; composite reliability $\geq 0,70$ (in exploratory research 0,60 is considered acceptable).	Bagozzi and Yi 1988
3. Convergent validity	AVE $\geq 0,50$	Bagozzi and Yi 1988
4. Discriminant validity		
- Fornell-Larcker criterion	In order to ensure discriminant validity, the AVE of each latent variable should be higher than the squared correlations with all other latent variables. Thereby, each latent variable shares more variance with its own block of indicators than with another latent variable representing a different block of indicators.	Fornell and Larcker 1981
- Cross-loadings	Each indicator should load highest on the construct it is intended to measure.	Chin 1998; Grégoire and Fisher 2006

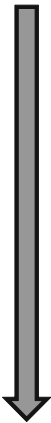


Table 26: Outer model evaluation: reflective⁴⁶²

Cronbach's alpha has been the traditional criterion used for internal consistency reliability, providing an estimate of reliability based on intercorrelations of the ob-

⁴⁶¹ Measurement errors can have two different types of source: The error can have a random source (threatening reliability) and a systematic source (threatening validity), while reliability is a necessary condition for validity. See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 97.

⁴⁶² See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, pp. 429 et seq. See also HULLAND, J. (1999): Use of partial least squares (PLS) in strategic management research: a review of four recent studies, in: *Strategic Management Journal*, Vol. 20, No. 2, pp. 195 et seqq.; BAGOZZI, R. P./ YI, Y. (1988): On the evaluation of structural equation models, in: *Journal of the Academy of Marketing Science*, Vol. 16, No. 1, pp. 74 et seqq.; FORNELL, C. G./ LARCKER, D. F. (1981): Evaluating structural equation models with unobserved variables and measurement error, in: *Journal of Marketing Research*, Vol. 18, No. 1, pp. 39 et seqq.; CHIN, W. W. (1998): *The partial least squares approach to structural equation modeling*, in: MARCOULIDES, G. A. (ed.): *Modern methods for business research*, Mahwah, pp. 295 et seqq.; GRÉGOIRE, Y./ FISHER, R. J. (2006): The effects of relationship quality on customer retaliation, in: *Marketing Letters*, Vol. 17, No. 1, pp. 31 et seqq.

served indicator variables. However, while Cronbach's alpha assumes that the indicators are equally reliable, PLS-SEM prioritizes them according to their individual reliability. Hence, the composite reliability is preferred, which considers various outer loadings of the variables.

Convergent validity indicates the extent to which a measure positively correlates with alternative measures of that same construct. To confirm convergent reliability, the outer loading scores and the Average Variance Extracted (AVE) are taken into consideration.⁴⁶³ Finally, discriminant validity indicates to what extent a construct is truly unique and distinct from other constructs. For this purpose, an indicator's outer loading on the related construct should always be greater than all of its loadings on other constructs (represented by cross-loading figures). In contrast, the Fornell-Larcker criterion compares the square root of the AVE values with the latent variable correlations, while the square root of every construct's AVE needs to be higher than its greatest correlation with any other construct.

Unfortunately, the same set of criteria cannot be directly applied to formative measurement models.⁴⁶⁴ For formative constructs, the initial step is to ensure content validity before collecting data and running PLS path models. Researchers need to first ensure that the selected formative indicators capture the major portion of the construct. After the estimation of the model, significance, relevance, and the presence of multicollinearity among indicators are assessed. See Table 27 for a summary of recommended measures.

The indicator's relative contribution to the construct is measured through the scores of the outer weights; these scores can be compared to the outer weights of other indicators to assess their relative importance within the construct. To test whether the formative indicators really contribute to the formation of the specific construct, the bootstrapping technique is used to help ascertain whether the outer

⁴⁶³ The square of a standardized indicator's outer loading is referred to as the communality of this item. It indicates how much of the variation in an item is explained by the construct.

⁴⁶⁴ In formative measurement models, indicators are likely to represent the construct's independent causes and hence do not automatically strongly correlate. See also DIAMANTOPOULOS, A. (2006): The error term in formative measurement models: Interpretation and modeling implications, in: *Journal of Modelling in Management*, Vol. 1, pp. 7 et seqq.: Formative indicators are assumed to be error-free; consequently, internal consistency reliability measures are inappropriate.

weights (of the formative measurement constructs) are (statistically) significantly different from zero.

Assessment of formative measurement model		
Criterion	Recommendations/ rules of thumb	Suggested references
1. Indicators' relative contribution to the construct	Report indicator weights	-
2. Significance of weights	Report t-values, p-values, or standard errors	-
3. Multicollinearity	VIF < 5/ tolerance > 0,20; condition index < 30	Hair et al. 2011

Table 27: Outer model evaluation: formative⁴⁶⁵

According to *Hair et al. (2014)*, the following rules of thumb should be taken into consideration for bootstrapping:⁴⁶⁶

- The number of bootstrapping samples needs to be higher than the number of valid observations in the original database – in general, high bootstrapping samples are recommended (1,000 – 5,000 optimally)
- The number of cases of each bootstrapping subsample must be exactly as large as the number of valid observations in the original dataset
- The bootstrapping routines calculate the standard error of an estimated coefficient, which is then used to determine the empirical T-values. Since the t-distribution is well approximated by the normal distribution above 30 observations, the quantiles from a normal distribution can generally be used to test significance
- The 'No Sign Changes' option to obtain the most conservative empirical T-values is recommended when running the bootstrapping

⁴⁶⁵ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 430. See also HAIR, J. F., et al. (2011): PLS-SEM: Indeed a Silver Bullet, in: *Journal of Marketing Theory and Practice*, Vol. 18, No. 2, pp. 139 et seqq.

⁴⁶⁶ HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 138. See also HENSELER, J./ RINGLE, C. (2012b): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 3). Hamburg, p. 29.

For the study at-hand, the following bootstrapping settings are chosen within SmartPLS:⁴⁶⁷

Sign Changes for both target groups: No Sign Changes.

Cases for frequent visitors: 151.

Cases for infrequent visitors: 103.

Samples for both target groups: 1,000.

The T-values of the weights, loadings, and path coefficients are always compared against the critical values from the standard normal distribution, to decide whether the coefficients are significantly different from zero. For various significance tests in this study, the critical value for a significance level of 5% probability of error ($\alpha = 0.05$) is applied, which equates to 1.653. As such, the empirical T-values must be higher than the critical values to establish significant paths at a given α -level.

Non-significant or low outer weights should not be automatically erased. It is furthermore recommended to look at the outer loadings of the variables, which serve as an indicator for the absolute contribution to their constructs; in other words, the impact of other indicators is not considered for outer loadings, while they stem from single regressions of the respective indicator toward its corresponding construct.⁴⁶⁸ If the outer weight of an indicator is insignificant, but the outer loading score is above 0.5, the item should be interpreted as absolutely - but not as relatively - important. If the absolute score is below 0.5 and the indicator is non-significant, a decision needs to be taken as to whether this specific indicator has to be eliminated from the construct or whether it is kept in the model. In the following chapters, summary tables of formative measurement constructs will contain both outer weights and outer loading scores for each indicator. In general, it is preferred to keep even non-significant outer weights, as this study is expected to compare results from two different target groups.⁴⁶⁹

⁴⁶⁷ See Appendix A8 for print-screen from SmartPLS.

⁴⁶⁸ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 129.

⁴⁶⁹ See critical remarks about this study's limitations in Chapter D.3.

Once the measurement characteristics of the latent constructs are acceptable and their reliability and validity have been established, the assessment of the structural model results can follow – see Table 28. In general, PLS-SEM assessments of the structural model involve the model’s capacity to make predictions. Hence, the path coefficient estimates should be statistically significant and meaningful, while endogenous latent constructs in the structural model should show high levels of explained variance, indicated through high R^2 -values.⁴⁷⁰

Assessment of structural measurement model		
Criterion	Recommendations/ rules of thumb	Suggested references
1. Coefficient of determination R ² of endogenous latent variables	Acceptable level depends on research context	Hair et al. 2010
2. Effect size f ²	0,02/ 0,15/ 0,35 for weak/ moderate/ strong effects	Cohen 1988
3. Path coefficient estimates	Use bootstrapping to assess significance; provide confidence intervals	Chin 1998; Henseler et al. 2009
4. Predictive relevance Q ² and q ²	Use blindfolding; Q ² > 0 is indicative of predictive relevance; q ² : 0,02/ 0,15/ 0,35 for weak/ moderate/ strong degree of predictive relevance	Chin 1998; Henseler et al. 2009
5. Observed and unobserved heterogeneity	Consider categorical or continuous moderating variables using 'a priori' information or FIMIX-PLS	Henseler and Chin 2010; Rigdon et al. 2010; Sarstedt et al. 2011

Table 28: Inner model evaluation⁴⁷¹

⁴⁷⁰ See HENSELER, J./ RINGLE, C. (2012a): PLS Path Modeling with SmartPLS - Introduction and Applications (Day 2). Hamburg, p. 91.

⁴⁷¹ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 430; HAIR, J. F., et al. (2010): *Multivariate data analysis*, Englewood Cliffs; COHEN, J. (1988): *Statistical power analysis for the behavioral sciences*, Hillsdale, pp. 413 et seq.; CHIN, W. W. (1998): *The partial least squares approach to structural equation modeling*, in: MARCOULIDES, G. A. (ed.): *Modern methods for business research*, Mahwah, pp. 295 et seq.; HENSELER, J., et al. (2009): *The Use of Partial Least Squares Path Modeling in International Marketing*, in: SINKOVICS, R. R., et al. (eds.): *Advances in International Marketing*, Vol. 20, Bingley; pp. 277 et seq.; HENSELER, J./ CHIN, W. W. (2010): A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling, in: *Structural Equation Modeling*, Vol. 17, No. 1, pp. 82 et seq.; RIGDON, E. E., et al. (2010): *Structural Modeling of Heterogeneous Data with Partial Least Squares*, in: MALHOTRA, N. K. (ed.): *Review of Marketing Research*, Vol. 7, Armonk, pp. 255 et

In addition to assessing the size of R^2 -values as a predictor of predictive accuracy, Stone-Geisser's Q^2 -value should be examined.⁴⁷² This measures the model's predictive relevance. For a certain reflective endogenous latent variable, a value that is larger than zero confirms the model's predictive relevance for that specific construct. In SmartPLS, the blindfolding technique allows the calculation of the Q^2 -value. Blindfolding is a sample reuse approach that omits data points – according to a selected omission distance - in the endogenous construct's indicators and estimates the parameters with the remaining data points.⁴⁷³

The 'omission distance' of 7 indicates that every seventh data point of the indicators is eliminated in one single blindfolding round. It is crucial that the omission distance is chosen in a way so that the number of observations used for the two target groups (151 and 103) divided by the omission distance is not an integer. Otherwise, the same set of observations would be deleted from the data matrix in each round. In our case, neither $151/7$ nor $103/7$ result in an integer.

Finally, the effect size f^2 of a construct measures the change in an R^2 -value when this specific exogenous construct is omitted from the model, to determine whether the omitted construct possesses a substantial impact on the endogenous variable.

To conclude, it is crucial to apply various assessment criteria for formative, reflective, and structural measurement models. As Hair et al. (2012) note, specific attention needs to be given to the assessment of the measurement and the structural

seqq.; SARSTEDT, M., et al. (2011a): Uncovering and Treating Unobserved Heterogeneity with FIMIX-PLS: Which Model Selection Criterion Provides an Appropriate Number of Segments?, in: *Schmalenbach Business Review*, Vol. 63, No. 1, pp. 34 et seqq.; SARSTEDT, M., et al. (2011b): Multi-group analysis in partial least squares (PLS) path modeling: alternative methods and empirical results, in: *Advances in International Marketing*, Vol. 22, pp. 195 et seqq.

⁴⁷² See GEISSER, S. (1974): A predictive approach to the random effects model, in: *Biometrika*, Vol. 61, pp. 101 et seqq.; STONE, M. (1974): Cross-validatory choice and assessment of statistical predictions, in: *Journal of the Royal Statistical Society*, Vol. 36, pp. 111 et seqq.

⁴⁷³ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, pp. 178 et seqq. The following blindfolding settings are used for the purpose of this study: Configured missing value of -9999.0 – missing value algorithm: mean replacement (missing value algorithm applied), omission distance of 7. See Appendix A6 for a print-screen of the settings.

models: “[Researchers] do not fully capitalize on the criteria available for model assessment and sometimes even misapply measures.”⁴⁷⁴

1.4 Scaling

After the methods and evaluation criteria of regression analyses and structural equation modeling have been introduced, the conceptualization and operationalization of the constructs, which were already introduced in the integrated reference framework,⁴⁷⁵ are now observed in detail. The target is mainly to explain the origin of the indicators used in the two surveys (before and after the soccer games) for the empirical study.⁴⁷⁶ Furthermore, the type of relationships between the selected indicators and constructs needs to be considered, since a decision on whether the respective constructs are measured in a reflective or formative manner needs to be made as part of the causal-analytical observations.⁴⁷⁷ Generally, it is preferable to utilize operationalization methods that already exist and that have been proven to be of value by existing literature or previous studies, while some of them could be adjusted or expanded according to the current study’s needs. In addition to this, the secondary data and operationalization methods from previous surveys were made available by VfL Bochum 1848, which serves as a foundation for this study. The club’s Marketing department provided valuable feedback, and approved and released the final questionnaires used before and after the four selected games.

⁴⁷⁴ HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 428.

⁴⁷⁵ See Chapter B.4.3 and Figure 21.

⁴⁷⁶ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 138 with reference to STIER, W. (1999): *Empirische Forschungsmethoden*, Berlin, pp. 66 et seq.: For the indicators, specific scales were selected for the empirical study, which have an impact on the assessment and the interpretation of the results.

⁴⁷⁷ See EGGERT, A./ FASSOTT, G. (2003): *Zur Verwendung Formativer und Reflektiver Indikatoren in Strukturgleichungsmodellen - Ergebnisse einer Metaanalyse und Anwendungsempfehlungen*, Kaiserslautern, pp. 4 et seqq.

In regards to the choice of monosensory, duosensory, and multisensory stimuli in **the two stadium areas** selected for the 'after'-survey, two different sources could be identified:⁴⁷⁸

- Indicators relating to the physical facilities and the service experience from former customer satisfaction surveys in sports stadiums:⁴⁷⁹
 - o Ticketing: Number and accessibility of sales channels, politeness and competence of contact persons, user friendliness of online shop
 - o Travel to and from the stadium: signposting for travel, availability and quality of parking, accessibility with car/ public transportation, safety on travel
 - o Outside area of stadium: appearance of stadium, signposting outside of the stadium, (electronic) admission to interior section of stadium, behavior and competence of security representatives
 - o Stay in interior area of the stadium: cleanliness, number of sanitary arrangements, number of merchandizing booths, comfort in seating/ standing area, signposting in interior stadium area, safety in the stadium
 - o Catering: number of catering booths, variety/ quality of food and drinks, cleanliness of catering area, politeness and competence of touch-points at booths
 - o Visit to the event: acoustics, atmosphere during game, program of entertainment for supporters, view from seating/ standing
 - o Satisfaction level of visitor: overall satisfaction, communication, planned return visits

⁴⁷⁸ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 139; Only a few detailed studies into dialogue communication exist. These mainly come from research into exhibitions and events. See e.g. KIRCHGEORG, M./ SPRINGER, C. (2006): *Uniplan LiveTrends 2006 - Steuerung des Kommunikationsmix im Kundenbeziehungszyklus - eine branchenübergreifende Befragung von Marketingentscheidern unter besonderer Berücksichtigung der Live Communication*, Leipzig, pp. 29 et seqq. and FALCKE, J. (1994): *Gestaltung von Messständen*, München, pp. 90 et seqq.

⁴⁷⁹ See HOECK, C., et al. (2010): Management of multi-purpose stadiums: importance and performance measurement of service interfaces, in: *International Journal of Services Technology and Management*, Vol. 14, No. 2/ 3, p. 195; HOECK, C., et al. (2007): Fußball-Arenen : PLS-Pfadanalyse zur Messung der Besucherzufriedenheit, in: *WISU*, Vol. 36, No. 12, p. 1,566.

- Indicators based on a detailed schedule provided by the club VfL Bochum 1848 before each game, outlining the exact order and timing of various program items for the planning before and after the game as well as during half-time. See Figure 29. Due to the fact that the order and the program change only marginally from one game to another – e.g. the same fan songs are played before the game – the surveys taken on the four different days could be consolidated and compared in a reasonable manner.

For each individual indicator, it was ascertained whether the variable from this second questionnaire after the game was a monosensory, duosensory, or



2. Bundesliga Regieplan 18. Spieltag 10.12.2011										
VfL Bochum 1848   Fortuna Düsseldorf										
Zeilen Nr.	Zeit	Stadion Programmpunkt	Zeit	Produktions- Abteil	Dauer	Beteiligte	Betreuung	Audio	Video	Anmerkung
1			10:00:00	Entwerfen VL Technik						
2			10:00:00	Stellen Playker Spieltag	90:00		KK, CK, CL			
3			11:00:00	Regelbesprechung Tagevorbereitung	30:00	Team VL	KK			
4	11:30:00	Pause								
5			11:30:00	Beginn Musik Stadion	54:00	KK	KK	KW		
6			12:25:00	Stand by auf Positionen		Team direkt, Team VL	KK			
7			12:28:00	2 min Werbung J. Seppmann, M. Wurst		AS, MW	KK			
8			12:28:00	2 min Werbung JWF Cam		Cam 1	KK, Cam Hand		Cam 1	Standort: Außenlinie
9			12:29:00	1 min Werbung Video Operator		KK, CK, CL	KK			
10	11:54:00	Jean Michel Jarry: 4th Rendez-vous			03:40	KK, CK, CL, KW		CD-Musik		
11		Regieplan 'VL TV'								

Figure 29: Exact time schedule of a game day provided by VfL Bochum 1848

Source: VfL Bochum 1848 (2011)

multisensory stimulus. This was important, because the sensuality of elements has generally been neglected in recent research into sports and by practitioners.

For the 'outside area of the stadium',⁴⁸⁰ 18 indicators in total were specified, of which 4 items represent verbal representations and 14 can be characterized as non-verbal communication types. Out of these 18 indicators, 4 can be considered multisensory stimuli (22%) – 9 indicators address one sense only (50%), and 5 indicators two senses (28%). The effect of 'ticketing' was not included in the construct 'satisfaction in the outside area of the stadium', but points directly toward the 'overall satisfaction after the event' instead. In many cases, the purchase of the ticket takes place several days or even weeks before the actual event, while the variable is not valid at all for visitors who possess a season ticket.

Concerning the 'interior section of the stadium',⁴⁸¹ 5 verbal and 29 non-verbal indicators could be identified – making 34 indicators overall. With 9 indicators, or 26%, the proportion of multisensory elements is higher than in the outside area of the stadium. The shares of monosensory and duosensory elements equate to 21% (7 variables) and 53% (18 variables), respectively.

Whenever the frequent or infrequent visitor was not confronted with a certain item during his or her visit, the participant could choose the rating '(item) not noticed'. In the database analysis, the **missing values** of -9999.0 were chosen to make these ratings clearly visible. For all the questions which required an evaluation of an item or a construct, the participants were forced by the online survey to choose a rating: Participants were unable to proceed to the next page unless they completely filled in the section they were on.⁴⁸²

Variables that measured similar content were consolidated, so as to eliminate the potential for missing values by calculating the arithmetic means of available ratings. Meanwhile, missing values of -9999.0 were excluded.⁴⁸³

⁴⁸⁰ See Table 13.

⁴⁸¹ See Table 14.

⁴⁸² See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 51: The percentage of survey data collected in the U.S. by online data collection methods exceeds 60%, compared to above 50% in a variety of other developed countries. The 'forced-answer' approach might tempt certain individuals to stop answering the survey; however, more often, people respond to the questions and move on to the next ones, since they may have skipped an item inadvertently.

⁴⁸³ If all variables showed missing values, the consolidated value also indicates a missing value.

In the outside area, this concerned the following variables:

- **A_EV_SC_AG1:** mean of the variables A_EV_SC_1 (Number of ticketing services) and A_EV_SC_2 (Availability of ticketing services)
- **A_EV_TS_AV1:** mean of variables A_EV_TS_8 (Safety while travelling to the stadium by car), A_EV_TS_9 (Safety while travelling to the stadium using public transportation), and A_EV_TS_10 (Safety while travelling to stadium on foot)
- **A_EV_TS_AV3:** mean of variables A_EV_TS_5 (Accessibility of stadium by car), A_EV_TS_6 (Accessibility of stadium by public transportation), and A_EV_TS_7 (Accessibility of stadium by foot)
- **A_EV_TS_AV4:** mean of variables A_EV_TS_14 (Waiting times for travel to stadium) and A_EV_TS_15 (Waiting times for travel away from stadium)
- **A_EV_CO_AVF1:** mean of variables A_EV_CO_2 (Choice of food), A_EV_CO_3 (Price of food), and A_EV_CO_4 (Quality of food)
- **A_EV_CO_AVD2:** mean of variables A_EV_CO_5 (Choice of drinks), A_EV_CO_6 (Price of drinks), and A_EV_CO_7 (Quality of drinks)

In the inside area of the stadium, only one variable is concerned:

- **A_EV_SA_AV1:** mean of variables A_EV_SA_7 (Program on scoreboard before game), A_EV_SA_8 (Program on scoreboard at half-time), and A_EV_SA_9 (Program on scoreboard after game)

Two more variables are included in the SmartPLS-models:

- The performance of the referee – as a **single-item measure** (from the point of view of a stadium visitor) – is included as a formative measure construct driving overall satisfaction inside the stadium
- A formatively measured dummy, representing the impact of the results of the specific game, is directed toward the overall satisfaction of the entire event. The dummy includes the events 'Win' and 'No Loss'.⁴⁸⁴

⁴⁸⁴ The weather has been considered in several studies as another important and critical variable. See BRUGGINK, T. H./ EATON, J. W. (1996): *Rebuilding attendance in Major League Baseball: The demand for individual games*, in: FIREL, J., et al. (eds.): *Baseball Economics - Current Research*, Westport, pp. 9 et seqq.; MARCUM, J. P./ GREENSTEIN, T. N. (1985): Factors Affecting Attendance in Major League Baseball II: A Within-Season Analysis, in: *Sociology of Sport Journal*, Vol. 4, pp. 314 et seqq.; however, the impact can be seen primarily in the fact

The brand personality scale drawn up by Aaker (1997) is a well-known and widely-utilized tool, which categorizes brand image into the five factors of 'sincerity', 'excitement', 'competence', 'sophistication', and 'ruggedness'.⁴⁸⁵ Nonetheless, this study utilizes attributes and results from previous studies undertaken by VfL Bochum 1848 in order to allow comparisons with results from former surveys.

In order to prepare its mission statement, the club VfL Bochum 1848 interviewed internal and external stakeholders and asked them to evaluate the club through 13 **brand attributes**.⁴⁸⁶ For the purpose of this study, and to enable a comparison of its results with previous work, the evaluation of these 13 brand attributes was integrated into the two questionnaires.

The 6 **brand statements** are directly derived from the club's mission statement, with the key brand attributes captured by the six brand statements B_EV_BS_6 - B_EV_BS_11 (for the 'before'-survey) and A_EV_BS_6 - A_EV_BS_11 (for the 'after'-survey).⁴⁸⁷ In order to assess the effect of (cognitively characterized) changes in brand statement evaluations on behavioral intentions, the incremental changes are calculated with the variables C_EV_BS_6 to C_EV_BS_11.

The relationships between these cognitively characterized variables and the final construct are formatively directed for both the brand statements and the brand attributes, because a change in an indicator does not automatically result in a change in all of the other indicators.⁴⁸⁸

whether fans decide to go to the stadium or not. Due to the advent of modern multi-functional stadiums, the impact of weather on satisfaction levels should be minor. Moreover, the weather was very similar on each of the days on which the four surveys were carried out.

⁴⁸⁵ See AAKER, J. L. (1997): Dimensions of Brand Personality, in: *Journal of Marketing Research*, Vol. 34, No. 8, p. 351; SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 140.

⁴⁸⁶ See WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, pp. 495 et seq.; see Chapter B.4.2.5.

⁴⁸⁷ See Chapter B.4.2.5/ Table 15.

⁴⁸⁸ See CHIN, W. W. (1998): *The partial least squares approach to structural equation modeling*, in: MARCOULIDES, G. A. (ed.): *Modern methods for business research*, Mahwah, p. 307; SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 141. See also final comments about the study's limitations in Chapter D.3.

Lastly, the operationalization of the **behavioral intentions** after the visit needs to be clarified. According to *Fishbein/ Ajzen (1975)*, “if one wants to know whether or not an individual will perform a given behavior, the simplest and probably most efficient thing one can do is to ask the individual whether he intends to perform that behavior,”⁴⁸⁹ although the articulated behavioral intentions after an event and the later, short-term or medium-term behavior can all be different.⁴⁹⁰ This study follows *Homburg/ Fassnacht (1998)* in considering behavioral intentions as a component of the loyalty construct. Behavioral intentions refer to recommending the experience to others, to repeating purchase behavior, and to the willingness to purchase additional products or services from the corporation (so-called ‘cross-buying’).⁴⁹¹ These communicative and consumptive intentions are included in the SmartPLS-models for frequent and infrequent visitors, with three reflective indicators for each intentional group; these selected indicators are only a selection of the range of all possible indicators.⁴⁹²

For the purpose of this study, **ordinal scales**⁴⁹³ are used which is a fairly common choice in SEM.⁴⁹⁴ A five-grade Likert rating scale is applied for all of the survey questions which are then integrated into SmartPLS-models. The format consists of 5 levels, with items ranging from ‘1-lowest degree of agreement’ to ‘5-highest degree of agreement’. **Equidistance**⁴⁹⁵ is assumed, e.g. the distance between cate-

⁴⁸⁹ FISHBEIN, M./ AJZEN, I. (1975): *Belief, attitude, intention and behavior - An introduction to theory and research*, Reading, pp. 368 et seq.

⁴⁹⁰ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 141 et seq. with reference to PETER, J. P./ OLSON, J. C. (1999): *Consumer behavior and marketing strategy*, London et al., p. 135.

⁴⁹¹ See HOMBURG, C./ FASSNACHT, M. (1998): *Kundennähe, Kundenzufriedenheit und Kundenbindung bei Dienstleistungsunternehmen*, in: BRUHN, M., et al. (eds.): *Handbuch Dienstleistungsmanagement*, Wiesbaden, p. 415; SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 142.

⁴⁹² See PETER, S. I. (1999): *Kundenbindung als Marketingziel*, Wiesbaden, p. 126.

⁴⁹³ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 7: “A measurement scale is a tool with a predetermined number of closed-ended responses that can be used to obtain an answer to a question.”

⁴⁹⁴ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 9.

⁴⁹⁵ For further information about quasi-metric scales, see MOOI, E. A./ SARSTEDT, M. (2011): *A concise guide to market research: The process, data, and methods using IBM SPSS Statistics*, Berlin, pp. 25 et seqq. See also HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 8: Equidistance refers to the exact ‘spacing’ to be able to interpret the magnitude of differences in values directly.

gory 1 and 2 is the same as between category 3 and 4. As a consequence, since the Likert scales are perceived as symmetric and equidistant, it will mostly behave like an **interval scale**. "When a Likert scale is perceived as symmetric and equidistant, then it will behave more like an interval scale. So while a Likert scale is ordinal, if it is well presented, then it is likely the Likert scale can approximate an interval-level measurement, and the corresponding variables can be used in SEM."⁴⁹⁶

⁴⁹⁶ HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 9.

2 Illustration of empirical results

In the following chapter, the empirical results from the two surveys are presented, in an order that follows the path which frequent and infrequent visitors pass through on the actual day of the game, starting with the stay outside of the stadium and continuing with the experience in the interior section. The results received from causal and regression analyses of the two target groups are evaluated and compared. The research concludes with the overall satisfaction levels reported by visitors after the event, their impact on brand evaluations and behavioral intentions, and possible implications for further research and practical advice for soccer clubs. In all of the areas observed in this study, monosensory and duosensory elements prevail, which consist of both verbal and non-verbal representations. Meanwhile, certain constructs contain higher percentages of multisensory indicators.

In order to be able to compare results from frequent with infrequent visitors, different SmartPLS-models were run for these two target groups. As Hair et al. (2012)⁴⁹⁷ have suggested, as many details as possible concerning the settings and results of the PLS analyses should be provided. The following algorithmic parameters were selected:⁴⁹⁸

Weighting Scheme:	Path Weighting Scheme (in contrast to Centroid or Factor Weighting Scheme)
Data Metric:	Mean 0, Var 1
Maximum Iterations:	3,000
Abort Criterion:	1.0E-5
Initial Weights:	1.0

For the PLS-SEM algorithm, the models need to be recursive – “that is, circular relationships or loops of relationships between the latent variables are not allowed

⁴⁹⁷ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, pp. 429 et seq.

⁴⁹⁸ See Appendix A7 for print-screen from SmartPLS.

in the structural model.”⁴⁹⁹ In general, the PLS-SEM algorithm aims to minimize the amount of unexplained variances (therefore maximizing the R^2 -values) and to converge to the globally, optimal solution after a few iterations. Latent scores of the constructs are measured as linear combinations of the respective indicators and are used for predictive purposes.⁵⁰⁰ In the section ‘Missing Value Algorithm’, the option ‘Mean Replacement’ is selected, while ‘Apply Missing Value Algorithm’ is ticked as well. By choosing this alternative, the missing values of indicator variables are substituted by the mean of valid values of those indicators.⁵⁰¹ The proportion of missing values in the final dataset is small, which is in fact a requisite for the use of the ‘Mean Replacement’ option. On the one side, this approach decreases the variability in the dataset; on the other side, the likelihood of finding meaningful relationships is also reduced.⁵⁰²

As mentioned in previous sections, basic reliability and validity requirements need to be met, before reflective and formative measurement models for the two visitor groups can be thoroughly observed. One of the key requirements for reflective measurement models is **discriminant validity**, measured by the Fornell-Larcker criterion and by a detailed review of cross-loading values. Instead of referring to the discriminant validity results in each specific section, it is preferred to present the combined results at the beginning of the chapter. The discriminant validity calculations stem from output from SmartPLS, after running the PLS algorithms.

As indicated in Table 29, the Fornell-Larcker criteria for all three reflective measurement models for frequent visitors suggest that the constructs discriminate well, as the calculated square roots of the AVE values of each reflective construct are

⁴⁹⁹ HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 23.

⁵⁰⁰ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, pp. 80 et seqq.: In general, there is a PLS-SEM bias: Structural model relationships are underestimated, while relationships in the measurement models are overestimated. However, due to the very small differences between CB-SEM and PLS-SEM estimates, the bias is not relevant for most applications; for this, see also REINARTZ, W., et al. (2009a): An empirical comparison of the efficacy of covariance-based and variance-based SEM, in: *International Journal of Research in Marketing*, Vol. 26, No. 4, pp. 332 et seqq.

⁵⁰¹ See Chapter C.1.4.

⁵⁰² The other available option for the Missing Value Algorithm is ‘Case-wise deletion’, where an entire observation is deleted from the database because of missing data. This approach is reasonable when there are a lot of missing values in the data set (more than 5%). See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 51 and pp. 83 et seq.

higher than the correlations with the remaining constructs in that model. All high-lighted cells are lower than the corresponding values in the respective columns.

	square root of construct's AVE																
	correlations with other constructs																
	Before	Catering	Comfort	Game	HT/ after SAT	Inside SAT	Outside area	Outside Referee	Result	Ticketing	Total SAT	Travel	Verbal inside	Verbal outside			
Before	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
Catering	0,3618	1	0	0	0	0	0	0	0	0	0	0	0	0			
Comfort	0,4460	0,3700	1	0	0	0	0	0	0	0	0	0	0	0			
Game	0,5708	0,3376	0,4736	1	0	0	0	0	0	0	0	0	0	0			
HT/ after	0,3682	0,2584	0,2976	0,4925	1	0	0	0	0	0	0	0	0	0			
Inside SAT	0,5761	0,3405	0,5407	0,7016	0,4241	0,7900	0	0	0	0	0	0	0	0			
Outside SAT	0,3944	0,3479	0,4436	0,4775	0,3523	0,6716	0,8276	0	0	0	0	0	0	0			
Outside area	0,3606	0,3243	0,3913	0,4203	0,3461	0,5151	0,6440	1	0	0	0	0	0	0			
Referee	0,1022	0,1498	0,182	0,2568	0,2976	0,2279	0,1488	0,1752	1	0	0	0	0	0			
Result	0,0571	-0,039	0,0246	0,0353	0,2011	0,1202	0,0180	0,0459	0,4173	1	0	0	0	0			
Ticketing	0,1816	0,3400	0,2243	0,2549	0,2939	0,2362	0,2690	0,2483	0,1895	0,0165	1	0	0	0			
Total SAT	0,3462	0,1654	0,3168	0,6323	0,5769	0,5538	0,3051	0,2638	0,3677	0,3832	0,2033	0,8496	0	0			
Travel	-0,02	0,1310	0,1521	0,0846	0,0977	0,1475	0,1943	0,1452	-0,04	-0,0900	0,1602	0,1007	1	0			
Verbal inside	0,4080	0,4286	0,5089	0,5961	0,5923	0,5590	0,5035	0,4042	0,3328	0,0971	0,3734	0,4125	0,1792	1			
Verbal outside	0,3206	0,3597	0,4097	0,3874	0,4322	0,3910	0,4879	0,4756	0,2369	0,1815	0,2605	0,2462	0,1291	0,5281	1		

Table 29: Fornell-Larcker criterion for frequent visitors

The same can be stated for infrequent visitors, as shown in Table 30, confirming that the key criterion 'discriminant validity' can be met for all reflective measurement constructs for both visitor groups.

	square root of construct's AVE																
	correlations with other constructs																
	Before	Catering	Comfort	Game	HT/ after SAT	Inside SAT	Outside area	Outside Referee	Result	Ticketing	Total SAT	Travel	Verbal inside	Verbal outside			
Before	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
Catering	0,4135	1	0	0	0	0	0	0	0	0	0	0	0	0			
Comfort	0,6573	0,4849	1	0	0	0	0	0	0	0	0	0	0	0			
Game	0,7783	0,3841	0,6618	1	0	0	0	0	0	0	0	0	0	0			
HT/ after	0,4556	0,2603	0,3668	0,5831	1	0	0	0	0	0	0	0	0	0			
Inside SAT	0,7649	0,4150	0,6465	0,7947	0,5328	0,8088	0	0	0	0	0	0	0	0			
Outside SAT	0,6229	0,4547	0,5629	0,5727	0,4563	0,8000	0,8630	0	0	0	0	0	0	0			
Outside area	0,6401	0,4935	0,5977	0,6612	0,5146	0,6963	0,7782	1	0	0	0	0	0	0			
Referee	0,1110	0,2134	0,2153	0,1969	0,2366	0,1050	-0,0088	0,0846	1	0	0	0	0	0			
Result	0,0609	0,1864	0,1670	0,0507	0,0354	0,1330	0,0086	-0,011	0,1804	1	0	0	0	0			
Ticketing	0,4115	0,2342	0,2477	0,3436	0,3202	0,3253	0,3038	0,3239	0,0836	-0,056	1	0	0	0			
Total SAT	0,6044	0,3440	0,4945	0,7034	0,4520	0,7208	0,5082	0,5307	0,2002	0,1699	0,2228	0,8690	0	0			
Travel	0,2441	0,0822	0,0572	0,0819	0,0213	0,0814	0,1136	0,1126	0,1342	0,1144	0,2706	0,0076	1	0			
Verbal inside	0,6767	0,4787	0,6634	0,6927	0,5230	0,6959	0,5903	0,6183	0,2010	0,0777	0,4030	0,5034	0,1435	1			
Verbal outside	0,5539	0,4951	0,4831	0,5200	0,4375	0,5494	0,5593	0,6064	0,1386	0,0714	0,5523	0,3793	0,1372	0,5547	1		

Table 30: Fornell-Larcker criterion for infrequent visitors

As mentioned before, a second alternative which can be used to confirm discriminant validity is the analysis of cross-loadings. An indicator's outer loading on the related construct should always be greater than all of its loadings on other constructs. Hence, all highlighted values in Table 31 should be higher than the other horizontal values in that specific row.

	associated construct														
	outer loading value														
Indicator	Before	Catering	Comfort	Game	HT/ after	Inside SAT	Outside SAT	Outside area	Referee	Result	Ticketing	Total SAT	Travel	Verbal inside	Verbal outside
A_EV_FE_1	0,3123	0,1826	0,3365	0,5791	0,5057	0,5285	0,2917	0,2563	0,4272	0,4244	0,2223	0,9051	0,0398	0,4050	0,2528
A_EV_GV_1	0,3597	0,1324	0,2513	0,5892	0,5231	0,5181	0,3026	0,2623	0,3132	0,3377	0,1938	0,9172	0,1746	0,3683	0,2226
A_EV_IF_1	0,5046	0,2762	0,4912	0,6883	0,3613	0,8972	0,5363	0,4569	0,2690	0,1902	0,1821	0,5870	0,1427	0,5267	0,2975
A_EV_IT_2	0,3894	0,2750	0,3712	0,3721	0,2408	0,7586	0,5565	0,4590	0,0909	0,1279	0,2155	0,2610	0,1307	0,3521	0,2891
A_EV_IT_3	0,3232	0,2114	0,3041	0,3155	0,2903	0,6769	0,5740	0,3841	0,0844	0,0529	0,1147	0,1954	0,1614	0,3491	0,3473
A_EV_IT_5	0,5495	0,3059	0,4937	0,7064	0,4142	0,8111	0,5118	0,3579	0,2134	0,0067	0,2241	0,5659	0,0613	0,4918	0,3282
A_EV_OB_1	0,1735	0,0881	0,1982	0,4198	0,4523	0,3229	0,1463	0,1176	0,1212	0,1464	0,0574	0,7105	0,0259	0,2498	0,1226
A_EV_OF_1	0,2518	0,3328	0,4013	0,3162	0,2690	0,5350	0,8461	0,5659	0,0792	-0,0173	0,2049	0,1655	0,2334	0,3985	0,3633
A_EV_OT_2	0,3969	0,2590	0,4001	0,4102	0,3712	0,6086	0,8622	0,5761	0,2147	0,0964	0,2570	0,3506	0,1008	0,3998	0,4269
A_EV_OT_3	0,2729	0,1602	0,2626	0,3330	0,2146	0,5329	0,7995	0,4719	0,0161	-0,0044	0,0881	0,2158	0,1273	0,3266	0,3260
A_EV_OT_5	0,3701	0,3903	0,3924	0,5116	0,2961	0,5414	0,8011	0,5111	0,1610	-0,0253	0,3220	0,2632	0,1864	0,5340	0,4881

Table 31: Summary of all cross-loadings for frequent visitors

This is the case for all reflective measurement models for frequent and infrequent visitors (see Table 32 for infrequent visitors).

	associated construct														
	outer loading value														
Indicator	Before	Catering	Comfort	Game	HT/ after	Inside SAT	Outside SAT	Outside area	Referee	Result	Ticketing	Total SAT	Travel	Verbal inside	Verbal outside
A_EV_FE_1	0,5813	0,3412	0,4255	0,6816	0,4527	0,6812	0,4737	0,5381	0,2266	0,0739	0,2153	0,9190	-0,0059	0,5165	0,3900
A_EV_GV_1	0,5105	0,2957	0,4396	0,6217	0,3316	0,6336	0,3836	0,4283	0,1809	0,2093	0,2014	0,8838	0,0141	0,4262	0,2886
A_EV_IF_1	0,7056	0,3523	0,5535	0,7170	0,4330	0,8794	0,6640	0,5730	0,1141	0,1065	0,3320	0,7252	0,0463	0,6007	0,4660
A_EV_IT_2	0,4729	0,3704	0,4600	0,5053	0,4947	0,7847	0,7124	0,5454	-0,0597	0,2226	0,2758	0,4226	0,0774	0,5685	0,4808
A_EV_IT_3	0,5763	0,4036	0,4425	0,5555	0,3927	0,8039	0,7328	0,5839	0,0785	0,0378	0,2411	0,4885	0,0778	0,5665	0,4642
A_EV_IT_5	0,6874	0,2297	0,6193	0,7598	0,4144	0,7624	0,5017	0,5534	0,1794	0,0779	0,1987	0,6499	0,0676	0,5180	0,3763
A_EV_OB_1	0,4796	0,2540	0,4285	0,5185	0,3969	0,5573	0,4774	0,4106	0,1022	0,1674	0,1595	0,7998	0,0131	0,3581	0,3079
A_EV_OF_1	0,5490	0,4670	0,5347	0,5270	0,4024	0,7444	0,9030	0,7116	-0,0807	0,0326	0,2780	0,4655	0,0824	0,5409	0,4572
A_EV_OT_2	0,5007	0,3107	0,3932	0,4361	0,4030	0,5903	0,8368	0,6115	0,0420	0,0018	0,3982	0,3561	0,1256	0,4311	0,4657
A_EV_OT_3	0,5289	0,3971	0,4594	0,4790	0,4180	0,6701	0,8583	0,6235	0,0480	-0,0163	0,2197	0,3978	0,0997	0,4923	0,4217
A_EV_OT_5	0,5654	0,3822	0,5364	0,5238	0,3586	0,7377	0,8524	0,7244	-0,0240	0,0077	0,1762	0,5150	0,0902	0,5579	0,5755

Table 32: Summary of all cross-loadings for infrequent visitors

In the subsequent sections, the columns for discriminant validity measures will therefore indicate the reference 'OK', based on the output presented in the previously illustrated four Tables 29-32.

2.1 Results for area 'outside of the stadium'

Following the path outlined in Figure 14, a visitor travels to the stadium, either on public transportation, by foot, or in the car. They spend some time in the outside area of the stadium, e.g. to meet with friends or to await the game. In the stadium

center, there is a fan bar with a public screen where soccer fans can have a drink and watch pre-game interviews or other game-related broadcasts in advance of the game. When the fans decide to enter the interior section of the stadium, they need to pass a security check. This chapter evaluates, for both visitor groups, whether there is a positive, significant relationship between various latent variables and the satisfaction level in the outside area of the stadium, as well as whether this has a resulting impact on brand attitude evaluations.

2.1.1 How verbal and non-verbal stimuli affect satisfaction and positive attitudes toward the event in the area ‘outside of the stadium’

In order to be able to compare results for frequent and infrequent visitors, two different SmartPLS-models are applied. As mentioned in previous sections, basic reliability and validity requirements need to be met, before the reflective and formative measurement models for the two visitor groups can be observed in greater detail.

Construct	Indicator code	Indicator	Outer loadings	T-value	Indicator reliability	Internal consistency		Convergent validity	Discriminant validity	
			λ			Composite reliability	Cronbach's	AVE	Fornell and Larcker	Cross-loadings
Threshold:			$\geq 0,7$	$\geq 1,653$	$\geq 0,5$	$\geq 0,7$	$\geq 0,7$	$\geq 0,5$		
Satisfaction outside area of stadium	A_EV_OF_1	Overall evaluation of outside area	0,846	30,620	0,716	0,897	0,847	0,685	OK	OK
	A_EV_OT_2	Composition of outside area	0,862	35,158	0,743				OK	OK
	A_EV_OT_3	Usage of colors in outside area	0,799	24,903	0,639				OK	OK
	A_EV_OT_5	Atmosphere in outside area	0,801	25,130	0,642				OK	OK

Table 33: Evaluation of reflective measurement model of sub-model ‘Satisfaction for outside area of stadium’ for frequent visitors

As indicated in Table 33, the four outer loadings of the reflective measurement model of the sub-model ‘satisfaction outside of the stadium’ for frequent visitors are high and significant. All evaluation criteria for reliability and validity - indicator and internal consistency reliability as well as convergent and discriminant validity⁵⁰³ - are above the required thresholds. Although *Hair et al. (2012)* argue that

⁵⁰³ See Tables 29 and 31.

Cronbach's alpha does not necessarily have to be reported,⁵⁰⁴ it is included in the tables as additional information due to its widespread popularity.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomological validity	V	A	K	O	G	
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30							
Travel from/ to stadium	A_EV_TS_AV1	Safety during travel to stadium (car, public transportation, foot)	0,279	0,783	0,608	0,764	1,308	OK	OK	0	0	1	0	0	
	A_EV_TS_AV3	Accessibility of stadium (car, public transportation, foot)	0,860	3,515	0,966	0,836	1,197			0	0	1	0	0	0
	A_EV_TS_AV4	Waiting times for travel to and from stadium	-0,002	0,006	0,343	0,828	1,207			0	0	1	0	0	0
Stay outside of the stadium	A_EV_OA_1	Outside appearance of rewirepowerSTADION	0,703	7,962	0,845	0,910	1,099	OK	OK	1	0	1	0	0	
	A_EV_OA_4	Atmosphere in front of stadium center (close to fan-shop and und bar 8zehn48)	0,085	0,657	0,534	0,673	1,486			1	1	1	0	0	0
	A_EV_OA_5	Illumination around the stadium center	0,237	2,041	0,502	0,785	1,273			1	0	0	0	0	0
	A_EV_OA_7	Atmosphere in fan-bar 8zehn48	0,277	2,129	0,541	0,778	1,286			1	1	1	0	0	0
	A_EV_OA_13	Waiting-times in front of sanitary arrangements at stadium	0,096	0,894	0,174	0,817	1,225			0	0	1	0	0	0
	A_EV_OA_14	Waiting-times at security check	0,054	0,502	0,222	0,846	1,182			0	0	1	0	0	0
	A_EV_OA_15	Atmosphere before admission into stadium	0,142	1,296	0,449	0,808	1,237			1	1	1	0	0	0
Catering	A_EV_CO_1	Number of catering booths	0,684	3,229	0,834	0,918	1,089	OK	OK	0	0	1	0	0	
	A_EV_CO_AVF1	Choice, price and quality of food	0,072	0,290	0,246	0,524	1,908			1	0	1	0	1	0
	A_EV_CO_AVD2	Choice, price and quality of drinks	0,122	0,464	0,244	0,527	1,898			0	0	1	0	1	0
A_EV_CO_9	Cleanliness of catering area	0,531	2,264	0,719	0,924	1,082	1	0	0	1	0	0	0		
Verbal communications	A_EV_OA_3	Signpostings around stadium	0,515	3,520	0,719	0,905	1,105	OK	OK	1	0	0	0	0	
	A_EV_OA_8	Program on projector screen in fan-bar	0,600	4,007	0,746	0,914	1,094			1	0	1	0	0	0
	A_EV_OA_16	Behavior of security during admission	0,333	1,881	0,400	0,801	1,249			1	1	0	0	0	0
	A_EV_CO_10	Politeness of personnel in catering area	0,117	0,688	0,426	0,775	1,290			0	0	1	0	0	0

Table 34: Evaluation of formative measurement model of sub-model 'Satisfaction for outside area of stadium' for frequent visitors⁵⁰⁵

⁵⁰⁴ See HAIR, J. F., et al. (2012): An Assessment of the Use of Partial Least Squares Structural Equation Modeling in Marketing Research, in: *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, p. 429. See also HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 101: "The traditional criterion for internal consistency is Cronbach's alpha, which provides an estimate of the reliability based on the intercorrelations of the observed indicator variables. Cronbach's alpha assumes that all indicators are equally reliable [...]. But PLS-SEM prioritizes the indicators according to their individual reliability. Moreover, Cronbach's alpha is sensitive to the number of items in the scale and generally tends to underestimate the internal consistency reliability. As such, it may be used as a conservative measure of internal consistency reliability. Due to Cronbach alpha's limitations in the population, it is more appropriate to apply a different measure of internal consistency reliability [...]."

⁵⁰⁵ The abbreviations V, A, K, O, and G on the right side of the table stand for visual, auditory, kinesthetic, olfactory, and gustatory stimuli.

When looking at the formative measurement model in Table 34, 9 out of 18 indicators show high and significant indicator weights to their respective constructs, while 10 out of 18 indicators have outer loadings larger than the postulated threshold of 0.5, indicating their respective absolute importance toward the specific construct. Overall, 7 out of 18 indicators are non-significant and show outer loadings below 0.5 at the same time. However, they are kept in the formative constructs due to comparability reasons.⁵⁰⁶ With three significant indicator weights, the construct 'verbal communications' is the construct with the highest proportion of significant indicators with relative importance, while the 'stay outside of the stadium' also possesses three significant indicator weights. Within the three non-verbal constructs, the 'accessibility of (the) stadium (car, public transportation, foot)', the 'outside appearance of (the) rewirepowerSTADION', and the 'number of catering booths' available outside of the stadium indicate the highest significant indicator weights. Regarding validations of potential multicollinearity issues, the tolerance-, the VIF-values, and the condition index - all metrics determined with the help of SPSS - confirm that there are only small correlations among the indicators in the respective sub-models. Furthermore, the nomologic validity, which is a special form of external validity measure, confirms that the constructs behave as theoretically assumed within a nomologic net; in other words, the theoretical relationships are proven by means of the formative models.

Turning to the second target group - infrequent visitors - the results illustrated in Table 35 are similar to the ones for frequent visitors in Table 33. The criteria for the reflective measurement model all exceed the postulated thresholds. All outer indicator loadings show a value of 0.837 or higher and are significant. Cronbach's alpha and the composite reliability measures clearly exceed the required value of 0.7 and therefore confirm the data's internal consistency reliability. Finally, the AVE of 0.745 displays the goodness of the measurement, which is furthermore confirmed by the Fornell-Larcker criterion and the analysis of the cross-loadings.⁵⁰⁷

⁵⁰⁶ See Chapter D.3 for the limitations of the study.

⁵⁰⁷ See Tables 30 and 32.

Construct	Indicator code	Indicator	Outer loadings	T-value	Indicator reliability	Internal consistency		Convergent validity	Discriminant validity	
			λ			$\geq 0,7$	$\geq 1,653$	Composite reliability	Cronbach's	AVE
Satisfaction outside area of stadium	A_EV_OF_1	Overall evaluation of outside area	0,903	49,918	0,815	0,921	0,886	0,745	OK	OK
	A_EV_OT_2	Composition of outside area	0,837	24,523	0,700				OK	OK
	A_EV_OT_3	Usage of colors in outside area	0,858	29,090	0,737				OK	OK
	A_EV_OT_5	Atmosphere in outside area	0,852	26,289	0,727				OK	OK

Table 35: Evaluation of reflective measurement model of sub-model 'Satisfaction for outside area of stadium' for infrequent visitors

Akin to the results found with frequent visitors, 9 out of 18 indicators show high and significant indicator weights to their respective constructs in the formative measurement model (see Table 36), while 14 indicators achieve outer loading scores above 0.5. Only three indicators are statistically non-significant and simultaneously lack absolute importance. With the 'signpostings around (the) stadium', the 'program on (the) projector screen in (the) fan's bar', and the 'politeness of (the) personnel in (the) catering area', the construct 'verbal communications' represents the construct with the highest proportion of significant indicators.⁵⁰⁸ For the other three non-verbal constructs, the 'number of catering booths' available outside of the stadium, the 'atmosphere before admission into the stadium', and the 'outside appearance of (the) rewirepowerSTADION' show the highest significant indicator weights. The tolerance- and VIF-values, and the condition index, confirm that multicollinearity problems can be neglected. In addition to this, the constructs behave as expected and as outlined in the theoretical models.

⁵⁰⁸ 75% of all indicators, vs. 71% for construct 'stay outside of the stadium'.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomo-logical validity	V	A	K	O	G
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30						
Travel from/to stadium	A_EV_TS_AV1	Safety during travel to stadium (car, public transportation, foot)	0,337	0,241	0,945	0,562	1,779	OK	OK	0	0	1	0	0
	A_EV_TS_AV3	Accessibility of stadium (car, public transportation, foot)	0,682	0,499	0,987	0,555	1,801			0	0	1	0	0
	A_EV_TS_AV4	Waiting times for travel to and from stadium	0,028	0,068	0,330	0,828	1,207			0	0	1	0	0
Stay outside of the stadium	A_EV_OA_1	Outside appearance of rewirepowerSTADION	0,311	3,384	0,761	0,668	1,496	OK	OK	1	0	1	0	0
	A_EV_OA_4	Atmosphere in front of stadium center (close to fan-shop and und bar 8zeh48)	0,238	1,845	0,761	0,375	2,668			1	1	1	0	0
	A_EV_OA_5	Illumination around the stadium center	0,144	1,076	0,579	0,529	1,891			1	0	0	0	0
	A_EV_OA_7	Atmosphere in fan-bar 8zeh48	0,266	2,667	0,663	0,529	1,892			1	1	1	0	0
	A_EV_OA_13	Waiting-times in front of sanitary arrangements at stadium	0,241	2,406	0,352	0,802	1,247			0	0	1	0	0
	A_EV_OA_14	Waiting-times at security check	-0,121	1,363	0,132	0,486	2,059			0	0	1	0	0
	A_EV_OA_15	Atmosphere before admission into stadium	0,366	3,504	0,693	0,468	2,139			1	1	1	0	0
Catering	A_EV_CO_1	Number of catering booths	0,704	4,266	0,800	0,752	1,330	OK	OK	0	0	1	0	0
	A_EV_CO_AVF1	Choice, price and quality of food	0,116	0,218	0,503	0,461	2,170			1	0	1	0	1
	A_EV_CO_AVD2	Choice, price and quality of drinks	0,476	0,877	0,640	0,438	2,282			0	0	1	0	1
	A_EV_CO_9	Cleanliness of catering area	0,161	0,869	0,460	0,737	1,357			1	0	0	1	0
Verbal communications	A_EV_OA_3	Signpostings around stadium	0,320	2,465	0,630	0,546	1,830	OK	OK	1	0	0	0	0
	A_EV_OA_8	Program on projector screen in fan-bar	0,572	4,972	0,836	0,373	2,679			1	0	1	0	0
	A_EV_OA_16	Behavior of security during admission	0,167	1,118	0,515	0,515	1,943			1	1	0	0	0
	A_EV_CO_10	Politeness of personnel in catering area	0,358	2,578	0,654	0,582	1,719			0	0	1	0	0

Table 36: Evaluation of formative measurement model of sub-model 'Satisfaction for outside area of stadium' for infrequent visitors

Hence, for both target groups, the goodness of the reflective and the formative measurement models is evidenced. The next step is to look at the paths in the structural models, which consist of one latent endogenous variable and four latent exogenous variables, and to analyze and compare the results. The evaluation of the results by visitor group allows a separate confirmation or rejection of the hypotheses. For both frequent and infrequent visitors, the path 'stay outside of the stadium', which is a component of the non-verbal representation, contributes most to explanations of the latent endogenous variable, in each case with substantial effect sizes f^2 . See Table 37.

Relationships		Frequent visitors			Infrequent visitors		
		Path	T	Effect size f^2	Path	T	Effect size f^2
Threshold:		$\geq 0,1$	$\geq 1,653$	≥ 0	$\geq 0,1$	$\geq 1,653$	≥ 0
Non-verbal representation	Path 'travel' to 'satisfaction outside area'	0,082	1,518	0,010	0,016	0,232	0,000
	Path 'stay outside area stadium' to 'satisfaction outside area'	0,503	9,252	0,015	0,674	7,836	0,005
	Path 'catering' to 'satisfaction outside area'	0,101	1,568	0,338	0,062	0,763	0,697
Verbal representation	Path 'verbal communications' to 'satisfaction outside area'	0,201	2,501	0,053	0,117	1,315	0,021
Endogenous construct	Overall satisfaction in outside area	$R^2 = 0,474 / Q^2 = 0,324$			$R^2 = 0,621 / Q^2 = 0,456$		

Table 37: Evaluation of path coefficients and endogenous construct of sub-model 'Overall satisfaction in outside area'

As a result, hypothesis

H(posAtt3): Non-verbal representations outside of the stadium more significantly contribute to the creation of a positive attitude toward this specific area than verbal representations.

can be confirmed for both visitor groups.

For frequent visitors, the path 'verbal communications' to 'satisfaction outside area' represents another significant relationship toward the satisfaction level in the area outside of the stadium; for infrequent visitors, the path 'stay outside area stadium' to 'satisfaction outside area' is the only significant path in the sub-model. Whereas the correct interpretation of R^2 -values depends on the specific model and the research area, in general values of 0.75, 0.5, and 0.25 for the endogenous construct are respectively considered substantial, moderate, and weak. Hence, while an R^2 -

value of 0.474 appears to be decent for frequent visitors, the R^2 -value of 0.621 is an excellent outcome for infrequent visitors.

In both cases, hypothesis

H(posAtt1): On the day of the game, both verbal and non-verbal representations of different sensual elements in the area outside of the stadium contribute to at least 30% of the positive attitude toward this specific area.

can be confirmed, as the threshold of 30% is clearly exceeded.

The Q^2 -values of 0.324 for frequent and 0.456 for infrequent visitors indicate strong degrees of predictive relevance.

2.1.2 How verbal and non-verbal stimuli affect brand attitude in the area 'outside of the stadium'

In order to determine the relations of the verbal and non-verbal representations in the outside area of the stadium, various monosensory, duosensory, and multisensory elements from the four exogenous constructs, and the ratings from the reflective measurement model of the sub-model 'satisfaction for outside area of stadium', are used as independent variables and run in a multiple regression model in SPSS against 13 brand attributes and 6 brand statements. These 19 brand-related items were twice rated by the survey participants: once in the 'before'-survey and a second time in the 'after'-survey. For the purpose of this analysis, the brand ratings after the games are utilized. Before the multiple regressions are run, all postulated pre-conditions (normal distribution, linearity, homoskedasticity) were checked with the help of SPSS output (graphics and statistics).⁵⁰⁹ Tolerance-values and VIF-results are evaluated to confirm that there are only weak correlations and therefore no multicollinearity issues between the independent variables. As a step-wise regression approach is chosen,⁵¹⁰ it is possible to predetermine multicoll-

⁵⁰⁹ This is also true for all other analyses of this type in the following sub-chapters.

⁵¹⁰ The analysis was performed with SPSS. For the step-wise regression, the following criteria were chosen: inclusion for F probabilities above 0.05/ exclusion for F probabilities below 0.1. Constants were included in the regressions. These parameters were also used for all step-wise regressions in the following sub-chapters.

nearby issues and, as a consequence, to only include variables with a VIF-result below 5 and tolerance-values above 0.2 in the summary tables.

	Indicator	Brand attributes										Brand statements				
		A_EV_BC_3	A_EV_BC_4	A_EV_BC_5	A_EV_BC_6	A_EV_BC_7	A_EV_BC_8	A_EV_BC_9	A_EV_BC_10	A_EV_BC_12	A_EV_BS_6	A_EV_BS_7	A_EV_BS_8	A_EV_BS_9	A_EV_BS_11	
Travel from/ to stadium	Safety during travel to stadium (car, public transportation, foot)	0,229	0,305								0,269				0,342	
	Accessibility of stadium (car, public transportation, foot)				0,270											
	Waiting times for travel to and from stadium														-0,323	
Stay outside of the stadium	Outside appearance of rewirepowerSTADION	0,329									0,277					
	Atmosphere in front of stadium center (close to fan-shop and bar 8zehn48)				0,305			0,272								
	Atmosphere in fan-bar 8zehn48						0,305		0,298							
Catering	Atmosphere before admission into stadium	0,458	0,310				0,327			0,378			0,324	0,422		
	Number of catering booths						0,272									
	Choice, price and quality of drinks							0,296				0,291				
Verbal communications	Cleanliness of catering area	0,309	0,304	0,309												
	Program on projector screen in fan-bar				0,438							0,233				
	Politeness of personnel in catering area					0,396										
Overall evaluation of outside area	Composition of outside area				0,464						0,521	0,395				
	Atmosphere in outside area		0,286	0,431						0,363						
							0,383	0,369		0,495			0,317			
Coefficient of determination R ²		≥0,3	0,562	0,609	0,529	0,408	0,374	0,468	0,469	0,320	0,506	0,418	0,444	0,484	0,305	0,329
Adjusted coefficient of determination R ²		≥0,25	0,533	0,573	0,497	0,368	0,347	0,433	0,433	0,291	0,473	0,393	0,420	0,449	0,274	0,284

Table 38: Significant effects which verbal and non-verbal stimuli in the outside stadium area have on frequent visitors' brand attitude⁵¹¹

Table 38 illustrates the significant standardized regression coefficients for frequent visitors. According to Cohen's classification,⁵¹² only items that achieve a coefficient of determination measure of 0.3 or higher and a minimum adjusted coefficient of

⁵¹¹ To see which senses are addressed by the different indicators, see Tables 13 and 34 (on the right-hand side).

⁵¹² See COHEN, J. (1988): *Statistical power analysis for the behavioral sciences*, Hillsdale.

determination of 0.25 are shown.⁵¹³ As can be seen in the table, it is mainly non-verbal elements from the constructs 'travel from/ to stadium', 'stay outside of the stadium', and 'catering' (25 elements in total) which have an impact on the brand attitude.

Hence, hypothesis

H(Inf1): The influence of non-verbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area outside of the stadium.

for frequent visitors can be confirmed. The element 'atmosphere before admission into (the) stadium' strengthens several brand attitudes: the brand attributes 'likable', 'down-to-earth', 'self-confident', and 'spontaneous'. It also has a significant positive effect on the two brand statements 'VfL Bochum is unbending' and 'VfL Bochum declares its social responsibility'. Other crucial elements with five and four significant positive correlations toward the brand attitude are the 'safety during travel to stadium (car, public transportation, foot)' and the 'cleanliness of (the) catering area' in the outside area of the rewirpowerSTADION, respectively. The importance of the atmosphere is further emphasized by the positive effect of the 'atmosphere in (the) outside area' on brand evaluations. When comparing the brand attributes and brand statements, the attribute 'down-to-earth' indicates the strongest inducement, as – according to an R^2 -value of 60.9% and an \check{R}^2 -assessment of 57.3% - a high percentage of the variation can be explained by four independent variables. For the other 13 brand-related items, the R^2 -value is also always higher than the \check{R}^2 -value, which leads to the assumption that the estimated models are not 'over-fitted'. Consequently, the validity of the results can be confirmed.

⁵¹³ The same approach is chosen in the subsequent chapters, to ensure consistency and comparability.

		SE	J	K-J-1	F _{emp}	F _{tab}	F-Test	t _{emp min}	t _{tab}	t-Test	Durbin-
Requirement:		→0	-	-	-	-	F _{emp>F_{tab}}	-	-	t _{emp min} >t _{tab}	Watson
Brand attributes	likable	0,53	3	45	19,28	2,80	OK	3,02	2,01	OK	1,741
	down-to-earth	0,44	4	44	17,13	2,60	OK	2,28	2,02	OK	1,787
	solid	0,64	3	45	16,82	2,80	OK	2,88	2,01	OK	1,688
	family-tied	0,62	3	45	10,33	2,80	OK	2,31	2,01	OK	1,741
	traditional	0,64	2	46	13,76	3,20	OK	3,39	2,01	OK	2,113
	self-confident	0,97	3	45	13,20	2,80	OK	2,23	2,01	OK	1,741
	innovative	0,88	3	45	13,23	2,80	OK	2,37	2,01	OK	2,064
	cool	0,93	2	46	10,83	3,20	OK	2,20	2,01	OK	1,657
	spontaneous	0,77	3	45	15,38	2,80	OK	2,50	2,01	OK	1,670
Brand statements	VfL Bochum stands up for its local identity and its tradition	0,50	2	46	16,55	3,20	OK	2,31	2,01	OK	1,722
	VfL Bochum is professional	0,68	2	46	18,38	3,20	OK	2,53	2,01	OK	1,763
	VfL Bochum is close	0,54	3	45	14,05	2,80	OK	2,11	2,01	OK	2,153
	VfL Bochum is unbending	0,96	2	46	10,08	3,20	OK	2,26	2,01	OK	1,819
	VfL Bochum declares its social responsibility	0,60	3	45	7,36	2,80	OK	-2,50	2,01	OK	1,872

Table 39: Evaluation of effects the outside area of stadium has on frequent visitors' brand attitude

Table 39 summarizes key figures relating to F-tests, t-tests, and Durbin-Watson statistics. While F-statistics can be used to show that the estimated regression function is valid for the entire population (rather than for the sample only), the Durbin-Watson values illustrate whether there are auto-correlated residuals in the database. Ideally, the Durbin-Watson scores lie between 1.5 and 2.5, which is the case for all brand attributes and brand statements in Table 39.⁵¹⁴ All the required thresholds in Table 39 are met.

⁵¹⁴ See BROSIUS, F. (2006): *SPSS 14*, Heidelberg, p. 575: a value below 1.0 and above 3.0 implies strongly correlated residuals. For more on Durbin-Watson statistics, see BACKHAUS, K., et al. (2006): *Multivariate Analysemethoden*, Berlin, pp. 88 et seq.

	Indicator	Brand attributes										Brand statements							
		A_EV_BC_1	A_EV_BC_2	A_EV_BC_3	A_EV_BC_4	A_EV_BC_5	A_EV_BC_6	A_EV_BC_7	A_EV_BC_8	A_EV_BC_9	A_EV_BC_10	A_EV_BC_11	A_EV_BS_6	A_EV_BS_7	A_EV_BS_8	A_EV_BS_9	A_EV_BS_10	A_EV_BS_11	
Travel from/ to stadium	Safety during travel to stadium (car, public transportation, foot)																		
	Waiting times for travel to and from stadium	-0,280										-0,471							-0,417
Stay outside of the stadium	Outside appearance of rewirepowerSTADION	0,483																	
	Atmosphere in fan-bar 8zehn48				0,768	0,682		0,806			0,986								
Catering	Waiting-times in front of sanitary arrangements at stadium												0,592				-0,503		-0,620
	Atmosphere before admission into stadium										-0,477								
Verbal comm.	Number of catering booths													-0,888					0,317
	Choice, price and quality of food	0,555		0,718		0,646										0,534			
Verbal comm.	Cleanliness of catering area		0,949																
	Signpostings around stadium																		0,528
Coefficient of determination R ²	Politeness of personnel in catering area		-0,548																
	Overall evaluation of outside area											0,566		0,678					
	Composition of outside area																0,798	0,551	
	Usage of colors in outside area							0,784	0,975										
Adjusted coefficient of determination R ²	Atmosphere in outside area													0,643	0,519	0,571			
		≥0,25	0,729	0,529	0,488	0,565	0,434	0,383	0,629	0,592	0,541	0,653	0,280	0,486	0,427	0,379	0,701	0,286	0,616

Table 40: Significant effects which verbal and non-verbal stimuli in the outside stadium area have on infrequent visitors' brand attitude⁵¹⁵

The conclusions that can be drawn from Table 40 for infrequent visitors are similar. There are considerably more non-verbal elements (19 in total) which have a significant impact on the brand attitude of infrequent visitors. Although some standardized path coefficients are negative,⁵¹⁶ hypothesis

⁵¹⁵ To see which senses are addressed by the different indicators, see Tables 13 and 36 (on the right-hand side).

⁵¹⁶ Hypothesis H(Inf1) is formulated in a non-directional manner.

H(Inf1): The influence of non-verbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area outside of the stadium.

can also be confirmed for this visitor group.

The non-verbal items 'atmosphere in fan bar 8zehn48' and 'choice, price and quality of food' available from the food stalls outside of the stadium have a positive effect on four different brand attitudes and are therefore the elements with the highest impact. In contrast to the frequent visitor group, the brand attribute 'committed' shows the strongest inducement, positively impacted by the items 'outside appearance of rewirpowerSTADION' and 'choice, price and quality of food' and negatively impacted by the 'waiting times for travel to and from stadium'. With R^2 - and \check{R}^2 -values of 89.2% and 85.1%, respectively, the brand statement 'VfL Bochum declares its social responsibility' possesses the highest coefficients of determination.

		SE	J	K-J-1	F _{Emp}	F _{tab}	F-Test	t _{emp min}	t _{tab}	t-Test	Durbin-
		→0	-	-	-	-	F _{Emp>F_{tab}}	-	-	t _{emp min} >t _{tab}	Watson
Brand attributes	committed	0,50	3	15	17,14	3,29	OK	-2,18	2,13	OK	1,7
	regionally enrooted	0,54	2	16	11,10	3,63	OK	-2,90	2,12	OK	1,8
	likable	0,55	1	17	18,14	4,45	OK	4,26	2,11	OK	1,6
	down-to-earth	0,41	1	17	24,40	4,45	OK	4,94	2,11	OK	1,6
	solid	0,43	1	17	14,82	4,45	OK	3,85	2,11	OK	1,9
	family-tied	0,61	1	17	12,16	4,45	OK	3,49	2,11	OK	2,2
	traditional	0,37	1	17	31,49	4,45	OK	5,61	2,11	OK	2,5
	self-confident	0,69	1	17	27,07	4,45	OK	5,20	2,11	OK	1,6
	innovative	0,66	2	16	11,61	3,63	OK	-2,32	2,12	OK	2,2
	cool	0,60	2	16	17,96	3,63	OK	-2,85	2,12	OK	2,2
Brand statements	spontaneous	0,77	1	17	7,99	4,45	OK	2,83	2,11	OK	2,0
	bland	0,84	2	16	9,51	3,63	OK	2,89	2,12	OK	1,7
	VfL Bochum stands up for its local identity and its tradition	0,71	1	17	14,43	4,45	OK	3,80	2,11	OK	1,7
	VfL Bochum is professional	0,74	1	17	11,99	4,45	OK	3,46	2,11	OK	1,8
	VfL Bochum is close	0,52	3	15	15,08	3,29	OK	2,26	2,13	OK	1,4
	VfL Bochum is unbending	0,85	1	17	8,23	4,45	OK	2,87	2,11	OK	2,0
VfL Bochum is rousing	0,75	1	17	29,88	4,45	OK	5,47	2,11	OK	1,7	
VfL Bochum declares its social responsibility	0,39	5	13	21,55	3,03	OK	2,54	2,16	OK	1,9	

Table 41: Evaluation of effects the outside area of stadium has on infrequent visitors' brand attitudes

The output in Table 41 confirms that the results can be considered valid. The F-statistics substantiate the validity of the results for the sample, which confirms the

impact of verbal and non-verbal communications on the brand attitude. In addition, this table provides results from t-tests, standard deviation numbers, and Durbin-Watson statistics. The Durbin-Watson score of 1.4 for the brand statement 'VfL Bochum is close' is slightly below the desired threshold of 1.5, but still above the requirement minimum of 1.0.⁵¹⁷

2.2 Results for area 'inside of the stadium'

After the visitors have passed the security check and walked to their seats or the standing sections, they reach the inside area of the stadium. For the purpose of this analysis, five different constructs are considered part of this area: 'comfort inside the stadium', 'program of entertainment before the start of the game', 'the game itself', 'the event/ program of entertainment at half-time and after the game', and 'verbal communications inside the stadium'. In particular, the constructs 'program of entertainment before the start of the game' and 'the game itself' contain high percentages of multisensory content - 40% and 50%, respectively.⁵¹⁸

2.2.1 How verbal and non-verbal stimuli affect positive attitude toward the event in the area 'inside of the stadium'

Again, two different causal models of the sub-model 'satisfaction inside of the stadium' are applied in order to facilitate a comparison between frequent and infrequent visitors.

Whereas the outer loadings, T-values, and indicator reliability scores for the indicator codes A_EV_IF_1, A_EV_IT_2, and A_EV_IT_5 for frequent visitors are all above the required thresholds, the highlighted cells in Table 42 indicate that the (outer) loading value and consequently the indicator reliability for the 'usage of colors in (the) inside area' are slightly below the required thresholds. However, the internal consistency reliability, the convergent validity, the Fornell-Larcker criterion,

⁵¹⁷ See comment in foot note 514.

⁵¹⁸ See Table 14.

and the analyses of the cross-loadings all meet the postulated requirements.⁵¹⁹ Therefore, overall, the evaluation of the reflective measurement model appears to be sufficiently reliable and valid and can therefore be used for the comparative approach.

values below threshold											
Construct	Indicator code	Indicator	Outer loadings λ	T-value	Indicator reliability	Internal consistency reliability		Convergent validity		Discriminant validity	
						Composite reliability	Cronbach's α	AVE	Fornell and Larcker	Cross-loadings	
		Threshold:	$\geq 0,7$	$\geq 1,653$	$\geq 0,5$	$\geq 0,7$	$\geq 0,7$	$\geq 0,5$			
Satisfaction inside area of stadium	A_EV_IF_1	Overall evaluation of inside area	0,897	49,253	0,805	0,868	0,803	0,624		OK	OK
	A_EV_IT_2	Composition of inside area	0,759	14,839	0,575					OK	OK
	A_EV_IT_3	Usage of colors in inside area	0,677	10,211	0,458					OK	OK
	A_EV_IT_5	Atmosphere in inside area	0,811	26,121	0,658					OK	OK

Table 42: Evaluation of reflective measurement model of sub-model 'Satisfaction for inside area of stadium' for frequent visitors

When looking at the evaluations of the formative measurement models for frequent visitors in Table 43, 16 out of 37 indicators show high and significant indicator weights toward their respective constructs in the formative measurement model.

In particular, the 'information given through stadium announcer', the 'acoustics from (the) loudspeaker', the 'applause from fans to teams after the game', and the 'music-selection after the game' are of high relevance for the explanation of the respective construct. 18 outer loading scores exceed the required threshold of 0.5, emphasizing their absolute importance. The tolerance-, VIF-values, and the condition index show that there is no indication of a troublesome level of multicollinearity. Lastly, the relationships of the model confirm the nomologic validity of the formative measurement models for frequent visitors.

⁵¹⁹ See Tables 29 and 31.

	Indicator code	Indicator	Weights	T	Loadings	Toleranc	VIF	Conditio	Nomo-	V	A	K	O	G	
			≥0,1	≥1,653	≥0,5	>0,2	<5	n index	logical validity						
Comfort inside the stadium	A_EV_SA_1	Cleanness of seating/standing area	0,237	1,651	0,455	0,822	1,217	OK	OK	1	0	0	0	0	
	A_EV_SA_2	Comfort of seating/standing area	-0,139	0,976	0,152	0,776	1,289			1	0	1	0	0	0
	A_EV_SA_4	View to scoreboard	-0,193	1,212	0,403	0,575	1,738			1	0	0	0	0	0
	A_EV_SA_5	View to soccer field	0,089	0,616	0,345	0,731	1,368			1	0	0	0	0	0
	A_EV_SA_6	Quality of scoreboard	0,365	2,584	0,622	0,671	1,489			1	1	0	0	0	0
	A_EV_SA_10	Acoustic from loudspeaker	0,604	4,076	0,755	0,850	1,177			0	1	1	0	0	0
	A_EV_SA_12	Safety inside the stadium	0,411	2,928	0,676	0,682	1,466			0	0	1	0	0	0
Program before the start of the game	A_EV_PG_3	Show-up of the teams for warm-ups - with music (~40 minutes before start of game)	0,488	3,314	0,648	0,622	1,608	OK	OK	1	1	0	0	0	
	A_EV_PG_4	Perceived closeness to the team during warm-up	0,390	2,824	0,691	0,707	1,415			1	0	1	0	0	0
	A_EV_PG_8	Music song "Bochumer Jungen" (Jo Hartmann)	0,234	1,409	0,322	0,587	1,704			0	1	1	0	0	0
	A_EV_PG_9	Music song "Wir sind die Fans vom VfL" (Jo Hartmann)	0,111	0,645	0,346	0,537	1,862			0	1	1	0	0	0
	A_EV_PG_11	Music song "Mein VfL" (Jo Hartmann)	-0,285	1,329	0,316	0,476	2,100			0	1	1	0	0	0
	A_EV_PG_12	Tip of the score by "Kid of the day"	0,383	2,762	0,443	0,771	1,298			1	1	1	0	0	0
	A_EV_PG_14	Cheering names of players during presentation of squads	-0,038	0,272	0,449	0,620	1,613			1	1	1	0	0	0
	A_EV_PG_16	Gönemeyer-Song "Bochum" just before the start of the game	0,244	2,042	0,397	0,842	1,188			1	1	1	0	0	0
	A_EV_PG_19	Raising of VfL scarves in the fan area as club songs are played	0,247	1,475	0,548	0,743	1,346			1	1	1	0	0	0
A_EV_PG_22	Teams arriving along with the referee, and holding hands with the mascots	-0,375	2,780	-0,016	0,756	1,323	1	1	0	0	0	0			
Game	A_EV_PG_23	Perceived closeness of fans to players during game	0,082	0,690	0,556	0,697	1,435	OK	OK	1	0	1	0	0	
	A_EV_PG_24	Atmosphere during the game	0,472	3,524	0,877	0,339	2,953			1	1	1	0	0	0
	A_EV_PG_25	Commitment of favorite team	-0,042	0,324	0,537	0,573	1,746			1	0	1	0	0	0
	A_EV_PG_26	Cheering of fans from VfL Bochum	0,181	1,264	0,792	0,418	2,390			1	1	1	0	0	0
	A_EV_PG_27	Fan-songs during the game	0,223	1,865	0,784	0,464	2,156			1	1	1	0	0	0
	A_EV_PG_28	Atmosphere coming from fans of opponent	-0,056	0,617	0,316	0,812	1,231			0	1	0	0	0	0
	A_EV_PG_30	Emotional reactions of fans (goals, controversial referee decisions)	0,334	2,979	0,672	0,789	1,268			1	1	1	0	0	0
	A_EV_PG_37	Flage-spots on scoreboard during the game (e.g. 18.48 min before end of game)	0,094	0,972	0,407	0,793	1,261			1	1	0	0	0	0
	A_EV_PG_36	Music-selection in half-time	0,304	2,090	0,687	0,753	1,328			0	1	1	0	0	0
Event at half-time and after game	A_EV_PG_40	Perceived closeness of fans to team after the game	0,034	0,144	0,636	0,506	1,975	OK	OK	1	0	1	0	0	
	A_EV_PG_41	Applause from fans to teams after the game	0,497	2,104	0,758	0,521	1,921			1	1	1	0	0	
	A_EV_PG_42	Music-selection after the game	0,493	2,852	0,798	0,734	1,362			0	1	0	0	0	
	A_EV_SA_3	Signpostings inside of the stadium (seating/standing areas)	0,127	0,807	0,408	0,829	1,206			1	0	0	0	0	
Verbal communications	A_EV_SA_AV1	Program on scoreboard	0,073	0,503	0,234	0,590	1,694	OK	OK	1	1	0	0	0	
	A_EV_PG_29	Presentation of sponsors of the club during the event	0,468	3,841	0,752	0,469	2,133			1	1	0	0	0	
	A_EV_CI_1	Fan-magazine	-0,068	0,449	0,195	0,838	1,193			1	0	1	0	0	
	A_EV_CI_3	Information given through stadium announcer	0,665	5,905	0,891	0,570	1,754			0	1	1	0	0	

Table 43: Evaluation of formative measurement model of sub-model 'Satisfaction for inside area of stadium' for frequent visitors

For infrequent visitors, all evaluation criteria for the reflective measurement model exceed the required thresholds, while the indicator 'overall evaluation of the inside

area' shows the highest outer loading and the largest indicator reliability measure of all four indicators of the construct. See Table 44.⁵²⁰

Construct	Indicator code	Indicator	Outer loadings λ	T-value	Indicator reliability	Internal consistency reliability		Convergent validity	Discriminant validity	
						Composite reliability	Cronbach's α		Fornell and Larcker	Cross-loadings
Threshold:			$\geq 0,7$	$\geq 1,653$	$\geq 0,5$	$\geq 0,7$	$\geq 0,7$	$\geq 0,5$		
Satisfaction inside area of stadium	A_EV_IF_1	Overall evaluation of inside area	0,880	38,924	0,773	0,883	0,823	0,654	OK	OK
	A_EV_IT_2	Composition of inside area	0,784	13,520	0,616				OK	OK
	A_EV_IT_3	Usage of colors in inside area	0,804	14,823	0,646				OK	OK
	A_EV_IT_5	Atmosphere in inside area	0,763	17,118	0,581				OK	OK

Table 44: Evaluation of reflective measurement model of sub-model 'Satisfaction for inside area of stadium' for infrequent visitors

Table 45 indicates the result for the five formative measurement constructs for infrequent visitors. Out of 37 indicators, 14 indicators show high, significant weights, while the construct 'program (of entertainment) before the start of the game' contains four of them. The indicators 'perceived closeness of fans to team after the game', 'acoustics from loudspeaker', 'atmosphere during the game', and 'information given through stadium announcer' obtain weights higher than 0.5 and T-values above 1.653. When looking at the absolute importance of the indicators, 29 out of 34 achieve an outer loading value above 0.5.

For all five constructs, the tolerance-scores, the VIF-values, and the condition index confirm that multicollinearity is not present in the database, while the nomologic validity can be proved.

⁵²⁰ Refer also to Tables 30 and 32.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomo-logical validity	V	A	K	O	G	
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30							
Comfort inside the stadium	A_EV_SA_1	Cleanness of seating/standing area	0,098	0,532	0,599	0,503	1,988	OK	OK	1	0	0	0	0	
	A_EV_SA_2	Comfort of seating/standing area	0,153	0,982	0,574	0,534	1,873			1	0	1	0	0	0
	A_EV_SA_4	View to scoreboard	0,118	0,731	0,604	0,523	1,912			1	0	0	0	0	0
	A_EV_SA_5	View to soccer field	0,130	0,906	0,602	0,586	1,706			1	0	0	0	0	0
	A_EV_SA_6	Quality of scoreboard	0,136	0,727	0,639	0,530	1,886			1	1	0	0	0	0
	A_EV_SA_10	Acoustic from loudspeaker	0,570	4,408	0,713	0,892	1,121			0	1	1	0	0	0
A_EV_SA_12	Safety inside the stadium	0,326	2,481	0,646	0,607	1,648	0	0	1	0	0	0	0		
Program before the start of the game	A_EV_PG_3	Show-up of the teams for warm-ups - with music (~40 minutes before start of game)	0,227	1,877	0,686	0,405	2,471	OK	OK	1	1	0	0	0	
	A_EV_PG_4	Perceived closeness to the team during warm-up	0,012	0,108	0,522	0,490	2,039			1	0	1	0	0	0
	A_EV_PG_8	Music song "Bochumer Jungen" (Jo Hartmann)	0,162	1,131	0,672	0,238	4,200			0	1	1	0	0	
	A_EV_PG_9	Music song "Wir sind die Fans vom VfL" (Jo Hartmann)	-0,197	1,162	0,652	0,250	4,001			0	1	1	0	0	
	A_EV_PG_11	Music song "Mein VfL" (Jo Hartmann)	0,304	1,735	0,715	0,233	4,286			0	1	1	0	0	
	A_EV_PG_12	Tip of the score by "kid of the day"	0,228	2,430	0,572	0,586	1,707			1	1	1	0	0	0
	A_EV_PG_14	Cheering names of players during presentation of squads	0,404	2,746	0,842	0,398	2,510			1	1	1	0	0	0
	A_EV_PG_16	Grönemeyer Song "Bochum" just before the start of the game	-0,034	0,321	0,419	0,607	1,646			1	1	1	0	0	0
	A_EV_PG_19	Raising of VfL scarves in the fan area as club songs are played	0,238	1,570	0,738	0,276	3,621			1	1	1	0	0	0
	A_EV_PG_22	Teams arriving along with the referee, and holding hands with the mascots	0,024	0,275	0,346	0,683	1,464			1	1	0	0	0	0
Game	A_EV_PG_23	Perceived closeness of fans to players during game	0,133	1,765	0,544	0,741	1,349	OK	OK	1	0	1	0	0	
	A_EV_PG_24	Atmosphere during the game	0,544	2,733	0,942	0,205	4,875			1	1	1	0	0	
	A_EV_PG_25	Commitment of favorite team	0,178	0,878	0,727	0,398	2,512			1	0	1	0	0	
	A_EV_PG_26	Cheering of fans from VfL Bochum	-0,018	0,125	0,701	0,310	3,228			1	1	1	0	0	
	A_EV_PG_27	Fan-songs during the game	0,025	0,173	0,688	0,260	3,847			1	1	1	0	0	
	A_EV_PG_28	Atmosphere coming from fans of opponent	0,004	0,048	0,340	0,725	1,379			0	1	0	0	0	0
	A_EV_PG_30	Emotional reactions of fans (goals, controversial referee decisions)	0,336	2,829	0,833	0,453	2,207			1	1	1	0	0	
	A_EV_PG_37	Fiège-spots on scoreboard during the game (e.g. 18.48 min before end of game)	-0,002	0,027	0,349	0,523	1,911			1	1	0	0	0	
Event at half-time and after game	A_EV_PG_36	Music-selection in half-time	0,354	2,908	0,535	0,529	1,891	OK	OK	0	1	1	0	0	
	A_EV_PG_40	Perceived closeness of fans to team after the game	0,873	3,715	0,932	0,306	3,267			1	0	1	0	0	
	A_EV_PG_41	Applause from fans to teams after the game	-0,043	0,158	0,690	0,300	3,329			1	1	1	0	0	
	A_EV_PG_42	Music-selection after the game	0,049	0,254	0,545	0,468	2,136			0	1	0	0	0	
Verbal communications	A_EV_SA_3	Signpostings inside of the stadium (seating/standing areas)	0,144	1,305	0,510	0,430	2,328	OK	OK	1	0	0	0	0	
	A_EV_SA_AV1	Program on scoreboard	-0,021	0,166	0,154	0,303	3,300			1	1	0	0	0	
	A_EV_PG_29	Presentation of sponsors of the club during the event	0,326	3,039	0,566	0,555	1,803			1	1	0	0	0	
	A_EV_CL_1	Fan-magazine	0,296	2,740	0,555	0,473	2,114			1	0	1	0	0	
	A_EV_CL_3	Information given through stadium announcer	0,663	5,699	0,877	0,207	4,826			0	1	1	0	0	

Table 45: Evaluation of formative measurement model of sub-model 'Satisfaction for inside area of stadium' for infrequent visitors

After the goodness of the reflective and formative measurement models could be observed, the paths of the structural models can now be observed in further detail. This consists of one latent endogenous variable and five latent exogenous variables. As indicated in Table 46, the construct 'game itself', part of non-verbal representations, is the main contributor to explanations of the latent endogenous variable.

ble for both frequent and infrequent visitors, while the effect sizes f^2 are substantial.

Relationships		Frequent visitors			Infrequent visitors		
		Path	T	Effect size f^2	Path	T	Effect size f^2
Threshold:		$\geq 0,1$	$\geq 1,653$	≥ 0	$\geq 0,1$	$\geq 1,653$	≥ 0
Non-verbal representation	Path 'comfort' to 'satisfaction inside area'	0,123	1,990	0,298	-0,003	0,068	0,556
	Path 'program before game' to 'satisfaction inside area'	0,162	2,284	0,298	0,152	1,736	0,672
	Path 'game itself' to 'satisfaction inside area'	0,357	4,366	0,529	0,371	3,470	0,772
	Path 'half-time and after game' to 'satisfaction inside area'	0,006	0,006	0,234	0,012	0,110	0,550
Verbal representation	Path 'verbal communications' to 'satisfaction inside area'	0,005	0,313	0,249	0,066	0,900	0,567
Endogenous construct	Overall satisfaction in inside area	$R^2 = 0,675 / Q^2 = 0,412$			$R^2 = 0,820 / Q^2 = 0,546$		

Table 46: Evaluation of path coefficients and endogenous construct of sub-model 'Overall satisfaction in inside area'

Therefore,

H(posAtt4): Non-verbal representations inside of the stadium more significantly contribute to the creation of a positive attitude toward this specific area than verbal representations.

can be confirmed for both target groups. For frequent visitors, the constructs 'comfort' and 'program (of entertainment) before (the) game' show two more significant relationships toward the satisfaction level in the area inside of the stadium; for infrequent visitors, the construct 'program (of entertainment) before (the) game' shows with a coefficient of 0.152 another significant path toward the 'satisfaction in (the) inside area'. All significant paths are highlighted in Table 46.

Both R^2 -values are considerably higher than the targeted 0.3; as a result, hypothesis

H(posAtt2): On the day of the game, both verbal and non-verbal representations of different sensual elements in the area inside of the stadium contribute to at least 30% of the positive attitude toward this specific area.

can be confirmed for both target groups. The Stone-Geisser tests (Q^2) confirm the predictive relevance in both cases, which can be interpreted as another good sign for the appropriate goodness of fit for the two sub-models.

It is important to note that two additional relationships were included in the sub-model pointing to the 'overall satisfaction in the inside area' of the stadium. The performance of the referee showed insignificant, positive correlations for both visitor groups.⁵²¹ In addition, a significant positive relationship was found between the 'outside area of the stadium' and the 'interior section of the stadium'.⁵²² See Chapter C.2.3.1.

2.2.2 How verbal and non-verbal stimuli affect brand attitude in the area 'inside of the stadium'

The previous approach for the outside area is now repeated for the interior section of the stadium. The pre-conditions of normal distribution, linearity, and homoskedasticity are perfectly fulfilled. However, the tolerance-values and VIF-scores did not meet the required criteria for certain elements. Nonetheless, the fact that a step-wise calculation method is chosen makes it possible to select the model with the highest number of variables from the SPSS output. Meanwhile VIF-scores are below 5.0 and tolerance-values exceed 0.2 in all cases.

⁵²¹ For frequent visitors, the path coefficient equates to 0.038 (with a T-value of 0.787). For infrequent visitors, the path coefficient has a value of 0.007 (T-value = 0.104). See Figures 30 and 31 in later chapters.

⁵²² For frequent visitors, the path coefficient is 0.372, with a T-value of 6.363. For infrequent visitors, the path coefficient and T-value equate to 0.450 and 7.206, respectively. See Figures 30 and 31 in later chapters.

step-wise regression stopped after integration of 4 th variable																			
Indicator	Brand attributes										Brand statements								
	A_EV_BC_1 committed	A_EV_BC_2 regionally embedded	A_EV_BC_3 likeable	A_EV_BC_4 flown-to-earth	A_EV_BC_5 solid	A_EV_BC_6 family-tied	A_EV_BC_7 traditional	A_EV_BC_8 self-confident	A_EV_BC_9 innovative	A_EV_BC_10 cool	A_EV_BC_11 conservative	A_EV_BC_12 spontaneous	A_EV_BC_13 brand	The VfL Bochum stands up for its local identity and its tradition	The VfL Bochum is close	The VfL Bochum is unbending	The VfL Bochum is rousing	The VfL Bochum declares its social responsibility	
Comfort inside the stadium	Cleaness of seating/standing area													0,333					
	Comfort of seating/standing area						0,239												
	View to soccer field															0,172			
	Quality of scoreboard			-0,302															
Program before the start of the game	Acoustic from loudspeaker			-0,337												-0,516			
	Show-up of the teams for warm-ups - with music (~40 minutes before start of game)							0,247		0,398								0,443	
	Perceived closeness to the team during warm-up			0,780												0,216			
	Music song "Bochumer Jungen" (Jo Hartmann)			0,523				0,325								0,492			
	Music song "Wir sind die Fans vom VfL" (Jo Hartmann)				0,309													0,590	
	Tip of the score by "Kid of the day"										-0,410								
	Raising of VfL scarves in the fan area as club songs are played	0,380							0,439					0,842	0,275				
	Teams arriving along with the referee, and holding hands with the mascots		0,550		0,975	0,998						0,434			0,704	0,424	0,295		
	Perceived closeness of fans to players during game															-0,408			
	Commitment of favorite team	0,568					0,273												
Game	Cheering of fans from VfL Bochum			-0,584															
	Fan-songs during the game			-0,580	-0,609														
	Atmosphere coming from fans of opponent			0,584															
	Emotional reactions of fans (goals, controversial referee decisions)							-0,535											
	Flare-spots on scoreboard during the game (e.g. 18.48 min before end of game)														-0,238				
	Perceived closeness of fans to team after the game			0,679				0,657	0,455					0,358					
Verbal communications	Applause from fans to teams after the game							0,535	0,486									0,295	
	Music-selection after the game																		
	Signpostings inside of the stadium (seating/standing areas)			-0,327															
	Program on scoreboard								0,264		0,724	0,459							
	Presentation of sponsors of the club during the event														-0,389				
Overall evaluation of inside area	Information given through stadium announcer					0,582								0,963					
	Composition of inside area										0,320	-0,615						0,484	
	Usage of colors in inside area			-0,308															
	Atmosphere in inside area		0,464	0,506	0,629	0,477	0,381	0,456								0,569	0,638		
Coefficient of determination R ²	≥ 0,30	0,642	0,538	0,976	0,830	0,830	0,620	0,727	0,845	0,786	0,565	0,444	0,709	0,378	0,903	0,792	0,920	0,795	0,644
Adjusted coefficient of determination R ²	≥ 0,25	0,608	0,494	0,958	0,795	0,795	0,584	0,686	0,812	0,754	0,523	0,391	0,665	0,350	0,861	0,748	0,891	0,764	0,610

Table 47: Significant effects which verbal and non-verbal stimuli in the interior stadium area have on frequent visitors' brand⁵²³

⁵²³ To see which senses are addressed by the different indicators, see Tables 14 and 43.

The results in Table 47 follow the outcome from that previously observed in the outside area of the stadium. Again, it is mainly non-verbal elements which have a significant effect on the brand attitudes of frequent visitors (44 in total). As a consequence, hypothesis

H(Inf2): The influence of non-verbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area inside of the stadium.

can generally be confirmed.

The element 'Teams arriving along with the referee, and holding hands with the mascots' has a significantly, positively correlating effect on the brand attitudes 'regionally enrooted', 'down-to-earth', 'solid', and 'spontaneous', as well as on the brand statements 'VfL Bochum is close', 'VfL Bochum is unbending', and 'VfL Bochum is rousing'. 'Raising of VfL scarves in the fan area as club songs are played' and 'perceived closeness of fans to team after the game' follow with four positive-ly-directed significant correlations. The importance of the atmosphere is further emphasized by the positive effect of the 'atmosphere in (the) inside area' on brand evaluations.

With an R^2 -value of 97.6% and an adjusted coefficient \check{R}^2 of 95.8%, the brand attribute 'likable' demonstrates – with 10 relatively independent variables in total⁵²⁴ – the highest proportion of variation of all brand attributes and brand statements. Due to multicollinearity, the step-wise regression for the brand attribute 'down-to-earth' was stopped after the integration of the fourth variable (see highlighted cells).

The fact that the R^2 -values are constantly higher than the adjusted coefficients \check{R}^2 emphasizes the validity of the results – further confirmed by the evaluation metrics in Table 48.

The Durbin-Watson score for the brand attribute 'regionally enrooted' is below the desired threshold of 1.5, but still above the minimum of 1.0.⁵²⁵ For all F-tests, the empirical values are above the theoretical thresholds. As a result of the signifi-

⁵²⁴ Multicollinearity measures show reasonable VIF- and tolerance-values.

⁵²⁵ See comment in foot note 514.

cance of the values, the null-hypotheses can thus be rejected. The effect of verbal and non-verbal communications on the brand attitude can be confirmed.

step-wise regression stopped after integration of 4 th variable											
		SE	J	K-J-1	F _{emp}	F _{tab}	F-Test	t _{emp min}	t _{tab}	t-Test	Durbin-Watson
Requirement:		→0	-	-	-	-	F _{emp>F_{tab}}	-	-	t _{emp min} >t _{tab}	
Brand attributes	committed	0,63	2	21	18,81	3,47	OK	2,66	2,08	OK	1,9
	regionally enrooted	0,62	2	21	12,21	3,47	OK	3,13	2,08	OK	1,2
	likable	0,18	10	13	53,69	2,16	OK	-3,78	2,16	OK	1,5
	down-to-earth	0,35	4	19	23,26	2,90	OK	2,95	2,09	OK	1,9
	solid	0,39	4	19	23,24	2,90	OK	2,39	2,09	OK	2,2
	family-tied	0,52	2	21	17,17	3,47	OK	2,70	2,08	OK	1,6
	traditional	0,40	3	20	17,71	3,10	OK	3,69	2,09	OK	2,0
	self-confident	0,53	4	19	25,83	2,90	OK	2,32	2,09	OK	2,2
	innovative	0,57	3	20	24,56	3,10	OK	2,23	2,09	OK	2,0
	cool	0,79	2	21	13,62	3,47	OK	2,49	2,08	OK	2,2
	conservative	0,75	2	21	8,40	3,47	OK	-2,29	2,08	OK	1,8
	spontaneous	0,48	3	20	16,21	3,10	OK	2,53	2,09	OK	1,8
	bland	0,98	1	22	13,39	4,30	OK	-3,66	2,07	OK	2,1
	Brand statements	VfL Bochum stands up for its local identity and its tradition	0,25	7	16	21,31	2,66	OK	-2,21	2,12	OK
VfL Bochum is close		0,35	4	19	18,05	2,90	OK	2,20	2,09	OK	1,7
VfL Bochum is unbending		0,34	6	17	32,40	2,70	OK	2,21	2,11	OK	1,9
VfL Bochum is rousing		0,60	3	20	25,82	3,10	OK	2,47	2,09	OK	1,9
VfL Bochum declares its social responsibility		0,41	2	21	19,01	3,47	OK	3,34	2,08	OK	1,9

Table 48: Evaluation of effects which the inside area of stadium has on frequent visitors' brand attitude

When looking at the outcome for infrequent visitors in Table 49, there are considerably more non-verbal indicators that influence the brand attributes and brand statements (27 in total) than verbal representations.

Hypothesis

H(Inf2): The influence of non-verbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area inside of the stadium.

can be confirmed for this visitor group. With a significant positive impact on the two brand attributes 'family-tied' and 'traditional', and on the brand statement 'VfL Bochum is close', the non-verbal element 'acoustics from loudspeaker' shows the strongest impact on the brand attitude of infrequent visitors. The evaluation of the 'usage of colors in inside area' as an indicator of the overall satisfaction in the interior area of the stadium shows significant positive effects on the two brand attrib-

utes 'likable' and 'spontaneous', and on the two brand statements 'VfL Bochum is close' and 'VfL Bochum declares its social responsibility'.

		step-wise regression stopped																		
Indicator		Brand attributes										Brand statements								
		committed	regionally enrooted	likable	down-to-earth	solid	family-led	traditional	self-confident	innovative	cool	spontaneous	bland	The VfL Bochum stands up for its local identity and its tradition	The VfL Bochum is professional	The VfL Bochum is close	The VfL Bochum is unbending	The VfL Bochum is rousing	The VfL Bochum declares its social responsibility	
		A_EV_BC_1	A_EV_BC_2	A_EV_BC_3	A_EV_BC_4	A_EV_BC_5	A_EV_BC_6	A_EV_BC_7	A_EV_BC_8	A_EV_BC_9	A_EV_BC_10	A_EV_BC_12	A_EV_BC_13	A_EV_BS_6	A_EV_BS_7	A_EV_BS_8	A_EV_BS_9	A_EV_BS_10	A_EV_BS_11	
Comfort inside the stadium	Comfort of seating/standing																			-0,499
	View to scoreboard			0,745													0,862			
	View to soccer field	0,731																		
	Quality of scoreboard												-0,671							
	Acoustic from loudspeaker						0,686	0,593								0,290				
Program before the start of the game	Safety inside the stadium																	-0,758		
	Show-up of the teams for warm-ups - with music (~40 minutes before start of game)															-0,168				
	Perceived closeness to the team during warm-up																			
	Music song "Bochumer Jungen" (Jo Hartmann)							0,305							0,907					
	Raising of VfL scarves in the fan area as club songs are played								0,316									0,516		
Game	Teams arriving along with the referee, and holding hands with the mascots							0,221												
	Perceived closeness of fans to players during game												0,482	0,731						
	Atmosphere during the game									0,818										
	Atmosphere coming from fans of opponent				0,744															
Event at half-time and after the game	Emotional reactions of fans (goals, controversial referee decisions)		0,584																	
	Music-selection in half-time									0,857	0,803									
	Perceived closeness of fans to team after the game																	0,810	0,915	
Verbal commu-	Applause from fans to teams after the game		-0,466										0,480				0,867			
	Music-selection after the game																			
-	Presentation of sponsors of the club during the event						0,706													
	Usage of colors in inside area		-0,422	0,449									0,679			0,269				0,629
Coefficient of determination R ²		≥0,3	0,535	0,970	0,922	0,554	0,498	0,471	0,977	0,670	0,735	0,644	0,952	0,450	0,967	0,535	0,592	0,752	0,920	0,937
Adjusted coefficient of determination R ²		≥0,25	0,488	0,952	0,905	0,509	0,448	0,418	0,964	0,637	0,709	0,609	0,941	0,395	0,955	0,488	0,587	0,727	0,890	0,914

Table 49: Significant effects which verbal and non-verbal stimuli in the interior stadium area have on infrequent visitors' brand attitude⁵²⁶

With an R²-value of 99.2% and an adjusted coefficient \hat{R}^2 of 98.7%, the brand statement 'VfL Bochum is close' demonstrates – with 4 mostly independent varia-

⁵²⁶ To see which senses are addressed by the different indicators, see Tables 14 and 45.

bles in total⁵²⁷ - the highest proportion of variation of all brand attributes and brand statements. Due to multicollinearity, the step-wise regression for the brand attributes and brand statements in the highlighted cells had to be stopped at an earlier stage (where multicollinearity was not yet present).

		step-wise regression stopped									
Requirement:		SE	J	K-J-1	F _{emp}	F _{tab}	F-Test	t _{emp min}	t _{tab}	t-Test	Durbin-Watson
		→0	-	-	-	-	F _{emp>F_{tab}}	-	-	t _{emp min} >t _{tab}	>t _{tab}
Brand attributes	committed	0,83	1	10	11,48	4,96	OK	3,39	2,23	OK	1,6
	regionally enrooted	0,19	4	7	55,82	4,12	OK	-4,04	2,37	OK	2,5
	likable	0,21	2	9	53,20	4,26	OK	4,68	2,26	OK	1,8
	down-to-earth	0,42	1	10	12,41	4,96	OK	3,52	2,23	OK	1,8
	solid	0,50	1	10	9,93	4,96	OK	3,15	2,23	OK	2,1
	family-tied	0,56	1	10	8,89	4,96	OK	2,98	2,23	OK	1,5
	traditional	0,10	4	7	75,03	4,12	OK	2,70	2,37	OK	1,7
	self-confident	0,79	1	10	20,27	4,96	OK	4,50	2,23	OK	2,0
	innovative	0,53	1	10	27,74	4,96	OK	5,27	2,23	OK	1,5
	cool	0,73	1	10	18,11	4,96	OK	4,26	2,23	OK	1,5
Brand statements	spontaneous	0,26	2	9	89,09	4,26	OK	6,03	2,26	OK	1,5
	bland	0,82	1	10	8,18	4,96	OK	-2,86	2,23	OK	2,2
	VfL Bochum stands up for its local identity and its tradition	0,19	3	8	78,97	4,07	OK	-2,41	2,37	OK	2,0
	VfL Bochum is professional	0,62	1	10	11,48	4,96	OK	3,39	2,23	OK	2,0
	VfL Bochum is close	0,00	4	7	20,22	4,12	OK	-3,74	2,37	OK	1,9
	VfL Bochum is unbending	0,52	1	10	30,25	4,96	OK	5,50	2,23	OK	2,2
VfL Bochum is rousing	0,42	3	8	30,60	4,07	OK	4,00	2,37	OK	1,9	
VfL Bochum declares its social responsibility	0,28	3	8	39,77	4,07	OK	-4,29	2,37	OK	2,1	

Table 50: Evaluation of effects which the inside area of stadium has on infrequent visitors' brand attitude

As can be seen in Table 50, the Durbin-Watson scores for all brand attributes and brand statements are between the values of 1.5 and 2.5. For all F-tests, the empirical values are above the theoretical thresholds. Due to the significance of the values, the null hypotheses can be rejected. The effect of verbal and non-verbal communications on the brand attitude can be confirmed.

⁵²⁷ Multicollinearity measures show reasonable VIF-values and tolerance-values.

2.3 Overall results

Having presented the partial results from the two areas of the stadium, the study now consolidates these findings into one integrated, overall analysis, in order to provide possible implications for multisensory brand management of soccer events. The study first assesses to what extent different areas of the stadium contribute to the overall satisfaction levels felt by both visitor groups after the event. In order to comprehensively ascertain the effects of verbal and non-verbal communications toward brand attitude, descriptive results of the brand attitude before and after the games are shown. Afterwards, the results of the two separate areas are consolidated and compared in order to find a conclusion regarding the degree of sensory addressing. Last but not least, the ways in which positive attitudes and brand statements impact the behavioral intentions of the visitor groups after the games is also examined.

2.3.1 How verbal and non-verbal stimuli affect satisfaction and positive attitudes toward the event in the areas ‘inside’ and ‘outside’ of the stadium

The observations in the previous sub-chapters showed various models that were developed to explain the creation of positive attitude and which produced reliable and valid results. However, although these findings are meaningful for frequent and infrequent visitors, it is crucial to combine the relationships of the two areas of the stadium together into one final assessment. As the majority of the elements from the outside area of the stadium affect a visitor before the actual game, a significant positive path – a causal link - could be evidenced between the ratings of this outside area and the evaluations of the elements from the interior section of the stadium. It was thus kept in the structural models, as a result of its significance.

Construct	Indicator code	Indicator	Threshold:	Outer loadings	T-value	Indicator reliability	Internal consistency reliability		Convergent validity	Discriminant validity	
				λ			Composite reliability	Cronbach's α		AVE	Fornell and Larcker
Overall satisfaction of event	A_EV_FE_1	Degree of fulfillment of expectations	$\geq 0,7$	0,905	39,003	0,819	0,885	0,810	0,722	OK	OK
	A_EV_GV_1	Overall satisfaction of stadium visit	$\geq 1,653$	0,917	69,723	0,841				OK	OK
	A_EV_OB_1	Opinion about club after event	$\geq 0,5$	0,711	18,337	0,505				OK	OK

Table 51: Evaluation of reflective measurement model of 'total satisfaction' for frequent visitors

Looking at the measures of the reflective measurement models for both visitor groups, all indicators show highly significant outer loadings. The indicator and internal consistency reliability scores and the values for convergent and discriminant validity⁵²⁸ all meet the required minimum thresholds. See Tables 51 and 52.

Construct	Indicator code	Indicator	Threshold:	Outer loadings	T-value	Indicator reliability	Internal consistency reliability		Convergent validity	Discriminant validity	
				λ			Composite reliability	Cronbach's α		AVE	Fornell and Larcker
Overall satisfaction of event	A_EV_FE_1	Degree of fulfillment of expectations	$\geq 0,7$	0,919	38,996	0,845	0,902	0,837	0,755	OK	OK
	A_EV_GV_1	Overall satisfaction of stadium visit	$\geq 1,653$	0,884	16,328	0,781				OK	OK
	A_EV_OB_1	Opinion about club after event	$\geq 0,5$	0,800	16,740	0,640				OK	OK

Table 52: Evaluation of reflective measurement model of 'total satisfaction' for infrequent visitors

In general, in all models shown subsequently, the **sequence** is indicated from the bottom left to the top right, with the independent constructs on the left-hand side and the dependent variables to the right. The constructs on the left are expected to precede and predict the endogenous latent variable to the right. The arrows pointing to the constructs indicate their relationships to each other.

⁵²⁸ See also Tables 29-32.

The two SmartPLS-models in Figures 30 and 31 confirm that the interior sections of the stadium have a significant effect on the visitors' overall satisfaction after the game. Surprisingly, for both visitor groups, the path coefficients between the 'outside area of the stadium' and 'total satisfaction after the event' are negative and non-significant. This runs contrary to the assumptions of the theoretical work and to logic. If this was the case, the basic hypotheses **H(posAttFV)** and **H(posAttIV)** would have to be rejected. The proportion of the explained variances of the positive attitude toward the event after the game equates to 42.0% for frequent and 53.6% for infrequent visitors. In both cases, the path coefficients of the inside area of the stadium (0.564 for frequent and 0.852 for infrequent visitors) appear to be stronger than the values from the outside section of the stadium.

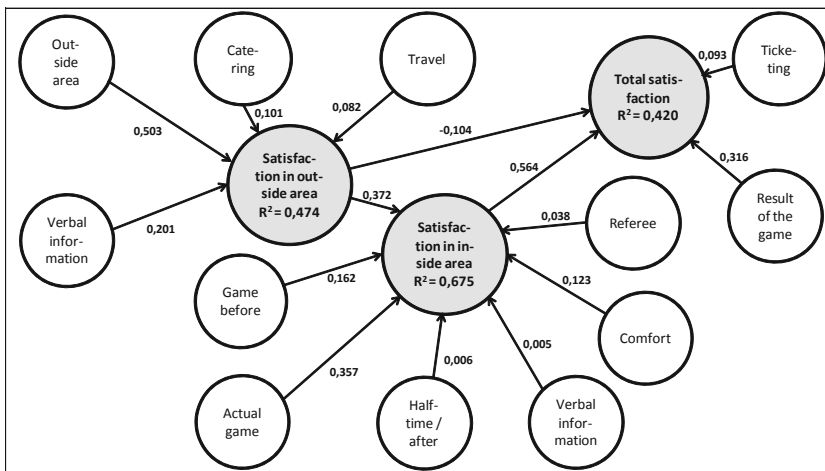


Figure 30: Causal SmartPLS-model for evaluating positive impact on frequent visitors' total satisfaction at soccer event

In the theoretical model, a positive relationship between the 'outside area of the stadium' and 'total satisfaction after the event' was expected. Due to the fact that there were good reasons to expect a positive relationship, something may be

missing in the model.⁵²⁹ The strength of the relationship between the two constructs could possibly be **mediated** by one or more variables.

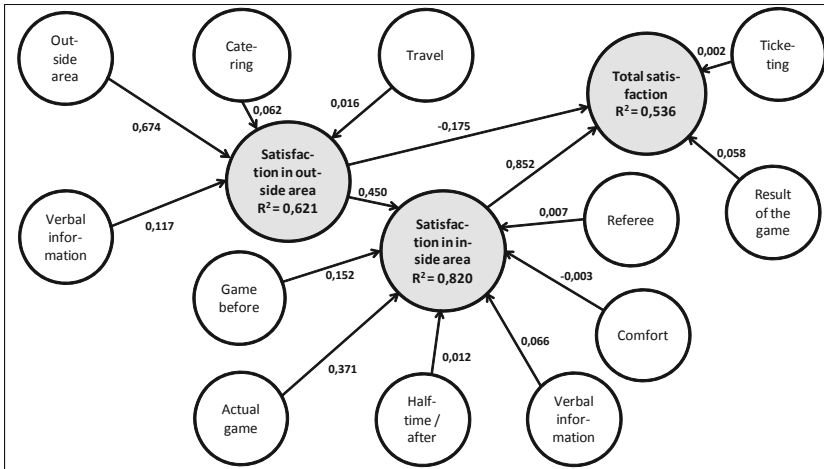


Figure 31: Causal SmartPLS-model for evaluating positive impact on infrequent visitors' total satisfaction at soccer event

A mediating effect occurs in the situation where a third variable or construct intervenes between two other related constructs.⁵³⁰ "The role of the mediator variable [...] is to clarify or explain the relationship between the two original constructs."⁵³¹ According to *Baron/ Kenny* (1986),⁵³²

"a variable functions as a mediator when it meets the following conditions:

- Variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e., **Path a**),

⁵²⁹ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 220.

⁵³⁰ See *ibid.*, p. 35.

⁵³¹ *Ibid.*, p. 36.

⁵³² BARON, R. B./ KENNY, D. A. (1986): The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations, in: *Journal of Personality and Social Psychology*, Vol. 51, No. 6, p. 1,176.

- Variations in the mediator significantly account for variations in the dependent variable (i.e., **Path b**), and
- When paths a and b are controlled, a previously significant relation between the independent and dependent variables is no longer significant,

with the strongest demonstration of mediation occurring when **Path c** is zero.”

See Figure 32 translated to the context of this study.

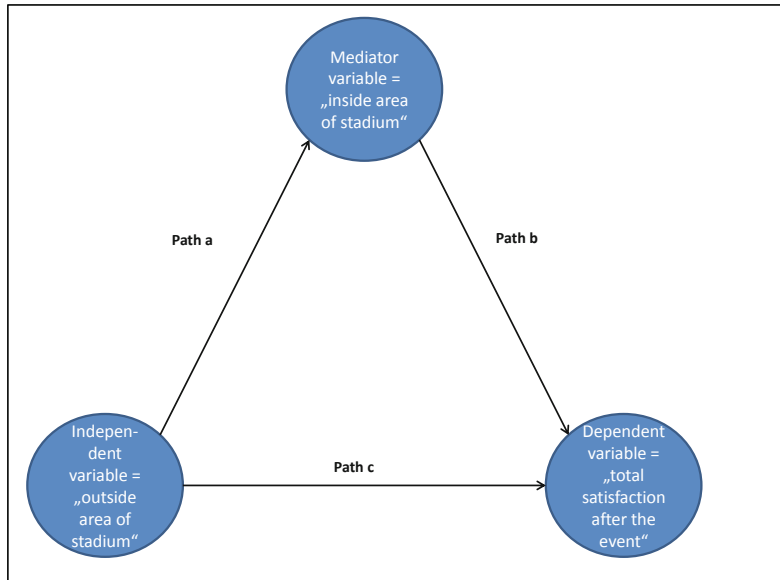


Figure 32: Illustration of a possible mediating effect

An **indirect** effect represents a sequence of at least two **direct** effects that are visible through multiple arrows in a path model. Referring to this study:

- **Path a** would relate to the path between ‘outside area of the stadium’ and ‘inside area of the stadium’
- **Path b** would refer to the path between ‘inside area of the stadium’ and ‘total satisfaction after the event’

- **Path c** would represent the path between 'outside area of the stadium' and 'total satisfaction after the event'

To determine whether there is in fact an intervening process or mediating effect, the following three key questions need to be answered:⁵³³

- 1) Is the direct effect between the 'outside area of the stadium' and 'total satisfaction after the event' (path c) significant, if the mediator 'inside area of the stadium' is ignored? If the direct effect is significant, a mediating effect could be present in the model.⁵³⁴
- 2) Is the indirect effect ['outside area of the stadium' – 'inside area of the stadium' – 'total satisfaction after the event'] – effect (a*b) – significant? If this indirect path is significant, partial or full mediation exists.
- 3) Does the direct effect between the 'outside area of the stadium' and 'total satisfaction after the event' (path c) become insignificant, if the mediator is included in the model? If the independent variable does not have a significant effect on the dependent variable after the inclusion of the mediator variable, there is a full mediation effect. If it does, partial mediation prevails.

After empirically testing the relationships,⁵³⁵ it will be possible to explain how the area 'outside of the stadium' is related to 'total satisfaction after the event', and the role that the area 'inside of the stadium' plays in possibly mediating that relationship.

⁵³³ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, pp. 222 et seq.

⁵³⁴ According to ZHAO, X., et al. (2010): Reconsidering Baron and Kenny: Myths and truths about mediation analysis, in: *Journal of Consumer Research*, Vol. 37, No. 5, pp. 197 et seq., this is not a necessary condition. However, it makes the mediator analysis a lot easier to understand. See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 223.

⁵³⁵ See PREACHER, K. J./ HAYES, A. F. (2008): Asymptotic and resampling strategies for assessing and comparing indirect effects in simple and multiple mediator models, in: *Behavior Research Methods*, Vol. 40, No. 3, pp. 879 et seqq. and PREACHER, K. J./ HAYES, A. F. (2004): SPSS and SAS procedures for estimating indirect effects in simple mediation models, in: *Behavior Research Methods, Instruments, and Computers*, Vol. 36, No. 4, pp. 717 et seqq.: Bootstrapping the sampling distribution of the indirect effect is the best means of testing the mediating effects. This works for both simple and multiple mediation models.

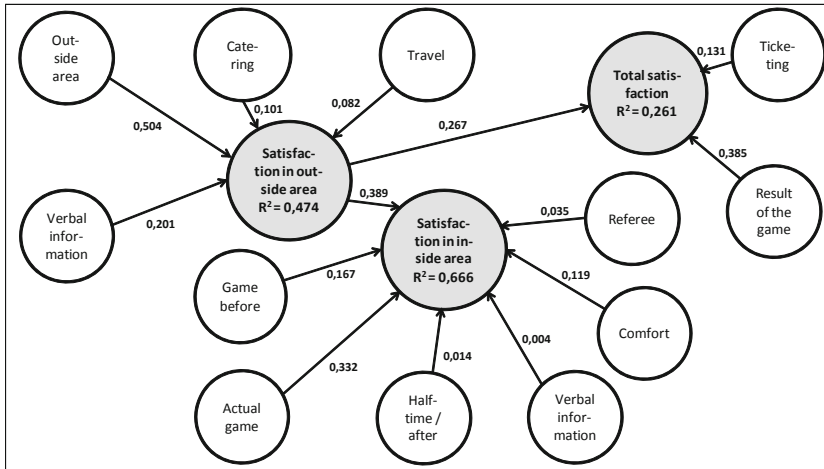


Figure 33: Adjusted causal SmartPLS-model for evaluating positive impact on frequent visitors' total satisfaction at soccer event

To respond to Question 1, the SmartPLS-models are run without including the mediating effect between the 'inside area of the stadium' and 'total satisfaction at the event'. The direct path coefficients turn positive for both visitor groups – 0.267 for frequent visitors and 0.489 for infrequent visitors. See Figures 33 and 34. With the bootstrapping technique, it can be seen that the paths are significant for both frequent and infrequent visitors, with T-values of 3.953 and 4.776, respectively.⁵³⁶

Next, the significance of the indirect effect needs to be assessed after bringing the mediating effect back into the structural model. Again, through bootstrapping, the following hypotheses are tested:

$$H_0 = (\text{path a}) * (\text{path b}) = 0$$

$$H_1 = (\text{path a}) * (\text{path b}) \neq 0$$

With output from SmartPLS, the T-values of the indirect effects can be manually calculated.

⁵³⁶ For the bootstrapping settings, see Appendix A8.

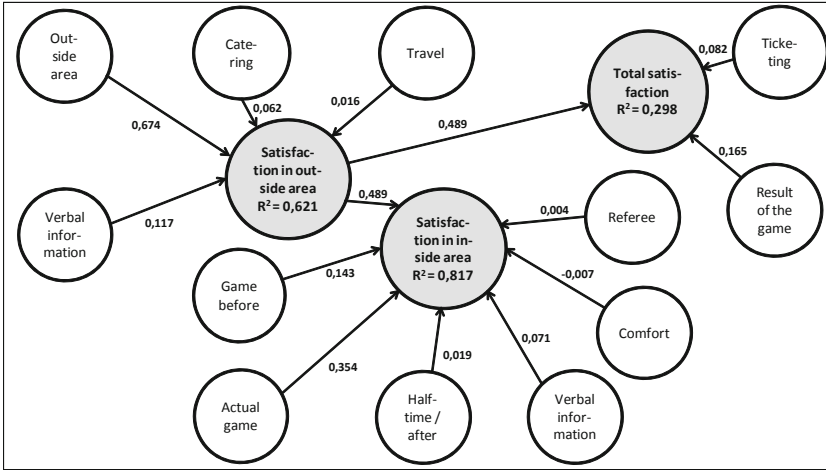


Figure 34: Adjusted casual SmartPLS-model for evaluating positive impact on infrequent visitors' total satisfaction at soccer event

See Table 53 for the calculation of the T-value for frequent visitors. Initially, the path coefficients of the two paths (a_i and b_i) are multiplied for all 1,000 samples. Afterwards, the two path coefficients a and b from the original relationship are multiplied. This number is subsequently divided by the standard deviation of ($a_i * b_i$) to receive the T-value of the indirect effect.

	Outside SAT -> Inside SAT (a)	b: Inside SAT -> Total SAT (b)	a*b; Indirect effect (1 st step)	a*b (2 nd step):		Original Sample (O)
Sample 0	0,3432	0,4957	0,17012	0,20798	Before -> Inside SAT	0,163
Sample 1	0,3594	0,5945	0,21366	sd(a*b) (3 rd step):	Catering -> Outside SAT	0,1015
Sample 2	0,3912	0,5238	0,20491	0,04928	Comfort -> Inside SAT	0,1185
Sample 3	0,2886	0,43	0,12410	T-value (4 th step):	Game -> Inside SAT	0,3525
Sample 4	0,2612	0,6692	0,17480	4,22017	HT/ after -> Inside SAT	0,0002
Sample 5	0,2187	0,5434	0,11884		Inside SAT -> Total SAT (b)	0,5641
Sample 6	0,2814	0,6155	0,17320		Outside SAT -> Inside SAT (a)	0,3687
Sample 7	0,3521	0,5664	0,19943		Outside SAT -> Total SAT	-0,1045
Sample 8	0,3125	0,6221	0,19441		Outside area -> Outside SAT	0,5035
Sample 9	0,374	0,5897	0,22055		Referee -> Inside SAT	0,0361
Sample 10	0,3314	0,5957	0,19741		Result -> Total SAT	0,3157
Sample 11	0,2983	0,5009	0,14942		Ticketing -> Total SAT	0,0929
Sample 12	0,4315	0,4392	0,18951		Travel -> Outside SAT	0,0819
Sample 13	0,2564	0,5589	0,14330		Verbal inside -> Inside SAT	0,0243
Sample 14	0,3674	0,5135	0,18866		Verbal outside -> Outside SAT	0,2014
Sample 15	0,4018	0,5846	0,23489			
Sample 16	0,196	0,4283	0,08395			
Sample 17	0,3449	0,5824	0,20087			
Sample 18	0,204	0,5058	0,10318			
Sample 19	0,2846	0,5899	0,16789			
Sample 20	0,3514	0,4602	0,16171			

Table 53: Calculation of T-value of indirect effect for frequent visitors (with input from SmartPLS)

For the frequent visitor group, the calculated T-value equates to 4.22, while a value of 5.29 is achieved for infrequent visitors (see Table 54).

The responses so far confirm that a mediating effect exists in both models. The mediator 'inside area of the stadium' absorbs at least some of the direct effect. As previously indicated, the original relationship of path c – the relationship between 'outside area of the stadium' and 'total satisfaction after the event' – was non-significant and negative.

	Outside SAT -> Inside SAT (a)	b: Inside SAT -> Total SAT (b)	a*b: Indirect effect (1 st step)			Original Sample (O)
Sample 0	0,8504	0,3624	0,30818	a*b (2 nd step): 0,38677	Before -> Inside SAT	0,1419
Sample 1	0,8887	0,4647	0,41298	sd(a*b) (3 rd step): 0,07314	Catering -> Outside SAT	0,0625
Sample 2	0,8044	0,5506	0,44290		Comfort -> Inside SAT	0,0047
Sample 3	0,7528	0,3803	0,28629		Game -> Inside SAT	0,3681
Sample 4	0,9208	0,4099	0,37744	T-value (4 th step): 5,28826	HT/ after -> Inside SAT	0,0077
Sample 5	0,9992	0,3412	0,34093		Inside SAT -> Total SAT (b)	0,8521
Sample 6	0,827	0,4495	0,37174		Outside SAT -> Inside SAT (a)	0,4539
Sample 7	0,6828	0,224	0,15295		Outside SAT -> Total SAT	-0,1746
Sample 8	0,8284	0,4335	0,35911		Outside area -> Outside SAT	0,6745
Sample 9	0,9643	0,3484	0,33596		Referee -> Inside SAT	0,0041
Sample 10	0,7495	0,4269	0,31996		Result -> Total SAT	0,0581
Sample 11	0,8326	0,4867	0,40523		Ticketing -> Total SAT	0,0019
Sample 12	0,9318	0,4568	0,42565		Travel -> Outside SAT	0,0165
Sample 13	0,7967	0,3355	0,26729		Verbal inside -> Inside SAT	0,069
Sample 14	0,9492	0,4604	0,43701		Verbal outside -> Outside SAT	0,1171
Sample 15	0,9041	0,4144	0,37466			
Sample 16	0,6186	0,2884	0,17840			
Sample 17	0,7273	0,5511	0,40082			
Sample 18	1,0715	0,396	0,42431			
Sample 19	0,9601	0,3663	0,35168			
Sample 20	0,8233	0,3741	0,30800			

Table 54: Calculation of T-value of indirect effect for infrequent visitors (with input from SmartPLS)

Taking out the mediating impact, these paths turn significant and positive. Consequently, a full mediation effect exists for both visitor groups – whenever a negative path with mediation turns into a positive relationship after taking out the mediator, a **suppressor** effect prevails.⁵³⁷ The estimated cause-effect relationship results were not ‘true’, “because a systematic influence – a certain phenomenon [...] – must first be accounted for theoretically. [...] Only when the possible mediation is theoretically taken into account and also empirically tested can the nature of the cause-effect relationship be fully and accurately understood, as this type of analysis identifies its ‘true’ result.”⁵³⁸

A relationship which initially did not match the theoretical assumptions becomes significant, thus confirming the expectations and the nomologic validity of the model.

⁵³⁷ See HAIR, J. F., et al. (2014): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Thousand Oaks, p. 225: Usually, to judge whether there is a full, partial, or no mediation effect, the VAF (Variance Accounted For) is calculated. However, since a suppressor effect exists, this VAF value exceeds 1.0, and is therefore set to 1, which stands for full mediation.

⁵³⁸ *Ibid.*, p. 222.

Results with mediator effect		Frequent visitors			Infrequent visitors		
Relationships		Path	T	Effect size f ²	Path	T	Effect size f ²
Threshold:		≥ 0,1	≥ 1,653	≥ 0	≥ 0,1	≥ 1,653	≥ 0
Path 'satisfaction in outside area' to 'total satisfaction'		-0,104	1,216	0,009	-0,175	1,472	0,024
Path 'satisfaction in inside area' to 'total satisfaction'		0,564	6,140	0,274	0,852	7,664	0,513
Endogenous construct	Overall satisfaction	R ² = 0.420/ Q ² = 0,2781			R ² = 0.536/ Q ² = 0,3799		

Direct effect without mediator		Frequent visitors		Infrequent visitors	
Relationships		Path	T	Path	T
Threshold:		≥ 0,1	≥ 1,653	≥ 0,1	≥ 1,653
Path 'satisfaction in outside area' to 'total satisfaction'		0,267	3,953	0,489	4,776

Table 55: Evaluation of relationships and the endogenous construct of 'total satisfaction at event' – with and without mediation effect

As a result, the hypotheses

H(posAttFV): The positive attitude of frequent visitors is composed of the perception of two strongly different areas, which visitors are exposed to during a game: the area outside of and inside of the stadium.

and

H(posAttIV): The positive attitude of infrequent visitors is composed of the perception of two strongly different areas, which visitors are exposed to during a game: the area outside of and inside of the stadium.

can be confirmed. Table 55 summarizes the evaluation metrics of the relationships and the endogenous construct 'total satisfaction at the event' with the path coefficients and T-values with and without the mediation effects. For both frequent and infrequent visitors, the effect sizes f^2 are larger than 0 and thus substantial. The results of the Stone-Geisser tests validate the prognostic validity of the observed model concerning the communalities, since the marginal value of 0 for all factors is exceeded (see Q^2 -scores). It can be stated that the paths 'satisfaction in inside area' toward 'overall satisfaction after the event' possess strong explanatory pro-

portions for the respective endogenous variables. Considering the fact that the game itself represents the main deliverable of the day, this could be anticipated.

2.3.2 Relation of verbal and non-verbal representations of the areas inside and outside of the stadium to brand attitude

In the previous sub-chapters, the significant effects of verbal and non-verbal representations of the two stadium areas toward the brand attitude were discussed. In this following section, the consolidated results of the frequent and infrequent visitor groups will be compared with each other. As before, only the significant impacts are considered, showing a strong effect (with a coefficient of determination R^2 of 0.30 and an adjusted coefficient of determination \bar{R}^2 of 0.25).

For both visitor groups, it can be stated - see Table 56 - that the evaluations of both the brand attributes and the brand statements after the event are influenced by the perceived sensory elements of the verbal and non-verbal representations of two different stadium areas on the day of the game. As a result, the brand competency after the game is impacted by the evaluation of different sensory elements of verbal and non-verbal representations during the event. The two hypotheses

H(InfFV): The evaluation of the different sensual elements of verbal and non-verbal representations during the day influences the final evaluation offered of brand competency by frequent visitors after the game.

and

H(InfIV): The evaluation of the different sensual elements of verbal and non-verbal representations during the day influences the final evaluation offered of brand competency by infrequent visitors after the game.

can therefore be confirmed. Interestingly, the frequent visitor group that tends to be more involved in the event itself does not achieve more multifaceted brand

		Frequent visitors		Infrequent visitors	
Outside area of stadium: monosensory: 50% - bisensory: 28% - multisensory: 22%					
	strongest influence	down-to-earth ($R^2 = 0,609 / \check{R}^2 = 0,573$)		The VfL Bochum declares its social responsibility ($R^2 = 0,892 / \check{R}^2 = 0,851$)	
Type of influence	Brand attributes	9/13		12/13	
	Brand statements	5/6		6/6	
Influencing indicators	Brand attributes	non-verbal	verbal	non-verbal	verbal
		18	2	14	1
	Brand statements	7	1	5	1
	Total	25	3	19	2
	%	89,3%	10,7%	90,5%	9,5%
Inside area of stadium: monosensory: 21% - bisensory: 53% - multisensory: 26%					
	strongest influence	likable ($R^2 = 0,976 / \check{R}^2 = 0,958$)		The VfL Bochum is close ($R^2 = 0,992 / \check{R}^2 = 0,987$)	
Type of influence	Brand attributes	13/13		12/13	
	Brand statements	5/6		6/6	
Influencing indicators	Brand attributes	non-verbal	verbal	non-verbal	verbal
		28	5	15	1
	Brand statements	16	2	12	0
	Total	44	7	27	1
	%	86,3%	13,7%	96,4%	3,6%

Table 56: Consolidated illustration of significant effects of the two stadium areas on brand attitude

activations.⁵³⁹

⁵³⁹ See SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*,

In the outside area of the stadium, 9 out of 13 brand attributes and 5 out of 6 brand statements⁵⁴⁰ are impacted through various elements found in this section. In contrast to this, 12 out of 13 brand attitudes and all 6 brand statements are activated for the infrequent visitor group.⁵⁴¹ In the interior area of the rewirpowerSTADION, there is no major difference between the two target groups.⁵⁴² Whereas all 13 brand attributes are stimulated for the frequent visitor group, 12 out of 13 attributes are activated for infrequent visitors. For the brand statements, all six expressions are influenced for the infrequent visitor group, while the statement 'VfL Bochum is professional' remained inactive for frequent visitors. This outcome is not surprising, if we bear in mind how often loyal fans are confronted with the same messages and stimuli at their various visits to their team's games. Meanwhile, for a high proportion of the infrequent target group, this was their first confrontation with these types of verbal and non-verbal communications.

Hence, in the area inside of the stadium, which possesses a higher percentage of multisensory elements (26%) compared to the outside section of the stadium (22%), 4 more brand attributes and the same amount of brand statements are activated, leading to the confirmation of hypothesis

H(Inf3): The higher the perceivable proportion of multisensory elements is within an area, the more brand statements are influenced after the evaluation of the program.

for the frequent visitor group. Since exactly the same amount of brand attributes and brand statements are influenced for infrequent visitors in both areas, this hypothesis has to be rejected. Table 56 provides further details about the number of non-verbally and verbally influencing indicators, and the brand attributes/ brand statements with the highest R^2 - and \check{R}^2 -values.

Wiesbaden, p. 170: Springer finds in her analysis of the Porsche Brand Land that 'the more-involved driver target group' feels strong attachment to the brand. Springer also refers to LASSLOP, I. (2003): *Effektivität und Effizienz von Marketing-Events: wirkungstheoretische Analyse und empirische Befunde*, Wiesbaden, p. 156: Lasslop proved that, the better the attitude toward an event, the better the attitude toward the brand after the event.

⁵⁴⁰ See Table 38.

⁵⁴¹ See Table 40.

⁵⁴² See Tables 47 and 49.

By looking at the constructs with the highest percentage of multisensory elements within the two stadium areas, hypotheses H(Inf4) and H(Inf5) can be tested. It was expected that the formative constructs with the highest proportion of multisensory elements – the ‘stay outside of the stadium’ in the outside area of the stadium (43% of the elements are multisensory)⁵⁴³ and the ‘game itself’ in the interior section of the stadium (50% of the elements are multisensory)⁵⁴⁴ - have the largest influence on the brand statements after the evaluation of the program. Referring to Figure 30, the path from ‘stay outside of the stadium’ toward the ‘satisfaction outside of the stadium’ has by far the highest (significant) path coefficient, with a value of 0.503.

Hence, hypothesis

H(Inf4): The formative measurement model with the highest perceivable proportion of multisensory elements in the ‘outside area of the stadium’ has the greatest influence on the brand statements after the evaluation of the program.

can be confirmed for frequent visitors. The same can be noted for the interior section. See Figure 30 again. With a significant path coefficient of 0.357,⁵⁴⁵ the relationship of the ‘actual game’ and the ‘satisfaction inside of the stadium’ is the strongest of the entire construct.

Hypothesis

H(Inf5): The formative measurement model with the highest perceivable proportion of multisensory elements in the ‘inside area of the stadium’ has the greatest influence on the brand statements after the evaluation of the program.

for the frequent visitors can be confirmed. Turning to infrequent visitors (see Figure 31), the paths ‘stay outside of the stadium’ with a coefficient of 0.674 and ‘game itself’ with a path coefficient of 0.371 show the strongest relationships to the

⁵⁴³ See Table 13.

⁵⁴⁴ See Table 14.

⁵⁴⁵ The path between the construct ‘satisfaction in the outside area’ and ‘satisfaction in the inside area’ is neglected for both visitor groups.

respective constructs 'satisfaction outside of the stadium' and 'satisfaction inside of the stadium'. Hence, the two hypotheses

H(Inf4): The formative measurement model with the highest perceivable proportion of multisensory elements in the 'outside area of the stadium' has the greatest influence on the brand statements after the evaluation of the program.

and

H(Inf5): The formative measurement model with the highest perceivable proportion of multisensory elements in the 'inside area of the stadium' has the greatest influence on the brand statements after the evaluation of the program.

can be confirmed for this target group as well.

When the influenced brand attributes and brand statements in the two stadium areas are compared, the brand attributes 'down-to-earth' and 'likable' are best explained by the perceived elements for the frequent visitors, while the brand statements 'The VfL Bochum declares its social responsibility' and 'The VfL Bochum is close' receive the highest coefficients of determination for the infrequent visitor group. These differences could be related to the different background of the two target groups. While the frequent visitor group knows a lot more about VfL Bochum 1848⁵⁴⁶ and has often followed the club through many 'ups and downs', most of the infrequent visitors judge the club according to general information obtained beforehand or based on their unique visit to see them play (rather than its longer history of success and/ or failure, and on the wins and losses it has endured over the course of a season). The percentage share of influence from the non-verbal/ verbal representations is similar for both visitor groups in both areas of the stadium. However, when comparing the two target groups with each other, it should be kept in mind that the number of infrequent visitors (103) is considerably smaller than that of the frequent visitor group (151), which does have an impact on coefficients of determination and other key statistics.

⁵⁴⁶ See also Chapter C.1.2.

2.3.3 Changes in brand attitude before and after the games

Although no hypotheses were stated for potential changes in brand attitudes, the results illustrated by the means before and after the games are compared for both visitor groups.

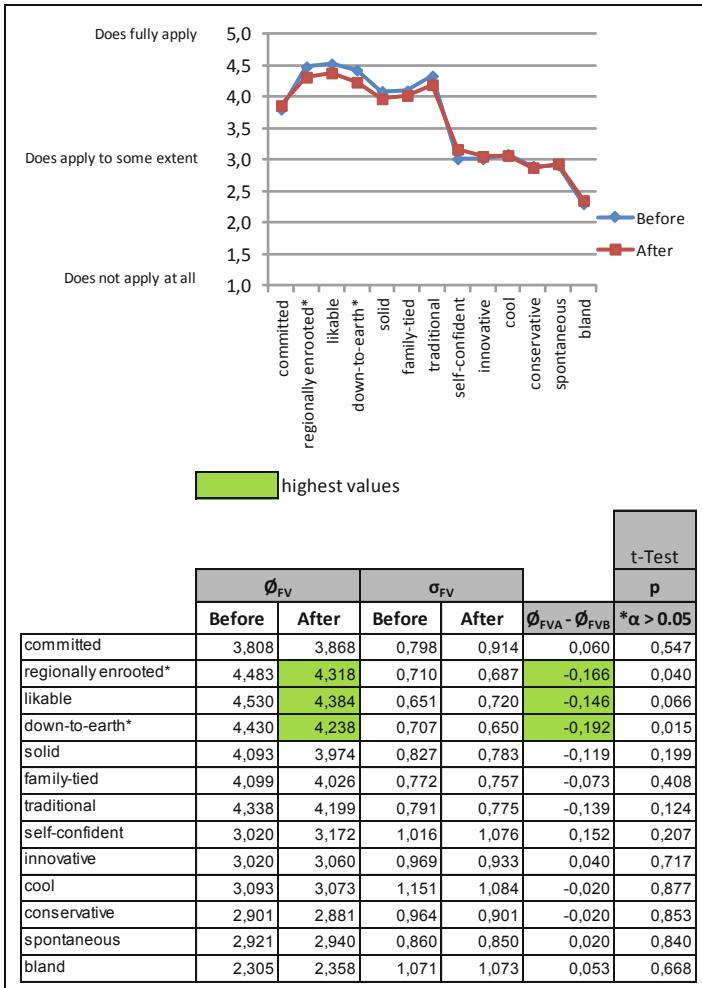


Figure 35: Changes in how frequent visitors rate brand attributes

As indicated in Figure 35, there are only marginal variances in the evaluations of frequent visitors before and after the game. The biggest differences exist for the attributes 'down-to-earth', 'regionally enrooted', and 'likable'. While these three attributes achieve the highest overall ratings in both surveys, they also account for the biggest (unfavorable) changes of all 10 attributes.

In general, it can be expected that frequent visitors regularly come to the stadium. It is thus not surprising that one specific game does not considerably alter the brand attitude. At the same time, the statistical significance of the dummy 'result of the game' (path of 0.316)⁵⁴⁷ indicates a strong link between the result and the final ratings given after the game. Looking at the standard deviation changes, the variation is reduced for 9 out of 13 items. For the brand attributes 'regionally enrooted' and 'down-to-earth', the differences in the average rating scores of the 'before'- and 'after'-surveys are significant (due to t-test values below 0.05).

Figure 36 illustrates the mean scores per brand attribute before and after the game for infrequent visitors. With an exception of the brand attributes 'regionally enrooted' and 'bland' (where the decrease in the ratings is in fact a desirable outcome for the attribute "bland"), all attributes show higher ratings after the game. The biggest differences can be noted for the attributes 'self-confident', 'cool', and 'innovative', while the items 'regionally enrooted', 'likable', and 'traditional' show the highest average scores (all of the cells are highlighted) after the visits. When looking at the standard deviation results, it can be noted that the variation decreases in 8 out of 13 cases. The differences in the average ratings of the responses in the 'before'- and 'after'-questionnaires are significant for the brand attributes 'committed', 'likable', 'solid', 'traditional', 'self-confident', 'innovative', 'cool', and 'spontaneous'.

When comparing the scores given by frequent and infrequent visitors after the games, it can be noted that in 7 out of 13 cases, the ratings for frequent visitors are higher, especially for the attributes 'family-tied', 'conservative', and 'likable'.

⁵⁴⁷ See Figure 30.

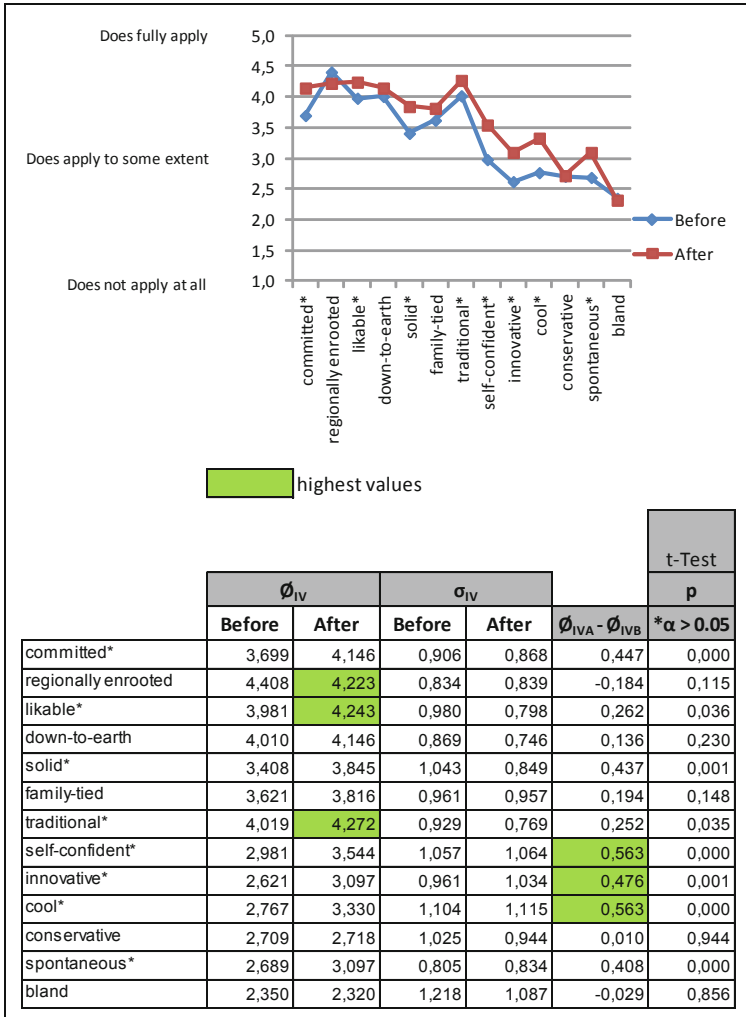


Figure 36: Changes in how infrequent visitors rate brand attributes

Meanwhile the ratings for 'self-confident', 'committed', and 'cool' are considerably higher for infrequent visitors. The differences can again largely be substantiated by the different backgrounds of the two target groups. While frequent visitors have

been to many of their team's games and are aware of the team's recent form and their likelihood to win or lose, infrequent visitors are not as familiar with the club and its performances over recent years. Therefore, attributes like 'cool' and 'self-confident' are often chosen in relation to the specific game visited, while frequent visitors usually rate these attributes in a different way, due to their wealth of knowledge about the club.

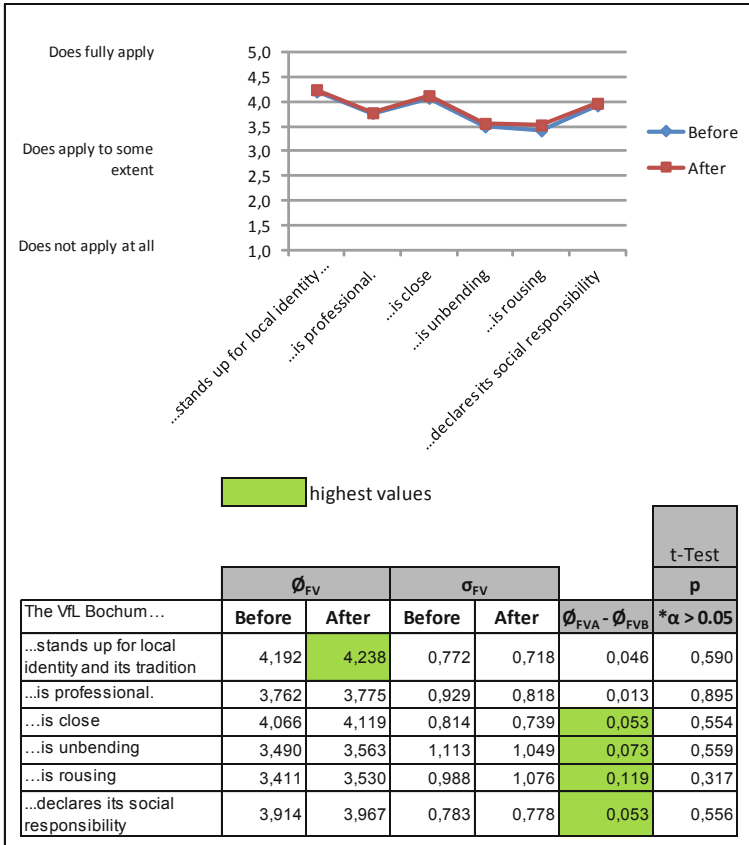


Figure 37: Changes in how frequent visitors rate brand statements

Turning to the changes in ratings of the brand statements, Figure 37 shows the outcome for frequent visitors. Interestingly, in contrast to the ratings for the 13

brand attributes, all 6 brand statements improved their average ratings after the game, although the differences are small. None of the differences in the average ratings before and after the survey are significant. The fact that all items improved after the visit of games can be seen as an indication that VfL Bochum 1848 had chosen the appropriate items from the final set of 13 attributes at the time when the core attributes had been selected for the creation of the club's mission statement. With a mean of 4.238, the statement 'VfL Bochum stands up for local identity and its tradition' clearly achieves the highest score (see highlighted cell), followed by the expression 'VfL Bochum is close' (arithmetic mean of 4.119). The biggest improvement can be noted for the statement 'VfL Bochum 1848 is rousing', where the mean after the game increased by 0.119. When looking at σ_{FV} , the variations decreased in 5 out of 6 cases, indicating a higher rate of homogeneity in the ratings after the event. The deviation increased only for the statement 'VfL Bochum is rousing', which could be explained by the fact that the team did not perform well in all of the four selected games when the survey took place. The biggest decrease in the deviation can be noted for the statement 'VfL Bochum is professional' (decrease of 0.111).

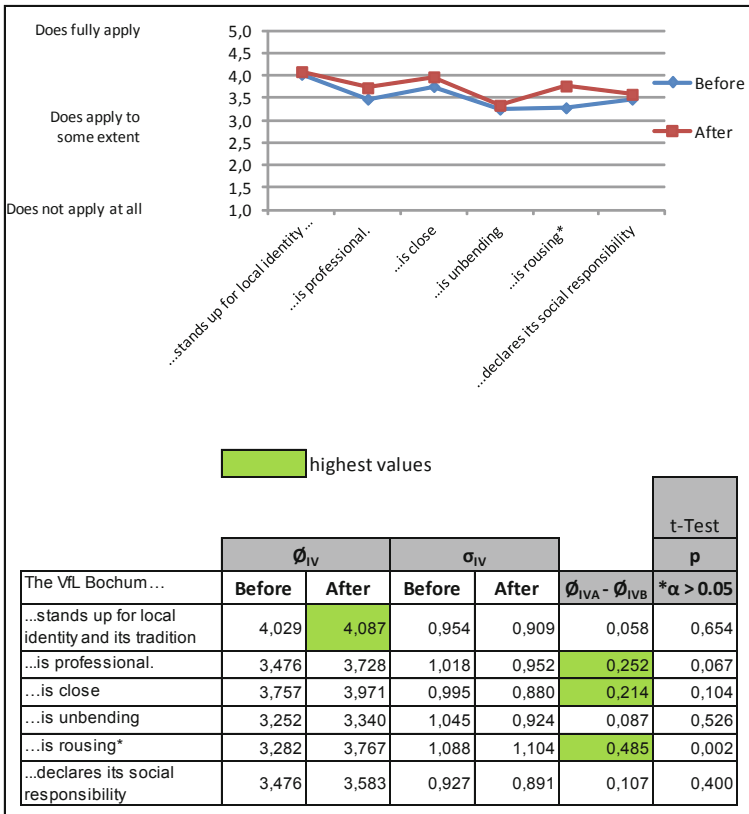


Figure 38: Changes in how infrequent visitors rate brand statements

The favorable changes in the ratings of the brand statements are confirmed by the results of the infrequent visitor group shown in Figure 38, while the differences are much higher than for the frequent visitors. With a rating of 4.087, the statement 'VfL Bochum stands up for local identity and its tradition' scores highest. The biggest changes can be noted for the expression 'VfL Bochum is rousing', with an increase in the arithmetic mean value of 0.485. In 5 out of 6 cases, the standard deviation σ_{IV} decreases, illustrating a higher uniformity of ratings after the game. The differences in the average ratings in the 'before'- and 'after'-survey are significant for the brand statement 'VfL Bochum is rousing'.

When comparing the brand statement ratings of the two target groups after the game, only the average rating of infrequent visitors for the statement 'VfL Bochum is rousing' exceeds the score of the frequent target group. The biggest difference can be noted for the brand statement 'VfL Bochum declares its social responsibility'. While the mean for frequent visitors equates to 3.967, it is only 3.583 for infrequent visitors. However, it must be noted that this expression might not be directly observable in any one specific game; the judgment may relate to activities besides the games of which frequent visitors might be more aware.

2.3.4 Derivations for behavioral intentions

Finally, two additional causal models are observed for each visitor group. These concern how the cognitively characterized part of the brand attitude and the affectively characterized attitude affect intentions after the game, specifically concerning communication and intended usage/ purchasing behavior. The objective of this observation is to find out more about the effect of the game on intended behavior after the game – both for frequent and infrequent visitors. As in previous sections, the measurement models are initially analyzed, before turning to the metrics of the structural model.

For the cognitive part, two different approaches are chosen, using:

- the evaluation of brand statements after the game
- the changes of brand statement evaluations (before vs. after the game)

2.3.4.1 How brand statement evaluations after the game and overall satisfaction with the event impact behavioral intentions

In this first assessment of the behavioral intentions of the two target groups, the absolute evaluations of the six brand statements after the game (directly derived from the VfL Bochum 1848 mission statement) in the formative measurement model are considered. As mentioned before,⁵⁴⁸ the sample size should be 10

⁵⁴⁸ See last paragraph of Chapter C.1.3.2.

times or more the maximum amount of indicators in a construct. This is true of this model for both frequent and infrequent visitors (sample size of 151 and 103, number of indicators of 6). As in previous chapters, the discriminant validity needs to be confirmed for both models. As indicated in Table 57, the Fornell-Larcker criteria and the cross-loadings can be validated for both visitor groups.

Fornell-Larcker FV				Fornell-Larcker IV			
square root of construct's AVE				square root of construct's AVE			
correlations with other constructs				correlations with other constructs			
	COMM	Total SAT	USE		COMM	Total SAT	USE
COMM	0,8907	0	0	COMM	0,9187	0	0
Total SAT	0,7205	0,7620	0	Total SAT	0,7518	0,8411	0
USE	0,3532	0,3259	0,7418	USE	0,5416	0,4978	0,8199

Cross-loadings FV				Cross-loadings IV			
indicator				indicator			
outer loading value				outer loading value			
	COMM	Total SAT	USE		COMM	Total SAT	USE
A_EV_GV_1	0,7506	0,8867	0,3040	A_EV_GV_1	0,6801	0,8327	0,4765
A_EV_IB_1	0,9207	0,6613	0,2259	A_EV_IB_1	0,9296	0,7401	0,4742
A_EV_IB_2	0,9434	0,6917	0,3001	A_EV_IB_2	0,8824	0,5304	0,4158
A_EV_IB_3	0,8014	0,5651	0,4354	A_EV_IB_3	0,9430	0,7756	0,5887
A_EV_IB_4	0,1080	0,1586	0,6443	A_EV_IB_4	0,4498	0,4741	0,8691
A_EV_IB_5	0,3234	0,3174	0,8352	A_EV_IB_5	0,5156	0,4644	0,8504
A_EV_IB_6	0,2888	0,2139	0,7334	A_EV_IB_6	0,3521	0,2626	0,7336
A_EV_IF_1	0,5252	0,8574	0,2447	A_EV_IF_1	0,6585	0,9211	0,4026
A_EV_OF_1	0,1924	0,4696	0,1849	A_EV_OF_1	0,5443	0,7618	0,3668

Table 57: Discriminant validity checks of reflective measurement models for both visitor groups (brand statement evaluations as cognitive construct)

Next, the reflective measurement model is analyzed in further detail. The latent exogenous and endogenous variables need to be evaluated with regards to the relevant reliability and validity criteria (after the already performed validations of the basic requirements). The illustrated evaluations of the reflective measurement models in Table 58 show that for frequent visitors – with the exception of two indicators (A_EV_OF_1 and A_EV_IB_4) – all thresholds are met. However, these two indicators are both significant, and so the outliers are considered unproblematic.

ic. This is also due to the fact that all other indicators show high and significant outer loadings. On the factor level, all results for the composite reliability and the AVE exceed the required limits.⁵⁴⁹

Construct	Indicator code	Indicator	Outer loadings	T-value	Indicator reliability	Internal consistency reliability		Convergent validity	Discriminant validity	
			λ			$\geq 0,7$	$\geq 1,653$	$\geq 0,5$	Composite reliability	Cronbach's α
Total satisfaction at event	A_EV_OF_1	Overall satisfaction towards 'outside area of stadium'	0,470	4,337	0,221	0,796	0,650	0,581	OK	OK
	A_EV_IF_1	Overall satisfaction towards 'inside area of stadium'	0,857	26,578	0,735				OK	OK
	A_EV_GV_1	Overall satisfaction towards event	0,887	42,277	0,786				OK	OK
Communication	A_EV_IB_1	I will express myself positively about my visit at a game of VfL Bochum 1848.	0,921	56,149	0,848	0,920	0,867	0,793	OK	OK
	A_EV_IB_2	Others should also know about my positive experience in the rewirpowerSTADION.	0,943	81,507	0,890				OK	OK
	A_EV_IB_3	I will recommend a stadium visit to others.	0,801	16,132	0,642				OK	OK
Purchase & Usage	A_EV_IB_4	I will prefer visits in the rewirpowerSTADION over other soccer clubs.	0,644	2,848	0,415	0,784	0,609	0,550	OK	OK
	A_EV_IB_5	I plan to come to the rewirpowerSTADION in the near future again.	0,835	8,391	0,698				OK	OK
	A_EV_IB_6	I plan to purchase merchandising-articles of the club after this visit.	0,733	6,948	0,538				OK	OK

Table 58: Evaluation of the reflective measurement model of the causal model for the validation of the frequent visitor group's behavioral intentions (brand statement evaluations as cognitive construct)

For the formative measurement model for frequent visitors, two indicators show high and significant weights, as illustrated in Table 59. 5 out of 6 indicators are of absolute importance (due to their outer loading values). Only indicator

⁵⁴⁹ As mentioned earlier, the value of Cronbach's alpha has been included due to its widespread usage. For two of the three constructs, the threshold of 0.7 could not be reached. For the purpose of this analysis, the results of the composite reliability are decisive.

'A_EV_BS_8' is without relative nor absolute importance. Mainly for comparison reasons, all six indicators are kept in the model. The tolerance- and VIF-scores prove that multicollinearity is not an issue in the formative construct. Last but not least, the relationships in the consolidated model prove the nomologic validity of the formative measurement model for frequent visitors.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomological validity
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30	
Brand statements	A_EV_BS_6	VfL Bochum stands up for its local identity and its tradition	0,038	0,191	0,610	0,526	1,900	OK	OK
	A_EV_BS_7	VfL Bochum is professional	0,164	1,033	0,629	0,621	1,611		
	A_EV_BS_8	VfL Bochum is close	-0,081	0,714	0,458	0,630	1,587		
	A_EV_BS_9	VfL Bochum is unbending	0,044	0,290	0,735	0,439	2,279		
	A_EV_BS_10	VfL Bochum is rousing	0,758	4,871	0,954	0,506	1,976		
	A_EV_BS_11	VfL Bochum declares its social responsibility	0,240	1,863	0,648	0,580	1,724		

Table 59: Evaluation of the formative measurement model of the causal model for the validation of the frequent visitor group's behavioral intentions (brand statement evaluations as cognitive construct)

The same approach is used for the empirical data from the infrequent visitor group. See Table 60. The lowest outer loading score of the reflective measurement model equates to 0.734 for the indicator 'I plan to purchase merchandising-articles of the club after this visit' of the construct 'Purchase & Usage'. This results in the lowest indicator reliability of 0.538, which is still above the required threshold of 0.5. All T-values clearly exceed the required minimum value of 1.653, indicating the strong significance of the results.

Construct	Indicator code	Indicator	Outer loadings λ	T-value	Indicator reliability	Internal consistency reliability		Convergent validity		Discriminant validity	
						Composite reliability	Cronbach's α	AVE	Fornell and Larcker	Cross-loadings	
			Threshold: $\geq 0,7$	$\geq 1,653$	$\geq 0,5$	$\geq 0,7$	$\geq 0,7$	$\geq 0,5$			
Total satisfaction at event	A_EV_OF_1	Overall satisfaction towards 'outside area of stadium'	0,762	12,924	0,580	0,878	0,791	0,707	OK	OK	
	A_EV_IF_1	Overall satisfaction towards 'inside area of stadium'	0,921	50,199	0,848				OK	OK	
	A_EV_GV_1	Overall satisfaction towards event	0,833	18,188	0,693				OK	OK	
Communication	A_EV_IB_1	I will express myself positively about my visit at a game of VfL Bochum 1848.	0,930	58,874	0,864	0,942	0,908	0,844	OK	OK	
	A_EV_IB_2	Others should also know about my positive experience in the rewirpowerSTADION.	0,882	16,565	0,779				OK	OK	
	A_EV_IB_3	I will recommend a stadium visit to others.	0,943	70,898	0,889				OK	OK	
Purchase & Usage	A_EV_IB_4	I will prefer visits in the rewirpowerSTADION over other soccer clubs.	0,869	21,170	0,755	0,860	0,755	0,672	OK	OK	
	A_EV_IB_5	I plan to come to the rewirpowerSTADION in the near future again.	0,850	24,723	0,723				OK	OK	
	A_EV_IB_6	I plan to purchase merchandising-articles of the club after this visit.	0,734	10,086	0,538				OK	OK	

Table 60: Evaluation of the reflective measurement model of the causal model for the validation of the infrequent visitor group's behavioral intentions (brand statement evaluations as cognitive construct)

All internal consistency and convergent validity results meet the required criteria. Table 57 already confirmed the discriminant validity (through the Fornell-Larcker criterion and the cross-loadings). As a result, a positive evaluation of the reflective measurement models by infrequent visitors can be noted.

The evaluation of the formative measurement model – see Table 61 - shows two significant indicator weights 'VfL Bochum is professional' and 'VfL Bochum is rousing', while all variables have loadings above 0.5 and are therefore of absolute importance. Tolerance- and VIF-scores of all six brand statements meet the required minimum expectations. The relationships in the model prove the nomologic validity of the formative measurement model for infrequent visitors.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomological validity
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30	
Brand statements	A_EV_BS_6	VfL Bochum stands up for its local identity and its tradition	0,121	1,027	0,741	0,472	2,119	OK	OK
	A_EV_BS_7	VfL Bochum is professional	0,434	3,660	0,908	0,432	2,312		
	A_EV_BS_8	VfL Bochum is close	0,169	1,628	0,752	0,487	2,054		
	A_EV_BS_9	VfL Bochum is unbending	0,135	1,422	0,625	0,678	1,474		
	A_EV_BS_10	VfL Bochum is rousing	0,359	2,831	0,854	0,434	2,305		
	A_EV_BS_11	VfL Bochum declares its social responsibility	-0,003	0,033	0,609	0,591	1,691		

Table 61: Evaluation of the formative measurement model of the causal model for the validation of the infrequent visitor group's behavioral intentions (brand statement evaluations as cognitive construct)

The SmartPLS-model for frequent visitors can be seen in Figure 39, relating to the statistics in Tables 58 and 59, while Figure 40 shows the model for infrequent visitors, linked to Tables 60 and 61. As latent, exogenous variables, cognitively and affectively characterized constructs are considered in the observation, while the cognitive part is measured through brand statement evaluations after the game. Behavioral intentions in the form of communicative and consumptive intentions are integrated as latent endogenous variables. With the help of these results, the hypotheses from Chapter B.4.3.2 can be evaluated.

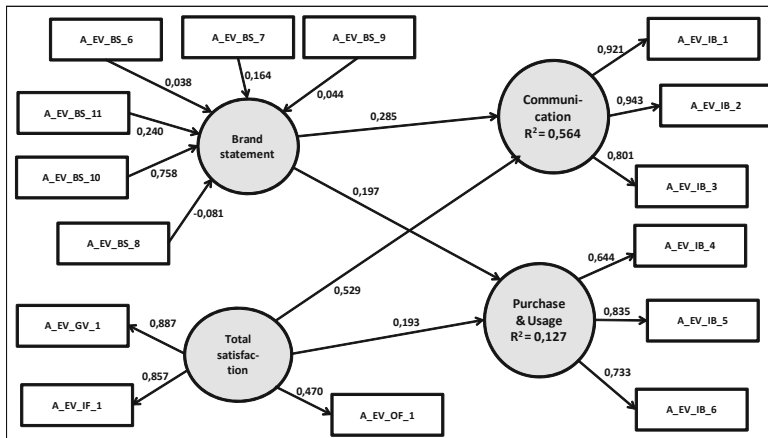


Figure 39: SmartPLS-model for evaluating the behavioral intentions of frequent visitors after the game (using brand statement ratings)

It was first postulated that the behavioral intentions after the game are influenced by significant, cognitively and affectively characterized components. When looking at the model and the T-values in Table 62, this is the case for the frequent visitor group for the communicative intentions, but not for consumption/ usage. The paths 'brand statements' to 'consumptive intentions' (T-value of 1.143) and 'total satisfaction after event' toward 'consumptive intentions' (T-value of 1.210) are not significant. Hence, the basic hypothesis

H(IntFVS): Considering absolute evaluations of the brand statements, the intentions of frequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.

cannot be confirmed for frequent visitors.

Relationships		Frequent visitors			Infrequent visitors		
		Path	T	Effect size f^2	Path	T	Effect size f^2
Threshold:		$\geq 0,1$	$\geq 1,653$	≥ 0	$\geq 0,1$	$\geq 1,653$	≥ 0
Path 'brand statements' to 'communicative intentions'		0,285	3,726	0,101	0,530	6,582	0,439
Path 'brand statements' to 'consumptive intentions'		0,197	1,143	0,024	0,377	3,324	0,088
Path 'total satisfaction after event' to 'communicative intentions'		0,529	6,766	0,346	0,375	4,056	0,236
Path 'total satisfaction after event' to 'consumptive intentions'		0,193	1,210	0,015	0,230	2,007	0,032
Endogenous constructs	Communicative intention	$R^2 = 0,564 / Q^2 = 0,435$			$R^2 = 0,704 / Q^2 = 0,561$		
	Consumptive intention	$R^2 = 0,127 / Q^2 = 0,062$			$R^2 = 0,318 / Q^2 = 0,213$		

Table 62: Evaluation of relationships and endogenous constructs of behavioral intentions (brand statement evaluations as cognitive construct)

Turning to infrequent visitors, the basic hypothesis

H(IntIVS): Considering the absolute evaluations of the brand statements, the intentions of infrequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.

can be confirmed. As indicated in Figure 40 and in Table 62,⁵⁵⁰ all path coefficients are significant and positive. For the frequent visitors, ‘total satisfaction after the event’ (with a path coefficient of 0.529) has the strongest effect on communicative intentions after the game, while ‘brand statement evaluations’ (with a path coefficient of 0.530) most influences communicative intentions for infrequent visitors (effect sizes in all cases are substantial). Hence, hypothesis

H(Beh3S): Considering the absolute evaluations of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the communicative intention after the game than the cognitively characterized part of the brand attitude.

can be confirmed for the frequent visitor group, but not for infrequent visitors.

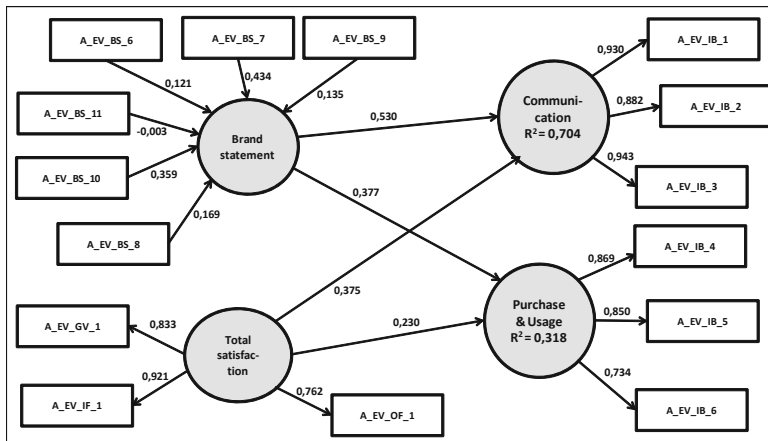


Figure 40: SmartPLS-model for evaluating the behavioral intentions of infrequent visitors after the game (using brand statement ratings)

Regarding consumptive intentions, both paths directed to the construct are insignificant for frequent visitors, leading to a rejection of hypothesis

H(Beh4S): Considering the absolute evaluations of the brand statements, the affectively characterized attitude toward the stadium visit more strongly con-

⁵⁵⁰ See also Tables 60 and 61.

tributes to the explanation of the consumptive intention after the game than the cognitively characterized part of the brand attitude.

In contrast, the two paths are significant for infrequent visitors; however, the cognitive path 'brand statement evaluations' toward 'consumptive intentions' is stronger than the path between 'total satisfaction after the event' toward 'consumptive intentions', resulting in a rejection of the hypothesis **H(Beh4S)** for infrequent visitors.

Finally, hypotheses H(Beh1S) and H(Beh2S) are assessed by looking at the R^2 - and Q^2 -values for the four constructs. Starting with the communicative intentions, hypothesis

H(Beh1S): Considering the absolute evaluations of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of the communicative intention after the game.

can be confirmed for both visitor groups, as the coefficients of determinations are above the required threshold of 0.30. This demonstrates strong effects according to Cohen, with relatively high Q^2 -scores for both models. Concerning the consumptive intention, hypothesis

H(Beh2S): Considering the absolute evaluations of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of consumptive intention after the game.

can be confirmed for the infrequent visitor group, with a R^2 -value of 0.318 and a Q^2 -value of 0.213, while the minimum value of 0.30 for the coefficient of determination is not achieved for the frequent visitor group (R^2 -value of 0.127).

2.3.4.2 How changes in brand statement evaluation (before vs. after the game) and overall satisfaction with the event impact behavioral intentions

The same type of analysis is now repeated with 'brand statement evaluation *changes*' (instead of *absolute* 'brand statement evaluations') as cognitively characterized construct.

Fornell-Larcker FV				Fornell-Larcker IV			
square root of construct's AVE				square root of construct's AVE			
correlations with other constructs				correlations with other constructs			
	COMM	Total SAT	USE		COMM	Total SAT	USE
COMM	0,8907	0,0000	0,0000	COMM	0,9182	0,0000	0,0000
Total SAT	0,7203	0,7622	0,0000	Total SAT	0,7566	0,8411	0,0000
USE	0,3474	0,3288	0,7410	USE	0,5467	0,5081	0,8174

Cross-loadings FV				Cross-loadings IV			
indicator				indicator			
outer loading value				outer loading value			
	COMM	Total SAT	USE		COMM	Total SAT	USE
A_EV_GV_1	0,7509	0,8863	0,3079	A_EV_GV_1	0,6860	0,8328	0,4843
A_EV_IB_1	0,9241	0,6610	0,2243	A_EV_IB_1	0,9326	0,7401	0,4804
A_EV_IB_2	0,9444	0,6914	0,2962	A_EV_IB_2	0,8732	0,5304	0,4128
A_EV_IB_3	0,7962	0,5650	0,4416	A_EV_IB_3	0,9470	0,7756	0,5906
A_EV_IB_4	0,1060	0,1588	0,6466	A_EV_IB_4	0,4540	0,4740	0,8899
A_EV_IB_5	0,3207	0,3178	0,8710	A_EV_IB_5	0,5179	0,4644	0,8655
A_EV_IB_6	0,2876	0,2137	0,6859	A_EV_IB_6	0,3530	0,2626	0,6807
A_EV_IF_1	0,5252	0,8571	0,2433	A_EV_IF_1	0,6625	0,9212	0,4131
A_EV_OF_1	0,1914	0,4717	0,1960	A_EV_OF_1	0,5482	0,7617	0,3737

Table 63: Discriminant validity checks of reflective measurement models for both visitor groups (changes in brand statement evaluations as cognitive construct)

Starting with the discriminant validity measures in Table 63, the Fornell-Larcker criteria and the cross-loadings for frequent and infrequent visitors confirm the validity of the two models.

Construct	Indicator code	Indicator	Outer loadings λ	T-value	Indicator reliability	Internal consistency reliability		Convergent validity		Discriminant validity	
						Composite reliability	Cronbach's α	AVE	Fornell and Larcker	Cross-loadings	
Threshold:			$\geq 0,7$	$\geq 1,653$	$\geq 0,5$	$\geq 0,7$	$\geq 0,7$	$\geq 0,5$			
Total satisfaction at event	A_EV_OF_1	Overall satisfaction towards 'outside area of stadium'	0,472	4,256	0,223	0,796	0,650	0,581	OK	OK	
	A_EV_IF_1	Overall satisfaction towards 'inside area of stadium'	0,857	25,309	0,734				OK	OK	
	A_EV_GV_1	Overall satisfaction towards event	0,886	41,502	0,785				OK	OK	
Communication	A_EV_IB_1	I will express myself positively about my visit at a game of VfL Bochum 1848.	0,924	62,447	0,854	0,920	0,867	0,793	OK	OK	
	A_EV_IB_2	Others should also know about my positive experience in the rewirpowerSTADION.	0,944	79,448	0,891				OK	OK	
	A_EV_IB_3	I will recommend a stadium visit to others.	0,796	14,810	0,634				OK	OK	
Purchase & Usage	A_EV_IB_4	I will prefer visits in the rewirpowerSTADION over other soccer clubs.	0,647	2,514	0,419	0,782	0,609	0,549	OK	OK	
	A_EV_IB_5	I plan to come to the rewirpowerSTADION in the near future again.	0,871	5,404	0,759				OK	OK	
	A_EV_IB_6	I plan to purchase merchandising-articles of the club after this visit.	0,686	4,273	0,471				OK	OK	

Table 64: Evaluation of the reflective measurement model of the causal model for the validation of the frequent visitor group's behavioral intentions (changes in brand statement evaluations as cognitive construct)

Next, the relevant reliability and validity criteria for the latent exogenous and endogenous variables need to be evaluated. Starting with the frequent visitor group, as illustrated in Table 64, the indicators 'Overall satisfaction toward outside area of stadium' as well as the expressions 'I will prefer visits in the rewirpowerSTADION over other clubs' and 'I plan to purchase club merchandising-articles of the club after this visit' show outer loading values below the threshold of 0.7, and consequently demonstrate indicator reliability ratings below 0.5. These indicators are significant, and the study also wants to maintain comparability, so the three indicators are kept in the reflective measurement model. The composite reliability and convergent validity of the three constructs can be confirmed. With an outer loading

of 0.944, the expression ‘others should also know about my positive experience in the rewirpowerSTADION’ is the indicator with the highest rating, closely followed by ‘I will express myself positively about my visit at a game of VfL Bochum 1848’ with an outer loading of 0.924. The construct ‘communication’ shows the highest scores of internal consistency reliability and convergent validity.

Referring to the statistics of the formative measurement model for the frequent visitor group in Table 65, it can be seen that only the variable ‘VfL Bochum is rousing’ shows T-values above 1.653, while ‘VfL Bochum is unbending’ is also of absolute importance (with a loading of 0.542). The tolerance- and VIF-scores indicate an absence of multicollinearity in the model. All VIF-scores are below 5, while the tolerances are all above 0.2.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomological validity
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30	
Brand statement changes	A_EV_BS_6	VfL Bochum stands up for its local identity and its tradition	0,068	0,428	0,265	0,830	1,204	OK	OK
	A_EV_BS_7	VfL Bochum is professional	0,017	0,119	0,212	0,850	1,176		
	A_EV_BS_8	VfL Bochum is close	0,076	0,456	0,338	0,809	1,236		
	A_EV_BS_9	VfL Bochum is unbending	0,003	0,020	0,542	0,688	1,453		
	A_EV_BS_10	VfL Bochum is rousing	0,953	8,649	0,992	0,694	1,441		
	A_EV_BS_11	VfL Bochum declares its social responsibility	0,022	0,159	0,261	0,901	1,110		

Table 65: Evaluation of the formative measurement model of the causal model for the validation of the frequent visitor group’s behavioral intentions (changes in brand statement evaluations as cognitive construct)

For the infrequent visitor group, only the expression ‘I plan to purchase club merchandising-articles of the club after this visit’ from the construct ‘purchase & usage’ has an outer loading slightly below the threshold of 0.7 (see Table 66). As a consequence, the minimum indicator reliability rating of 0.5 is missed. All nine indicators are highly significant. As it did for frequent visitors, the construct ‘communication’ shows the highest internal consistency and convergent validity scores, while the discriminant validity was shown previously in Table 63.

Construct	Indicator code	Indicator	Outer loadings λ	T-value	Indicator reliability	Internal consistency reliability		Convergent validity		Discriminant validity	
						Composite reliability	Cronbach's α	AVE	Fornell and Larcker	Cross-loadings	
			Threshold: $\geq 0,7$	$\geq 1,653$	$\geq 0,5$	$\geq 0,7$	$\geq 0,7$	$\geq 0,5$			
Total satisfaction at event	A_EV_OF_1	Overall satisfaction towards 'outside area of stadium'	0,762	12,471	0,581	0,878	0,791	0,707	OK	OK	
	A_EV_IF_1	Overall satisfaction towards 'inside area of stadium'	0,921	48,387	0,848				OK	OK	
	A_EV_GV_1	Overall satisfaction towards event	0,833	19,523	0,694				OK	OK	
Communication	A_EV_IB_1	I will express myself positively about my visit at a game of VfL Bochum 1848.	0,933	62,235	0,870	0,941	0,908	0,843	OK	OK	
	A_EV_IB_2	Others should also know about my positive experience in the rewirpowerSTADION.	0,873	13,622	0,762				OK	OK	
	A_EV_IB_3	I will recommend a stadium visit to others.	0,947	72,901	0,897				OK	OK	
Purchase & Usage	A_EV_IB_4	I will prefer visits in the rewirpowerSTADION over other soccer clubs.	0,890	24,689	0,792	0,856	0,755	0,668	OK	OK	
	A_EV_IB_5	I plan to come to the rewirpowerSTADION in the near future again.	0,866	21,471	0,750				OK	OK	
	A_EV_IB_6	I plan to purchase merchandising-articles of the club after this visit.	0,681	7,401	0,464				OK	OK	

Table 66: Evaluation of the reflective measurement model of the causal model for the validation of the infrequent visitor group's behavioral intentions (changes in brand statement evaluations as cognitive construct)

Looking at the formative measurement model in Table 67, again only the expression 'VfL Bochum is rousing' is high and significant, while four out of six indicators ('VfL Bochum stands up for its local identity and its tradition', 'VfL Bochum is professional', 'VfL Bochum is close', and 'VfL Bochum is rousing') possess absolute importance. For this visitor group, the tolerance- and VIF-scores also indicate an absence of multicollinearity in the model. All VIF-scores are below 5, while the tolerances are all above 0.2.

	Indicator code	Indicator	Weights	T	Loadings	Tolerance	VIF	Condition index	Nomological validity
			≥0,1	≥ 1,653	≥0,5	>0,2	<5	<30	
Brand statement changes	A_EV_BS_6	VfL Bochum stands up for its local identity and its tradition	0,236	0,681	0,514	0,708	1,413	OK	OK
	A_EV_BS_7	VfL Bochum is professional	0,410	1,266	0,743	0,583	1,716		
	A_EV_BS_8	VfL Bochum is close	0,183	0,515	0,570	0,572	1,748		
	A_EV_BS_9	VfL Bochum is unbending	0,057	0,178	0,479	0,732	1,367		
	A_EV_BS_10	VfL Bochum is rousing	0,625	2,426	0,786	0,798	1,253		
	A_EV_BS_11	VfL Bochum declares its social responsibility	-0,312	1,447	0,157	0,804	1,244		

Table 67: Evaluation of the formative measurement model of the causal model for the validation of the infrequent visitor group's behavioral intentions (changes in brand statement evaluations as cognitive construct)

Figure 41 shows the SmartPLS-model for frequent visitors linked to Tables 64 and 65, whereas Figure 42 relates to Tables 66 and 67 and refers to infrequent visitors. Again, two latent exogenous variables, one cognitively and one affectively characterized model, are included in the observation, while the cognitive part is this time measured through the **changes** in the brand statement evaluations before and after the game.

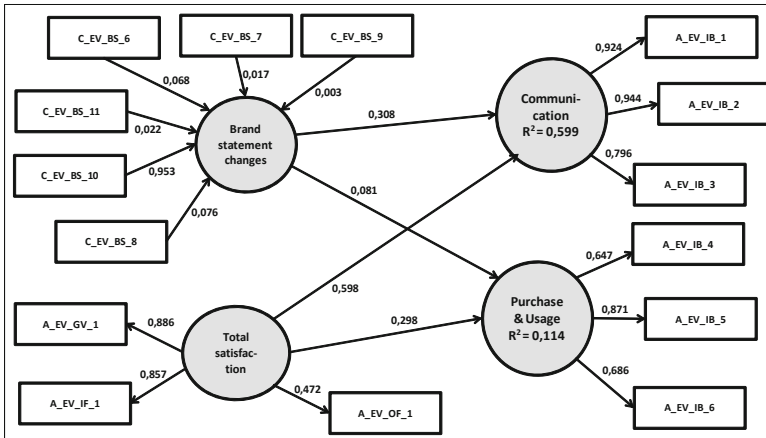


Figure 41: SmartPLS-model for evaluating the behavioral intentions of frequent visitors after the game (using changes in brand statement ratings)

Behavioral intentions in the form of communicative and consumptive intentions remain integrated as latent endogenous variables. To evaluate whether the behavioral intentions after the program are influenced by significant, cognitively and affectively characterized components in the model for frequent visitors, the T-values of Table 68 are consulted. Only three out of four path coefficients are positive and significant.

Hence, hypothesis

H(IntFVSC): Considering the changes in evaluation in the brand statements, the intentions of frequent visitors after the game in terms of communication and consumption are composed of two significantly independent components: cognitively and affectively characterized elements.

must be rejected.

Relationships		Frequent visitors			Infrequent visitors		
		Path	T	Effect size f ²	Path	T	Effect size f ²
Threshold:		≥ 0,1	≥ 1,653	≥ 0	≥ 0,1	≥ 1,653	≥ 0
Path 'brand statement changes' to 'communicative intentions'		0,308	4,139	0,200	0,183	2,419	0,076
Path 'brand statement changes' to 'consumptive intentions'		0,081	0,486	0,009	0,004	0,027	0,000
Path 'total satisfaction after event' to 'communicative intentions'		0,598	10,375	0,751	0,701	12,331	1,121
Path 'total satisfaction after event' to 'consumptive intentions'		0,298	2,968	0,051	0,507	5,437	0,278
Endogenous constructs	Communicative intention	$R^2 = 0,599 / Q^2 = 0,465$			$R^2 = 0,604 / Q^2 = 0,493$		
	Consumptive intention	$R^2 = 0,114 / Q^2 = 0,061$			$R^2 = 0,258 / Q^2 = 0,167$		

Table 68: Evaluation of relationships and endogenous constructs of behavioral intentions (changes in brand statement evaluations as cognitive construct)

The same is true for infrequent visitors. Because the path 'brand statement changes' to 'consumptive intentions' is non-significant and the effect size is also not different from the threshold value of 0, hypothesis

H(IntIVSC): Considering the changes in evaluation in the brand statements, the intentions of infrequent visitors after the game in terms of communication and consumption are composed of two significantly independent components: cognitively and affectively characterized elements.

is rejected for the infrequent visitor group.

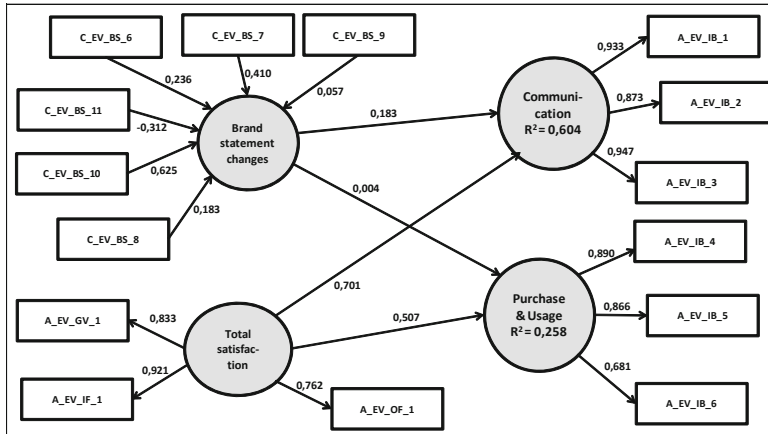


Figure 42: SmartPLS-model for evaluation the behavioral intentions of infrequent visitors after the game (using changes in brand statement ratings)

Looking at the impact on the communicative intentions after the game in Figures 41 and 42, it can be noted that the path coefficients between ‘total satisfaction after (the) event’ and the ‘communicative intention’ are stronger than the cognitively characterized part of the brand statement changes for both visitor groups, while the difference between the path coefficients is bigger for infrequent visitors.

Hence, hypothesis

H(Beh3SC): Considering the evaluations of changes in the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to communicative intention after the game than the cognitively characterized part of the brand attitude.

can be confirmed for both target groups.

The same can be stated for the behavioral intention ‘usage/ consumption’. For both target groups, the path between ‘total satisfaction after the event’ shows high path coefficients, while the path ‘brand statement changes’ to ‘consumptive intentions’ is non-significant for both target groups. As a result, hypothesis

H(Beh4SC): Considering the evaluations of changes in the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to consumptive intention after the game than the cognitively characterized part of the brand attitude.

can be accepted in both cases.⁵⁵¹

Lastly, the four R^2 -values in Table 68 shed light on the last two hypotheses H(Beh1SC) and H(Beh2SC). Starting with communicative intentions, it can be seen that the two models for frequent and infrequent visitor groups yield high coefficients of determination and predictive relevance scores, leading to an acceptance of hypothesis

H(Beh1SC): Considering the changes in evaluation of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of communicative intention after the game.

for frequent and infrequent visitors. The R^2 -values for the consumptive intentions are considerably lower and in both cases below the threshold of 30%. As a consequence, hypothesis

H(Beh2SC): Considering the changes in evaluation of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of consumptive intention after the game.

is rejected for both visitor groups.

Comparing the results from this section with the previous Chapter C.2.3.4.1, it can be concluded that the incremental approach, where the difference of the brand statement ratings before and after the games are considered, leads to an acceptance of 6 out of 10 hypotheses. When taking into consideration the absolute ratings of the six brand statements (after the game only), 5 out of the (same) 10 hypotheses can be confirmed, and the same number of hypotheses has to be rejected.

⁵⁵¹ It must be kept in mind that the basic hypotheses H(IntFVAC) and H(IntIVAC) were rejected.

2.4 Are gustatory and olfactory stimuli relevant to soccer events?

While only three variables with gustatory or olfactory content were included in the two questionnaires (namely A_EV_CO_AVF1, A_EV_CO_AVD2, and A_EV_CO_9),⁵⁵² additional questions were asked about general preferences.

Question 7 of the 'before'-survey⁵⁵³ asked about how important it is for visitors to be offered locally-sourced catering products. For frequent visitors, the mean for drinks and food equates to 3.77 and 3.52 (with standard deviations of 1.30 and 1.33), respectively, while the infrequent visitor group shows mean values of 3.33 and 3.25 (with standard deviations of 1.44 and 1.38), respectively. These relatively large differences between the two target groups could be expected and indicate that a regional bond is of higher importance to frequent visitors (which usually tend to be fans who strongly identify with the team).

In Question 8 of the 'after'-survey,⁵⁵⁴ the participants were asked whether they associate a certain smell with their visit to the stadium. While 51.7% (or 78 out of 151 respondents) of frequent visitors answered 'yes', only 35.9% (or 37 out of 103 respondents) of infrequent visitors followed suit.

The top 5 nominations from 78 frequent visitors (stemming from answers for Question 9 of the 'after'-survey) were:

- 1) Smell of beer – 41 nominations
- 2) Smell of cigarette smoke – 37 nominations
- 3) Smell of sausages ('Bratwurst/ Currywurst') – 33 nominations
- 4) Smell of grass from the soccer field – 16 nominations
- 5) Indefinable smell ('smell of soccer', stadium atmosphere, tension, excitement) – 15 nominations

In contrast, 37 participants from the infrequent visitor group mentioned the following top-ranked odors:

- 1) Smell of beer – 22 nominations

⁵⁵² See Tables 13, 34, and 36.

⁵⁵³ For questions of 'before'-survey, see Appendix A2.

⁵⁵⁴ For questions of 'after'-survey, see Appendix A3.

- 2) Smell of sausages ('Bratwurst/ Currywurst') – 14 nominations
- 3) Smell of cigarette smoke – 11 nominations
- 4) Smell of human beings/ sweat – 7 nominations
- 5) Indefinable smell ('smell of soccer', stadium atmosphere, tension, excitement) – 4 nominations

As can be seen, the above categories include both odors generally classed with positive associations, and those usually considered to be unpleasant. Meanwhile a higher proportion of frequent visitors (51.7%) associate a certain smell with a soccer event.

In Question 10 of the 'after'-survey, participants who answered 'Yes' to Question 8 (see before) were asked about how pleasant they felt this odor was, with a range from '1 - very unpleasant' to '5 - very pleasant'. While frequent visitors achieved a mean of 3.55 (with standard deviations of 0.98), infrequent visitors' arithmetic mean ratings were lower (mean of 3.43, with standard deviations of 0.81). Considering the fact that some of these smells are generally not desirable (e.g. cigarette smoke, sweat), the mean values appear to be relatively high. A possible reason could be that people do not care too much about unpleasant odors in a stadium environment.

In Question 11 of the 'after'-survey, the participants were asked whether smoking in the stadium should be allowed. More than two-thirds of both target groups responded 'Yes' (71% of frequent and 68% of infrequent visitors). Lastly, in Question 14, the following question was asked: 'As far as you are concerned, should alcoholic beverages continue to be on sale in soccer stadiums?'. The answers were clear – 93% of frequent and 94% of infrequent visitors agree that alcoholic beverages should be served.

Although these results are only of descriptive nature, it appears obvious that clubs should pay attention to both gustatory and olfactory senses. There appear to be smells that are directly linked to (mostly positive) soccer-related associations.

2.5 How do these results relate to identity-based brand management strategies?

Until now, the focus of the assessment has been on the ratings of external stakeholders, namely frequent and infrequent visitors. This is a demand-related approach. However, as indicated in Chapter B.1.2, B.1.3, and B.2.3, the identity-based brand management approach also includes an internal perspective (brand identity). In order to facilitate comparisons between the internal and the external perspective, former ratings from internal VfL Bochum 1848 stakeholders are used. These stem from interviews carried out with various participants when the mission statement of the club was implemented.⁵⁵⁵ However, it must be kept in mind that these ratings date back to 2004, which is a limitation to the analysis presented here.⁵⁵⁶ The differences between the ratings of the two external target groups and the internal ratings from this former internal survey address **GAP 6** of the integrated reference framework.⁵⁵⁷

Figure 43 illustrates the arithmetic mean ratings of four different groups:

- FV After: mean ratings of brand attributes after the games from frequent visitors (see also Figure 35)
- IV After: mean ratings of brand attributes after the games from infrequent visitors (see also Figure 36)
- Internal (prior): Ratings of internal stakeholders at the time of the preparation/ creation of the VfL Bochum 1848 mission statement (2004)
- External (prior): Consolidated ratings of all external stakeholders at the time of the preparation/ creation of the VfL Bochum 1848 mission statement (2004)

⁵⁵⁵ See WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 516 for ratings of internal stakeholders, dating back to interviews from Spring 2004.

⁵⁵⁶ See Chapter D.3.

⁵⁵⁷ See Figure 21.

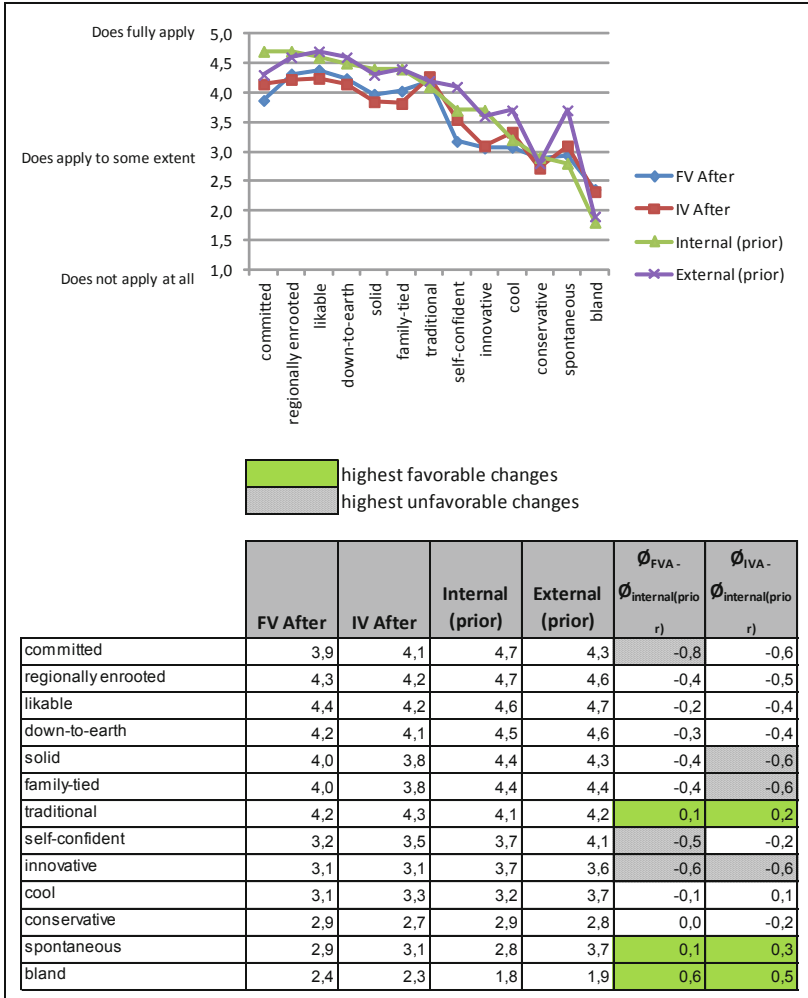


Figure 43: Comparison of mean ratings of brand attributes by frequent visitors (FV After), infrequent visitors (IV After), internal stakeholders (2004), and external stakeholders (2004)

In order to have a comparable basis, the scales of the approximate ratings from 2004⁵⁵⁸ were reformatted, as the ratings from the former survey ranged from 1 (very high) to 5 (very low).

Although possible indications must be stated very carefully,⁵⁵⁹ the following can be noted:

- In general, the ratings of the internal stakeholders in 2004 are higher than the evaluations from frequent and infrequent visitors in 2011. For frequent visitors, 4 items score the same or higher (out of these 4 attributes, the items 'conservative' and 'bland'); for infrequent visitors, 4 items show higher ratings (out of these 4 attributes, the item 'bland').
- Considering the 2004 ratings from internal and external stakeholders, the attributes 'committed', 'regionally enrooted', 'likable', 'down-to-earth', 'solid', and 'family-tied' achieved the highest ratings. The brand statements were directly derived from the club mission statement which was itself created out of the 2004 survey results. As a result, the 2004 items are also highly apparent - implicitly or explicitly - in these brand statements. The high scores for these six expressions (optimally a score of 5.0) thus appear to be the desired self-perceptions of the brand. The differences between the optimal scores of the selected attributes and the current ratings of internal stakeholders are shown in **GAP 7** of the integrated reference framework.⁵⁶⁰ Due to the fact that the initial ratings in 2004 were high and close to the optimal level of 5.0, the gap can be considered small.

Lastly, **GAP 10** of the integrated reference framework⁵⁶¹ demonstrates a possible gap between the desired and the current outside perception of realization (of the event). The expectations before the game and the degree of fulfillment of these expectations after the game were addressed in two separate questionnaires.

⁵⁵⁸ Ratings were recalculated based on the figure published under WELLING, M. (2005b): *Markenführung im professionellen Ligasport*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, Vol. 2, Wiesbaden, p. 517.

⁵⁵⁹ One of the major reasons for the deterioration of the external results could be the fact that, at the time when the surveys were taken, the soccer team was ranked very highly in the 1st Bundesliga. See Table 12 (Chapter B.4.2.2): VfL Bochum was ranked 5th in the 1st Bundesliga after season 2003/ 2004.

⁵⁶⁰ See Figure 21.

⁵⁶¹ See *ibid.*

When looking at the mean values for frequent visitors, the expectations before the game reached an average of 3.51 (with σ_{FV} of 1.11),⁵⁶² while the degree of fulfillment achieved a mean of 3.88 (with σ_{FV} of 1.14).⁵⁶³ When asked whether the visit exceeded their expectations,⁵⁶⁴ 66.2% answered with a 'Yes'.

The mean for expectations surrounding the event before the game itself equated to 3.75 for infrequent visitors (with σ_{IV} of 0.90), while the average degree of fulfillment of these expectations after the game reached a score of 4.20 (with σ_{IV} of 0.96). 89.3% of all infrequent visitors indicated that their experience at the event exceeded their expectations. Hence, for both visitor groups, it can be noted that the gap between the desired (expected) and the experienced (current) perception of realization is minor. In fact, in many cases, actual experiences exceeded expectations.

⁵⁶² See Question 21 in 'before'-survey (Appendix A2).

⁵⁶³ See Question 32 in 'after'-survey (Appendix A3).

⁵⁶⁴ See Question 33 in 'after'-survey (Appendix A3).

D Summary and implications

In this final section, the conceptual and empirical parts of the study are summarized, followed by a discussion of any practical implications which arise from its findings. The dissertation ends with a critical appraisal and a potential list of open research questions for future studies.

1 Summary of main results

The introduction described the increasingly competitive nature of European soccer. The emergence of new, financially strong soccer clubs in the professional leagues, the limited capability of soccer managers to plan the success of their team or control the revenues they receive from transferring players, the opening of international markets to only a few organizations, and the increasing professionalism of competitors (nationally and internationally) create growing financial pressure on professional soccer clubs. In this tough competitive environment, it is crucial for clubs like VfL Bochum 1848 to diversify their revenue streams and to look for constant cash flows, as independently as possible from the sporting success of their team. The 17 games played at home every season offer the unique opportunity to attract potential new customers and to increase the loyalty of existing fans. Managing the brand in a target-oriented, multisensory way and utilizing the appropriate brand communication tools are essential in order to strengthen the club's positioning. Instead of one-sided, short-term communications that make up the classical strategic repertoire of brand communication, two-fold communication processes in the form of live-communication need to be implemented. This will help to finally establish long-term relationships between soccer associations and visitors/ supporters of the club. It was assumed that the more information that is transmitted and absorbed in a multisensory way, the higher the effect of live-communication instruments. The multisensory, holistic addressing of senses that can be successfully achieved with the help of live-communication instruments facilitates the personal, direct, and interactive union of the organization with the visitors during an event and enables the mental storage of unique and sustainable experiences. Based on this fact, experts from theoretical and practical disciplines are convinced that multisensory approaches continue to gain in importance in the area of brand management.

In the first part of the thesis, critical terms were defined and derived. Existing definitions of marketing, brand, brand management, brand communication, event, event marketing, event branding fit, and multisensuality were clarified and specified in the sport-specific context. As the central focus of this study, brand management is defined as “various decisions and measures of the institution leading the brand, where the institution executes – according to specific targets – a basic orientation of essential and characteristic bundles of brand benefits with the help of planning, coordinating and controlling.” This orientation can be in a multisensory manner, which is defined as the addressing of at least three senses of the relevant internal and external target groups. In order to guarantee a systematic foundation of the value of sensual brand management, the identification and consideration of various theoretical, explanatory approaches within marketing and other disciplines is critical; among others, the characteristics of the constructs ‘brand identity’ and ‘brand image’.

While other disciplines have long focused on human senses, it has usually been considered as a global perceptual construct in economical sciences. The general objective of this study was to contribute to previous work carried out at the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, at HHL Leipzig Graduate School of Management which focused on multisensuality. Specifically, this concerned applying the framework from *Springer* (2008)⁵⁶⁵ to the area of sports. Assuming that a competitive advantage can be obtained through the implementation of multisensory brand management techniques, a behavior-based theoretical model was introduced, taking into consideration monosensory, duosensory, and multisensory elements of two main areas of a stadium environment, which supporters are confronted with when visiting a soccer event. The final goal was to derive implications for an appropriate brand management approach.

Part B of this analysis started with the conceptual foundations of brand management. In order to manage sporting brands in an efficient and effective manner, brand controlling as assessment tool for brand communications is essential. While GAP-models are an appropriate controlling tool to assess brand positioning deci-

⁵⁶⁵ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden.

sions, the main goal is to identify the differences between desired and current perceptions of internal and external target groups, in order to ensure a strong brand identity. Based on the approach proposed by Springer (2008)⁵⁶⁶ and with reference to models utilized by Burmann/ Meffert (2005)⁵⁶⁷ and Bierwirth (2003),⁵⁶⁸ the model was expanded by two additional components: the desired self-perception of realization (during an event) and the desired outside perception of realization stemming from external stakeholders. As a result of this expansion, 3 more consistency gaps were presented, totaling 10 gaps overall.⁵⁶⁹

Afterwards, four specific characteristics of sports were presented - namely competition under agreed rules, cooperance, uncertainty of success, and high public interest - followed by categorizations of visitors and fans. For the purpose of this study, it was decided to build upon the classification utilized by VfL Bochum 1848 in previous surveys – traditional fans, convenience fans, and VIP guests. Finally, a GAP-model specifically created for sporting clubs, and as a graphical illustration of the relationship between the fit of identity/ image and brand equity, was introduced.

Due to extensive theoretical discussions of various senses in dissertations by Springer (2008)⁵⁷⁰ and Müller (2012),⁵⁷¹ this thesis only briefly outlined basic concepts of multisensuality. Visual, auditory, and haptic senses played a major role in this study, while supplementary open and closed questions about gustatory and olfactory preferences were included in the questionnaires. The respective descriptive results were added to the final section of this study (see Chapter C.2.4).

⁵⁶⁶ See *ibid.*

⁵⁶⁷ See BURMANN, C./ MEFFERT, H. (2005a): *Managementkonzept der identitätsorientierten Markenführung*, in: MEFFERT, H., et al. (eds.): *Markenmanagement - Identitätsorientierte Markenführung und praktische Umsetzung*, edit. 2, Wiesbaden, p. 107.

⁵⁶⁸ See BIERWIRTH, A. (2003): *Die Führung der Unternehmensmarke - Ein Beitrag zum zielgruppenorientierten Corporate Branding*, Frankfurt a. M., pp. 169 et seqq.

⁵⁶⁹ See Figure 9.

⁵⁷⁰ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden.

⁵⁷¹ MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden.

Next, theoretical models with different peculiarities concerning the illustration of processes relating to communication and behavioral sciences were assembled. The presented models contained sensual components, emphasizing their importance in terms of perception and effectiveness. The combination of the partial models stemming from brand, communication, and behavioral theories resulted in a common, integrated reference framework, which served as the testing foundation for subsequent observations. Furthermore, information about the city of Bochum, its local soccer club VfL Bochum 1848, the rewirpowerSTADION where the 4 selected games took place, and the mission statement (which is the basis for brand attitude observations in this study) were given in order to have a solid understanding of the history, the background, and the environmental factors at the time of the survey. At the end of section B, three theses and 25 hypotheses were stated, finally leading to 42 different testing scenarios considering both target groups (frequent and infrequent visitors).

At the beginning of Section C, the design and the methodology of the surveys were discussed. The final objective was to represent and analyze the inside and outside perspective of the sensual perception and effectiveness of soccer events in the form of empirically valid statements. The rewirpowerSTADION in Bochum served as the object under investigation. Thanks to surveys previously carried out by VfL Bochum 1848, the current self-perception of the brand already existed, as did ratings of 13 brand attitudes and a mission statement, which included the main brand statements incorporating the core values of the club. The first questionnaire before the game contained 39 sections with a mixture of open and closed questions and 142 variables relating to the closed question types. The second survey included 42 different questions and 181 indicators concerning closed question types. Due to the primary selection of five-grade Likert rating scales, the later usage of multivariate analysis methods could be ensured. After the justification and explanation of the various evaluation methods used for the purpose of this study, an illustration of the database followed, where the two main target groups - frequent and infrequent visitors - were separated. Based on the corresponding results, it could be found that – for both visitor groups – general and soccer-specific sensuality preferences differ, indicating the need for a context-specific approach.

The evaluation of multivariate techniques focused on the peculiarities of dependency analyses. After a detailed summary of structural equation modeling, a strong emphasis was put on evaluation techniques for assessments, including the differ-

ent approaches used for formative and reflective measurement models. The strict categorization followed recent work in the domain of PLS-SEM, where new findings have been published recently. There was no need for a principal component analysis, as the study could be built on previous work carried out in VfL Bochum 1848's Marketing department. The main focus was to find out whether individual elements of the verbal and non-verbal representations on the day of a game contributed to a positive attitude and whether the perceived elements had an impact on the brand attitudes after the game. It could thus be analyzed whether any general changes in the brand attitude evaluations before and after the game could be discerned, and how the positive attitude and the brand attributes influenced the behavioral intentions of the two visitor groups after the stadium visit. For this last section (impact on behavioral intentions), two different approaches were selected. One looked at the absolute evaluations of brand statements after the game, while the other observed the incremental changes in brand statement evaluations (by calculating the differences between the ratings of brand statements before and after the game). Based on these empirical analyses, the postulated hypotheses which were stated at the end of Section B could be assessed, allowing conclusions on the three, generally formulated theses.

The positive attitude toward the event, as an indicator of behavioral intentions, can be explained by the combination of previously identified monosensory, duosensory, and multisensory elements of the verbal and non-verbal representations in the two visited stadium areas (outside and inside of the stadium) for both visitor groups. As a result, **Thesis 1** can be confirmed. For both frequent and infrequent visitors, it could be shown that non-verbal representations generally contribute more strongly to positive attitudes than verbal representations. Interestingly, for both target groups, a suppressor effect could be found. The paths between the 'outside area of the stadium' and the 'overall satisfaction after the event' were mediated by the indirect path ['outside area of the stadium' - 'inside area of the stadium' - 'overall satisfaction after the event']. As a result, a path that appeared statistically insignificant and negative (which contradicted the theoretical considerations and general logic) showed statistically significant positive path coefficients for both frequent and infrequent visitors after the deletion of the indirect effect. This seemed to be a surprising and interesting finding for both target groups, which necessitated a detailed discussion of the general approach to observe mediation effects and the underlying calculations. It was supported by illustrations from

SmartPLS-models with and without mediating effect. To conclude, Table 69 summarizes the results of the 10 hypotheses relating to Thesis 1. The positive attitude toward the experience in the stadium, as an indicator of behavioral intentions, can be explained to a considerable extent by the concurrence of identified monosensory, duosensory, and multisensory elements of verbal and nonverbal representations in the two areas 'exterior area of the stadium' and 'interior area of the stadium'.

Hypothesis	Frequent visitors (FV)	In-frequent visitors (IV)
H(posAttFV): The positive attitude of frequent visitors is composed of the perception of two significantly different areas, which visitors are exposed to during a game: the area outside of and inside the stadium.	✓	
H(posAttIV): The positive attitude of infrequent visitors is composed of the perception of two significantly different areas, which visitors are exposed to during a game: the area outside of and inside the stadium.		✓
H(posAtt1): On the day of the game, both verbal and non-verbal representations of different sensual elements in the area outside of the stadium contribute to at least 30% of the positive attitude toward this specific area.	✓	✓
H(posAtt2): On the day of the game, both verbal and non-verbal representations of different sensual elements in the area inside of the stadium contribute to at least 30% of the positive attitude toward this specific area.	✓	✓
H(posAtt3): Non-verbal representations outside of the stadium more significantly contribute to the explanation of the creation of a positive attitude toward this specific area than verbal representations.	✓	✓
H(posAtt4): Non-verbal representations inside of the stadium more significantly contribute to the creation of a positive attitude toward this specific area than verbal representations.	✓	✓

Table 69: Synopsis of tested hypotheses of Thesis 1

Thesis 2 was formulated in the following way: "The brand attitude toward VfL Bochum 1848 after the visit of the game, as an indicator of the behavioral intentions, is explained by the ratings of the monosensory, duosensory, and multisensory el-

ements of the verbal and non-verbal representations of the two areas in the stadium visited by fans on the day of the game.”

Hypothesis	Frequent visitors (FV)	In-frequent visitors (IV)
H(InfV): The evaluation of the different sensual elements of verbal and non-verbal representations during the day influences the final evaluation offered of brand competency by frequent visitors after the game.	✓	
H(InfIV): The evaluation of the different sensual elements of verbal and non-verbal representations during the day influences the final evaluation offered of brand competency by infrequent visitors after the game.		✓
H(Inf1): The influence of nonverbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area outside of the stadium.	✓	✓
H(Inf2): The influence of nonverbal representations of the brand evaluation after the game is higher than the influence of verbal representations in the area inside of the stadium.	✓	✓
H(Inf3): The higher the perceivable proportion of multisensory elements is within an area, the more brand statements are influenced after the evaluation of the program.	✓	✗
H(Inf4): The formative measurement model with the highest perceivable proportion of multisensory elements in the "outside area of the stadium" has the greatest influence on the brand statements after the evaluation of the program.	✓	✓
H(Inf5): The formative measurement model with the highest perceivable proportion of multisensory elements in the "inside area of the stadium" has the greatest influence on the brand statements after the evaluation of the program.	✓	✓

Table 70: Synopsis of tested hypotheses of Thesis 2

With the exception of H(Inf3) for infrequent visitors, all hypotheses could be confirmed, leading to a general acceptance of Thesis 2. See Table 70. It can be noted that the influence of non-verbal representations is in all cases higher than the impact of verbal representations – see H(InfV), H(InfIV), H(Inf1), and H(Inf2). When looking at the effect of multisensory addressing, it can be seen that 5 out of 6 hypotheses could be confirmed, leading to a general confirmation of the assumption

that the addressing of several senses produces a stronger change of attitudes. If the perceived proportion of multisensory elements increases, more brand attributes and therefore more brand statements after the program are influenced.











Hypothesis	Frequent visitors (FV)	In-frequent visitors (IV)
H(IntFVS): Considering absolute evaluations of the brand statements, the intentions of frequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.		
H(IntIVS): Considering the absolute evaluations of the brand statements, the intentions of infrequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.		
H(Beh1S): Considering the absolute evaluations of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude towards the stadium visit contribute to at least 30% of communicative intention after the game.		
H(Beh2S): Considering the absolute evaluations of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude towards the stadium visit contribute to at least 30% of consumptive intention after the game.		
H(Beh3S): Considering the absolute evaluations of the brand statements, the affectively characterized attitude towards the stadium visit more strongly contributes to the communicative intention after the game than the cognitively characterized part of the brand attitude.		
H(Beh4S): Considering the absolute evaluations of the brand statements, the affectively characterized attitude towards the stadium visit more strongly contributes to the consumptive intention after the game than the cognitively characterized part of the brand attitude.		

Table 71: Synopsis of tested hypotheses of Thesis 3 (absolute brand statement evaluations as cognitive construct)

According to **Thesis 3**, “the behavioral intentions can be explained by the cognitive elements of the attitude toward the club as well as by the affective elements of the positive attitude toward the experience in the stadium.”

Two different analyses were performed. Firstly, the absolute evaluations of six brand statements, derived from the mission statement, were used. Then, the incremental changes in these six brand statement evaluations were considered.

Starting with the absolute evaluation of brand statements as cognitive attitudes toward the club held by frequent and infrequent visitors, it can be noted that 5 out of 10 hypotheses are rejected. The path toward consumptive intentions is particularly weak for both visitor groups. However, this is not surprising for the frequent visitor group. The majority of these supporters possess season tickets and club merchandize, and it is unlikely that visiting one specific game will considerably increase their purchasing behavior. The affectively characterized attitude toward the stadium visit more strongly contributes to the communicative intentions of frequent visitors after the game than the cognitively characterized part of the brand attitudes. Based on this outcome, which is summarized in Table 71, Thesis 3 could only be partially confirmed.

The outcome changes slightly if the incremental changes in evaluations of brand statement are applied to the cognitive exogenous construct. As can be seen in Table 72, 6 out of 10 hypotheses can be confirmed, while the two basic hypotheses H(IntFVSC) and H(IntIVSC) are both rejected this time.

The differences between the incremental changes and the absolute evaluations of brand statements and brand attributes were illustrated in Chapter C.2.3.3. The changes of the ratings before and after the game for the frequent visitor group are in the majority of the cases smaller than the ones relating to infrequent visitors, while the absolute ratings of the frequent visitors are generally higher.











Hypothesis	Frequent visitors (FV)	In-frequent visitors (IV)
H(IntFVSC): Considering the changes in evaluation of the brand statements, the intentions of frequent visitors after the game in terms of communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.		
H(IntIVSC): Considering the changes in the evaluation of the brand statements, the intentions of infrequent visitors after the game in terms communication and consumption are composed of two strongly independent components: cognitively and affectively characterized elements.		
H(Beh1SC): Considering the evaluations changes of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of communicative intention after the game.		
H(Beh2SC): Considering the evaluations changes of the brand statements, the cognitively characterized part of the brand attitude and the affectively characterized attitude toward the stadium visit contribute to at least 30% of consumptive intention after the game.		
H(Beh3SC): Considering the evaluations changes of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the communicative intention after the game than the cognitively characterized part of the brand attitude.		
H(Beh4SC): Considering the evaluations changes of the brand statements, the affectively characterized attitude toward the stadium visit more strongly contributes to the consumptive intention after the game than the cognitively characterized part of the brand attitude.		

Table 72: Synopsis of tested hypotheses of Thesis 3 (changes in brand statement evaluations as cognitive construct)

When comparing the results from this study with the ones from the automotive industry, the following can be noted:

- Looking at the hypotheses relating to Thesis 1, all hypotheses could be confirmed in this study, while 3 out of 12 hypotheses had to be rejected in the study of the automotive industry.⁵⁷² The three rejected hypotheses related to H(posAtt3)⁵⁷³ and H(posAtt4).⁵⁷⁴
- Concerning Thesis 2, the results for the hypotheses H(InfFV), H(InfIV), H(Inf1), H(Inf2), and H(Inf3) can be compared. Whereas 7 out of 8 hypotheses could be confirmed for sports (only H(Inf3) had to be rejected for infrequent visitors), 7 out of 9 hypotheses were confirmed for the automotive industry.⁵⁷⁵ The equivalent hypothesis H(Inf1) for the Porsche Brand Land was rejected for the driver's target group, while H(Inf2) could not be accepted for non-drivers.
- Last but not least, the automotive study also showed varying results for Thesis 3. While Tables 71 and 72 indicated differences between the analysis of absolute brand statement ratings and of incremental brand statement rating changes for this study, 7 out of 14 hypotheses had to be rejected for the automotive industry.⁵⁷⁶ Interestingly, the rejections mainly concerned non-drivers (6 out of 7 hypotheses were rejected). It must be kept in mind that this target group did not experience the driver's range on the day of the visit.

Overall, the framework stemming from the automotive industry could be applied to the soccer context. Through the application of monosensory, duosensory, and multisensory stimuli at live sporting events, soccer clubs are able to influence existing or to attract new visitors, in turn increasing satisfaction levels and gaining a sustainable advantage in a highly competitive environment.

⁵⁷² SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, p. 196.

⁵⁷³ See *ibid.*: Rejected by the driver and non-driver-group.

⁵⁷⁴ See *ibid.*: Rejected by the non-driver group.

⁵⁷⁵ See *ibid.*, p. 197.

⁵⁷⁶ See *ibid.*, p. 198.

In the final part of this study, three GAPs (GAP 6, GAP 7, and GAP 10 of the integrated reference framework – see Figure 21) were reviewed. The assessment of these results has to be treated with caution, as the 'current' self-perception of the brand dates back to 2004 and thus may have changed in meantime. For GAP 6, generally lower ratings were noted for both external target groups. This could largely be explained by the fact that the club was going through an unsuccessful period and was not part of the 1st Bundesliga in season 2011/ 2012 (in contrast to 2004 where the club ended the season ranked 5th in the 1st division). In order to compare the desired outside perception of realization (during the event) with the actual outside perception of realization (GAP 10), the expectations of frequent and infrequent visitors before the game were compared with the degree to which these expectations were fulfilled after the game. For both target groups, a generally high level of satisfaction with the event could be noted. In order to assess GAP 7, it was assumed that the desired self-perception of the brand would show the maximum results for those brand attributes which had been integrated directly or indirectly into the mission statement of the club. Generally, the evaluations of these brand attributes were high, which is not surprising, as the club's mission statement was based on the ratings of exactly those brand attributes.

2 Practical implications

This study started from an extensive theoretical investigation into research in the field of sports. It integrated identity-based brand management and multisensuality into two surveys of complex design, which each assessed a different type of fan group. It also provided detailed presentation and discussion of the empirical results. As such, it is hoped that this work will be useful and instructive for those practically working in the area of sporting brand management. As mentioned before, soccer organizations are increasingly faced with financial and competitive pressure. They need to search for innovative, often multisensory, ways to engage untapped markets. This precisely designed form of brand communication, drawing on a holistic multisensory approach, is a relatively new way of potentially mastering these emerging challenges.

The approach's main aim was to carry out communication in a targeted organization-specific way, which can be individually tailored to different visitor or customer groups. This can be achieved through a systematic, target-oriented utilization of a combination of monosensory, duosensory, and multisensory elements within verbal and non-verbal representations. This very type of analysis was employed in the empirical analysis of four VfL Bochum 1848 games. The addressing of several senses can help to entrench the brand message in the minds of consumers, in turn transmitting emotional and informative content. As was demonstrated, ensuring the appropriate mixture of verbal and non-verbal elements and a relatively high proportion of multisensory stimuli can positively impact satisfaction in the different areas of the stadium, overall satisfaction after the event, and behavioral intentions. When looking at absolute and incremental results, caution needs to be applied, as visitors with strong loyalty to the club might not react as quickly or as responsively to certain forms of brand communication.

This study has also shown that organizations must understand their situation by looking at various GAPs – this is crucial to the setting-up of an identity-based brand management approach which draws on a high percentage of multisensory elements. Once the consistency gaps are clearly identified, and the desired self and outside perception of the brand and the realization (during an event) are all determined, organizations need to identify how different senses can actually be addressed during an event. Based on this information, a decision is needed regarding which sense best transmits the desired message. Finally, all of these ele-

ments need to be consolidated into a holistic sensory approach, which is directed toward the optimal strategic positioning of the brand. Figure 44 summarizes the proposed approach, emphasizing the recurring nature of the process.

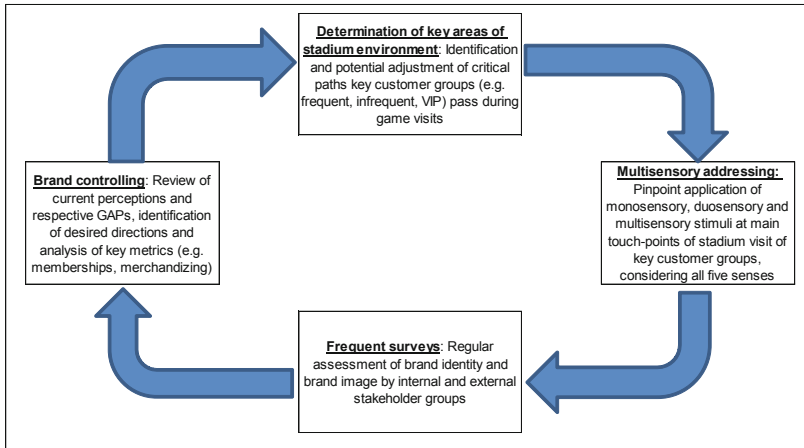


Figure 44: Overview of strategic brand management framework for live events

While the results are club-specific, the following general recommendations can be given to sports organizations:

- An event is a unique opportunity to strengthen an organization’s brand positioning. As indicated in this study, individual group-specific approaches should be taken into consideration for different target groups: Verbal and non-verbal elements which are important for frequent visitors are not necessarily of significance to VIPs or infrequent visitors; e.g. while the phase after the game might be crucial for VIPs, results from the two surveys indicate that the entertainment offered after the game is less important to frequent visitors. The variety of motives and reasons why visitors come to the stadium requires a targeted, group-oriented approach and a corresponding ‘scene marketing’.⁵⁷⁷ Nevertheless, in order to be able to compare results

⁵⁷⁷ See BUEHLER, A./ NUFER, G. (2008): *Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport*, Berlin, p. 344.

among different visitor groups, it appears to be helpful to carry out a simultaneous survey with similar content for various target groups.

- In order to have a good understanding of consistency gaps, it is recommended to regularly determine the current self-perception and external perception of a brand.⁵⁷⁸ While it is certainly helpful to collect and evaluate this type of data when mission statements are elaborated, the regular testing of results is just as crucial. As the results indicated, environmental changes (e.g. whether the team competes in the 1st or 2nd Bundesliga) can have a considerable impact on ratings; therefore, comparative results need to be treated highly cautiously.
- Corporate behavior is critical. Multisensory elements like the 'closeness to players' appear to have a high impact on overall satisfaction ratings, both for frequent and infrequent visitors. Internal stakeholders thus need to be aware of their behavior and of any (positive and negative) consequences which might potentially result from them. While it can be difficult to encourage current players to do press conferences after the game, clubs might consider getting former players and club 'idols' to take part in the match day entertainment.

⁵⁷⁸ See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 376.

3 Implications for future research

The findings and assessments of this study have been comprehensively illustrated in previous chapters. However, there remain some critical points which are worth reiterating. As such, this study's **most important limitations** are as follows:

- The study closely follows the work of *Springer (2008)*⁵⁷⁹ and *Müller (2012)*,⁵⁸⁰ and does not expand on their categories of monosensory, duosensory, and multisensory stimuli. Instead, the study builds on their findings and analytical procedures, applying them to the two soccer sections of the stadium, which are termed the 'inside area of the stadium' and the 'outside area of the stadium'. In an attempt to broaden this work, however, descriptive results for olfactory and gustatory senses are indicated. This possibly deserves further analytical consideration.
- Due to its complex design and the particularities of the club-specific brand attributes and brand statements, the study could only be performed for one individual soccer club and for one particular form of brand communication – event marketing. A proportion of the indicators, especially in the interior area of the stadium, were directly targeted to the brand identity of the club (e.g. fan anthems). There is no guarantee that the results derived from this sample can be transferred to another context or another soccer/ sports organization without any distortion.⁵⁸¹ As a result, the general representativeness of the study cannot be assured.
- In order to ensure the comparability of results from the two survey groups (frequent and infrequent visitors) and of results taken from previous surveys carried out by VfL Bochum 1848, the existing brand statements and brand attributes of the club were used. Ratings relating to the brand identity of the club (current self-perception of the brand)⁵⁸² stemmed from 2004.⁵⁸³ There

⁵⁷⁹ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden.

⁵⁸⁰ MUELLER, J. (2012): *Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands - ein theoriegeleitetes, experimentelles Design zum Shopperverhalten*, Wiesbaden.

⁵⁸¹ Sporting brand management need to take into consideration club-specific characteristics. See SCHILHANECK, M. (2008a): *Markenmanagement im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 380.

⁵⁸² See Figure 21.

is thus a considerable chronological gap between results relating to brand identity and the evaluations of brand image used in this study (November/December 2011). Although assessments of the formative and reflective measurement models were performed, the constructs used to predict intentional behavior after the stadium visits are not yet widely accepted. It must be kept in mind that the brand statements and brand attributes are different in terms of content.

- The study needed participants to answer two **complete** questionnaires (the first survey before and the second questionnaire after the game). It was carried out over four different games. This was a time-consuming and costly approach. However, when looking at the statistical significance scores of the path coefficients, at the weights within formative measurement models, and at the loadings within reflective measurement models,⁵⁸⁴ it can be seen that the sample sizes, especially those of infrequent visitor groups, could have been slightly higher to achieve more reliable and accurate results. In order to keep the comparative approach, some indicators without relative nor absolute importance (i.e., with statistically insignificant outer weights and with outer loadings below 0.5) were kept. The study's results need to be treated with caution, although they certainly provide interesting insights and potential areas of improvement for managers of sports teams. There is definitely a trade-off between the goodness of the models and the aspect of comparability.
- In order to achieve the study's initial objective of contributing to multisensory brand management, the scope of the observations had to be reduced to individual, central aspects. Thanks to the rich groundwork in the area of multisensuality performed at the SVI-Endowed Chair of Marketing, esp. E-Commerce and Cross-Media Management, over recent years, an approach already carried out in the automotive industry was closely followed and applied to soccer. While the ratings of the indicators in the outside and inside area of the stadium allow general statements to be made about the importance of monosensory, duosensory, and multisensory elements and their potential effects on brand attitudes, satisfaction levels, and behavioral intentions after an event, the study cannot provide a general accepted mul-

⁵⁸³ See Chapter B.4.2.5.

⁵⁸⁴ See for example Table 36 in Chapter C.2.1.1.

tisensory framework for soccer events. As of yet, neither academic researchers nor practitioners have been able to supply the correct recommendations needed to do this. While only 3 variables included olfactory or gustatory content, a few descriptive questions about these two senses were added to the questionnaires. Even when examining these few results, it becomes clear that the effect of these two senses in the field of soccer should not be neglected, as they produce both positive and negative reactions in the customer. Lastly, the effect of the senses on transmission rates of information and emotion were not compared; it can be assumed that there are considerable variations in this area.

- There may be sub-groups within the two observed targets - frequent and infrequent visitors - which could be worthy of more detailed study. Within the frequent visitors, one might find soccer-centered or event-oriented fans (with and without season tickets). Meanwhile infrequent visitors could be further broken down into newly arrived students, consumption-oriented fans, and non-visitors (who are generally interested in a specific team, but never actually go to home games).⁵⁸⁵
- Finally, the data collection and evaluation methods contain limitations. The recruitment of potential survey participants from various online forums and the usage of written surveys can provoke the general falsification of results. This arises because the users themselves decide whether to participate or not in the survey (so-called 'self-selection'), instead of being chosen through random or systematic sampling methods. The forced element to the survey responses can also result in the selection of random options, in turn distorting results. The fact that respondents read the survey questions themselves and select responses without prompting from a researcher (so-called 'self-reporting') may impact the reliability and the validity of the results, especially after disappointing experiences (i.e. in the situation where the club lost). The evaluations of affectively characterized positive attitudes, in the form of preferences, might have required further clarifications. A five-grade Likert rating scale was used to facilitate comparisons; however, a different scale could have led to more output, at least for a certain proportion

⁵⁸⁵ See WELLING, M. (2004): *Die (Fußball-)Vereinsmarke - Konzeptionelle Grundlagen und ausgewählte Besonderheiten der Markenführung von Fußballvereinen*, in: HAMMANN, P., et al. (eds.): *Ökonomie des Fußballs - Grundlegungen aus volks- und betriebswirtschaftlicher Perspektive*, Wiesbaden, p. 402.

of the questions. Although there have been a number of recent studies into PLS-SEM, the field is still in flux. There are ongoing general discussions about its reliability, validity, and overall goodness-of-fit measures.

The attention can now be turned to the potential **starting points for further research**, both in terms of content and from a methodological perspective, which arise from this work:

- The results from the automotive industry - see *Springer (2008)* for the empirical results⁵⁸⁶ - and from the field of sports should be confirmed with other stakeholders. This should stretch from other soccer or sports organizations to different industries altogether. Furthermore, it would be useful to investigate other types of brand management tools. Once the identity-based multisensory management approach is confirmed and replicated in other organizations, researchers should focus on establishing a common validity in the findings and on generalizing the results.
- Due to the relatively small sample size of the two target groups (frequent and infrequent visitors), a second survey with more participants could confirm the results established here. It could also possibly add other target groups and seek to separate the current samples (frequent and infrequent visitors) into sub-groups (e.g. soccer-centered fans, event-oriented fans, consumption-oriented fans, or non-visitors).⁵⁸⁷ This would help to develop stakeholder-specific multisensory approaches at sports events.
- Certain areas of this study could also be deepened and refined. VfL Bochum 1848 should further investigate its brand identity and brand image values, and should also reassess various GAPs based on the identity-based brand management approach. It would also be beneficial to regularly perform similar studies across all internal and external stakeholder groups, to better anticipate long-term changes and adjustments. As far as other organizations are concerned, an application of the methodology in other soc-

⁵⁸⁶ SPRINGER, C. (2008): *Multisensuale Markenführung: eine verhaltenswissenschaftliche Analyse unter besonderer Berücksichtigung von Brand Lands in der Automobilwirtschaft*, Wiesbaden, pp. 195 et seqq.

⁵⁸⁷ See potential separation of visitor or fan groups in Chapter B.2.2. Digel/ Fahrner also offer a categorization of VIPs (5 distinctions): See DIGEL, H./ FAHRNER, M. (2008): *Hospitality Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, pp. 457 et seqq.

cer clubs, in other types of sport, or even in other countries could add to these findings. In order to establish a commonly accepted multisensory approach, additional research concerning the dimensions and the extent of qualities and quantities of the different sensory impressions is advisable. This should take into consideration olfactory and gustatory senses.

- The methodological design of the study appears satisfactory. Nonetheless, based on emerging technological and socio-demographic trends (e.g. the use of online platforms like Facebook), other research techniques and methods should be considered, possibly as complementary approach. Experimental study designs or direct, face-to-face, interviews with key target groups could further an understanding of stakeholder-specific needs and expectations. Ultimately, an acceptable approach should be selected, keeping in mind demands of time and money.
- While this study is a unique attempt to divide visitor groups into two different sub-segments (frequent and infrequent visitors), VIPs – another important generator of revenue for soccer clubs - were not included. Descriptive results from the quality survey⁵⁸⁸ into corporate hospitality⁵⁸⁹ carried out at VfL Bochum 1848 in 2012 - which drew on a similar number of respondents to this study at-hand - indicate that this target group might have different expectations. In particular, their interpretation of the various phases of a stadium visit (before the game, half-time, after the game) and gustatory and olfactory preferences may differ.⁵⁹⁰

⁵⁸⁸ The survey was undertaken in two areas of the stand: the so-called 'MORRIZZ' section (accessible to businessmen and private individuals) and the 'rewirpowerlounge' (mainly targeted at businessmen).

⁵⁸⁹ Hospitality services usually refer to any functions directed at private individuals or businessmen which generally cultivate an atmosphere of luxury or special occasion, and which are possibly linked to exclusive and unique experiences. For more detailed information, refer to MASTERMAN, G./ WOOD, E. H. (2006): *Innovative Marketing Communications: Strategies for the Events Industry*, Amsterdam et al.

⁵⁹⁰ See DIGEL, H./ FAHRNER, M. (2008): *Hospitality Marketing im Sport*, in: NUFER, G., et al. (eds.): *Management und Marketing im Sport - Betriebswirtschaftliche Grundlagen und Anwendungen der Sportökonomie*, Berlin, p. 447: According to Digel/ Fahrner, additional service components for this target group include: Information about the event delivered by specifically produced newspaper or TV broadcasts, entertainment (through special guests), reserved tables, service teams especially dedicated to the VIPs, and souvenirs of the event.

		Category with highest selection					
Are the following areas satisfactory?		Totally disagree	Disagree	Neutral	Agree	Totally agree	Conclusion
Travel	Sign-postings for VIP-parking	2,2%	9,7%	34,4%	34,4%	19,4%	Travel to stadium rated favorably (improvement to former survey)
	Friendliness of security on parking	1,0%	1,0%	24,0%	30,2%	43,8%	
	Sign-postings to VIP-area (by foot) are clear (for foreigners)	3,2%	6,4%	46,8%	25,5%	18,1%	
VIP-area (before game)	Entrance/admission to VIP-area	1,0%	1,0%	8,3%	41,7%	47,9%	High ratings for VIP-area (although no improvement to former survey)
	Friendliness in entrance area	0,0%	2,1%	2,1%	34,4%	61,5%	
	Cleanness of VIP-area	0,0%	3,1%	6,3%	32,3%	58,3%	
	Attentiveness of service personnel	3,1%	8,3%	15,6%	44,8%	28,1%	
	Choices of food	1,1%	9,5%	23,2%	50,5%	15,8%	Guests feel comfortable/ in general, good evaluations
	Choices of drinks	0,0%	5,3%	20,2%	50,0%	24,5%	
	Competence of hostesses in VIP-area	2,1%	2,1%	21,3%	51,1%	23,4%	
	Satisfaction of guests in VIP-area	0,0%	1,1%	9,6%	46,8%	42,6%	
Stadium	Sign-postings to seating	1,1%	5,4%	24,7%	40,9%	28,0%	Comfort in stadium improved (good/ very good ratings) - advertising is eye-catching
	Accessibility of seating (time spent)	1,1%	3,2%	4,3%	39,8%	51,6%	
	Comfort of seating	1,1%	1,1%	8,6%	47,3%	41,9%	
	Advertising spots attract attention	1,1%	1,1%	34,4%	47,3%	16,1%	
Half-time	Drink service in half-time	5,4%	6,5%	19,6%	43,5%	25,0%	Catering and Service in half-time with medium ratings
	Snack in half-time	6,5%	10,9%	28,3%	42,4%	12,0%	
	Availability of sanitary arrangements	10,9%	17,4%	19,6%	38,0%	14,1%	
VIP-area (after game)	Cleanness of VIP-area after game	1,1%	3,3%	14,4%	50,0%	31,1%	Evaluations close to prior survey (mostly good/very good) - low ratings for closeness of players to guests
	Friendliness of service personnel	0,0%	0,0%	5,6%	50,6%	43,8%	
	Arrangement of food in buffet-area	0,0%	3,3%	18,9%	52,2%	25,6%	
	Closeness of representatives to guests	1,1%	4,4%	12,2%	53,3%	28,9%	
	Closeness of players to guests	15,7%	33,7%	38,2%	11,2%	1,1%	
	Travel back home	1,1%	1,1%	26,1%	38,6%	33,0%	
Contact points	Employees of VfL are competent	0,0%	1,1%	5,6%	42,7%	50,6%	High satisfaction (similar to previous survey)
	Informations through newsletter	0,0%	0,0%	14,6%	53,9%	31,5%	
	Prompt processing of orders/requests	0,0%	0,0%	9,0%	36,0%	55,1%	

Table 73: Selection of results of quality survey into VIP guests by VfL Bochum 1848 (2012 vs. 2011)

As can be seen in Table 73, sub-sections of six different areas were rated in the 2012 survey. Overall, the first category 'travel (to stadium)' was rated favorably. This section did not play a major role in the present study, neither for frequent nor for infrequent visitors. For the eight sub-categories of 'VIP area (before the game)', high ratings were given to the 'entrance/ admission to the VIP area', 'friendliness

in (entrance) area', and to the 'cleanliness of the VIP area'. The choice of food and drinks available in the VIP area appears to be crucial to the overall satisfaction of VIP guests. Frequent and infrequent visitors do not have much choice in regard to entertainment and food outside the stadium, but VIPs appear to expect a high variety and superior quality of services and food on offer in this area.

VIPs generally feel comfortable inside of the stadium, awarding 'accessibility of seating' (the time it takes to reach the seating section) with the highest percentage of 'totally agree' statements. Interestingly, 63.4% of all participants⁵⁹¹ confirm that the advertising on show during the game is very eye-catching. Considering that the majority of VIPs are businessmen, it is likely that this target group focuses more on 'side attractions' other than the actual game itself. While the half-time entertainment and the period after the game are not significant for the satisfaction level of frequent and infrequent visitors, they appear to be of high importance to VIPs. Ratings for elements at half-time were only medium, indicating that this could be an area of improvement for the club. The majority of VIP guests return to the VIP area after the game to, for example, have another drink or follow the post-match press conference with the coaches. As such, the service in this area needs to be kept at a high level even after the game. The variable 'closeness of players to guests' achieves the lowest rating. This is another area with room for improvement. Multisensory elements were crucial for the satisfaction of frequent and infrequent visitors, and so the club should seek to improve them within the VIP area – not least due to the findings of the quality survey. This could be challenging, because the majority of VIP guests usually stay in the VIP area before the game, at half-time, and after the game. They thus miss a major proportion of the entertainment carried out on the field and via the stadium scoreboard, important areas where multisensory stimuli can be addressed. Consequently, a separate entertainment program may well need to be drawn up for this target group.

When looking at the ratings of the brand statements directly related to the club's mission statement, it can be noted that the results for VIPs are very

⁵⁹¹ 16.1% totally agree / 47.3% agree.

similar to the outcomes for frequent and infrequent visitors after the game. For all three target groups, the statement 'We stand up for our local identity and our tradition!' achieves the highest results, with averages of 4.38, 4.24, and 4.09 for VIPs, frequent, and infrequent visitors, respectively. See Table 74. The brand statement 'We are close!' is ranked second for all three target groups, with respective rating of 4.13, 4.12, and 3.97. The statement 'We are unbending!' achieves the lowest averages for all visitor groups, which might be related to the current ranking and performance of the team.

		Totally disagree	Disagree	Neutral	Agree	Totally agree	ø VIP (2012)	FV (after game)	IV (after game)
Brand statements	We stand up for our local identity and our tradition!	1	1	5	38	43	4,38	4,24	4,09
	We are professionals!	1	3	20	45	18	3,87	3,77	3,73
	We are close!	0	0	15	47	26	4,13	4,12	3,97
	We are rousing!	2	6	34	32	14	3,57	3,56	3,77
	We are unbending!	4	16	35	24	9	3,20	3,53	3,34
	We declare our social responsibility!	0	0	20	50	18	3,98	3,97	3,58

Table 74: Ratings of components of mission statement by VIP guests⁵⁹²

Lastly, one question in the survey related to guests being allowed to smoke in the VIP area. 37.7% of all participants consider smoking in this section to be disruptive. In the questionnaire's comment section, some respondents requested non-smoking rooms. A general environmental difference must be noted between frequent/ infrequent visitors and VIP guests. While the first two target groups spend the majority of their time outside, VIPs spend a significant portion of the day in the interior VIP locations. This might explain the bigger difference in the ratings toward smoking.

⁵⁹² While the club's survey used German school grades between 'Totally disagree' (5) and 'Totally agree' (1), the factors were switched to obtain ratings between 'Totally disagree' (1) and 'Totally agree' (5). This enables a better comparative basis to ratings from this study.

To conclude, it can be seen that, despite the significant findings which were extensively presented over the course of the study, there remain a variety of unanswered questions which deserve further attention and could certainly support practitioners in both their daily work and in the strategic decision-making process

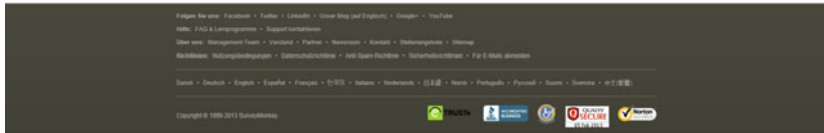
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A1: SurveyMonkey-website for 'before'- and 'after'-surveys



Aktuelle Umfragen	Alle Umfragen anzeigen	Umfragen erstellen	Erhebungen				Ergebnisse	Analysieren	Aktionen
Umfragezeit	Erstellt	Geändert	Erreichte	Erreichte	Analysieren	Ergebnisse	Aktionen	Aktionen	
VSL Buchheim - vorher Umfrage	13. November 2011 11:10	Vor 53 Tagen	0	0	0	295	Ergebnisse	Umfragen	Löschen
VSL Buchheim - vorher Umfrage	9. November 2011 12:08	Vor 1 Jahr	0	0	0	567	Ergebnisse	Umfragen	Löschen



A2: 'Before'-questionnaire (in German)



Vielen Dank, dass Sie sich die Zeit für die Teilnahme an unserer Befragung nehmen. Sie unterstützen damit ein Forschungsprojekt, welches wir in Kooperation mit der HHL – Leipzig Graduate School of Management, Lehrstuhl Marketingmanagement unter der Leitung von Prof. Kirchengoerg durchführen. Die Befragung ist zweigeteilt – ein Fragebogen vor und ein weiterer nach Ihrem Besuch bei einem Heimspiel des VfL Bochum – und wird ca. 45 Minuten Ihrer Zeit in Anspruch nehmen. Bei der Beantwortung der Fragen ist uns Ihre persönliche Meinung besonders wichtig. Bitte beantworten Sie alle Fragen vollständig und in der vorgegebenen Reihenfolge. Selbstverständlich werden Ihre Angaben von uns vertraulich behandelt. Als Dankeschön für Ihre Teilnahme nehmen Sie bei vollständiger Beantwortung beider Fragebögen automatisch an einer Verlosung teil und können attraktive Preise gewinnen: 1 original unterschriebenes Trikot des VfL Bochum, 3 * 2 Eintrittskarten für das Konzert von Herbert Grönemeyer am 22. Mai 2012 in Bochum und schließlich 4 Jubiläumsbücher "Anne Castrop". Für Ihre Mühe möchten wir uns bei Ihnen bereits im Voraus bedanken!

1. Inwieweit treffen die folgenden Aussagen zum Thema Fußball auf Sie zu? Bewerten Sie bitte auf einer Skala von 1 (trifft gar nicht zu) bis 5 (trifft voll und ganz zu). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Fußball ist für mich ein wichtiger Bestandteil meines Lebens.					
Ich gehe gerne ins Stadion.					
Fußball hilft mir, Abstand vom Alltag zu gewinnen.					
Ein Leben ohne Fußball könnte ich mir nicht vorstellen.					
Fußball ist ein regelmäßiges Gesprächsthema in meiner Familie.					
Ich besuche nicht nur Profifußballspiele, sondern schaue mir auch Begegnungen in unteren Ligen an.					
Ich spiele selbst im Verein Fußball.					
Fußball ist meine Liebessportart.					

2. Welchen professionellen Fußballverein verfolgen Sie hauptsächlich am Wochenende?

Verein:

3. Welche Kriterien sind Ihnen bei einem Fußballverein wichtig? Bewerten Sie bitte auf einer Skala von 1 (gar nicht wichtig) bis 5 (sehr wichtig). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	gar nicht wichtig 1	2	teils-teils wichtig 3	4	sehr wichtig 5
Ausreichende Verfügbarkeit von Informationen über den Verein über Internet (Homepage)/Medien					
"Verein zum Anfassen" / Nähe des Vereins zu den eigenen Anhängern (Autogrammstunden, Fantreffen mit Spielern etc.)					
Hohe Identifikation mit dem Verein					
Gemeinsame Erlebnisse mit Gleichgesinnten					
Angemessenes Preisniveau (Eintrittspreise, Merchandising, Verpflegung)					
Modernes Stadion					
Große Fangemeinde					
Regelmäßiger Austausch mit anderen Fans (z.B. über Fantreffs, Foren, Chats etc.)					
Familienfreundlichkeit					
Tickets problemlos erhältlich					
Hohe Übereinstimmung des Auftretens und des Handelns des Vereins mit meinen eigenen persönlichen Werten					
Attraktive Spiele					
Gewinn von Titeln (Meisterschaften, Pokale)					

4. Wenn Sie Informationen über neue Dinge aufnehmen, dann können Sie dies in unterschiedlicher Weise tun. Wie gut verstehen Sie neue Dinge, wenn Sie die Informationen ...

	sehr schlecht 1	2	teils-teils 3	4	sehr gut 5
... nur lesen					
... nur hören					
... nur sehen					
... sich die Informationen notieren					
... live vorgestellt bekommen					
... erleben					
... ausprobieren					

5. Wenn Sie an ein Fußball-Spiel denken, dann können Sie sich in unterschiedlicher Weise über die Begegnung informieren. Wie gern verfolgen Sie Fußballspiele auf die folgenden Weisen? Bewerten Sie bitte auf einer Skala von 1 (sehr ungern) bis 5 (sehr gern). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	sehr ungern 1	2	teils-teils 3	4	sehr gern 5
Live-Besuch im Stadion					
Im Fernsehen zu Hause allein das Spiel meiner Mannschaft anschauen					
Im Fernsehen zu Hause allein die Konferenz aller Spiele anschauen, bei der meine Mannschaft in einer Begegnung beteiligt ist					
Im Fernsehen gemeinsam mit anderen das Spiel meiner Mannschaft anschauen					
Im Fernsehen gemeinsam mit anderen die Konferenz aller Spiele anschauen, bei der meine Mannschaft in einer Begegnung beteiligt ist					
Über Videotext im Fernsehen die Ergebnisse verfolgen					

	sehr ungen 1	2	teils-teils 3	4	sehr gern 5
Im Radio verfolgen - lokaler Sender					
Im Radio verfolgen - überregionaler Sender					
In einer Sportsbar verfolgen (Einzelspiel)					
In einer Sportsbar verfolgen (Konferenz)					
Über die Internetseiten eines Sportportals verfolgen, z.B. Sport1 oder kicker					
Direkt über den "Live-Ticker" eines Vereins verfolgen					
Ergebnisse aus der Zeitung entnehmen					

6. Wie oft verfolgen Sie die Fußballspiele Ihrer Lieblingsmannschaft auf die folgenden Weisen? Bewerten Sie bitte auf einer Skala von 1 (sehr selten) bis 5 (sehr oft). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	sehr selten 1	2	manchmal 3	4	sehr oft 5
Live-Besuch im Stadion					
Im Fernsehen zu Hause allein das Spiel meiner Mannschaft anschauen					
Im Fernsehen zu Hause allein die Konferenz aller Spiele anschauen, bei der meine Mannschaft in einer Begegnung beteiligt ist					
Im Fernsehen gemeinsam mit anderen das Spiel meiner Mannschaft anschauen					
Im Fernsehen gemeinsam mit anderen die Konferenz aller Spiele anschauen, bei der meine Mannschaft in einer Begegnung beteiligt ist					
Über Videotext im Fernsehen die Ergebnisse verfolgen					
Im Radio verfolgen - lokaler Sender					
Im Radio verfolgen - überregionaler Sender					
In einer Sportsbar verfolgen (Einzelspiel)					
In einer Sportsbar verfolgen (Konferenz)					
Über die Internetseiten eines Sportportals verfolgen, z.B. Sport1 oder kicker					
Direkt über den "Live-Ticker" eines Vereins verfolgen					
Ergebnisse aus der Zeitung entnehmen					

7. Wie wichtig ist es Ihnen, dass bei einer lokalen Veranstaltung regionale Getränke und Speisen angeboten werden? Bewerten Sie bitte auf einer Skala von 1 (gar nicht wichtig) bis 5 (sehr wichtig). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	gar nicht wichtig 1	2	teils-teils wichtig 3	4	sehr wichtig 5
Getränke (z.B. lokale Biermarken)					
Speisen (z.B. Würste, Brezeln etc.)					

8. Was erscheint Ihnen vor Beginn eines Fußballspiels besonders wichtig (bitte antworten Sie unabhängig davon, ob Sie schon einmal bei einem Fußballspiel waren oder nicht)? Bewerten Sie bitte auf einer Skala von 1 (gar nicht wichtig) bis 5 (sehr wichtig). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	gar nicht wichtig 1	2	teils-teils wichtig 3	4	sehr wichtig 5
Problemlose Anfahrt zum Veranstaltungsort					
Ein erstes Getränk mit Freunden und Bekannten, bevor man das Stadion betritt					
Sich im Stadion mit Freunden treffen, um sich gemeinsam auf das bevorstehende Spiel einzustimmen					
Sofort ins Stadioninnere gehen und sich einen guten Platz sichern					
Als Erstes in den Fanartikelshop, um nach Erinnerungsartikeln oder Schnäppchen zu suchen					
Sich eine Stadionzeitschrift sichern, um die neuesten Informationen über das anstehende Spiel zu erhalten					
Zuerst etwas essen, um genügend Kraft für die nächsten Stunden zu tanken					

9. Ist Ihnen vor Beginn eines Fußballspiels sonst noch etwas besonders wichtig, was nicht genannt wurde?

10. Was erscheint Ihnen beim Verfolgen eines Fußballspiel besonders wichtig (unabhängig davon, ob Sie schon einmal bei einem Fußballspiel waren)? Bewerten Sie bitte auf einer Skala von 1 (gar nicht wichtig) bis 5 (sehr wichtig). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	gar nicht wichtig 1	2	teils-teils wichtig 3	4	sehr wichtig 5
Attraktives, packendes Spiel mit vielen Toren					
Sieg der eigenen Mannschaft					
Aufopferungsvoller Kampf der eigenen Mannschaft					
Gute Stimmung durch die Heimfans					
Verfolgen der Begegnung mit Gleichgesinnten					
Einsatz lokaler Nachwuchskräfte beim eigenen Verein, mit denen man sich sehr gut identifizieren kann					
Einsatz internationaler Spieler beim eigenen Verein					
Die Ligazugehörigkeit des eigenen Vereins					

11. Erscheint Ihnen sonst noch etwas bei einem Fußballspiel besonders wichtig, was nicht genannt wurde?

12. Was erscheint Ihnen nach einem Fußballspiel besonders wichtig (unabhängig davon, ob Sie schon einmal bei einem Fußballspiel waren)? Bewerten Sie bitte auf einer Skala von 1 (gar nicht wichtig) bis 5 (sehr wichtig). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	gar nicht wichtig 1	2	teils-teils wichtig 3	4	sehr wichtig 5
Möglichst schnell das Stadion verlassen, um keine längeren Wartezeiten auf der Rückreise zu haben					
Das Spiel in Ruhe mit Freunden am Stadion Revue passieren lassen					
Die Mannschaft nach dem Spiel am Spielfeldrand gebührend verabschieden					
Im Stadion die Ergebnisse der anderen Spiele abwarten					
Interviews und Presskonferenzen am Stadion verfolgen					
Zusammen mit Freunden am Stadion weitere Getränke zu sich nehmen					
Am Spielfeldrand oder bei den Umkleidekabinen nach Autogrammen fragen					
Nach dem Spiel mit Freunden in die Stadt gehen und den Tag gemütlich ausklingen lassen					

13. Erscheint Ihnen nach einem Fußballspiel sonst noch etwas besonders wichtig, was nicht genannt wurde?

Wir möchten Sie nun speziell zum VfL Bochum befragen:

14. Wie oft waren Sie bisher bei einem Spiel im rewirpowerSTADION?

noch nie: 1- 3-mal: 4 oder 5-mal: Mehr als 5-mal:

15. Bitte kreuzen Sie Zutreffendes an:

	Ja	Nein
Ich bin Mitglied.	<input type="checkbox"/>	<input type="checkbox"/>
Ich bin Dauerkarteninhaber.	<input type="checkbox"/>	<input type="checkbox"/>
Ich bin Fanclubmitglied.	<input type="checkbox"/>	<input type="checkbox"/>

16. Wie oft haben Sie den VfL Bochum schon auf Auswärtsfahrten begleitet?

noch nie: 1- 3-mal: 4 oder 5-mal: Mehr als 5-mal:

17. Welchem Verein ähnelt der VfL Bochum Ihrer Meinung nach am meisten?

Verein:

18. Haben Sie in den vergangenen Jahren auch andere Bundesligastadien ohne Beteiligung des VfL Bochum besucht?

ja	<input type="checkbox"/>
nein	<input type="checkbox"/>

19. Wenn Sie mit "Ja" geantwortet haben, nennen Sie bitte die Städte:

20. Warum haben Sie sich dafür entschieden, das Spiel des VfL Bochum zu besuchen? Bewerten Sie bitte auf einer Skala von 1 (trifft gar nicht zu) bis 5 (trifft voll und ganz zu). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Ich habe mich entschieden, die Begegnung zu besuchen, weil...					
... ich schon immer einmal ein Spiel des VfL Bochum besuchen wollte.					
... ich ein absoluter Fan des VfL Bochum bin.					
... ich gern mehr über den VfL Bochum erfahren möchte.					
... ich mir gute Unterhaltung von dem Besuch verspreche.					
... ich mir Spaß von dem Besuch verspreche.					
... ich die Atmosphäre im Spiel live genießen möchte.					
... ich etwas Besonderes erleben möchte.					
... ich auf Menschen treffen möchte, die ähnliche Interessen haben.					
... mir der Besuch empfohlen wurde.					
... ich den Besuch geschenkt bekommen habe.					

21. Wie hoch sind Ihre Erwartungen an den Besuch des kommenden Spiels?

	1	2	3	4	5	
sehr geringe Erwartungen						sehr hohe Erwartungen

22. Inwieweit treffen die folgenden Aussagen auf Sie zu? Bewerten Sie bitte auf einer Skala von 1 (trifft gar nicht zu) bis 5 (trifft voll und ganz zu). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Ich habe den Eindruck, dass ich viel über den VfL Bochum weiß.					
Ich fühle mich dem Verein VfL Bochum und der Mannschaft gut vertraut.					
Ich finde, dass sich der VfL Bochum deutlich von anderen Fußballvereinen unterscheidet.					
Ich finde, dass der VfL Bochum eine Marke mit hohem Ansehen darstellt.					
Ich habe den Eindruck, der VfL Bochum ist gut auf zukünftige Herausforderungen vorbereitet.					

23. Was assoziieren (z.B. Leistungen und Eigenschaften) Sie mit dem VfL Bochum?

1) _____ 2) _____ 3) _____

24. Wenn Sie sich den VfL Bochum einmal als eine Person vorstellen, wie würden Sie seinen Charakter beschreiben?

1) _____ 2) _____ 3) _____

25. Welches typische Symbol (Zeichen, Logo oder Bild) fällt Ihnen spontan ein, wenn Sie an den VfL Bochum denken?

26. Wie beurteilen Sie den VfL Bochum insgesamt?

sehr unsympathisch	1	2	3	4	5	sehr sympathisch
--------------------	---	---	---	---	---	------------------

27. Welche der folgenden Eigenschaften treffen Ihrer Meinung nach auf den VfL Bochum zu? Bewerten Sie bitte auf einer Skala von 1 (trifft gar nicht zu) bis 5 (trifft voll und ganz zu). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Engagiert					
Regional verwurzelt					
Sympathisch					
Bodenständig					
Solide					
Familiär					
Traditionsreich					
Selbstbewusst					
Innovativ					
Cool					
Konservativ					
Spontan					
Farblos					

28. Wie bewerten Sie den VfL Bochum hinsichtlich folgender Aussagen? Bewerten Sie bitte auf einer Skala von 1 (stimme gar nicht zu) bis 5 (stimme voll und ganz zu). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	stimme gar nicht zu 1	2	stimme teils-teils zu 3	4	stimme voll und ganz zu 5
Der VfL Bochum ist ein wichtiger Bestandteil der ihn umgebenden Gesellschaft.					
Mir ist das Leitbild des VfL Bochum bekannt.					
Der VfL Bochum ist ein Bochumer Junge.					
Die Kurve, die Mitglieder, Mitarbeiter, Spieler und Partner bilden eine echte Gemeinschaft.					
Der VfL Bochum vermittelt durch leidenschaftlichen, ehrlichen und erlebnisreichen Fußball Freude, Faszination und Begeisterung.					
Der VfL Bochum bekennt sich zu seiner regionalen Identität und Tradition.					
Der VfL Bochum ist professionell.					
Der VfL Bochum ist nah.					
Der VfL Bochum ist unbeugsam.					
Der VfL Bochum ist mitreißend.					
Der VfL Bochum bekennt sich zu seiner sozialen Verantwortung.					
Der VfL Bochum nimmt jede Herausforderung an und arbeitet hart und ehrlich.					
Der VfL Bochum arbeitet vorausschauend und erfüllt den Anspruch, der Begeisterung aller Fans zu dienen.					
Der VfL Bochum ist ansprechbar und geht respektvoll, kritikfähig und geradeaus mit seinen Fans um.					
Der VfL Bochum trotz selbstbewusst den Widrigkeiten und kämpft gemeinsam gegen Rückschläge.					
Der VfL Bochum verpflichtet sich den Werten des Sports: Toleranz, Fairplay, Solidarität und Gleichheit.					

29. Welche der folgenden Ziele und Werte sind für Sie persönlich besonders wichtig?

	gar nicht wichtig 1	2	teils-teils wichtig 3	4	sehr wichtig 5
Bildung					
Umweltbewusstes Leben					
Viel Freizeit					
Hoher Lebensstandard					
Neue Wege gehen					
Sparsam leben					
Ehrlichkeit					
Gutes Aussehen					
Ruhe und Entspannung					
Traditionsbewusstsein					
Statussymbole					
Streben und Wissen					
Kreativität					
Loyalität					
Gesundes Leben					
Religiöses Leben					
Spaß					

30. Bitte geben Sie an, welche Farbe(n) Sie im Allgemeinen sehr mögen? Bitte kreisen Sie diese Farbe(n) ein.

diese Farbe(n) mag ich sehr:	Weiß	Gelb	Orange	Braun	Rot	Rosa	Violett
	Lila	Blau	Grün	Grau	Schwarz	Silber	Gold

31. Bitte geben Sie an, welche Farbe(n) Sie im Allgemeinen gar nicht mögen? Bitte kreisen Sie diese Farbe(n) ein.

diese Farbe(n) mag ich gar nicht:	Weiß	Gelb	Orange	Braun	Rot	Rosa	Violett
	Lila	Blau	Grün	Grau	Schwarz	Silber	Gold

Persönliche Angaben:

32. Geschlecht männlich weiblich

33. Alter _____ Jahre

34. Familienstand
 alleinstehend
 verheiratet
 in Partnerschaft

35. Anzahl der Kinder
 keine 1
 2 3
 4 mehr als 4

36. Ausbildung
 Schüler (Abschlussziel Haupt-/ Real) Schüler (Abschlussziel Abitur)
 Abschluss Haupt-/ Volksschule Abschluss Polytechn. Oberschule
 Abschluss Realschule (Mittl. Reife) Abschluss mit Hochschulreife (Abi)
 Berufsbildender Abschluss Meister-/ Technikerabschluss
 Hochschul-/ FH-abschluss Promotionsabschluss

Anderer Abschluss: _____
 37. Berufliche Stellung
 Landwirt Freiberuflicher Akademiker
 Selbständiger PGH-Mitglied
 Beamter (einfacher/mittl. Dienst) Beamter (gehobener Dienst)
 Beamter (höherer Dienst) Angestellter (ausführende Tätigk.)
 Angestellter (qualifizierte Tätigkeit) Angestellter (leitend)
 Arbeiter (un-/ angelehrt) Facharbeiter
 Vorarbeiter / Meister Student
 Schüler in Ausbildung
 Wehrdienst / Zivildienst zurzeit nicht berufstätig

Sonstige Stellung: _____

38. Postleitzahl des Hauptwohnsitzes _____

39. Um Sie bei der Verlosung der Preise berücksichtigen zu können, bitten wir Sie, Ihre E-Mail-Adresse einzutragen. Die Adresse wird selbstverständlich vertraulich behandelt.

E-Mail-Adresse:

Wir bedanken uns für Ihre Einschätzung und freuen uns darauf, Ihre Meinung nach dem Spiel zu hören. Bitte denken Sie daran, Ihre E-Mail am Abend des Spieletages oder am Folgetag zu lesen, um die Umfrage innerhalb 48 Stunden einsenden zu können. Nach Ausfüllen des zweiten Fragebogens nehmen Sie automatisch an der Verlosung teil und haben ein gratis-Getränk bei einem Spiel des VfL Bochum in der Rückrunde sicher. Vielen Dank im Voraus!

A3: 'After'-questionnaire (in German)



Wir freuen uns sehr, dass Sie uns nach Ihrem Stadionbesuch für unsere Befragung zur Verfügung stehen. Bitte beantworten Sie alle Fragen vollständig und in der vorgegebenen Reihenfolge. Selbstverständlich werden Ihre Angaben von uns vertraulich behandelt. Als Dankeschön für Ihre Teilnahme erhalten Sie am Ende dieser Befragung einen Code, mit dem Sie sich zusammen mit Ihrer E-Mail-Adresse bei einem Heimspiel des VfL Bochum in der Rückrunde ein Freigetränk einlösen können. Darüber hinaus nehmen Sie an zwei Verlosungen teil, bei denen Sie attraktive Preise gewinnen können: 5*2 Pokaltickets für das Spiel VfL Bochum gegen Bayern München am 20.12.2011, 1 original unterschriebenes Trikot des VfL Bochum, 3 * 2 Eintrittskarten für das Konzert von Herbert Grönemeyer am 22. Mai 2012 in Bochum und schließlich 4 Jubiläumsbücher "Anne Castrop". Für Ihre Mühe möchten wir uns bei Ihnen bereits im Voraus bedanken!

1. Bevor wir Sie zum besuchten Heimspiel befragen, möchten wir Ihnen noch eine kurze Frage zu Ihrer Person stellen: Kommen Sie ursprünglich aus Bochum?

ja nein

2. Welches Heimspiel haben Sie gesehen?

VfL Bochum - Energie Cottbus

VfL Bochum - Erzgebirge Aue

VfL Bochum - Fortuna Düsseldorf

VfL Bochum - Bayern München

3. War der Besuch beim Heimspiel des VfL Bochum für Sie ein besonderes Erlebnis?

ja nein

4. In welchem Block haben Sie das Spiel verfolgt?

Sitzplatz M Außen

Sitzplatz A

Sitzplatz N1

Stehplatz N2

Stehplatz O

Stehplatz P

Stehplatz Q

Anderer Block:

5. Wie fühlen Sie sich jetzt nach diesem Spiel? Bitte lesen Sie in jeder Zeile die jeweiligen Bewertungen auf der linken Seite und bewerten Sie Ihre Gefühle von 1 bis 5. Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

nervös						ruhig
gefasst						erstaunt
gelangweilt						interessiert
abgelenkt						konzentriert
energieelos						tatkraftig
traurig						fröhlich
unglücklich						glücklich
verärgert						erfreut
enttäuscht						begeistert
unbefriedigt						befriedigt
unzufrieden						zufrieden
gestresst						entspannt

6. Wie hat Ihnen der Besuch im Stadion insgesamt gefallen? Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

sehr schlecht 1 2 3 4 5 sehr gut

7. Wie beurteilen Sie Ihre investierte Zeit für Ihren Stadionbesuch?

hätte gern länger sein können genau richtig zu lang

8. Assoziieren Sie einen bestimmten Geruch mit dem Besuch des vergangenen Fußballspiels?

ja nein

9. wenn ja, welchen: _____

10. Wie angenehm war Ihnen dieser Geruch?

	1	2	3	4	5	
sehr unangenehm						sehr angenehm

11. Sollte Ihrer Meinung nach Rauchen im Stadion weiterhin zugelassen sein?

ja nein

12. Welche Speise ist bzw. erscheint Ihnen beim Besuch eines Fußballspiels besonders wichtig? Antworten Sie bitte unabhängig davon, ob Sie schon einmal bei einem Fußballspiel waren oder nicht.

Speisen: _____

13. Welches Getränk ist bzw. erscheint Ihnen beim Besuch eines Fußballspiels besonders wichtig? Antworten Sie bitte unabhängig davon, ob Sie schon einmal bei einem Fußballspiel waren oder nicht.

Getränke: _____

14. Sollten Ihrer Meinung nach alkoholische Getränke bei einem Fußballspiel weiterhin angeboten werden?

ja nein

15. Falls Sie für diese Begegnung oder für ein Dauerkartenticket Erfahrungen mit dem Ticketverkauf gemacht haben, bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut) die unteren Elemente. Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen. Falls Sie keine Erfahrung mit einem bestimmten Element gemacht haben, wählen Sie bitte "nicht wahrgenommen" auf der rechten Seite.

	Element nicht wahrgenommen (kreuzen Sie an, wenn "Nein")	sehr schlecht		teils-teils		sehr gut
		1	2	3	4	5
Ticketing						
Anzahl der Vertriebskanäle						
Erreichbarkeit der Vertriebskanäle						
Freundlichkeit der Mitarbeiter im Ticket-Center						
Kompetenz der Mitarbeiter im Ticket-Center						
Benutzerfreundlichkeit der Ticket-Hotline						

Wir möchten Sie nun zum "Außenbereich des Stadions" befragen.

16. Wir möchten Sie nun zum "Außenbereich des Stadions" befragen. Der Außenbereich betrifft sämtliche Teilbereiche am Stadion, welche Sie angetroffen haben, bevor Sie Ihren Sitz-/ Stehplatz im Stadioninneren aufgesucht bzw. nachdem Sie Ihren Block nach Beendigung des Spiels verlassen haben. Wie gut passt der Außenbereich des Stadions zu Ihrem Vorstellungsbild vom VfL Bochum? Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	1	2	3	4	5	
sehr schlecht						sehr gut

17-20. Bitte geben Sie für die Elemente, welche Sie bei Ihrer Anreise zum Stadion bzw. bei der Abreise vom Stadion wahrgenommen haben, eine Einschätzung, wie sehr Ihnen diese insgesamt gefallen haben. Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	Element nicht wahrgenommen (kreuzen Sie an, wenn "Nein")	sehr schlecht		teils-teils		sehr gut
		1	2	3	4	5
Bereiche während Anreise/Abreise vom Stadion:						
Bochum						

	Element nicht wahrgenommen (kreuzen Sie an, wenn "Nein")	sehr schlecht					teils-teils					sehr gut				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Verfügbarkeit und Qualität von Parkplätzen in Stadionnähe																
Kosten für öffentliche Verkehrsmittel (sehr hoch = sehr schlecht)																
Kosten für Parkplätze (sehr hoch = sehr schlecht)																
Erreichbarkeit des Stadions mit dem Pkw																
Erreichbarkeit des Stadions mit öffentlichen Verkehrsmitteln																
Erreichbarkeit des Stadions zu Fuß																
Sicherheit bei der Anreise mit Pkw																
Sicherheit bei der Anreise mit öffentlichen Verkehrsmitteln																
Sicherheit bei der Anreise zu Fuß																
Sicherheit bei der Abreise mit Pkw																
Sicherheit bei der Abreise mit öffentlichen Verkehrsmitteln																
Sicherheit bei der Abreise zu Fuß																
Wartezeiten bei Anreise (sehr lang = sehr schlecht)																
Wartezeiten bei Abreise (sehr lang = sehr schlecht)																
Ankunft am Stadion bzw. Verlassen des Stadions:																
Erscheinungsbild des rewirpowerSTADIONS von außen																
Lage des Stadions in Stadtnähe																
Beschilderung am Stadion																
Atmosphäre am Stadioncenter (vor dem Fanshoop und der Fangastronomie 8zehn48)																
Beleuchtung des Bereiches am Stadioncenter																
Musik in der Fangastronomie 8zehn48																
Stimmung in der Fangastronomie 8zehn48																
Programm auf der Leinwand im 8zehn48																
Gestaltung der Fangastronomie 8zehn48 (z. B. Schals und Bilder)																
Sauberkeit der sanitären Anlagen am Stadion-Center (vor Einlass ins Stadion)																
Wartezeiten vor den sanitären Anlagen am Stadion-Center (vor Einlass ins Stadion)																
Sauberkeit der sanitären Anlagen im Stadion (nach Einlass ins Stadion)																
Wartezeiten vor den sanitären Anlagen im Stadion (nach Einlass ins Stadion)																
Wartezeiten beim Einlass am Stadioneingang																
Atmosphäre vor Einlass ins Stadioninnere																
Verhalten der Ordnungskräfte																
Abwicklung der Sicherheitschecks beim Einlass ins Stadion																
Gastronomie:																
Anzahl der Verkaufsstände																
Auswahl an angebotenen Speisen																
Preise der angebotenen Speisen																
Qualität der angebotenen Speisen																
Auswahl an angebotenen Getränken																
Preise der angebotenen Getränke																
Qualität der angebotenen Getränke																
Wartezeiten an den Verkaufsständen																
Sauberkeit des Gastronomiebereichs																
Freundlichkeit des Gastronomiepersonals																
allgemein:																
Architektur des rewirpowerSTADIONS von außen																
Gestaltung des Außenbereiches insgesamt																
Farbegebung im Außenbereich insgesamt																
Akustik am Stadioncenter																
Atmosphäre insgesamt im Außenbereich																

21. Wie hat Ihnen der Außenbereich des Stadions insgesamt gefallen? Der Außenbereich betrifft sämtliche Teilbereiche am Stadion, die Sie angetroffen haben, bevor Sie Ihren Sitz-/ Stehplatz im Stadioninneren aufgesucht bzw. nachdem Sie Ihren Block nach Beendigung des Spiels verlassen haben. Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

sehr schlecht	1	2	3	4	5	sehr gut
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Wir möchten Sie nun zum "Innenbereich des Stadions" befragen.

22. Wir möchten Sie nun zum "Innenbereich des Stadions" und zum Fußballspiel an sich befragen. Wie gut passt Ihr Erlebnis im Innenbereich des Stadions zu Ihrem Vorstellungsbild vom VfL Bochum? Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	sehr schlecht		teils-teils		sehr gut
Innenbereich des Stadions	1	2	3	4	5

23.-26. Welche der folgenden Elemente haben Sie in Ihrem Steh-/Sitzplatzblock wahrgenommen? Bitte geben Sie für die Elemente, die Sie wahrgenommen haben, eine Einschätzung, wie sehr Ihnen diese insgesamt gefallen haben. Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

	Element nicht wahrgenommen (kreuzen Sie an, wenn "Nein")	sehr schlecht		teils-teils		sehr gut
		1	2	3	4	5
Aufenthalt im Stadion						
Sauberkeit des Sitz- oder Stehplatzbereiches in Ihrem Block						
Sitz- bzw. Stehplatzkomfort (genügend Platz)						
Beschilderung innerhalb des Stadions (Block, Reihen, Sitz-/Stehplatznummer)						
Sicht auf die Anzeigetafel						
Sicht auf das Spielfeld						
Qualität der Anzeigetafel						
Programm auf der Anzeigetafel vor Spielbeginn						
Programm auf der Anzeigetafel in Halbpause						
Programm auf der Anzeigetafel nach Spielende						
Akustik im Stadion						
Beleuchtung im Stadion (Flutlicht)						
Sicherheitsgefühl innerhalb des Stadions						
Verfolgen des Stadionprogramms/Fußballspiels:						
Programm auf Stadion-TV insgesamt vor dem Spiel (Beginn ca. 1 h vor der Begegnung)						
Einstimmung auf das Spiel mit Trainer und/oder Spieler (ca. 1 h vor Spielbeginn)						
Einlauf der Mannschaft zum Aufwärmen mit musikalischer Begleitung (ca. 40 min vor Anpfiff)						
Gefühlte Nähe der Spieler zu den Zuschauern beim Aufwärmen						
Vorbericht zum anstehenden Spiel						
Fangrufe auf Anzeigetafel (ca. 20 min vor Anpfiff)						
Musik-Auswahl insgesamt vor dem Spiel						
Spielen des Songs "Bochumer Jungen" (Jo Hartmann)						
Spielen des Songs "Wir sind die Fans vom VfL" (Jo Hartmann)						
Spielen des Songs "You'll never walk alone" (Die toten Hosen)						
Spielen des Songs "Mein VfL" (Jo Hartmann)						
Ergebnis-Tipp durch Maskottchen des Tages						
Vorstellung der Aufstellungen durch Stadionsprecher						
Rufen der Spielernamen durch die Fans bei Vorstellung der Aufstellungen						
Bilder der Spieler auf Anzeigetafel während Vorstellung der Aufstellung						
Grönemeyer-Song "Bochum" vor Spielbeginn						
Passage über den VfL Bochum im Grönemeyer-Song ("mächst mit 'nem Doppelpass jeden Gegner nass, Du und Dein VfL")						
Choreographien der Fans vor Spielbeginn						

Zeigen der VfL-Schals in der Fankurve während Spielen der Vereinssongs					
Plakate der VfL-Fans in der Ostkurve					
Musikalische Begleitung während Einlaufen der Mannschaften					
Begleitung der Spieler durch Kinder beim Einlaufen (Hand-in-Hand)					
Gefühlte Nähe der Spieler zu den Fans während des Spiels					
Atmosphäre insgesamt während des Spiels					
Einsatz der eigenen Mannschaft in der Begegnung					
Anfeuerung des VfL Bochum durch eigene Fans					
Fanlieder während der Begegnung					
Stimmung der Gästefans					
Präsentation der Sponsoren des VfL Bochum					
Emotionalität der Fans bei hitzigen Entscheidungen oder Toren					
Einblenden anderer Ergebnisse während des Spiels bzw. Fliege-Slogan bei Montagsspielen					
Rahmenprogramm/Stadion-Show insgesamt in der Halbzeitpause					
Infos rund um den VfL in der Halbzeitpause					
Halbzeitmoderation durch die beiden Stadionsprecher					
Spielen des Songs "Sex On Fire" von Kings Of Leon bei Höhepunkten der ersten Halbzeit auf Anzeigetafel					
Musik-Auswahl in Halbzeitpause					
Fliege-Beträge auf Anzeigetafel während des Spiels (z.B. 10,49 min vor Spielende)					
Werbebanden am Spielfeldrand					
Schiedsrichterleistung					
Gefühlte Nähe der Spieler zu den Fans nach dem Spiel					
Verabschiedung der Spieler durch Zuschauer nach dem Spiel					
Musik-Auswahl nach der Begegnung					
zum Informationsgehalt:					
Stadionmagazin					
Informationen über Anzeigetafel					
Informationen über Stadionansagen					
allgemein:					
Architektur des rewirepowerSTADIOns im Innenbereich					
Gestaltung des Innenbereiches insgesamt am Spieltag					
Farbgebung im Stadion					
Akustik im Stadion					
Atmosphäre im Stadion					

27. Wie gut hat Ihnen insgesamt Ihr Erlebnis im Innenbereich des Stadions gefallen? Bewerten Sie bitte auf einer Skala von 1 (sehr schlecht) bis 5 (sehr gut). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abtufen.

	sehr schlecht		teils-teils		sehr gut
	1	2	3	4	5
Innenbereich des Stadions					

28. Wenn Sie sich noch einmal Ihren gesamten Stadionbesuch vor Augen führen, was hat Ihnen besonders gut gefallen? Wofür würden Sie den VfL Bochum loben? Der "Außenbereich des Stadions" betrifft sämtliche Teilbereiche vor Einlass ins Stadion durch die Ordnungskräfte und nach Verlassen des Stadions nach Spielende. Mit "Stadioninnerem" sind sämtliche Teilbereiche nach Einlass durch die Ordnungskräfte gemeint.

- allgemein _____
- in den Bereichen:
- im Außenbereich des Stadions _____
- im Stadioninneren _____

29. Was hat Ihnen am heutigen Tag überhaupt nicht gefallen? Wofür würden Sie den VfL Bochum als Veranstalter des Events tadeln? Der "Außenbereich des Stadions" betrifft sämtliche Teilbereiche vor Einlass ins Stadion durch die Ordnungskräfte und nach Verlassen des Stadions nach Spielende. Mit "Stadioninnerem" sind sämtliche Teilbereiche nach Einlass durch die Ordnungskräfte gemeint.

- allgemein _____
- in den Bereichen:
- im Außenbereich des Stadions _____
- im Stadioninneren _____

30. Was hat Ihnen insgesamt am meisten gefallen? Denken Sie dabei bitte an den gesamten Tag und an alle verschiedenen Bereiche innerhalb und außerhalb des Stadions, welche Sie antreffen haben. Es ist nur eine Nennung möglich.

31. Haben Sie am heutigen Besuch etwas vermisst? Wenn ja, was genau?

32. Wenn Sie die Erwartungen an den heutigen Stadionbesuch rückblickend betrachten, wurden Ihre Erwartungen alles in allem überfüllt oder sogar übertroffen?

Erwartungen gar nicht erfüllt	1	2	3	4	5	Erwartungen voll und ganz erfüllt
33. Erwartungen übertroffen?	Ja		Nein			

34. Wie würden Sie nach dem Stadionbesuch Ihre Meinung über den VfL Bochum beschreiben? Bewerten Sie bitte auf einer Skala von 1 (eine viel schlechtere Meinung) bis 5 (eine viel bessere Meinung). Mit den dazwischen liegenden Werten können Sie Ihre Antworten abstimmen.

eine viel schlechtere Meinung	1	2	3	4	5	eine viel bessere Meinung
-------------------------------	---	---	---	---	---	---------------------------

35. Was assoziieren (z.B. Leistungen und Eigenschaften) Sie mit dem VfL Bochum, wenn Sie an das heutige Spiel denken?

1) _____ 2) _____ 3) _____ Kann ich keine Angabe machen: _____

36. Welche der folgenden Eigenschaften treffen nun Ihrer Meinung nach auf den VfL Bochum zu?

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Engagiert					
Regional verwurzelt					
sympathisch					
Bodenständig					
Solide					
Familiär					
Traditionsreich					
Selbstbewusst					
Innovativ					
Cool					
Konservativ					
Spontan					
Farblos					

37. Wie bewerten den VfL Bochum nun hinsichtlich folgender allgemeiner Aussagen?

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Der VfL Bochum ist ein wichtiger Bestandteil der ihn umgebenden Gesellschaft.					
Mir ist das Leitbild des VfL Bochum bekannt.					
Der VfL Bochum ist ein Bochumer Junge.					
Die Kurve, die Mitglieder, Mitarbeiter, Spieler und Partner bilden eine echte Gemeinschaft.					
Der VfL Bochum vermittelt durch leidenschaftlichen, ehrlichen und ergebnisreichen Fußball Freude, Faszination und Begeisterung.					
Der VfL Bochum bekennt sich zu seiner regionalen Identität und Tradition.					
Der VfL Bochum ist professionell.					
Der VfL Bochum ist nah.					
Der VfL Bochum ist unbeugsam.					
Der VfL Bochum ist mitreißend.					
Der VfL Bochum bekennt sich zu seiner sozialen Verantwortung.					
Der VfL Bochum nimmt jede Herausforderung an und arbeitet hart und ehrlich.					

Der VfL Bochum arbeitet vorausschauend und erfüllt den Anspruch, der Begeisterung aller Fans zu dienen.					
Der VfL Bochum ist ansprechbar und geht respektvoll, kritikfähig und geradeaus mit seinen Fans um.					
Der VfL Bochum trotz selbstbewusst den Widrigkeiten und kämpft gemeinsam gegen Rückschläge.					
Der VfL Bochum verpflichtet sich den Werten des Sports: Toleranz, Fairplay, Solidarität und Gleichheit.					

38. Wie werden Sie sich nach dem Stadionbesuch verhalten?

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Ich werde mich über den heutigen Tag beim VfL Bochum positiv äußern.					
Von meinem positiven Erlebnis im Stadion des VfL Bochum sollen auch andere erfahren.					
Ich werde einen Stadionbesuch weiterempfehlen.					
Ich werde Stadionbesuche beim VfL Bochum gegenüber anderen Fußballvereinen vorziehen.					
Ich werde das rewirpowerSTADION in naher Zukunft nochmals besuchen.					
Ich werde mir Merchandising-Artikel vom Verein kaufen.					

39. Welche persönliche Haltung haben Sie nach dem Stadionbesuch gegenüber dem VfL Bochum gewonnen?

	trifft gar nicht zu 1	2	trifft teils-teils zu 3	4	trifft voll und ganz zu 5
Der VfL Bochum spricht meine Sinne an.					
Wenn ich den VfL Bochum erlebe, empfinde ich starke Gefühle.					
Ich habe den Eindruck, dass ich viel über den VfL Bochum weiß.					
Ich fühle mich mit dem VfL Bochum und der Fußballmannschaft gut vertraut.					
Durch den VfL Bochum fühle ich mich mit anderen Menschen verbunden.					
Ich würde es bedauern, wenn es den VfL Bochum nicht mehr gäbe.					
Es wäre schade, wenn der VfL Bochum nicht mehr in der 1. Bundesliga spielen würde.					
Ich bin voll und ganz vom VfL Bochum überzeugt.					
Ich finde, dass sich der VfL Bochum deutlich von anderen Bundesligavereinen unterscheidet.					
Dieser Besuch hat mein Interesse verstärkt, weitere Spiele des VfL Bochum zu besuchen.					
Wenn ich das Geld hätte, würde ich mehr für den VfL Bochum ausgeben.					
Ich finde, dass der VfL Bochum eine Marke mit hohem Ansehen ist.					
Ich habe den Eindruck, der VfL Bochum ist gut auf zukünftige Herausforderungen vorbereitet.					

40. Wie wahrscheinlich ist es, dass Sie erneut ein Spiel des VfL Bochum besuchen? Wählen Sie eine Wert von 0 (gar nicht wahrscheinlich) bis 100 (sehr wahrscheinlich).

41. Damit wir alle Befragungsteile am Ende der Befragung problemlos zusammenführen und Sie im Falle eines Gewinnes bei der Verlosung problemlos kontaktieren können, benötigen wir ausschließlich für diese Zwecke Ihre E-Mail-Adresse:

42. Bevor wir Ihnen für die Teilnahme an dieser Befragung bedanken, möchten wir Sie gern fragen, ob wir Sie für weiterführende Fragen per E-Mail noch einmal kontaktieren dürfen.

Ja Nein

Wir bedanken uns für Ihre Teilnahme und hoffen, dass Ihnen die beiden Umfrage ein klein wenig Spaß gemacht haben. Mit dem Code "1848vfl" und Ihrer E-Mail-Adresse können Sie sich an einem Heimspieltag in der Rückrunde ein gratis-Getränk einlösen. Nähere Informationen hierzu folgen rechtzeitig vor den Spielen. Darüber hinaus nehmen Sie an zwei Verlosungen mit attraktiven Preisen teil. Viel Glück!

A4: Advert for potential survey participants posted on the VfL Bochum fan-forum 'VfL4u' (German Language)

VfL4u: Umfrage mit attraktiven Preisen

Thorti
 Mitglied seit 22.10.2012
 Beiträge: 3.423

VfL4u: Umfrage mit attraktiven Preisen

Hallo VfL-Fans,
 nachdem unsere Mannschaft ja langsam aber sicher in Form zu kommen scheint, habt Ihr jetzt die Gelegenheit, im Falle vollständiger Beantwortungen unserer online-Fragebogen (90%) sehr attraktive Preise zu gewinnen und mich im Rahmen einer wissenschaftlichen Untersuchung zu unterstützen.

So läuft das Ganze ab:

Im Rahmen unserer Untersuchung möchte ich mich auf zwei Teilgruppen konzentrieren:

- 1) Oberliga-Mannschaften bzw. regionale Fußballvereine der VfL Bochum - ich gelbe davon aus, das die meisten Forumsteilnehmer hier dieser Gruppe angehören
- 2) Erstbesucher - diese Gruppe vor mich nie bei einem Heimspiel der VfL Bochum

Die Befragung wird an den nächsten drei Heimspielen gegen Cottbus, Aue und Düsseldorf durchgeführt, wobei Erstbesuchern in diesen Partien jeweils 50 Freitickets zur Verfügung gestellt werden. Diese Karten sind in Sitzplätze und Stehplatztickets in bzw. direkt neben der Osttribüne aufgeteilt.

Zwei Tage vor der jeweiligen Begegnung wird jedem Teilnehmer per E-Mail ein erster Link zu einer online-Befragung zugesprochen, welche vor dem Spiel online ausgefüllt werden muss. Nachdem Ihr die Link dann bei im Stadion verfolgt habt, wird Euch am Nachmittage (nach dem Spiel gegen Aue und Düsseldorf) bzw. am Abend des Sonntag (nach dem Spiel gegen Cottbus) ein zweiter Link zugesandt, dessen Befragung Ihr innerhalb 24 Stunden beantworten müsst. Das Ausfüllen jedes Fragebogens verneint ca. 10 Minuten Eure Zeit in Anspruch. Die vollständige Beantwortung beider Fragebögen rechnet Ihr automatisch an den unten beschriebenen Verlosungen teil und führt bereits ein Grate-Platz in der Rückrunde sicher!


Was gewinnt Ihr gewonnen?

- 1) Jeder Teilnehmer erhält nach Beantwortung des zweiten online-Fragebogens einen Code, mit dem er sich bei mir zusammen mit seiner E-Mail-Adresse bei einem Heimspiel in der Rückrunde ein Frege einlösen kann.
- 2) Einen Tag nach dem Heimspiel gegen Fortuna Düsseldorf (31. Dezember) werden unter allen Teilnehmern 5 Tickets für das Pokalspiel gegen Bayern München verlost.
- 3) Zu guter Letzt kann jeder Teilnehmer an einer weiteren Verlosung zwei Tage nach dem Pokalspiel (21. oder 22. Dezember) mit etwas Glück „als Wiederholungsbesucher“ die folgenden Preise gewinnen:

- 1 von allen Spielern original unterschriebenes VfL Trikot
- 3 * 2 Tickets für das Sommerkonzert in Bochum am 22. Mai 2012
- 4 * 100 Euro-Gutscheine für den VfL Bochum "New Campus"

Wie könnt Ihr teilnehmen?

Um an der Umfrage teilnehmen zu können, benötigt ich hier bei VfL4u per PM Eure E-Mail-Adresse. Diese misst Ihr dann bei beiden online-Fragebögen angeben.

Falls Ihr Freunde oder Bekannte habt, die noch nie ein Spiel der VfL Bochum besucht haben, das aber schon lange genug bei mir wohnt, stellt ich pro VfL4u-Mitglied maximal fünf Freitickets für Erstbesucher zur Verfügung, benötigt jedoch für jeden Teilnehmer das entsprechende Heimspiel sowie die jeweilige E-Mail-Adresse. Für die persönliche „Verhandlung“ mit Eurem Freunden  kontaktiert Ihr Eure Gemeindefanseite bei den beiden Verlosungen ebenfalls möglich. Jede E-Mail-Adresse ist allerdings nur einmal zugelassen!

Da die Freitickets im Sitz- und Stehplatzbereich pro Heimspiel begrenzt sind, können Wünsche nur solange erfüllt werden, bis die Karten in den verschiedenen Blöcken vergriffen sind. Hier ich zuerst per PM meldet, macht zuerst.

Die Tickets für Erstbesucher können bei mir jeweils 2 Stunden vor Beginn des jeweiligen Heimspiels im „3048“ abgeholt werden. Voraussetzung ist, dass der erste online-Fragebogen vollständig ausgefüllt wurde (vermeintliche Fragebogen in Papierform werden ich für Nachfälle im „3048“ parat haben).

Ich würde mich wirklich sehr freuen, wenn sich hier zahlreiche Forumsteilnehmer bereit erklären, mich bei diesem Projekt zu unterstützen!

Bei Nachfragen könnt Ihr Euch natürlich gerne bei mir melden.

Mit Besten Wünschen,
 Thorti

Dieser Beitrag wurde 7 mal editiert, zum letzten Mal von Thorti: 30.11.2011 09:33.

A5: Advert for potential survey participants posted on the forum 'Xing' (in German)

The image shows a screenshot of a forum post on the Xing platform. The user profile on the left is for Thorsten Thiem, with a 'Laden' button. The forum title is 'VfL Bochum - Unbeugsam seit 1848!'. The post is titled 'VfL-Untfrage mit attraktiven Preisen (auch Bayern-Tickets)'. The text of the post is as follows:

Hallo VfL-Fans!

Nachdem unsere Mannschaft ja langsam aber sicher in Form zu kommen scheint, habe ich jetzt die Gelegenheit, in Form vollständiger Beobachtungen sowie online Fragebögen sehr attraktive Preise zu gewinnen und mich bei einer wissenschaftlichen Untersuchung im Rahmen einer Dissertation zu unterstützen.

So läuft das Ganze ab:

In meiner Untersuchung möchte ich mich auf zwei Teilgruppen konzentrieren:

- 1) Dauerkarteninhaber bzw. regelmäßige Besucher des VfL Bochum
- 2) Erstbesucher - diese Gruppe war noch nie bei einem Heimspiel des VfL Bochum

Die Befragungen werden an dem nächsten dem Heimspiel gegen Celtic, Aus und Düsseldorf durchgeführt, wobei Erstbesuchern in diesem Punkt jeweils 50 Freikarten zur Verfügung gestellt werden. Diese Karten sind in Stadion- und Startplatztickets in bzw. direkt neben der Tribüne aufzuhängen.

Zwei Tage vor der jeweiligen Begegnung wird jedem Teilnehmer per E-Mail ein erster Link zu einer online-Fragebogen zugewiesen, welche vor dem Spiel online ausgefüllt werden muss. Nachdem in das Spiel dann live im Stadion verfolgt habe, wird Euch am Abend nach dem Spiel gegen Celtic(s) bzw. am Nachmittag des Spieldates noch dem Spiel gegen Aus und Düsseldorf ein zweiter Link zugewiesen, welchen Begegnung für insgesamt 24 Stunden beantwortet werden soll. Das Ausfüllen dieser Fragebogen nimmt ca. 10 Minuten Eurer Zeit in Anspruch. Bei vollständiger Beantwortung werden Fragebögen selbst bei automatisch an dem unten beschriebenen Verfassungsvertrag mit und habe bereits ein Gratis-Flyer in der Rückrunde sicher!

Im Prinzip handelt es sich in den Umfragen um Zufallsbefragungen, bei der die

A6: SmartPLS blindfolding settings

Run the Blindfolding Algorithm
Applies the standard blindfolding procedure.

Missing Values - Settings

Data File: 20130216 Database_IV final.csv
Configured Missing Value: -9999.0
Missing Value Algorithm: Mean Replacement
Apply Missing Value Algorithm:

PLS Algorithm - Settings

Blindfolding - Settings

Omission Distance: 7

Constructs

- Ticketing
- Outside SAT
- Total SAT
- Travel
- Outside area
- Catering
- Inside SAT
- HT/after
- Game
- Before
- Verbal inside
- Intention
- Confucius

Finish Cancel

A7: SmartPLS algorithm settings

Run the PLS Algorithm Algorithm
Applies the standard PLS procedure.

Missing Values - Settings

Data File: 20130216 Database_FV final.csv
Configured Missing Value: -9999.0
Missing Value Algorithm: Mean Replacement
Apply Missing Value Algorithm:

PLS Algorithm - Settings

Weighting Scheme: Path Weighting Scheme
Data Metric: Mean 0, Var 1
Maximum Iterations: 3000
Abort Criterion: 1.0E-5
Initial Weights: 1.0

Finish Cancel

A8: SmartPLS bootstrapping settings (example: frequent visitors)

Run the Bootstrapping Algorithm
Applies the standard bootstrapping procedure.

Missing Values - Settings

Data File	20130216 Database_FV final.csv
Configured Missing Value	-9999.0
Missing Value Algorithm	Mean Replacement
Apply Missing Value Algorithm	<input checked="" type="checkbox"/>

PLS Algorithm - Settings

Weighting Scheme	Path Weighting Scheme
Data Metric	Mean 0, Var 1
Maximum Iterations	3000
Abort Criterion	1.0E-5
Initial Weights	1.0

BT Bootstrapping - Settings

Sign Changes	No Sign Changes
Cases	151
Samples	1000

Finish Cancel

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