

Private Banking Rating

Evaluating Private Banking Providers from a Customer's Perspective

Inaugural Dissertation

in Partial Fulfillment of the Requirements for the Degree of
Doctor Rerum Politicarum (Dr. rer. pol.)

WHU – Otto Beisheim School of Management

Submitted by
Tim Krume

August, 2013

Supervisor: Prof. Dr. Markus Rudolf
Co-Supervisor: Prof. Dr. Sabine Rau

Acknowledgments

I would like to express my deepest gratitude to my supervisor Professor Markus Rudolf for his guidance, valuable advice, and encouragement throughout the development of this doctoral thesis. Furthermore, I would like to thank Professor Sabine Rau for her constructive comments and for being my co-supervisor. Moreover, I would like to thank my family for immeasurable support. In particular, my partner Stephanie Bauwens and my father Michael Krume have substantially supported my ambitions. Finally, I also want to thank my colleagues from the Center of Private Banking and Chair of Finance for valuable discussions and comments.

Contents

Contents	II
List of Tables	IV
List of Figures	V
List of Abbreviations	VI
List of Essential Symbols	VIII
1 Introduction	1
2 Service Quality and Customer Satisfaction: Reviewing the Literature with a Private Banking Perspective	5
2.1 Introduction	5
2.2 Theoretical Foundations	6
2.3 Service Quality	9
2.3.1 Traditional Service Quality Models	11
2.3.2 Advancements of Service Quality Models	15
2.3.3 Service Quality in Private Banking	18
2.4 Customer Satisfaction	19
2.4.1 Customer Satisfaction in Private Banking	24
2.5 Consequences of Service Quality and Customer Satisfaction	24
2.6 Conclusion	28
2.7 Appendix	31
3 Service Quality in Private Banking: A Holistic Perspective on Antecedents and Consequences	35
3.1 Introduction	35
3.2 Theoretical Background	37
3.2.1 The Service Quality Model	37

3.2.1.1	The Qualitative Study	39
3.2.2	Customer Satisfaction and Behavioral Intentions	40
3.3	Model and Hypotheses	42
3.3.1	Moderating Effects	46
3.4	Methodology	48
3.4.1	Measure Development	48
3.4.2	Data Collection and Sample	49
3.4.3	Measure Assessment	53
3.5	Results	57
3.5.1	Results Related to Main Effects	57
3.5.2	Results Related to Moderating Effects	60
3.5.3	Robustness Checks	62
3.6	Discussion	64
3.6.1	Research Issues	64
3.6.2	Managerial Implications	66
3.7	Appendix	69
4	Customer Satisfaction in Private Banking: An Extended Perspective	72
4.1	Introduction	72
4.2	Theoretical Background	74
4.3	Model and Hypotheses	76
4.3.1	Mediating and Moderating Effects	79
4.4	Methodology	80
4.4.1	Measure Development	80
4.4.2	Data Collection and Sample	82
4.4.3	Measure Assessment	85
4.5	Results	86
4.5.1	Results Related to Main Effects	86
4.5.2	Results Related to Mediating Effects	88
4.5.3	Results Related to Moderating Effects	91
4.5.4	Robustness Checks	94
4.6	Discussion	95
4.6.1	Research Issues	96
4.6.2	Managerial Implications	98
4.7	Appendix	100
5	Conclusion	102
	Bibliography	IX

List of Tables

2.1	Selected Satisfaction Indices and their Determinants	23
2.2	Behavioral Intentions Variables as Consequence (Selected Studies)	32
2.3	Behavioral Variables as Consequence (Selected Studies)	33
2.4	Financial Variables as Consequence (Selected Studies)	34
3.1	Analysis of Measurement Invariance	53
3.2	Measurement Statistics including Correlations	56
3.3	Summarized Results of Hypotheses	62
3.4	Results of Moderating Effects (Length of Relationship)	63
3.5	Results of Alternative Models	64
3.6	Results of the Qualitative Study	69
3.7	Scale Item Statistics	69
4.1	Descriptive Statistics	83
4.2	Analysis of Measurement Invariance	85
4.3	Measurement Statistics including Correlations	86
4.4	Summarized Results of Hypotheses	89
4.5	Results of Mediating Effects	92
4.6	Results of Moderating Effects (Time Period)	94
4.7	Results of Moderating Effects (Provider Type)	94
4.8	Results of Alternative Models	95
4.9	Scale Item Statistics	100

List of Figures

2.1	The Disconfirmation Paradigm	8
2.2	The Nordic Model	12
2.3	The American SERVQUAL Model	14
2.4	The Three-Component Model	17
2.5	The Hierarchical Model	18
2.6	The Consequences of Service Quality and Customer Satisfaction	25
3.1	Model and Hypotheses Overview	47
3.2	Results of Model Estimation	61
4.1	Model and Hypotheses Overview	79
4.2	Results of Model Estimation	88

List of Abbreviations

ACSI	American customer satisfaction index
ADV	Adviser
AMB	Ambience
AuM	Assets under management
AVE	Average variance extracted
BCG	The Boston Consulting Group
cf.	confer (compare)
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CR	Composite reliability
CUL	Customer loyalty
CUS	Customer satisfaction
df	Degrees of freedom
Dr. rer. pol.	Doctor rerum politicarum
E	Expectations
e.g.	exempli gratia (for example)
ECSI	European customer satisfaction index
ed.	Edition
EM	Expectation maximization
ENQ	Environment quality
et al.	et alii (and others)
etc.	et cetera (and so on)
EXP	Expertise
FL	Factor loading
Geo.	Geographical
HKCSI	Hong Kong consumer satisfaction index
HNWI	High net worth individual
i.e.	id est (that is)
INP	Investment proposal

INQ	Interaction quality
IR	Item reliability
M	Mean
MAR	Missing at random
MCAR	Missing completely at random
n.s.	Not significant
OUQ	Outcome quality
P	Performance
p.	Page
PBs	Private banks
PER	(Portfolio) performance
PEV	Perceived value
PLS	Partial least squares
PRO	Product offering
Prof.	Professor
REA	Reachability
RMSEA	Root mean square error of approximation
ROI	Return on investment
SCSB	Swedish customer satisfaction barometer
SD	Standard deviation
SEM	Structural equation modeling
SOC	Social competence
SRMR	Standardized root mean square residual
Telecom.	Telecommunications
WHU	Wissenschaftliche Hochschule für Unternehmensführung – Otto Beisheim School of Management

List of Essential Symbols

A+, AA–	Examples from Standard & Poor’s credit rating scale
η	Latent endogenous variable
ξ	Latent exogenous variable
β_{ij}	Coefficient for the regression relation between the latent endogenous variable i and the latent endogenous variable j
γ_{ij}	Coefficient for the regression relation between the latent endogenous variable i and the latent exogenous variable j
χ^2	Chi square statistic
Δ	Change
H	Hypothesis
i	Order statistic
n	Number of observations
p	p -value
t	t -value
%	Percent
\$	U.S. dollar
\$ x M	x Million U.S. dollar
x M Euro	x Million Euro
✓	Confirmation of hypothesis
✗	No confirmation of hypothesis
=	Equal to
>	More than
<	Less than
≤	Less than or equal to
+	Positive effect

Chapter 1

Introduction

When depicting today's private banking market, it is imperative to make balanced allowances for opportunities and challenges. For instance, opportunities can be found in the market potential as indicated by recent figures: on a global level, the private financial wealth has experienced an increase of $\sim 2\%$ in 2011 amounting to \$122.8 trillion (BCG, 2012). This is also reflected in the global number of millionaire households, which has increased by 175,000 to reach 12.6 million in 2011 (BCG, 2012). Also, in a local context (i.e., Germany) the number of millionaire households has increased from 320,000 in 2010 to 345,000 in 2011, indicating a growth rate of $\sim 8\%$ (BCG, 2012).

Despite this potential, the private banking industry is confronted with a variety of challenges although it has long been associated with healthy profit margins, stable growth rates, and limited capital requirements (McKinsey & Company, 2012). More precisely, the financial crisis has left the industry with severe repercussions. Considering the firm side, a large share of providers is struggling with a decrease in profitability and asset outflows (McKinsey & Company, 2012). Considering the customer side, an increase in sensitivity is observable, which has manifested itself in a combination of higher demand for service quality and lower levels of satisfaction and loyalty than before the crisis (McKinsey & Company (2012); BCG (2012); McKinsey & Company (2011); McKinsey & Company (2010)). In this context, particularly the developments on the customer side are alerting given that private banking is a "people's business" associated with high contact (Lassar et al., 2000) and high involvement (Cronin and Taylor, 1992). Moreover, "*Private banking is an integrated, individual- and needs-oriented financial and risk planning service for (...) [wealthy individuals] who require individualized advice*" (Horn and Rudolf, 2011, p. 176). Naturally, in such a business environment service quality and customer satisfaction are likely to be critical factors for the success of the providers. This seems especially true when considering that the relationships between customers and providers usually have a

long-term orientation and are supposed to be founded on discretion and trust (Horn and Rudolf, 2011).

Against this backdrop, it can be deduced that the need to understand issues involving service quality and customer satisfaction has seldom been more topical in private banking than today. On the one hand, customers have the need to understand which providers offer the highest level of service quality and satisfaction. On the other hand, providers need to understand how service quality and customer satisfaction decisions are determined. Moreover, they need to understand how service quality and customer satisfaction are related to each other. Finally, they need to understand how service quality and customer satisfaction are linked to potential consequences, such as behavioral intentions of customers.

In academia, research involving service quality, customer satisfaction, and behavioral intentions has been on the agenda for decades. However, a glance at the literature points to relevant research gaps in the field of private banking, of which three are in the focus of this thesis. First, an entire research stream has devoted itself to the theoretical and empirical investigation of service quality decisions. Seminal models have emerged, such as the Nordic model (Grönroos, 1984), the American SERVQUAL model (Parasuraman et al. (1985); Parasuraman et al. (1988)), or the hierarchical model (Brady and Cronin, 2001). A common theme accompanying these models is their generic structure. While this seems advantageous when comparing service quality across industries, a generic model structure also imposes some drawbacks. In fact, some scholars raise concerns by arguing that these models fail to account for the specificity and complexity of some industries (e.g., Brady and Cronin (2001); Babakus and Boller (1992); Carman (1990)). Stated differently, when the center of attention rests on a single industry it seems more appropriate to account for industry specific determinants. In the field of private banking, a first contribution in this direction is offered by Horn and Rudolf (2011), who propose an industry specific model conceptualized from the perspective of the provider. Nonetheless, no research has yet identified and analyzed private banking specific service quality determinants as perceived by customers. Hence, there is a gap in the literature that needs to be filled in order to understand how private banking customers determine service quality.

Second, the literature offers a variety of theoretical and empirical research occupied with satisfaction decisions. Seminal models, like the Swedish customer satisfaction barometer (Fornell, 1992), or the American customer satisfaction index (Fornell et al., 1996) have been developed to measure satisfaction across industries. Again, criticism is raised since the generic models fail to account for industry specific requirements (e.g., Martensen et al. (2000); Fornell (1992)). Thus, for customer satisfaction models the same advice applies, namely that it is more appropriate to account for industry specific deter-

minants when the focus rests on a single industry. In the field of private banking, Seiler (2011) makes a contribution by developing and testing an industry specific customer satisfaction model. Nevertheless, the underlying dataset in Seiler (2011) is not large enough to adequately test and confirm theory with a covariance based structural equation model. Moreover, since the analysis is based on a single cross-sectional dataset there is no proof if the relationships in the model are constant over time. Collectively, this leaves a gap in the literature, which could be filled by conducting a large scale empirical analysis of a private banking specific customer satisfaction model using data from different time periods.

Third, the literature also sheds light on the relationships between service quality, customer satisfaction, and behavioral intentions. In this context, it is striking that a large share of studies simultaneously account for service quality and customer satisfaction as antecedents when measuring behavioral intentions (e.g., Dagger et al. (2007); Cronin et al. (2000); Dabholkar et al. (2000); Cronin and Taylor (1992)). Cronin et al. (2000) even accentuate the importance to simultaneously account for service quality and customer satisfaction when behavioral intentions are to be assessed. Moreover, Cronin et al. (2000) argue that the relationships are likely to differ across industries. With reference to the private banking industry, a gap can be revealed since such a comprehensive analysis involving the relationships between service quality, customer satisfaction, and behavioral intentions is not yet existent.

Collectively, this doctoral thesis contributes to the literature by filling these research gaps. Hence, three specific goals are formulated, which culminate in the overriding objective to advance the understanding of service quality and customer satisfaction in private banking. The first goal is to identify the relevant private banking specific service quality determinants as perceived by private banking clients. This is accomplished by employing a qualitative study based on in-depth interviews among private banking clients and experts. The second goal is to investigate the relationships between service quality, customer satisfaction, and behavioral intentions in private banking. For this purpose, an industry specific holistic model is developed, which is based on the insights from the qualitative study and an extensive literature review. The empirical analysis of this model is achieved by applying covariance based structural equation modeling and survey data from 406 private banking clients. The third goal consists of two parts. Part one is to conduct a large scale empirical analysis of a private banking specific customer satisfaction model. Part two is to analyze if the relationships in the model are constant over time. This second model is derived based on the insights provided by Seiler (2011). The empirical analysis is conducted using covariance based structural equation modeling and survey data from 985 private banking clients from three time periods. Altogether, it is this pro-

posed combination of theoretical, qualitative, and empirical research that advances the understanding of service quality and customer satisfaction in private banking.

As a supplement, the insights of this thesis have a high practical value. To be precise, both empirical models can be utilized as rating instruments to evaluate private banking providers in terms of service quality and customer satisfaction, respectively. Since such ratings are based on real customer data they offer benefits for customers and providers on at least three levels. First, they allow to shed light on the strengths and weaknesses of private banking providers as perceived by customers. Second, they provide a means to compare individual providers and thus uncover their competitive positioning in terms of service quality and customer satisfaction. Third, they are able to shed light on the most influential determinants of service quality and customer satisfaction. All in all, these ratings have the potential to improve the service landscape in private banking by advancing the understanding of service quality and customer satisfaction for all market participants.

With respect to the structure, this thesis is organized as follows: chapter 2 offers an integrated review of service quality and customer satisfaction literature, thereby paying particular attention to private banking services. In this respect, general and private banking specific literature is used to shed light on the current stage of knowledge in both literature streams and to point to relevant research gaps in the field of private banking. Based on these research gaps three specific goals are formulated and addressed in the empirical studies presented in chapter 3 and 4, respectively. More precisely, in chapter 3 two goals are addressed by combining qualitative and empirical research: first, a qualitative study is used to identify private banking specific service quality determinants as perceived by private banking clients. Second, the insights of the qualitative study are incorporated in an industry specific holistic model to investigate the relationships between service quality, customer satisfaction, and behavioral intentions in private banking. Chapter 4 addresses the final goal, which involves two parts. First, a large scale empirical analysis of a private banking specific customer satisfaction model. Second, an examination whether the relationships in the model are constant over time. Chapter 5 summarizes key findings, discusses overall limitations, and addresses directions for further research.

Chapter 2

Service Quality and Customer Satisfaction: Reviewing the Literature with a Private Banking Perspective

2.1 Introduction¹

Service quality and customer satisfaction are essential topics in any service industry, most notably because they are drivers for customer loyalty and the firm's financial success (e.g., Fornell et al. (2006); Chiou and Droge (2006); Ittner and Larcker (1998); Fornell et al. (1996)). Nevertheless, for the private banking industry a discussion of these topics has seldom been more critical than today. This is particularly true, since the private banking industry - which is generally known as a "people's business" with high contact intensity and high involvement (e.g., Lassar et al. (2000); Cronin and Taylor (1992)) - continues to suffer from the aftermath of the financial crisis. Especially on the customer side, we find lower levels of satisfaction and loyalty paired with a higher demand for service quality than before the crisis, suggesting an increase in customer sensitivity (McKinsey & Company (2012); BCG (2012); McKinsey & Company (2011); McKinsey & Company (2010)). Simultaneously, we find that the profitability of the industry is 30% below pre-crisis levels (McKinsey & Company, 2012). Naturally, managers need to react to the unfavorable developments regarding customer sensitivity and profitability. However, as it seems likely that these developments are intertwined, the first step should be to understand how customers perceive the service encounter. In fact, this involves developing a sound understanding of the issues involving service quality and customer satisfaction.

¹This chapter is based on a homonymous unpublished working paper (Krume, 2013a).

This chapter has the objective to contribute to this understanding by providing an integrated review of service quality and customer satisfaction literature, paying particular attention to the perspective of private banking services. We draw on general and private banking specific literature to provide a comprehensive overview of theoretical foundations and developments in both literature streams. In this context, we are especially interested in how the literature defines, conceptualizes, and measures service quality and customer satisfaction in general and how this knowledge is transferred to private banking. In addition, we are interested in how service quality and customer satisfaction are linked to customer behavior and the financial performance of firms. Ultimately, our goal is to identify avenues for further research, particularly in the field of private banking.

To address the objective, the remainder of this chapter is structured as follows: section 2.2 examines the theoretical foundations of service quality and customer satisfaction. Afterwards, an overview of the service quality literature is provided in section 2.3, which includes a discussion of traditional and advanced service quality models as well as a discussion of extant research of service quality in private banking. Section 2.4 presents an overview of the customer satisfaction literature, which also entails a discussion of general and private banking specific research. Section 2.5 illuminates extant findings of behavioral and financial consequences of service quality and customer satisfaction. Concluding remarks and further research directions are presented in section 2.6.

2.2 Theoretical Foundations

Literature on service quality is to a large extent influenced by advancements in the customer satisfaction literature (Brady and Cronin, 2001). As a result, it is not surprising that both literature streams also share a common theoretical foundation. In fact, seminal studies have agreed that variables such as the *expected performance* of a certain product or service, the *actual performance*, and the *disconfirmation*² of expectations are essential determinants when it comes to the formation of satisfaction or quality decisions (e.g., Tse and Wilton (1988), Churchill and Surprenant (1982), Oliver (1980), Oliver (1977); Olshavsky and Miller (1972); Cardozo (1965)). Despite yielding consensus on the determinants, disagreement has remained in attempts to explain their underlying relationships. Several psychological theories have served as a basis, which offer diverging explanations.

²Disconfirmation is the difference between actual performance and expected performance (Yi, 1990). Disconfirmation results when the actual performance is higher (positive disconfirmation) or lower (negative disconfirmation) than the initial expectation. Confirmation is established when performance meets expectations (Oliver, 1977).

Among the most prominent are the contrast theory (Cardozo, 1965) and the cognitive dissonance theory (Festinger, 1957).

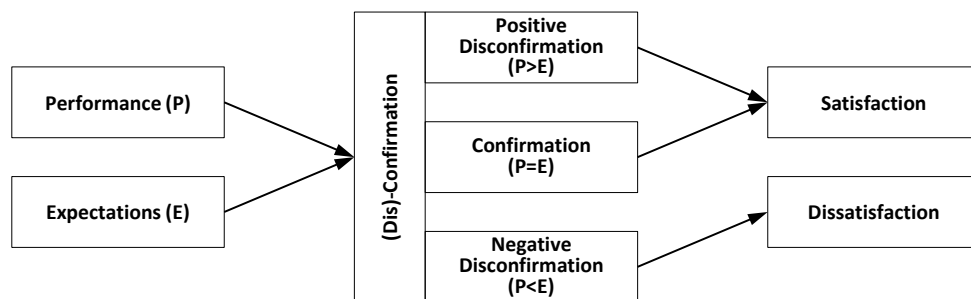
According to the contrast theory, disparities between expected and actual performance are likely to be augmented by the customer in the evaluation process (Cardozo, 1965). The result is an evaluation (e.g., in the form of satisfaction decisions) that is in accordance with the magnitude of the disconfirmation experience (Oliver, 1977). It follows that a negative disconfirmation adversely affects the evaluation, while a positive disconfirmation has a positive effect on the evaluation (Yi, 1990). In other words, service or product evaluations are primarily a function of the disconfirmation effect (Oliver, 1977). Empirical support for this contrast effect is provided in a laboratory study by Cardozo (1965), who finds that the evaluation of ball pens is lower when expectations exceed performance than when expectations are met. Similarly, Cohen and Goldberg (1970) find that the evaluation of instant coffee brands is primarily a function of the disconfirmation experience.

From the perspective of the cognitive dissonance theory the opposite effect is assumed (Cardozo, 1965). More precisely, it is assumed that a customer's disconfirmation experience results in dissonance, which is equatable to a state of psychological discomfort (Festinger, 1957). The customer is inclined to reduce this discomfort by reducing the perceived disparity between the expected and actual performance (Yi, 1990). One option is to adjust the product or service evaluation in favor of the initial expectations (Cardozo, 1965). Consequently, the theory assumes that service or product evaluations are primarily a function of the initial expectations (Oliver, 1977). Expectations that are higher than the actual performance result in better evaluations compared to expectations that are equal to or below performance (Yi, 1990). The underlying implication is that marketers are encouraged to overstate the quality of a certain product or service, as overstatement increases expectations and ultimately has a positive effect on the customer's evaluation (Yi, 1990). In a study on tape recorders, Olshavsky and Miller (1972) find support for this theory. They show that overstatement (i.e., negative disconfirmation) leads to more favorable evaluations, and understatement (i.e., positive disconfirmation) to less favorable evaluations. Likewise, Olson and Dover (1979) find a dissonance effect in an experimental study on the evaluation of grounded coffee. In summary, we observe that the literature provides support for either school of thought. In line with this, it can be inferred that customer evaluations are either a function of disconfirmation (i.e., contrast effect) or a function of expectations (i.e., dissonance effect).

In awareness of these opposing findings, Oliver (1977) takes a more moderate position and advises against an enforcement of such extreme views on the evaluation process. Instead, Oliver (1977) proposes "that *both* expectation and disconfirmation explanations

are needed to fully specify the level of postexposure evaluations” (p.482). In the same article, Oliver (1977) also provides empirical confirmation for this assumption by revealing that the effects of expectations and disconfirmation are equally significant and at the same time independent from each other. As a result, Oliver (1980) views the effects of expectations and disconfirmation as an additive combination in the evaluation process. Further, Oliver (1980) explains this additive relationship in the context of satisfaction decisions by arguing that expectations are likely “to create a frame of reference about which one makes a comparative judgment” (p. 460). It follows, if the actual performance meets expectations (confirmation) or exceeds expectations (positive disconfirmation), the evaluation of satisfaction is neutral or positive, respectively. However, if the actual performance falls short on expectations (negative disconfirmation), a negative evaluation seems likely (e.g., Yi (1990); Churchill and Surprenant (1982); Oliver (1980)). A schematic depiction of this expectation-disconfirmation paradigm (short: disconfirmation paradigm) is presented in figure 2.1.

Figure 2.1: The Disconfirmation Paradigm



Notes: illustration is schematic. The studies of Oliver (1980), Churchill and Surprenant (1982), and Oliver (1993a) served as inspiration.
 P = Performance, E = Expectations.

Theoretical support for the disconfirmation paradigm can be derived from the adaptation level theory, as proposed by Helson (1948) and Helson (1964). The rationale behind this theory is that the perception of certain stimuli only occurs in relation to an adapted standard (Oliver (1980); Helson (1964)). The standard itself is a function of the respective product or service, the context, and individual characteristics (Oliver, 1980). Oliver (1980) argues that an individual's expectation level is comparable to the adaptation standard (i.e., adaptation level), and that subsequent deviations from this level are caused by the magnitude of the disconfirmation experience. In a study on flu inoculation, Oliver (1980) finds empirical support for this assumption. Moreover, Oliver (1980) finds a significant and positive effect of disconfirmation and concludes “that the disconfirmation effect is at least as potent as the effect attributed to expectation” (p.

466). Likewise, Bearden and Teel (1983) also find that satisfaction decisions are significantly and positively influenced by expectations and disconfirmation effects in a study on automobile services.

According to the above discussion one could conclude that evaluations of quality or satisfaction decisions are significantly affected by expectations and disconfirmation effects. Although this seems plausible under consideration of the presented findings, there are other reputable studies that have come to different conclusions. For instance, in a study on durable goods, Churchill and Surprenant (1982) analyze the effects of expected performance, perceived performance, and disconfirmation on customer satisfaction. They conclude that satisfaction is not affected by expectations and disconfirmation, but solely by the performance. The direct influence of performance on satisfaction is further corroborated by Tse and Wilton (1988) in a study on miniature record players. Accordingly, we can summarize that the conceptualization and analysis of quality or satisfaction decisions is an utterly complex and inconclusive endeavour. With focus on services, we will shed more light on both literature streams.

2.3 Service Quality

Before reviewing traditional and advanced models of service quality it seems relevant to clarify the meaning behind the notions of *service* and *quality*. Starting with the former, Reeves and Bednar (1994, p. 426) provide a sound understanding of services by differentiating them from products. They argue that opposed to products, services are (1) intangible, (2) simultaneously produced and consumed, (3) likely to involve the customer in the production, (4) extremely perishable, and (5) rather a process than a thing. Similarly, Parasuraman et al. (1985, p. 42) accentuate three traits that differentiate services from products: intangibility, heterogeneity, and the inseparability of production and consumption. As a result of these differences, it seems wisely to evaluate the quality of services with a different yardstick than the quality of physical goods (Parasuraman et al., 1988).

Next to being distinct from physical goods, it should be highlighted that services can further be sub-divided into diverse categories. Broadly speaking, one can differentiate services according to their contact intensity (e.g., Mittal and Lassar (1998); Chase (1981)) and / or degree of involvement (e.g., Chiou and Droge (2006); Cronin and Taylor (1992)). Concerning the former, Chase (1981, p. 701-702) proposes three service groups with decreasing contact intensity: the first group is described as pure services (i.e., high contact services), in which the dominant part of the service delivery takes place in the

presence of customers. Examples include medical care or gastronomy. The second group, mixed services (i.e., mid contact services) reflects a combination of face-to-face and back office activities. Examples include postal services or dry cleaning. Quasi-manufacturing (i.e., low contact services) depicts the last group, and is associated with almost no face-to-face contact. Suitable examples are online or catalogue selling services. With respect to involvement, services can also vary from high to low involvement. Since involvement “reflects the inherent need fulfillment, value expression, or interest the consumer has” (Mano and Oliver, 1993, p. 452), high involvement services are more relevant to consumers than low involvement services. Accordingly, high involvement services are associated with a close customer relationship, are built on trust, and involve specific asset investments (e.g., monetary assets, personal relationships, etc.) (Chiou and Droge, 2006). Examples of high involvement services are financial services or health care. Examples of low involvement services include fast food or dry cleaning (Cronin and Taylor, 1992).

With regard to private banking, the above discussion confirms the previously stated argument that it constitutes a high contact and high involvement service industry (Lassar et al. (2000); Cronin and Taylor (1992)). This is particularly true since “*private banking is an integrated, individual- and needs-oriented financial and risk planning service for (...) [wealthy³ individuals] who require individualized advice*” (Horn and Rudolf, 2011, p. 176). Moreover, the client-provider relationships in private banking are built on discretion and trust, and are intended to have a long-term focus (Horn and Rudolf, 2011).

Turning to the notion of quality, the literature provides a diverse set of definitions. For instance, before the industrialization quality has been described rather generically as “excellence” or “value” (Reeves and Bednar, 1994, p. 420). During the industrialization the definition has been refined, in order to account for objective quality measures for produced goods (Reeves and Bednar, 1994). One commonly accepted definition from that time is “quality is conformance to specifications” (Reeves and Bednar, 1994, p. 421). Although this definition facilitates precise measurement of physical goods, it fails to address characteristics that are unique to services (Reeves and Bednar, 1994, p. 423). In fact, since services can hardly be assessed purely by objective measures, Parasuraman et al. (1988) argue that the quality of services can best be assessed through the perception of customers. It follows that today’s most propagated definition of quality “is the extent to which a product or service meets and/or exceeds a customer’s expectations” (Reeves and Bednar, 1994, p. 423). This consumer based definition is also the foundation for the traditional service quality models (e.g., Grönroos (1984); Parasuraman et al. (1985)).

³There is no uniform minimum investment threshold among private banking providers. However, on average, the threshold lies around 250,000 Euro (Horn and Rudolf, 2011).

2.3.1 Traditional Service Quality Models

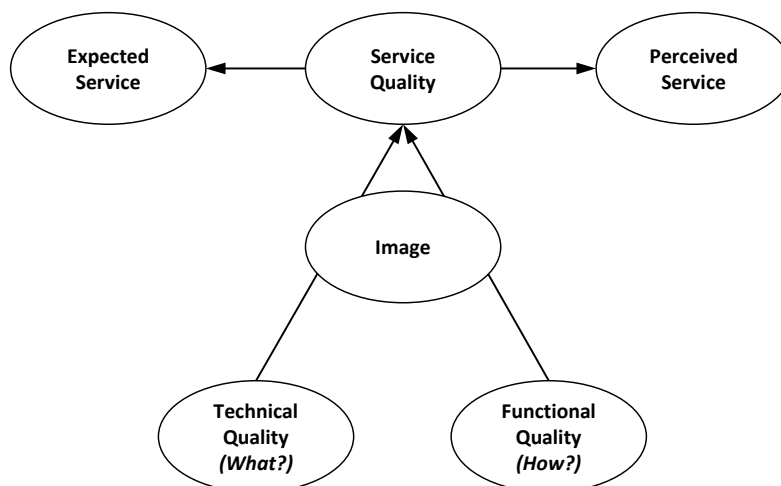
Early models in the service quality literature base their reasoning to a large extent on the disconfirmation paradigm. Among these are seminal contributions such as the Nordic model proposed by Grönroos (1984), and the American SERVQUAL model proposed by Parasuraman et al. (1985) and Parasuraman et al. (1988). With regard to the former, Grönroos (1984) suggests that the overall service quality perception depends on a comparison between the expected service and the perceived service. Further, he argues that the service perception is influenced by two types of quality dimensions that can be classified as being either functional or technical in nature (Grönroos, 1984). Functional quality dimensions refer to the interaction during the service delivery and describe *how* the service is delivered. Technical quality dimensions refer to the outcomes of the service delivery and describe *what* is delivered (Grönroos, 1984). Using the example of a restaurant visit, the functional quality perception would be affected by the interaction with the service personnel, and the technical quality perception would be affected by the meal served. Grönroos (1984) points out that both quality dimensions are relevant for the formation of an overall service quality perception. However, he also suggests that the functional quality is likely to be more important than the technical quality. In addition, Grönroos (1984) stresses the role of a firm's image as a supplemental quality dimension. He argues that a firm's image also contributes to the perception of the overall service quality. In turn, the image itself is mainly influenced by the functional and technical quality as these dimensions largely determine how a customer perceives the firm (Grönroos, 1984). A schematic illustration of the Nordic model is presented in figure 2.2.

The distinct conceptualization of functional and technical quality has found an echo in a variety of empirical studies. For instance, Mittal and Lassar (1998) test the influence of functional and technical quality on customer satisfaction in two service industries with diverging contact intensity. One high contact service industry (health care), and one comparatively low contact service industry (car repair). With respect to the relative importance of either dimension, the results reveal a clear tendency: the influence of functional quality on satisfaction is higher in the high contact service industry, and lower in the low contact service industry (Mittal and Lassar, 1998). Similarly, Ennew and Binks (1999) analyze the influence of functional and technical quality dimensions on satisfaction in corporate banking, which is described as a high contact industry. Again, the results suggest that satisfaction is predominantly influenced by functional quality attributes (Ennew and Binks, 1999). Further, Lassar et al. (2000) analyze the influence of functional and technical quality on customer satisfaction in the private banking industry. For this high contact industry the results also show that the overall satisfaction is driven rather by functional than technical quality (Lassar et al., 2000). In addition, the

results of Lassar et al. (2000) suggest that the two-dimensional quality depiction is able to explain a large share of the variance of customer satisfaction. In sum, the findings seem to encourage a discriminating depiction of functional and technical service quality dimensions. Moreover, the findings seem to corroborate Grönroos (1984) initial argument that functional quality is relatively more important than technical quality, at least in high contact service environments.

Despite its undeniable contributions, there are some drawbacks associated with the Nordic model. The most prevalent drawback is that Grönroos (1984) only schematically illustrates the model, without explaining concrete cause and effect relationships among the dimensions. Also, an operationalization of the dimensions is lacking, which would be necessary for measurement purposes. Accordingly, it seems that Grönroos (1984) only intends to offer some conceptual structure to the service quality discussion without developing a model for empirical studies.

Figure 2.2: The Nordic Model



Notes: schematic illustration is based on Grönroos (1984, p. 40).

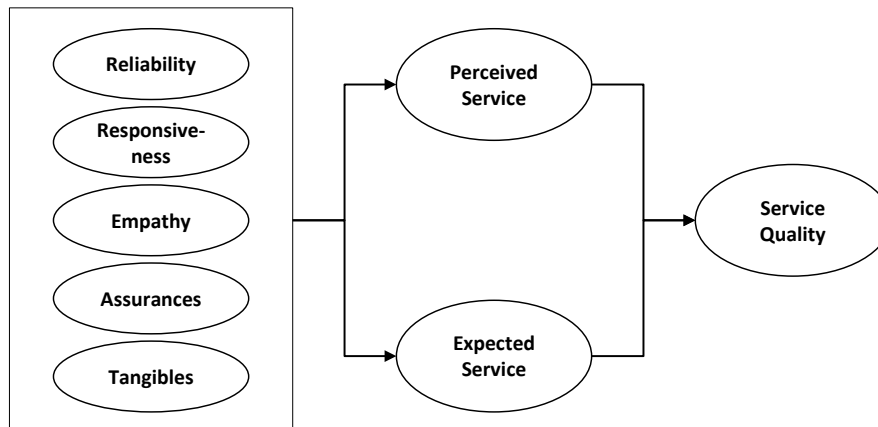
In contrast, the SERVQUAL model has been primarily developed to serve empirical purposes, namely to measure customer perception of service quality across industries (Parasuraman et al. (1988); Parasuraman et al. (1985)). The development of this model can largely be broken down into two parts. In the first part, Parasuraman et al. (1985) develop the conceptual foundation by means of an exploratory qualitative study. Using a combination of executive and focus group interviews the conceptualization itself comprises two steps. In step one, Parasuraman et al. (1985) identify five gaps throughout the interviews that are likely to affect the service quality perception: first, “the gap between consumer expectations and management perceptions of those expectations” (p.

45); second, “the gap between management perceptions of consumer expectations and the firm’s service quality specifications” (p. 45); third, “the gap between service quality specifications and actual service delivery” (p. 45); fourth, “the gap between actual service delivery and external communications about the service” (p. 46); and finally, the gap between customer expectations and actual perceptions of the service. While the first four gaps are identified throughout the executive interviews, the fifth gap emanates from a discussion with the focus groups (Parasuraman et al., 1985). In step two, Parasuraman et al. (1985) use the insights of the gaps to conceptualize the model. Basically, Parasuraman et al. (1985) propose that customer perception of service quality is a function of the fifth gap, that is the difference between the expected service and the perceived service. Moreover, the focus group interviews manifest the reasoning of the disconfirmation paradigm, namely that a positive perception of service quality can only be achieved when the perceived service meets or exceeds service expectations (Parasuraman et al., 1985, p. 46). In addition, the focus group interviews reveal ten dimensions that are likely to affect expectations and perceptions of services: (1) reliability, (2) responsiveness, (3) competence, (4) access, (5) courtesy, (6) communication, (7) credibility, (8) security, (9) understanding / knowing the customer, and (10) tangibles (Parasuraman et al., 1985).

The second part of the model development involves a quantitative study to refine and operationalize the model (Parasuraman et al., 1988). Throughout the refinement process the ten service quality dimensions are reduced to five dimensions. More precisely, three of the original dimensions remain in place, while two novel dimensions are introduced, representing an aggregate of seven original dimensions. The final set of SERVQUAL dimensions include: (1) reliability, (2) responsiveness, (3) empathy, (4) assurances, and (5) tangibles (Parasuraman et al., 1988, p. 23). An illustration of the American SERVQUAL model is presented in figure 2.3. With regard to the operationalization, Parasuraman et al. (1988) propose a scale consisting of 22 items, which can be applied across industries. Each item appears in two versions to measure the model in terms of expectations and perceptions, respectively. In later studies, the scale is slightly modified and reduced to 21 items (Parasuraman et al. (1994); Parasuraman et al. (1991)).

Largely due to its cross-industry applicability, SERVQUAL has received attention in a vast number of empirical studies scrutinizing various industries. For instance, Parasuraman et al. (1988) demonstrate its applicability in a study on retail banking, repair and maintenance services, long-distance telephone, and credit card services. Other multi-industry examinations of SERVQUAL can be found for example in Carman (1990), who questions customers of a dental clinic, a business school placement center, a tire store, and a hospital. Also, Cronin and Taylor (1992) examine SERVQUAL in four industries, including retail banking, pest control, dry cleaning, and fast food. Further, Babakus and

Figure 2.3: The American SERVQUAL Model



Notes: illustration is based on Parasuraman et al. (1985), Parasuraman et al. (1988), and Brady and Cronin (2001, p. 35).

Boller (1992) assess the SERVQUAL scale in a study on utility services (electric and gas), and Teas (1993) examines discount retailers. In addition, Boulding et al. (1993) apply the SERVQUAL scale when assessing educational services. And Mittal and Lassar (1998) compare SERVQUAL with the two-dimensional concept of Grönroos (1984), in a study on health care and car repair. Although most of these studies date back to the nineties, it should be acknowledged that there are also more recent studies, which still apply the scale. Among others, these include Mengi (2009), and Ravichandran et al. (2010), who focus their analysis on retail banking, and Bala et al. (2011), who concentrate the analysis on life insurance service quality.

Despite its unbroken popularity, the SERVQUAL model has been subject to criticism among peers. Broadly speaking, two types of criticism have emerged. The first type casts doubt on the industry-spanning applicability of the model (e.g., Brown et al. (1993); Babakus and Boller (1992); Carman (1990)). For instance, Carman (1990) argues that opposed to the suggestions of Parasuraman et al. (1988), SERVQUAL is not equally applicable across industries. The author finds that items have to be customized, added or omitted, depending on the industry of interest (Carman, 1990). In the same vein, Babakus and Boller (1992) discourage the development and use of a generic service quality model, as the complexity of service quality differs among industries. They argue “that the number of service quality dimensions may be a function of the particular service industry” (Babakus and Boller, 1992, p. 264). Likewise, Brown et al. (1993) suggest that “it takes more than the simple adaptation of the SERVQUAL items to effectively address service quality in some situations” (p. 138-139). Thus, when the focus rests on one industry it seems wisely to develop an industry specific service quality model.

The second type of criticism casts doubt on the usefulness of the expectation part. Although the inclusion of expectations as part of the model has been theoretically motivated by means of focus group interviews and the disconfirmation paradigm (Parasuraman et al., 1985), its empirical usefulness remains questionable. For instance, Teas (1993) finds evidence for ambiguity of the expectations scale as respondents reveal signs of misinterpretation. Specifically, he finds “that a considerable portion of the variance in the SERVQUAL (...) [expectations] measures is the result of measurement error induced by respondents misinterpreting the scales” (Teas, 1993, p. 25). Similarly, Brown et al. (1993, p. 137-138) point out that viewing service quality as gap between perceptions and expectations might be problematic due to reliability and validity reasons. Moreover, Cronin and Taylor (1992, p. 64) reveal that a model consisting only of the SERVQUAL perception items (they name it SERVPERF) outperforms the original SERVQUAL, as the former is able to explain more variance of service quality. Hence, there is reason to suggest that service quality models focusing on performance perceptions only are at least as suitable as the corresponding gap models.

To conclude the above, it should be stated that the elucidated criticisms do not dilute the fundamental contributions of the traditional service quality models. Quite the contrary, it is this vivid scholastic discussion that has paved the way for advancements in the service quality literature. The following illuminates these advancements in more detail.

2.3.2 Advancements of Service Quality Models

In general, the literature offers three major advancements of service quality models. The first advancement has been briefly introduced above and refers to the omission of the expectations part. Especially within the context of services, Reeves and Bednar (1994) argue that the measurement of expectations is an utterly difficult endeavor, since customers seldom have a clear idea of what they expect. In line with this, Reeves and Bednar (1994) further reason that customers might only be able to delineate their true expectations after consumption. Accordingly, Cronin and Taylor (1992) compare a performance-only service quality model (SERVPERF) with a comparable gap model (SERVQUAL). The authors find theoretical⁴ and empirical evidence favoring the performance-only model. In a later study, Brady et al. (2002) replicate and extend the study of Cronin and Taylor (1992). Their results also strongly support the performance-only model, and thus corroborate the findings of Cronin and Taylor (1992). A similar comparison between performance-only and gap models is conducted by McAlexander et al. (1994), who also find support for

⁴Please refer to Cronin and Taylor (1992) for the theoretical justification of the SERVPERF model.

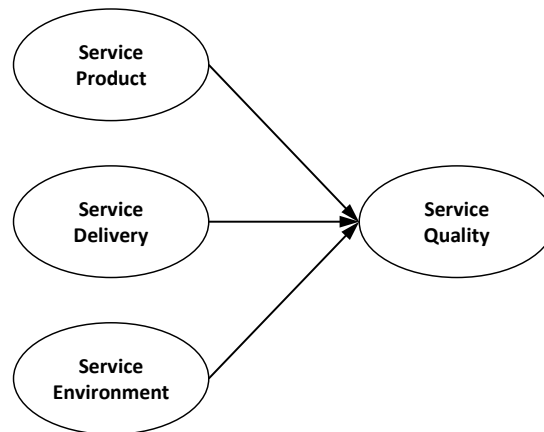
the superiority of the former. Moreover, Boulding et al. (1993) test both, expectations and perceptions (i.e., performance) in a dynamic service quality model and find that service quality is not directly influenced by expectations, but only by performance. It follows that performance-only models have gained in popularity throughout the years (e.g., Brady and Cronin (2001)).

The second advancement refers to an extension of Grönroos (1984) two-dimensional conceptualization of technical and functional service quality.⁵ More precisely, Rust and Oliver (1994) offer a three dimensional depiction of service quality that involves the service product, the service delivery, and the service environment. First, the service product reflects “the service as it is designed to be delivered” (Rust and Oliver, 1994, p. 11), and thus answers the *what* question of Grönroos (1984) technical quality dimension (Brady and Cronin, 2001). In other words, the service product reflects the outcome of the service delivery (Brady and Cronin, 2001). Second, the process of service delivery provides an answer to the *how* question of Grönroos (1984) functional quality dimension (Brady and Cronin, 2001). As such, the service delivery is a reflection of the interaction (Brady and Cronin, 2001). Finally, the service environment is subdivided into dimensions that cover the firm’s internal as well as external environment (Rust and Oliver, 1994). While the internal environment is best described by the firm’s culture and underlying philosophy, the external environment refers to the physical ambience in which the service delivery takes place (Rust and Oliver, 1994). The relevance of the physical environment in service encounters also has received attention in other studies, such as Bitner (1990) and Bitner (1992). A graphical illustration of the three-component model is depicted in figure 2.4.

The third advancement rests upon the idea to conceptualize service quality as a hierarchical model with several dimensional levels. Dabholkar et al. (1996) are among the first to introduce a hierarchical structure of service quality for the retail industry. They recognize that customers perceive retail service quality at three levels: an overall service quality level, a dimension level, and a subdimension level (Dabholkar et al., 1996, p. 6). One benefit of this hierarchical perspective is that it accounts for “the many facets and dimensions of service quality perceptions” (Brady and Cronin, 2001, p. 35) in a structured way. Accordingly, Brady and Cronin (2001) adopt the structure and develop a hierarchical model that is applicable across industries. More precisely, Brady and Cronin (2001) propose that service customers evaluate the overall quality in terms of three primary dimensions: the interaction quality, the physical environment quality, and the outcome quality. In this respect, they adopt the three-component model of Rust and Oliver (1994) to describe their primary dimensions. However, as opposed to

⁵See also Brady and Cronin (2001) for an elaborate discussion.

Figure 2.4: The Three-Component Model



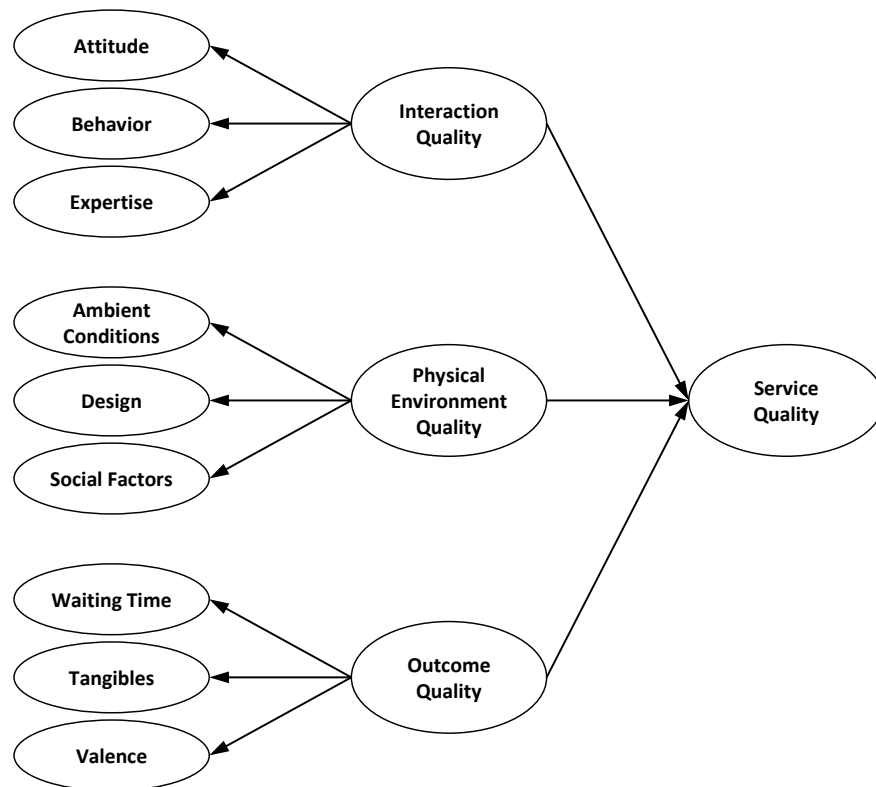
Notes: illustration is based on Rust and Oliver (1994, p. 11), and Brady and Cronin (2001, p. 35).

Rust and Oliver (1994), Brady and Cronin (2001) reduce the environmental dimension to physical attributes only. Further, to better capture “the complexity of human perceptions” Brady and Cronin (2001, p. 36) introduce three subdimensions for each of the primary dimensions, respectively. They argue that the interaction quality is influenced by the attitude, behavior, and expertise of the service personnel. The physical environment quality is influenced by ambient conditions, design, and social factors. And the outcome quality is influenced by waiting time, tangibles, and valence. In summary, the authors suggest that customers evaluate the overall service quality by aggregating the performance at the multiple levels, starting with the subdimensions. As such, Brady and Cronin (2001) make a contribution to the literature by synthesizing all three advancements in one service quality model. Precisely, they develop a model that is purely performance-based, centered around the three-component model of Rust and Oliver (1994), and possesses a hierarchical structure. An overview of the model is provided in figure 2.5.

Although Brady and Cronin (2001) provide empirical support for the hierarchical model in four industries, the authors point out that an equal applicability across industries seems unlikely (p.46). With that said, Brady and Cronin (2001) refer to a weak point of generic service quality models, which priorly has been raised by other prominent scholars (e.g., Brown et al. (1993); Babakus and Boller (1992); Carman (1990)). As a consequence, Brady and Cronin (2001) strongly encourage further research to account for industry specific factors. As a matter of fact, this encouragement has found an echo in a variety of subsequent service quality studies. For instance, Fassnacht and Köse (2006) develop a hierarchical service quality model that is specifically designed for electronic services. Additionally, Dagger et al. (2007) develop a hierarchical model for the health care

industry, and Madhavaiah et al. (2008) develop a hierarchical model for parcel delivery services. Thus, it can be observed that the literature provides an additional advancement in the form of industry specific service quality models, with a preference for hierarchical structures.⁶

Figure 2.5: The Hierarchical Model



Notes: illustration is based on Brady and Cronin (2001, p. 37).

2.3.3 Service Quality in Private Banking

The fact that private banking represents both, a high contact and high involvement service industry (Lassar et al. (2000); Cronin and Taylor (1992)) - in which individualized advice, trust, and discretion ought to prevail (Horn and Rudolf, 2011) - should attract scholastic attention in terms of service quality research. However, while a large number of service quality studies are occupied with retail banking (e.g., Ravichandran et al. (2010); Mengi (2009); Soteriou and Zenios (1999); Cronin and Taylor (1992); Parasuraman et al. (1988)), only very few studies focus on private banking. Virtually, only three studies

⁶It ought to be mentioned that although the service quality models of Fassnacht and Köse (2006), Dagger et al. (2007), and Madhavaiah et al. (2008) share a hierarchical structure, the specification of the respective dimensions (reflective or formative) varies significantly between them.

are worth mentioning. The first study cuts back to Lassar et al. (2000), who analyze the influence of service quality on customer satisfaction using survey data from US and South American private banking clients. More specifically, they compare the five SERVQUAL dimensions from Parasuraman et al. (1988) with the technical / functional dimensions from Grönroos (1984) in their ability to explain customer satisfaction. The evidence suggests that the technical / functional quality dimensions are more suitable to explain satisfaction in the context of private banking. Despite this contribution, two issues need to be considered. First, the study fails to provide an overall measure of service quality, but instead analyzes the direct effects of the quality determinants on satisfaction. Second, the study relies on generic service quality determinants as suggested by Parasuraman et al. (1988) and Grönroos (1984), and thus fails to develop industry specific determinants. As opposed to this, Horn and Rudolf (2011) recognize the importance of identifying industry specific service quality determinants for the private banking industry. They furthermore embed these determinants in a hierarchical model in the sense of Brady and Cronin (2001). However, Horn and Rudolf (2011) use the perspective of the provider to develop the model and also validate the model using provider data (by questioning relationship managers) rather than client data. The same is true for their subsequent study, in which Horn and Rudolf (2012) analyze the outcomes⁷ of service quality from the provider's perspective. Thus, it can be concluded that there is a gap in the literature regarding the identification and analysis of private banking specific service quality dimensions from the client perspective. In order to advance knowledge for scholars and practitioners likewise, we encourage prospective research to fill this gap.

2.4 Customer Satisfaction

In attempts to describe the notion of customer satisfaction, Spreng and Mackoy (1996) make a point by stating that “there is not a clear consensus regarding the definition of satisfaction” (p. 202). A review of the literature provides support for this argument. In an early article, Oliver (1980) posits that “satisfaction (...) can be seen as a function of the expectation (adaptation) level and perceptions of disconfirmation” (p. 461). Thereby, Oliver (1980) portrays satisfaction in the light of the disconfirmation paradigm and the adaptation level theory, as proposed by Helson (1964). This perspective is further reflected in a definition of Oliver (1981), who describes “satisfaction as the complex emotional response following disconfirmation experiences” (p. 41). Also Bolton and Drew (1991) describe satisfaction as “a function of the disconfirmation arising from discrepant-

⁷Specifically, Horn and Rudolf (2012) analyze the influence of service quality on customer satisfaction, the price / performance ratio, and growth of assets under management.

cies between prior expectations and actual performance” (p. 375). Support for this view can be found in a study of Bearden and Teel (1983), who reveal that expectations and disconfirmation are indeed significant determinants of satisfaction. However, it is worth noting that Bearden and Teel (1983) focus their analysis mainly on the relationships between expectation, disconfirmation, and satisfaction, and thus ignore potential direct effects of perceived performance on satisfaction. On the contrary, Churchill and Surprenant (1982) test the entire set of relationships in a study on durable and non-durable goods. The results they receive are mixed. For the non-durable good (a plant), they find a significant direct effect from expectations, disconfirmation, and perceived performance on satisfaction. For the durable good (a video disc player), only perceived performance has a significant effect on satisfaction (Churchill and Surprenant, 1982). Similar to Churchill and Suprenants’ results for non-durable goods, Tse and Wilton (1988) reveal a significant direct influence of perceived performance on satisfaction, supplemental to the effects of expectations and disconfirmation. Apart from that, Anderson and Sullivan (1993) show that satisfaction is not directly influenced by expectations, but that satisfaction is rather a function of perceived performance (they call it perceived quality) and disconfirmation. At the same time, Anderson and Sullivan (1993) suggest that perceived performance has a stronger impact on satisfaction than disconfirmation. In total, the results show a lack of agreement on the relevance of some antecedents, and thus emphasize the psychological complexity of satisfaction decisions.

Despite some discord in the findings, the above discussion seems to suggest that satisfaction decisions are primarily a function of cognitive processes (Oliver, 1993a). Nonetheless, advancements in the literature suggest that affective processes also play a substantial role in the formation of satisfaction decisions (e.g., Oliver (1993a); Westbrook (1987)). This view is also in accordance with Rust and Oliver (1994), who declare that customer satisfaction “is known to be influenced by a number of cognitive and affective processes including equity, attribution, and emotion” (p. 6). Stated differently, satisfaction reflects “a state of fulfillment related to reinforcement and arousal” (Rust and Oliver, 1994, p. 4).

Viewing satisfaction as a function of cognitive and affective processes also sheds light on the differences between customer satisfaction and perceived quality. As suggested by Rust and Oliver (1994), four distinctions are worth noting.⁸ First, it is argued that the determinants of quality decisions are rather specific, whereas the determinants of satisfaction decisions are likely to be more abstract (Rust and Oliver, 1994). For instance, in an open air restaurant setting the quality of the food, service, and ambience can be utterly

⁸Rust and Oliver (1994) predominantly use the work of Oliver (1993b) to summarize the differences between customer satisfaction and perceived quality.

high. Yet, dissatisfaction could arise due to external factors, such as parking problems, rainy weather, and so forth. Second, quality decisions are founded on a perception of “excellence”, whereas satisfaction decisions could also be influenced by more personal issues, such as needs and “fairness” perceptions (Rust and Oliver, 1994). Third, a perception of quality does not necessarily require experience with the respective service or product, whereas satisfaction decisions can only be attained through experience (Rust and Oliver, 1994). Finally, quality perceptions are formed by fewer determinants than satisfaction decisions. This is particularly true since the latter is influenced by a variety of cognitive and affective processes (Rust and Oliver, 1994).

In addition to the conceptual differentiation between satisfaction and quality, it seems relevant to clarify their causal relationship. Again, the literature is divided. For instance, Bitner (1990) suggests that satisfaction is an antecedent of perceived service quality, and also demonstrates this effect empirically. Likewise, Bolton and Drew (1991) indicate that satisfaction influences perceived service quality. On the contrary, Cronin and Taylor (1992) investigate the causal order in more detail, and find empirical support for the path leading from service quality to satisfaction. This effect is also supported by Spreng and Mackoy (1996). Further, Rust and Oliver (1994) agree with Cronin and Taylor (1992) by arguing “that quality is one of the service dimensions factored into the consumer’s satisfaction judgment” (p. 6). Throughout the years, this latter order (i.e., the effect from perceived service quality to satisfaction) has gained acceptance in the literature. Examples of articles that have adopted this view range from studies with a primary focus on service quality (e.g., Brady et al. (2002); Dabholkar et al. (2000)) to studies occupied with the development of customer satisfaction indices (e.g., Fornell et al. (1996), Anderson et al. (1994)).

In particular, customer satisfaction indices have attracted attention among scholars, as they shed light on the economic value of satisfaction (Anderson et al., 1994). To illustrate this, at least three characteristics are worth noting. First, satisfaction indices are supposed to reflect “customer-based measures of firm performance” (Anderson et al., 1994, p. 54). As such, they can serve as an indicator for the health of a firm, and as a “complement to traditional measures of performance such as return on investment, market share, and profits” (Fornell, 1992, p. 10). Since most indices measure customer satisfaction across industries, they also allow to conduct industry comparisons or benchmark studies (e.g., Fornell et al. (1996); Fornell (1992)). A second characteristic is that most indices measure satisfaction on a cumulative basis (e.g., Fornell et al. (1996); Anderson et al. (1994); Fornell (1992)). Accordingly, Fornell (1992) describes satisfaction as “an overall postpurchase evaluation” (p. 11). This stands in contrast to a variety of other studies, which view satisfaction as a transaction specific variable (e.g., Cronin and Taylor (1992);

Bolton and Drew (1991); Bitner (1990)). Still, the benefits of a cumulative perspective are likely to be twofold. First, cumulative satisfaction is advantageous when researchers are interested in the relationship between satisfaction and potential consequences, such as loyalty. This seems reasonable, considering that transaction specific satisfaction is unlikely to cause long-term loyalty (Homburg and Giering, 2001). Second, cumulative satisfaction is likely to be representative of the customer's aggregate experience with a product or service, so that transaction specific disconfirmation effects should not preponderate (Anderson et al., 1994). The third characteristic refers to the multidimensional context of satisfaction indices, which includes a network of antecedents and consequences (e.g., Martensen et al. (2000); Fornell et al. (1996)). This enables researchers to determine the driving factors of satisfaction, and in the same vein establish a link between satisfaction and potential behavioral and / or financial outcomes (Fornell et al. (1996); (Anderson et al., 1994)). Given that most indices differ slightly in terms of their model structure, we continue with a brief discussion of some prominent examples.

Starting chronologically, Fornell (1992) lays the foundation by introducing the Swedish customer satisfaction barometer (SCSB) to measure customer satisfaction in more than 30 industries. The covered industries are to a great extent representative for the Swedish economy and include a diverse set of products (e.g., food, automobile) and services (e.g., postal services, retail banking). The index is created by describing satisfaction as a function of customer expectations, perceived quality, and price (Fornell, 1992). Support for the validity of the index is established, as well as an affirmation for the link between satisfaction and loyalty (Fornell, 1992). In a consecutive study, Anderson et al. (1994) use the SCSB to establish a link between customer satisfaction and the financial performance of firms. The authors reveal a strong and positive effect of customer satisfaction on return on investment (ROI), in addition to a strong and positive effect of quality on satisfaction (Anderson et al., 1994). In sum, these results "suggest that providing high quality and high customer satisfaction is rewarded by economic returns" (Anderson et al., 1994, p. 61).⁹ Shortly thereafter, Fornell et al. (1996) introduce the American customer satisfaction index (ACSI), to assess satisfaction in more than 40 industries in the US economy. As opposed to the SBSC, the ACSI describes satisfaction as a function of customer expectations, perceived quality, and perceived value (i.e., the ratio of quality to price). Among others, this modification allows the authors to additionally test whether satisfaction is more quality or price driven (Fornell et al., 1996). Again, the results show support for the cross-industry applicability of the model (Fornell et al., 1996). Ultimately, the growing support and enhanced functionality of the two indices has paved the way for a variety of alternative indices. Examples include the European customer satisfaction

⁹A more thorough discussion of behavioral and financial outcomes of quality and satisfaction ensues below.

index (ECSI), as proposed for example by Martensen et al. (2000), and the Hong Kong consumer satisfaction index (HKCSI), as proposed by Chan et al. (2003). A comparative glance at all four indices reveals a consistent variation in the model structure, especially with regard to the determinants. Still, a commonality they all share is the generic nature of the determinants, in order to manage cross-industry applicability. An overview of the indices and their determinants is presented in table 2.1.

Table 2.1: Selected Satisfaction Indices and their Determinants

Index	Study	Determinants
SCSB	Fornell (1992); Anderson et al. (1994)	Customer expectations, perceived quality, price
ACSI	Fornell et al. (1996); Anderson and Fornell (2000)	Customer expectations, perceived quality, perceived value
ECSI	Kristensen et al. (2000); Martensen et al. (2000)	Customer expectations, perceived quality of “hard ware”, perceived quality of “human ware”, perceived value, image
HKCSI	Chan et al. (2003)	Customer expectations, customer characteristics, assessed performance, assessed value

Notes: SCSB = Swedish customer satisfaction barometer, ACSI = American customer satisfaction index, ECSI = European customer satisfaction index, HKCSI = Hong Kong consumer satisfaction index.

With regard to the usefulness of the indices for future satisfaction studies, at least two points are worth considering. The first point refers to the generic model structure. While a generic structure is utterly beneficial for cross-industry comparisons, it is likely to be detrimental when the center of attention rests only on one industry. Fornell (1992) acknowledges this drawback with respect to the SCSB by stating that “a limitation of the model is the assumption that the same basic specification governs the process of customer satisfaction across very different industries” (p. 15). A similar concern is raised by Kristensen et al. (2000), who thereupon present a modified version of the ECSI model to meet industry specific requirements. Hence, when the study aims to focus on a single industry it seems advisable to employ a satisfaction model that is particularly designed for that specific industry. The second point refers to the explanatory power of the expectations construct. For instance, Anderson et al. (1994) show that although the impact of expectations on satisfaction is significant in their study, the effect is only marginal. Likewise, Martensen et al. (2000) reveal that the impact of expectations on satisfaction is at best marginal. Since similar results have been presented in earlier studies (e.g., Anderson and Sullivan (1993); Churchill and Surprenant (1982)), the question arises whether it is needful to include the expectations construct in future satisfaction studies.

2.4.1 Customer Satisfaction in Private Banking

While the body of literature on customer satisfaction is vast in general, the amount of publications dealing with satisfaction from a private banking perspective is strongly limited. Rigorously speaking, one has to differentiate between private banking studies that conduct research at the border of service quality and customer satisfaction literature and private banking studies that focus primarily on customer satisfaction. The former group has been discussed above and comprises the studies of Lassar et al. (2000) and Horn and Rudolf (2012). Since both studies are primarily anchored in the service quality literature we will forego reviewing them again at this point, but instead focus on the latter group, which includes two noteworthy publications. Among these is a recent study by Seiler et al. (2013), which focuses on the relationship between customer satisfaction and loyalty. More specifically, Seiler et al. (2013) illuminate in how far socio-demographic variables moderate the relationship between satisfaction and loyalty. However, the authors refrain from discussing private banking specific determinants of customer satisfaction. This gap is filled by Seiler (2011), who develops a comprehensive customer satisfaction model, including the conceptualization and analysis of private banking specific determinants. Yet, it should be mentioned that the underlying cross-sectional dataset of Seiler (2011) is not large enough to estimate robust parameters with a covariance based structural equation model (SEM). Instead, Seiler (2011) relies on partial least squares (PLS) to estimate the model. While PLS is likely to be the appropriate method of choice in exploratory studies, it is less appropriate when the goal is to test and confirm theory (e.g., Hair et al. (2011); Homburg and Klarmann (2006)).¹⁰ Hence, to deepen the understanding of customer satisfaction in private banking, future research should build upon the insights provided by Seiler (2011), collect additional data, and conduct a large scale empirical analysis using SEM. In addition, it would be interesting to see if the proposed relationships between satisfaction and its determinants are constant over time. Admittedly, this would require gathering data over different time periods.

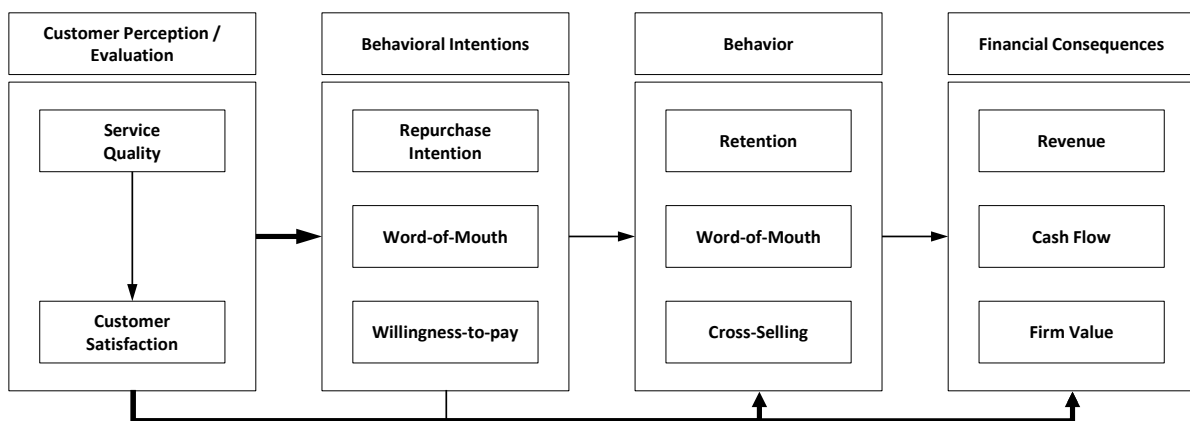
2.5 Consequences of Service Quality and Customer Satisfaction

The previous discussion has indicated that service quality perceptions and customer satisfaction are likely to entail behavioral and / or financial consequences. This section illuminates these consequences in more detail. With reference to Gupta and Zeithaml

¹⁰PLS does not allow to measure global fit statistics, which are necessary to adequately confirm model fit (e.g., Hair et al. (2011); Homburg and Klarmann (2006)).

(2006), Zeithaml (2000), and Zeithaml et al. (1996) the array of consequences can largely be structured into three related outcome categories: (1) behavioral intentions, (2) actual behavior, and (3) financial consequences. The underlying intuition is that a customer’s quality or satisfaction judgment first translates into behavioral intentions, then results in actual behavior, and ultimately affects the financial performance of firms (Gupta and Zeithaml, 2006). Yet, a glance at the literature reveals that the entire chain of consequences is rarely subject of empirical analysis. Instead, most studies are concerned with direct links between quality or satisfaction judgments and outcomes in single categories. Examples include studies examining the direct relationship between service quality and repurchase intentions (Cronin and Taylor, 1992), or the direct relationship between satisfaction and retention (Ittner and Larcker, 1998), or the direct relationship between satisfaction and firm value (Anderson et al., 2004). Figure 2.6 schematically illustrates the range of links. By adhering to the sequential order proposed in figure 2.6, the following discussion sheds more light on the direct links of service quality and satisfaction to each outcome category, starting with behavioral intentions.

Figure 2.6: The Consequences of Service Quality and Customer Satisfaction



Notes: the illustration is schematic and the list of selected variables is exemplary and not exhaustive. The studies of Zeithaml et al. (1996), Zeithaml (2000), and Gupta and Zeithaml (2006) served as inspiration. Relationships highlighted by thick lines are in the focus of the discussion.

Behavioral intentions can be generally described “as indicators that signal whether customers will remain with or defect from the company” (Zeithaml et al., 1996, p. 33). Among others, frequently cited indicators include the intention to repurchase or stay loyal, the propensity to engage in word-of-mouth, or the willingness-to-pay more for the services received (e.g., Cronin et al. (2000); Zeithaml et al. (1996)). Since the options to measure behavioral intentions are wide-ranging, some scholars choose to aggregate multiple indicators into a behavioral intentions “battery” (e.g., Dabholkar et al. (2000); Zeithaml et al. (1996)), whereas others choose to concentrate on specific intentions, such as repurchase

intentions (e.g., Brady et al. (2002); Cronin and Taylor (1992)). An overview of findings from selected studies is presented in table 2.2 in the appendix. With regard to studies on aggregated behavioral intentions “batteries”, for instance Cronin et al. (2000) find a significant influence of service quality and satisfaction on behavioral intentions across several industries, including spectator sports, participative sports, entertainment, and fast food. In this respect, Cronin et al. (2000) make a point by stressing the relevance to account for both measures (service quality and satisfaction) when assessing behavioral intentions. Also, Dabholkar et al. (2000) and Dagger et al. (2007) find a significant influence of service quality and satisfaction on behavioral intentions in the photography business and health care business, respectively. Moreover, Boulding et al. (1993) underscore the influence of service quality on behavioral intentions in education, and Zeithaml et al. (1996) find a significant effect of service quality on behavioral intentions across four industries, including computer manufacturing, retail, car insurance, and life insurance.

Concerning studies on specific behavioral intentions, Cronin and Taylor (1992) analyze the influence of service quality on repurchase intention and find no significant effect across four industries, including retail banking, pest control, dry cleaning, and fast food. However, in the same study Cronin and Taylor (1992) find a significant effect of satisfaction on repurchase intention across all four industries. On the contrary, McAlexander et al. (1994) find a significant influence of both, service quality and satisfaction on repurchase intention in the dental health care industry. Similarly, Brady et al. (2002) confirm the relationship between service quality and repurchase intention as well as between satisfaction and repurchase intention across at least three industries. Likewise, Anderson and Sullivan (1993) confirm the relationship between satisfaction and repurchase intention, using a dataset covering 16 industries. With regard to word-of-mouth intentions, Harrison-Walker (2001) corroborates the influence of service quality on word-of-mouth praise in the veterinary industry, and Brown et al. (2005) affirm the influence of satisfaction on word-of-mouth in the automobile industry. The influence of service quality and satisfaction on willingness-to-pay is confirmed by Homburg et al. (2005) in a restaurant study. Additionally, Anderson (1996) substantiates the relationship between satisfaction and willingness-to-pay by relying on the SCSB dataset (which covers more than 30 industries). The influence of satisfaction on loyalty is confirmed across industries by Fornell (1992), who also relies on the SCSB dataset, and by Fornell et al. (1996), who rely on the ACSI dataset (which covers more than 40 industries). In those two studies, loyalty is measured using indicators for repurchase intention and price tolerance. Similarly, Chiou and Droge (2006) find a significant effect of satisfaction on attitudinal loyalty for high involvement luxury cosmetics. With respect to the private banking industry, only very few studies have been concerned with behavioral intentions. In fact, only Seiler (2011) and

Seiler et al. (2013) assess the influence of satisfaction on loyalty and provide confirmation for significant relationships in both studies. However, as shown above there are further relevant behavioral intentions, such as word-of-mouth, or willingness-to-pay that have not yet been examined in private banking. In expectancy that insights in these fields are beneficial for scholars and practitioners alike, we strongly advise further research to fill this gap. Moreover, as indicated by Cronin et al. (2000) it seems crucial to concurrently account for satisfaction and service quality when assessing behavioral intentions. Against this backdrop, we advise further research to conduct a comprehensive analysis of the relationships between service quality, customer satisfaction and behavioral intentions in private banking.

Turning the attention to the second outcome category, direct links can be found between satisfaction or service quality and actual customer behavior. An overview of findings from selected studies is presented in table 2.3 in the appendix. For instance, Loveman (1998) finds a significant positive relationship between satisfaction and customer retention, cross-selling, as well as share of wallet in retail banking. Similarly, Rust and Zahorik (1993) confirm a positive relationship between satisfaction and retention rate in retail banking. Ittner and Larcker (1998) use a sample of clients in telecommunications, and find a significant influence of satisfaction on retention. Likewise, Bolton (1998) finds a significant influence of satisfaction on relationship duration in telecommunications. And Bolton and Lemon (1999) corroborate the relationship between satisfaction and future usage in entertainment and telecommunications, respectively. The influence of satisfaction on word-of-mouth is analyzed by Anderson (1998), who utilizes a combination of data from the SCSB and ACSI, comprising at least 30 industries. The author finds a significant relationship (Anderson, 1998). Similarly, Brown et al. (2005) reveal a significant influence of satisfaction on word-of-mouth in a study with customers of automobile dealerships. Further, Harrison-Walker (2001) confirms a positive relationship between service quality and word-of-mouth activity in the veterinary industry. With regard to the private banking industry, actual client behavior has not yet been investigated. The only study analyzing the relationship between satisfaction and loyalty is provided by Horn and Rudolf (2012). Nonetheless, their analysis is conducted from the perspective of the provider, with data obtained from relationship managers instead of from clients (Horn and Rudolf, 2012). Since the measurement of actual client behavior is of utmost interest for scholars and practitioners alike, we propose a call for research to measure the relationships between perceived service quality, satisfaction, and actual client behavior in private banking.

Financial consequences depict the last outcome category of interest. We can observe that especially satisfaction is frequently linked to a variety of financial variables. A de-

tailed overview of findings from selected studies is presented in table 2.4 in the appendix. For instance, Ittner and Larcker (1998) find a positive and significant relationship between satisfaction and revenue in the telecommunications industry. Further, by utilizing satisfaction data from the ACSI (which covers more than 40 industries), Ittner and Larcker (1998) reveal a positive and significant relationship between satisfaction and the firm's market value of equity. A similar effect is confirmed by Fornell et al. (2006), who also apply the ACSI dataset to measure the influence of satisfaction on market value of equity. In a study across 23 industries, Gruca and Rego (2005) provide significant evidence that satisfaction is positively related to cash flow growth, and negatively related to cash flow variability. In addition, Anderson et al. (1994) utilize the SCSB dataset (which covers more than 30 industries) to show that satisfaction has a positive impact on the firm's return on investment (ROI). Moreover, Anderson et al. (2004) apply the ACSI dataset and reveal that satisfaction is positively related to firm value. Also, Anderson and Mansi (2009) use the ACSI dataset to measure customer satisfaction and provide evidence that satisfaction has a positive impact on the firm's credit ratings. Schneider et al. (2009) test the link between satisfaction and Tobin's q across eight industries. The authors confirm that the influence is significant (Schneider et al., 2009). For the private banking industry only one study can be found, which suits the context. Horn and Rudolf (2012) assess the influence of service quality and satisfaction on growth of assets under management and confirm positive relationships for both effects, respectively. Yet, it should be mentioned that the data on all three variables are based on subjective information retrieved in a survey among relationship managers. Hence, it can be concluded that the true relationship between customer metrics and actual financial data has not yet been examined in private banking. Despite the probabilistic difficulties to perform such an analysis (private banks rarely publish detailed financial data), we still encourage further research to pursue such an avenue, as the insights are likely to be relevant for researchers and practitioners alike.

2.6 Conclusion

In virtue of an increase in customer sensitivity in private banking, it appears pivotal to develop a thorough understanding of issues involving service quality and customer satisfaction. This is particularly true, since quality perceptions and satisfaction decisions are leading indicators for customer behavior and the firm's financial performance (Gupta and Zeithaml, 2006). In light of this, it is our goal to offer an integrated review of service quality and customer satisfaction literature, paying particular attention to the perspective of private banking services. Thereby, we utilize general and private banking specific contributions to provide a comprehensive overview of theoretical foundations and

developments in both literature streams. Based on this proceeding we are able to offer impulses for further research in at least three domains.

First, with respect to service quality literature, we extensively review traditional and advanced models, such as the SERVQUAL model as proposed by Parasuraman et al. (1988) and Parasuraman et al. (1985), or the hierarchical model as proposed by Brady and Cronin (2001). We reveal strengths and weaknesses associated with these generic models. For instance, one major strength of the generic models rests in their ability to conduct cross-industry analyses. However, one major weakness rests in their inability to be equally applicable across industries. As a consequence, the literature strongly advises to account for industry specific service quality dimensions, at least when the focus rests on a certain industry. Nonetheless, for the private banking industry no research has identified and analyzed industry specific service quality dimensions (as perceived by customers) thus far. Hence, there appears to be a gap in the literature that needs to be filled in order to better understand service quality in private banking.

Second, with respect to customer satisfaction, we also review seminal models with a generic structure, such as the Swedish customer satisfaction barometer as proposed by Fornell (1992), or the American customer satisfaction index as proposed by Fornell et al. (1996). Again, we reveal that a generic model structure is advantageous for cross-industry comparisons, but likely to be detrimental when the focus rests on a single industry. It follows that when the goal is to examine a single industry, it seems more advisable to employ a satisfaction model that is able to meet industry specific requirements. With regard to the private banking industry, first steps in this direction have been undertaken. For instance, Seiler (2011) is among the first, who analyzes a private banking specific satisfaction model with an initial cross-sectional dataset. Nevertheless, despite this first contribution more research is needed to deepen the understanding of satisfaction in private banking. One option is to build upon the insights provided by Seiler (2011), collect additional data, and conduct a large scale empirical analysis to estimate more robust parameters. In addition, by collecting data over different time periods one could try to determine if the relationships of interest are constant over time. Collectively, these actions would advance the understanding of customer satisfaction in private banking.

Finally, with respect to consequences of service quality and customer satisfaction, we review findings in three related outcome categories: (1) behavioral intentions, (2) actual behavior, and (3) financial consequences. Although we find support for a variety of effects across several industries the insights for the private banking industry are strongly limited in all three categories. This is particularly true when the focus rests on customer research. In fact, we reveal that a comprehensive analysis of the relationships between service quality, customer satisfaction and outcomes in all three categories is not yet

existent in the field of private banking. Since such insights are of utmost interest for scholars and practitioners alike, we strongly encourage further research to address these gaps.

The following two chapters contribute to the literature by addressing three of the above mentioned research gaps. To be precise, in chapter 3 a combination of qualitative and empirical research is used to address two gaps. First, a qualitative study is employed to identify private banking specific service quality dimensions as perceived by customers. Afterwards, these industry specific dimensions are embedded in a private banking specific holistic model to conduct a comprehensive analysis of the relationships between service quality, customer satisfaction, and behavioral intentions. Chapter 4 addresses the third research gap, which involves two parts. In the first part, a large scale empirical analysis of a private banking specific customer satisfaction model is conducted. In the second part, it is examined if the model relationships are constant over time.

2.7 Appendix

Table 2.2: Behavioral Intentions Variables as Consequence (Selected Studies)

Study	Examined Effect	Industry	Result
Cronin et al. (2000)	1) service quality → behavioral intentions 2) satisfaction → behavioral intentions	6 industries ^a	1) significant ^b 2) significant ^c
Dabholkar et al. (2000)	1) service quality → behavioral intentions 2) satisfaction → behavioral intentions	photography	1) significant 2) significant
Dagger et al. (2007)	1) service quality → behavioral intentions 2) satisfaction → behavioral intentions	health care	1) significant 2) significant
Boulding et al. (1993)	service quality → behavioral intentions	education	significant
Zeithaml et al. (1996)	service quality → behavioral intentions	4 industries ^d	significant ^e
Cronin and Taylor (1992)	1) service quality → repurchase intention 2) satisfaction → repurchase intention	4 industries ^f	1) insignificant ^e 2) significant ^e
McAlexander et al. (1994)	1) service quality → repurchase intention 2) satisfaction → repurchase intention	dental health care	1) significant 2) significant
Brady et al. (2002)	1) service quality → repurchase intention 2) satisfaction → repurchase intention	5 industries ^g	1) significant ^h 2) significant ^e
Anderson and Sullivan (1993)	satisfaction → repurchase intention	16 industries ⁱ	significant ^j
Harrison-Walker (2001)	service quality → word-of-mouth praise	hair salon, veterinary	significant ^k
Brown et al. (2005)	satisfaction → word-of-mouth	automobile	significant
Homburg et al. (2005)	1) service quality → willingness-to-pay 2) satisfaction → willingness-to-pay	restaurant	1) significant 2) significant
Anderson (1996)	satisfaction → willingness-to-pay	>30 industries ⁱ	significant ^j
Fornell (1992)	satisfaction → loyalty	>30 industries ⁱ	significant ^j
Fornell et al. (1996)	satisfaction → loyalty	>40 industries ⁱ	significant ^j
Chiou and Droge (2006)	satisfaction → attitudinal loyalty	cosmetics	significant
Seiler (2011)	satisfaction → loyalty	private banking	significant
Seiler et al. (2013)	satisfaction → loyalty	private banking	significant

Notes: all examined effects are positive unless stated differently. Significance at the 5% level.

^a spectator sports, participative sports, entertainment, health care, carriers, fast food.

^b in four industries, exception: health care and carriers.

^c in five industries, exception: health care.

^d computer, retail, car insurance, life insurance.

^e across industries.

^f retail banking, pest control, dry cleaning, fast food.

^g spectator sports, entertainment, health care, carriers, fast food.

^h in three industries, exception: health care and fast food.

ⁱ includes products (e.g., food, automobile) and services (e.g., postal services, retail banking).

^j for aggregated sample.

^k in veterinary industry.

Table 2.3: Behavioral Variables as Consequence (Selected Studies)

Study	Examined Effect	Industry	Result
Loveman (1998)	1) satisfaction → retention 2) satisfaction → cross-selling 3) satisfaction → share of wallet	retail banking	1) significant 2) significant 3) significant
Rust and Zahorik (1993)	satisfaction → retention rate	retail banking	significant
Ittner and Larcker (1998)	satisfaction → retention	telecom.	significant
Bolton (1998)	satisfaction → relationship duration	telecom.	significant
Bolton and Lemon (1999)	satisfaction → future usage	entertainment, telecom.	significant ^a
Anderson (1998)	satisfaction → word-of-mouth ^b	>30 industries ^c	significant ^d
Brown et al. (2005)	satisfaction → word-of-mouth	automobile	significant
Harrison-Walker (2001)	service quality → word-of-mouth activity ^e	hair salon, veterinary	significant ^f
Horn and Rudolf (2012)	satisfaction → loyalty ^g	private banking	significant

Notes: all examined effects are positive unless stated differently. Significance at the 5% level. telecom. = telecommunications.

^a across industries.

^b u-shaped relationship.

^c includes products (e.g., food, automobile) and services (e.g., postal services, retail banking).

^d for aggregated sample.

^e negative relationship.

^f in veterinary industry.

^g analysis is conducted from the provider's perspective using data retrieved from relationship managers.

Table 2.4: Financial Variables as Consequence (Selected Studies)

Study	Examined Effect	Industry	Result
Ittner and Larcker (1998)	1) satisfaction → revenue 2) satisfaction → market value of equity	1) telecom. 2) >40 industries ^a	1) significant ^b 2) significant ^c
Fornell et al. (2006)	satisfaction → market value of equity	>40 industries ^a	significant ^d
Gruca and Rego (2005)	1) satisfaction → cash flow growth 2) satisfaction → cash flow variability ^e	23 industries ^a	1) significant ^f 2) significant ^g
Anderson et al. (1994)	satisfaction → return on investment (ROI)	>30 industries ^a	significant ^h
Anderson et al. (2004)	satisfaction → firm value	>40 industries ^a	significant ⁱ
Anderson and Mansi (2009)	satisfaction → credit ratings	>40 industries ^a	significant ^j
Schneider et al. (2009)	satisfaction → Tobin's q	8 industries ^k	significant
Horn and Rudolf (2012)	1) service quality → growth AuM ^l 2) satisfaction → growth AuM ^l	private banking	1) significant 2) significant

Notes: all examined effects are positive unless stated differently. Significance at the 5% level. telecom. = telecommunications, AuM = assets under management.

^a includes products (e.g., food, automobile) and services (e.g., postal services, retail banking).

^b On a scale from 0 to 100, a 10-point increase in satisfaction is associated with an increase in revenue of approximately \$195 per customer.

^c a one point increase in satisfaction is associated with an increase of approximately \$240 M in market value of equity.

^d a 1% increase in satisfaction is associated with an increase in market value of equity of approximately 4.5%.

^e negative relationship.

^f a one point increase in satisfaction is associated with an increase in future cash flows of approximately \$55 M.

^g a one point increase in satisfaction results in a reduction of a firm's cash flow variability of approximately 4%.

^h a continuous one point increase in satisfaction (for five years) is associated with an increase of approximately 11.5% of current ROI.

ⁱ a 1% increase in satisfaction is associated with an increase in firm value of approximately \$275 M.

^j a 1% increase in satisfaction is associated with an increase in credit ratings of approximately 6% (for instance, by applying Standard and Poor's rating scale this would result in an increase from, e.g., A+ to AA-).

^k airline, finance/insurance, freight, health care, hospitality, restaurants, retail, utilities.

^l analysis is conducted from the provider's perspective using data retrieved from relationship managers.

Chapter 3

Service Quality in Private Banking: A Holistic Perspective on Antecedents and Consequences

3.1 Introduction¹

The private banking industry has long been regarded one of the most attractive segments in banking. The primary reasons are stable growth rates, limited capital requirements, and excess liquidity (McKinsey & Company, 2012). Still, the financial crisis left its mark. Declining profitability and outflows of clients' assets have been the consequences for a large share of players in the market (McKinsey & Company, 2012). An examination of the underlying cause points at two changes in the attitude and behavior of private banking clients: first, a decrease in satisfaction and loyalty; and second, an increase in demand for service quality (McKinsey & Company (2012); BCG (2012); McKinsey & Company (2011); McKinsey & Company (2010)). In order to revitalize profitability, the identification of the fundamental drivers for service quality, customer satisfaction, and behavioral intentions appears pivotal.

Researchers have addressed the relevance of service quality, customer satisfaction and behavioral intentions in a variety of studies (e.g., Homburg et al. (2005); Brady and Cronin (2001); Fornell et al. (1996); Rust and Oliver (1994)). Two research categories evolve from this. The first includes studies that focus on a single variable, for instance service quality, and its determinants (e.g., Brady and Cronin (2001); Parasuraman et al. (1988); Grönroos (1984)). The second category includes studies that take a more broader

¹This chapter is based on a homonymous unpublished working paper (Krume, 2013b).

perspective and focus on relationships between these variables (e.g., Cronin et al. (2000); Dabholkar et al. (2000); Fornell et al. (1996)). What unifies both categories is the applicability of the models across service industries. Nonetheless, differences between industries are likely to constrain their overarching suitability. This is especially true when comparing services with varying degrees of involvement (Chiou and Droge (2006); Cronin and Taylor (1992)) and / or contact intensity (Mittal and Lassar, 1998). As a result, academics prompt to develop models that account for industry specific characteristics (e.g., Bedi (2010); Brady and Cronin (2001)).

The distinctive feature of the private banking industry is that it represents both, high involvement and high contact (e.g., Lassar et al. (2000); Cronin and Taylor (1992)). More precisely, private banking involves financial planning and risk planning services for wealthy individuals, who demand individualized advice (Horn and Rudolf, 2011). In addition, relationships between clients and providers are built on discretion and have a long-term focus (Horn and Rudolf, 2011). All these characteristics add to the complexity of the service delivery, which makes an examination particularly interesting from a researchers point of view. However, a glance at the literature reveals that research in this field is still scarce. In fact, what is missing is an industry specific perspective that simultaneously accounts for service quality, customer satisfaction, and the client's behavioral intentions in a holistic model.

Against this backdrop, two objectives come to the fore. First, it appears necessary to identify the relevant determinants for service quality in private banking. While Lassar et al. (2000) are among the first to concentrate on service quality in private banking, they do not develop industry specific dimensions. On the contrary, Horn and Rudolf (2011) recognize the need for industry specific dimensions, but they apply the perspective of the provider. The perspective of the client has been ignored thus far. Hence, there is a need to develop and test private banking specific service quality dimensions from the perspective of the client.

The second objective is to examine the relationship between service quality, customer satisfaction, and behavioral intentions, theoretically and empirically. In particular, we are interested in the impact of service quality on customer satisfaction. Further, we are interested in the impact of service quality and customer satisfaction on behavioral intentions. Ultimately, these insights will serve managers to better understand which dimensions of their service offerings have the highest impact on quality perception, and how this perception is linked to satisfaction and behavioral intentions.

To address both objectives, we organize this chapter as follows: section 3.2 discusses the theoretical background. Section 3.3 presents the model and the underlying hypothe-

ses. An elaborate discourse on the methodology and results is presented in section 3.4 and 3.5, respectively. We conclude this chapter in section 3.6 with a discussion of research issues, limitations, and managerial implications.

3.2 Theoretical Background

3.2.1 The Service Quality Model

For decades, service quality perceptions take on a central role in research on service encounter (e.g., Horn and Rudolf (2011); Chiou and Droge (2006); Brady and Cronin (2001); Cronin et al. (2000); Cronin and Taylor (1992); Parasuraman et al. (1985)). In an early article, Parasuraman et al. (1988) define perceived service quality as “the consumer’s judgment about an entity’s overall excellence or superiority (...) [that] results from a comparison of expectations with perceptions of performance” (p. 15). This definition is rooted in the theoretical reasoning of the disconfirmation paradigm, which posits a comparison of expectations and performance (e.g Churchill and Surprenant (1982); Olshavsky and Miller (1972); Cardozo (1965)). More specifically, expectations are disconfirmed when the delivered services perform worse (negative disconfirmation) or better (positive disconfirmation) than initially expected (Churchill and Surprenant, 1982, p. 492). Hence, a positive perception of service quality can only be accomplished when the service meets or exceeds the expectations.

Two central service quality models are based on the reasoning of the disconfirmation paradigm. Firstly, the Nordic model proposed by Grönroos (1984) depicts perceived service quality as the result of a comparison between expected service and perceived service. Here, the underlying dimensions to evaluate the services are either technical or functional by nature (Grönroos, 1984). The technical dimension refers to the outcomes of the service delivery, and describes *what* the customer receives. The functional dimension refers to the interaction during the service delivery, and describes *how* the service is delivered. Secondly, there is the American SERVQUAL model, proposed by Parasuraman et al. (1985) and Parasuraman et al. (1988). Similar to Grönroos (1984), Parasuraman et al. (1985) depict perceived service quality as gap between the expected and perceived service. However, different from Grönroos (1984) they offer five underlying service quality dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). Nowadays, the SERVQUAL model serves as a basis for a variety of empirical studies, largely due to its simplicity (e.g., Ravichandran et al. (2010); Dabholkar et al. (2000); Boulding et al. (1993)).

Despite their seminal contributions, scholars have criticized both, the Nordic model and the American model with regards to their practicability. Three major advancements are offered. Firstly, Cronin and Taylor (1992) provide theoretical and empirical arguments for dropping the expectations part of the SERVQUAL model and to focus solely on performance measures. The shift to performance-only models has been supported since then by several studies, including Brady et al. (2002), Zeithaml et al. (1996), and McAlexander et al. (1994). The second advancement is anchored in an extension of the Grönroos (1984) model. Rust and Oliver (1994) propose a three dimensional model that builds upon the functional (interaction) and technical (outcome) dimensions, but additionally accounts for the service environment.² The relevance of the service environment is also stressed by Bitner (1990) and Bitner (1992). The third advancement is based upon the idea to grasp the complexity of service quality in a hierarchical model, such as the one offered by Dabholkar et al. (1996). Brady and Cronin (2001) make a contribution by conflating these advancements in a performance-based, multidimensional, hierarchical model that allows to assess service quality across industries. In detail, Brady and Cronin (2001) propose that customers assess the overall service quality by evaluating three primary dimensions: interaction, environment, and outcome. These primary dimensions are in turn evaluated by several subdimensions, applicable across industries (Brady and Cronin, 2001). The authors empirically test the model in four industries and yield supporting results (Brady and Cronin, 2001). Additional confirmation for the adequacy of a hierarchical structure can be found in recent studies (e.g., Horn and Rudolf (2011); Madhavaiah et al. (2008); Fassnacht and Köse (2006); Liu (2005)).

Based on the literature review, we resume that the complexity associated with service quality is best evaluated by means of a multidimensional, hierarchical model, in the sense of Brady and Cronin (2001). To be precise, we argue that the overall service quality perception shall be based on the customer's evaluation of three primary dimensions: interaction, environment, and outcome. In line with Brady and Cronin (2001), the primary dimensions shall also be evaluated by a set of subdimensions. In this respect, we respond to a call for research to use industry specific service quality subdimensions (e.g., Bedi (2010); García and Caro (2010); Brady and Cronin (2001)). However, a glance at private banking related studies reveals a gap, since only a few studies deal with service quality: Lassar et al. (2000) analyze service quality in private banking but rely on the industry-spanning dimensions proposed by Grönroos (1984) and Parasuraman et al. (1988). By contrast, Horn and Rudolf (2011) recognize the need for industry specific dimensions, but apply the perspective of the provider. Hence, the literature fails to provide private

²For an elaborate discussion of these dimensions please refer to Rust and Oliver (1994) and Brady and Cronin (2001).

banking specific service quality dimensions, from a customer's perspective. Our research fills this gap with the assistance of a qualitative study.

3.2.1.1 The Qualitative Study

Our goal is to draw on the experience and expectations of customers to identify relevant private banking specific service quality dimensions. Qualitative data help to accomplish this goal as they reflect a "real life" setting in which the "local context" is taken into account (Miles and Huberman, 1994, p. 10). This enables the researcher to read between the lines and to develop a better understanding of latent, underlying issues that are likely to be important (Miles and Huberman, 1994). Related studies also utilize a qualitative approach to identify quality dimensions (e.g., Brady and Cronin (2001); Grove and Fisk (1997); Parasuraman et al. (1985)).

To gain an understanding of private banking client's experience and expectations we addressed clients and experts³ likewise. The latter group is used as a control group. We are convinced that experts are in a position to point to relevant attributes which might be only subtle perceived by the client, but still shape the client's perception of service quality. We were able to win 12 private banking clients and 13 experts for our study. In line with Miles and Huberman (1994, p. 27), a judgment sample is chosen. Clients were selected according to their wealth and experience with private banking services and the choice for experts was controlled for by occupation and hierarchy. Data collection was conducted by means of in-depth interviews. The communication approach resembled a mixture of personal and telephone interviews to circumvent time constraints and to adhere to personal preferences. An open-ended survey was used to provide a frame that guides the interview (Blumberg et al., 2005, p. 436). In detail, we asked the respondents about the attributes they deem important drivers for service quality within private banking in terms of interaction, environment, and outcome. By pursuing this free response strategy (Blumberg et al., 2005, p. 451), the respondents were encouraged to list all attributes they perceive as relevant, and rank them according to their importance, if possible. Data were collected throughout April 2011.

In total, 296 attributes were identified as drivers of service quality. Afterwards, we coded the data by means of inductive categorization. The utilization of an inductive approach is in line with Spiggle (1994) and is also employed by Brady and Cronin (2001). As opposed to deductive categorization - where categories are determined a priori and

³To be regarded as expert two criteria had to be satisfied: first, the person had to be employed by a private banking provider; second, the person's engagement had to have a client-centric orientation (e.g., relationship manager, service quality manager, liable partner).

text passages are located and assigned accordingly - inductive categorization identifies emergent categories from the data (Spiggle, 1994, p. 493). More precisely, attributes with a coherent meaning are classified to one distinct category emergent from the data. Following Churchill (1999), we accounted for multiple responses that belong to one category. In case two or more categories were judged as overlapping, the process of categorization continued until all categories were found to be distinct from each other. For the present study, it was required that the categories are consistently attributable to the primary dimensions (interaction, environment, and outcome). In the end, we were able to identify 11 distinct private banking specific subdimensions, allocated across the primary dimensions. An overview of the subdimensions, including key attributes is provided in table 3.6 in the appendix. An elaborate discussion of our findings, postulated relationships, and supportive literature can be found in section 3.3 on hypotheses.

3.2.2 Customer Satisfaction and Behavioral Intentions

The second goal of the study in this chapter is to shed light on the relationship between service quality, customer satisfaction, and behavioral intentions. Since the dimensionality of service quality has been discussed above, we proceed with a discussion of customer satisfaction and behavioral intentions. Starting with customer satisfaction, Anderson et al. (1994) describe it “as a postchoice evaluative judgment” (p. 54) of a purchase decision, and Rust and Oliver (1994) view it “as a state of fulfillment related to reinforcement and arousal” (p. 4). In this respect, both, cognitive and affective processes play a substantial role in the formation of satisfaction (e.g., Rust and Oliver (1994); Westbrook (1987)). In addition, the literature offers two perspectives on customer satisfaction as either being transaction specific (Cronin and Taylor, 1992) or based on cumulative experience (e.g., Anderson et al. (1994); Boulding et al. (1993)). Related research that puts satisfaction in the context of service quality or loyalty commonly applies a cumulative perspective (e.g., Fornell et al. (1996); Anderson et al. (1994); Fornell (1992)). We agree with this perspective as it seems unlikely that satisfaction based on one transaction causes long-term loyalty (Homburg and Giering, 2001).

The theoretical foundation of customer satisfaction is also anchored in the disconfirmation paradigm (e.g., Rust and Oliver (1994); Bearden and Teel (1983); Oliver (1980)). To some extent, prominent studies that depict customer satisfaction in a multidimensional context build upon this theory (e.g., Fornell et al. (1996)); Anderson et al. (1994); Rust and Oliver (1994)). For instance, Fornell et al. (1996) identify customer expectations, perceived quality and perceived value as relevant antecedents of customer satisfaction. Nevertheless, empirical evidence suggests that - when evaluating cumulative satisfaction -

expectations have at best a marginal impact on satisfaction (e.g., Martensen et al. (2000); Anderson et al. (1994)). On the contrary, perceived service quality and perceived value exert a substantial influence on customer satisfaction, across several industries (e.g., Tam (2004); Cronin et al. (2000); Fornell et al. (1996)). In this respect, Cronin et al. (2000) highlight that in attempts of researchers to deepen “an understanding of the conceptual relationships between service encounter constructs (...) quality, value, and satisfaction have taken center stage” (p. 195). Still, with focus on private banking services - evaluated from a customer’s perspective - these relationships have not been exploited yet.

From this discussion a brief definition of perceived value needs to follow: Zeithaml (1988) offers a general definition and describes perceived value as “the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given” (p. 14). This tradeoff perspective is also shared by Rust and Oliver (1994), who define value more concretely as a ratio of quality to price. More precisely, they argue: “value increases as quality increases and as price decreases” (Rust and Oliver, 1994, p. 7). This study concurs with this definition.

Lastly, we consider behavioral intentions. Zeithaml et al. (1996) describe them “as indicators that signal whether customers will remain with or defect from the company” (p. 33). The literature offers two approaches to describe and measure behavioral intentions. In the first approach, researchers consider behavioral intentions as an aggregated construct that depicts a combination of several intentional indicators (e.g., Cronin et al. (2000); Dabholkar et al. (2000); Zeithaml et al. (1996); Boulding et al. (1993)). In the second approach, researchers focus on individual dimensions, such as repurchase intention (e.g., Anderson and Sullivan (1993); Cronin and Taylor (1992)). This study agrees with the second approach as it allows to distinguish more concretely between the individual behavioral intentions.

In the course of the qualitative study we identified three behavioral intentions dimensions that are particularly relevant for the private banking industry. Firstly, we opt for word-of-mouth intentions (Brown et al., 2005) and define it “as informal, person-to-person communication” (Harrison-Walker, 2001, p. 70) that can be positive or negative (Brown et al., 2005, p. 125). For this study a strictly positive view on word-of-mouth communication is applied that comprises the client’s propensity to say positive things about the provider and his / her willingness for recommendation (Zeithaml et al., 1996, p. 38). Secondly, the client’s repurchase intention is included. However, since private banking relationships have a long-term focus that include complex financial and risk planning services (Horn and Rudolf, 2011, p. 176), a reduction to mere purchasing transactions would be misleading. Therefore, we describe the repurchase intention as a general propensity to stay loyal (Cronin et al., 2000, p. 204). Finally, the client’s willingness-to-pay (more) is

identified as relevant (e.g., Homburg et al. (2005); Anderson (1996)). In this context, an increase in willingness-to-pay is comparable to an increase in price tolerance or a decrease in price sensitivity (Anderson (1996); Zeithaml et al. (1996)).

The relevance to examine behavioral intentions in the broader context of the service encounter is underscored by Zeithaml et al. (1996). They theorize that superior service quality results in favorable behavioral intentions, which in turn strengthen the firm relationship, and ultimately increase the financial performance (Zeithaml et al., 1996, p. 33).⁴ With focus on the first part of the chain, Cronin et al. (2000) add to this perspective by urging researchers not only to concentrate on service quality, but to exert a more holistic view. They postulate and provide evidence that service quality, value, and satisfaction ought to be considered jointly as antecedents of behavioral intentions (Cronin et al., 2000, p. 210). Still, they acknowledge that differences are likely to exist across industries (Cronin et al., 2000, p. 211). Considering that such a comprehensive analysis is not yet existent for the private banking industry, this study intends to close a gap.

3.3 Model and Hypotheses

The theoretical background of the major constructs and a rough indication of their underlying relationships has been provided above. This section is concerned with the development of hypotheses that describe the concrete relationships between the constructs. In the end, a model is formed based on 24 hypotheses occupied with direct relationships and three hypotheses occupied with relative importance. An overview of all hypotheses is provided in figure 3.1.

With regard to the interaction quality, five influencing subdimensions were identified in the course of the qualitative study: social competence, reachability, expertise, investment proposal, and transparent counseling. To a large extent, related studies confirm these relationships. Brady and Cronin (2001) for instance, stress the relevance of social competence (they refer to key attributes such as “attitude” and “behavior”), and expertise when it comes to interaction. Also, Bitner (1990) emphasizes that social competence (in the form of “attitude” and “behavior”) of the personnel influences the functional quality dimension. With particular focus on private banking, Horn and Rudolf (2011) stress the relevance of social competence (in their study “emotional competence”), expertise (i.e., “competence”), and investment proposal as determinants for interaction quality. Further, Seiler (2011) identifies reachability and investment proposal as relevant dimensions for the private banking industry; and Lassar et al. (2000) describe the social competence (i.e.,

⁴Empirical evidence for this chain of effects is provided by for instance Kamakura et al. (2002).

“manners”) of the personnel as part of the functional quality. Transparent counseling has as a stand-alone dimension not yet received attention in the literature. Still, its relevance was stressed in the qualitative study. In sum, we hypothesize:

*H*₁: A positive perception of social competence has a direct, positive effect on the perception of the interaction quality.

*H*₂: A positive perception of reachability has a direct, positive effect on the perception of the interaction quality.

*H*₃: A positive perception of expertise has a direct, positive effect on the perception of the interaction quality.

*H*₄: A positive perception of the investment proposal has a direct, positive effect on the perception of the interaction quality.

*H*₅: A perception of transparent counseling has a direct, positive effect on the perception of the interaction quality.

Concerning the environment quality, three influencing subdimensions were determined throughout the qualitative study: geographical position, ambience, and reputation. From this it follows that environment quality in private banking is influenced by a combination of tangible and intangible dimensions. This perspective is different to the view proposed by Brady and Cronin (2001) and Bitner (1990), who focus on the tangible (physical) environment. To a great extent, we find support for the proposed relationships in related studies. For instance, Oppewal and Vriens (2000) stress the importance of geographical presence (in their study “accessibility”) as a service quality criterion. Brady and Cronin (2001) and Bitner (1992) support the influence of ambience on environment quality. Horn and Rudolf (2011) support the influence of both, geographical presence, and ambience (in their study “outer appearance”) on environment quality. Further, the influence of reputation on the overall service quality is discussed by Grönroos (1984) (in his study “image”) and Zeithaml (1988). However, a direct relationship between reputation and environment quality has not yet been determined. Still, by adhering to the results of the qualitative study we hypothesize:

*H*₆: A positive perception of the geographical position has a direct, positive effect on the perception of the environment quality.

*H*₇: A positive perception of the ambience has a direct, positive effect on the perception of the environment quality.

*H*₈: A positive perception of the reputation has a direct, positive effect on the perception of the environment quality.

With regard to the outcome quality, our qualitative study revealed three influencing subdimensions: product offering, portfolio performance,⁵ and reporting. Since these subdimensions are rather industry specific, it is not surprising that support can be found particularly in the private banking literature. For instance, Horn and Rudolf (2011)

⁵In the following interchangeably referred to as simply performance.

find evidence for a significant influence of product offering (in their study “product and service range”), performance, and reporting (in their study “standard reporting”) on outcome quality. In a study on customer satisfaction, Seiler (2011) also includes product offering, performance, and reporting as relevant determinants. In addition, the relevance of reporting is intensively discussed by Viebahn (2005). As a result of these insights we hypothesize the following:

H₉: A positive perception of the product offering has a direct, positive effect on the perception of the outcome quality.

H₁₀: A positive perception of the performance has a direct, positive effect on the perception of the outcome quality.

H₁₁: A positive perception of the reporting has a direct, positive effect on the perception of the outcome quality.

Inspired by the theoretical arguments of Rust and Oliver (1994) and the empirical confirmation of Brady and Cronin (2001), we argue that a private banking client’s overall service quality perception is influenced by three primary dimensions: the interaction quality, environment quality, and outcome quality. In fact, by distributing the overall quality evaluation on three primary dimensions we are able to disentangle some of the complexity associated with private banking services. In this respect, Horn and Rudolf (2011) find empirical support for the superiority of using three primary dimensions, as opposed to two or none. Although Horn and Rudolf (2011) use the perspective of private banking providers, we are convinced that the relationships should also hold when taking the client’s perspective. Hence, we hypothesize:

H₁₂: A positive perception of the interaction quality has a direct, positive effect on the perception of the overall service quality.

H₁₃: A positive perception of the environment quality has a direct, positive effect on the perception of the overall service quality.

H₁₄: A positive perception of the outcome quality has a direct, positive effect on the perception of the overall service quality.

Throughout the qualitative study, we revealed that the interaction between clients and experts is very intense. In line with this, interviewees spent more time, on average to talk about the interaction quality (in comparison to outcome quality and environment quality). Further, both parties stressed the relative importance of the interaction quality by particularly emphasizing related attributes. As a result, the impression is substantiated that interaction quality has a larger impact on the overall service quality perception than environment quality or outcome quality. Confirmatory empirical results can be found in the literature. For instance, Mittal and Lassar (1998) show that for high contact services the influence of functional (interaction) quality on customer satisfaction is stronger than the influence of technical (outcome) quality. Also, Lassar et al. (2000) yield

similar results when questioning private banking clients in the USA and South America. Moreover, Chiou and Droge (2006) analyze the influence of interactive service quality and facility service quality on satisfaction in a high involvement, high service market. They find a positive and significant effect of the former, and no significant effect of the latter (Chiou and Droge, 2006). Hence, we hypothesize:

H₁₅: The perception of the overall service quality is more strongly influenced by the interaction quality than by the a) environment quality, b) outcome quality.

Furthermore, the results of our qualitative study support the notion that outcome quality has a larger impact on the overall service quality than environment quality. This seems intuitive, considering that the client's wealth is directly affected by the outcome, but not by the environment. It follows:

H₁₆: The perception of the overall service quality is more strongly influenced by the outcome quality than by the environment quality.

The discussion of consequences of perceived quality has received noticeable attention in the literature on service encounter. For instance, a simultaneous consideration of service quality, perceived value, and customer satisfaction is theoretically encouraged by Rust and Oliver (1994), and empirically supported by Fornell et al. (1996). More specifically, Fornell et al. (1996) find a strong impact of perceived quality on perceived value and on customer satisfaction, across industries. These results are confirmed in a subsequent analysis with focus on service industries by Cronin et al. (2000) and particularly for the private banking industry by Horn and Rudolf (2012). In addition, ample support has been found for a direct relationship between service quality perceptions and behavioral intentions, in general (e.g., Cronin et al. (2000); Dabholkar et al. (2000); Zeithaml et al. (1996); Boulding et al. (1993)). With focus on the individual behavioral intentions dimensions, Harrison-Walker (2001) provides support for a positive influence of service quality on word-of-mouth, in at least one industry. Further, McAlexander et al. (1994) provide support for a positive influence of service quality on the propensity to stay loyal (repurchase intention). In addition, Homburg et al. (2005) provide support for a significant effect of service quality on willingness-to-pay. Up to now, these relationships have been analyzed solely in service industries other than private banking. We argue that they should hold here as well. In sum, we hypothesize:

H₁₇: A positive perception of the overall service quality has a direct, positive effect on a) perceived value, b) customer satisfaction, c) word-of-mouth, d) loyalty, e) willingness-to-pay.

As described above, discussions of the consequences of service quality frequently also involve a discussion of perceived value. Two relationships are of particular interest. Firstly, Fornell et al. (1996) and Cronin et al. (2000) find support for a positive effect of

perceived value on customer satisfaction, across industries. In a similar analysis, Horn and Rudolf (2012) confirm this finding for the private banking industry. Secondly, it is argued that a positive perception of value is likely to result in the willingness-to-pay a higher price (e.g., Ligas and Chaudhuri (2012); Homburg et al. (2005)). Empirical support for this relationship is provided by Fassnacht and Köse (2007). In line with these insights we hypothesize:

H₁₈: A positive perception of the perceived value has a direct, positive effect on a) customer satisfaction, b) willingness-to-pay.

Finally, we are interested in the relationships between customer satisfaction and behavioral intentions. Similar to the effects emanating from perceived service quality, Cronin et al. (2000) and Dabholkar et al. (2000) find strong support for a positive influence of customer satisfaction on behavioral intentions, in general. With focus on the individual behavioral intentions dimensions, Brown et al. (2005) show that customer satisfaction has a positive influence on positive word-of-mouth intentions. With regard to loyalty, Cronin and Taylor (1992) and Anderson and Sullivan (1993) find a positive influence of customer satisfaction on repurchase intentions. Further, Homburg et al. (2005) and Anderson (1996) find a positive relationship between customer satisfaction and willingness-to-pay. Thereof, we hypothesize:

H₁₉: Customer satisfaction has a positive, direct effect on a) word-of-mouth, b) loyalty, c) willingness-to-pay.

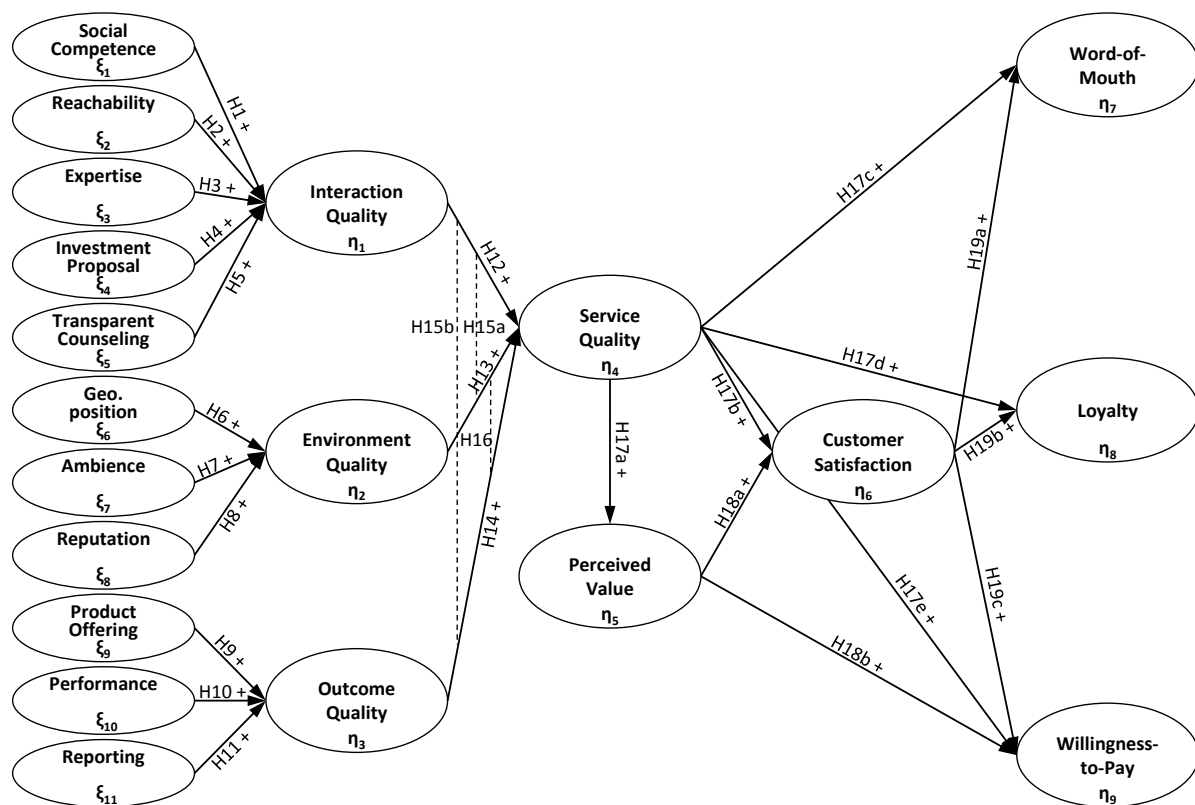
3.3.1 Moderating Effects

In addition to the hypothesized effects it is likely that other variables moderate these effects. Two variables are of particular interest: wealth class and length of relationship. Especially, the former variable is more or less extraordinary, as it is private banking specific. Providers typically segment their clients according to wealth size, and differentiate their offerings, respectively (Vielhaber, 2011). Clients with more wealth are likely to receive other, conceivably more individualized services than less wealthy clients. Although providers frequently define their own wealth segments, the literature offers a commonly accepted classification scheme: clients with a private financial wealth⁶ in a range of 100,000 Euro to 1 M Euro are classified as “affluent” clients, and clients with a private financial wealth of more than 1 M Euro are classified as high net worth individuals “HN-WIs” (Capgemini and Merrill Lynch (2010); Capgemini and Merrill Lynch (2011)). Since

⁶Private financial wealth includes all types of liquid private assets, such as cash and marketable securities but excludes illiquid assets, such as proprietary businesses or real estates (BCG (2012, p. 9); Capgemini and Merrill Lynch (2012, p. 6)).

affluents and HNWI are likely to receive a different set of services, it is expected that both groups also set different priorities when evaluating antecedents and consequences of service quality. Furthermore, differences in the evaluation are also expected for clients with different relationship durations. This seems natural, given that buyer-seller relationships develop over time (Homburg, 2003). The relevance to address the length of relationship has also been substantiated by a variety of studies (e.g., Homburg et al. (2009); Homburg et al. (2005)).

Figure 3.1: Model and Hypotheses Overview



Notes: the continuous lines reflect postulated direct effects. The dotted lines reflect a comparison of relative importance.
Geo. position = geographical position.

3.4 Methodology

Throughout the following section, we discuss the methodological course of action. This includes a discussion on measure development, data collection and sample characteristics, and an assessment of the measure quality.

3.4.1 Measure Development

To measure the model, an initial set of 84 items was generated by relying on existing scales from the literature and expert interviews conducted in the course of the qualitative study (following the guidelines of Malhotra (2007, p. 282), Churchill and Iacobucci (2005, p. 297-298), and Churchill (1979, p. 66)). We paid great attention to account for industry specific characteristics and thus modified existing scales, if necessary, to match them to the specificity of the private banking context. Furthermore, we paid special attention to the specification issue. By anticipating problems associated with formative model specification (Howell et al., 2007), all items in this study were specified as reflective items. To avoid misspecification, the decision was in accordance with a set of criteria proposed by Jarvis et al. (2003, p. 203). In addition, we were interested in reducing potential causes for common method bias. Thus, we also paid attention to the wording of items (Podsakoff et al., 2003). Notably, we focused on simple words and avoided double-barreled or leading questions among others (Malhotra (2007, p. 311-314); Podsakoff et al. (2003, p. 888)). In addition, some items were negatively worded to detect signs for acquiescence (yea-saying behavior) (Churchill, 1979, p. 68). Regarding the response format all model relevant items were measured on a five-point Likert scale ranging from totally agree to totally disagree.

To further ensure appropriateness of wording, response format, and content validity the initial set of items was intensively pre-tested using personal interviews. More specifically, we asked 12 researchers, four practitioners and three private banking clients to rate (Hardesty and Bearden, 2004, p. 103) and sort (Hinkin, 1995, p. 982) the items. In a first step, test persons were asked to indicate the representativeness of each item. Afterwards, a list of constructs was provided and they were asked to match items and constructs. Items that were found to be not representative or not assignable were removed from the list. Based on this qualitative judgment, the list was reduced to a final set of 69 items for 20 constructs. A complete list of the items can be found in table 3.7 in the appendix.

The selected items come from various sources. Items for the industry specific exogenous quality constructs were to a large extent either retrieved from banking related studies such as Seiler (2011), Horn (2009), and Oppewal and Vriens (2000), or self-developed.

Taking into account that Horn (2009) targets his study on private banking providers, the respective items were adapted to match the customer's view. Items for the primary quality constructs (interaction, environment, outcome) were based on Brady and Cronin (2001). The overall quality construct was measured using items from Horn (2009) and Fornell et al. (1996). Perceived value and customer satisfaction were measured using items from Seiler (2011). A scale provided by Zeithaml et al. (1996) served to measure the behavioral intentions constructs word-of-mouth and willingness-to-pay. The loyalty construct reflected a composition of items from Seiler (2011) and Cronin et al. (2000).

3.4.2 Data Collection and Sample

All relevant items were aggregated in a questionnaire primarily developed for postal delivery. Options to access a corresponding web survey or respond via telephone were additionally provided to increase response chances. For the sake of clarity, both versions of the questionnaire pointed out that respondents are only asked to evaluate their main private banking provider. This information was relevant, especially since private banking clients tend to uphold several banking relationships (Seiler, 2011). Also, it was guaranteed that participation takes place anonymously. This is important for two reasons. Firstly, it is likely that addressees are more reluctant providing sensitive information when names are specified (Mummendey, 2003). We anticipated that this is especially true when the situation involves information regarding the respondents main private banking provider and the private financial situation. Secondly, we were interested in reducing potential biases, such as social desirable responding (Baumgartner and Steenkamp, 2006, p. 99).

Loosely defined, the questionnaire was targeted at clients of private banking service providers in German speaking countries. Although there is to a large extent agreement on what constitutes private banking services - namely, "*an integrated, individual- and needs-oriented financial and risk planning service for HNWIs who require individualized advice*" (Horn and Rudolf, 2011, p. 176) - the underlying selection criteria for the target group are not uniformly defined. For instance, while some providers offer individual financial planning services for clients with a private financial wealth of 200,000 Euro, other providers require at least 5 M Euro (Vielhaber, 2011). Bearing this disparity among providers in mind we concord with extant literature and consider individuals with a private financial wealth of 250,000 Euro as private banking clients (Horn and Rudolf, 2011, p. 176). While this monetary criterion probably accounts for the majority of private banking clients it fails to cover less wealthy individuals that still receive private banking services. In fact, the practice shows that individuals with financial potential but less financial wealth are also commonly accepted (Vielhaber, 2011, p. 38). Thus, we

additionally included individuals in our target population that do not necessarily satisfy the monetary criterion but that are still segmented as private banking clients by their provider.

In this context, it is worth mentioning that researchers are confronted with two major barriers when questioning private banking clients. The first barrier is rooted in the difficulty to identify wealthy individuals. Since financial information about individuals are not publicly available, proper identification would, for instance, require assistance of the respective providers. However, providers are very discrete and to a large extent reluctant to approach their wealthy clients for research purposes.⁷ An additional barrier is imposed by the clients' (un)willingness to participate in such a study. Wealthy individuals are also very discrete and rather reluctant revealing sensitive information that include their provider and own financial situation (Seiler, 2011, p. 99). The challenge to conduct a large scale empirical study in this setting is therefore considerably high.

To overcome these difficulties the target population was approached by utilizing three distinct channels. One channel represented the cooperation with a well known German private banking provider. In this cooperation the provider preserved governance for sampling and contacting its clients to secure confidentiality and client anonymity. To avoid selection bias we agreed on a probability based systematic sampling technique (Malhotra, 2007, p. 347-348). More specifically, elements in the client database were ordered according to the assets under management and a random starting point was selected. Then, an agreed upon number i was used to pick every i^{th} element from the frame. By doing so we increased the representativeness of the sample (Malhotra, 2007, p. 348). The directory of the chair represented the second channel. For this channel the sampling process was non-probability based and constituted a combination of judgmental and snowball⁸ sampling (Malhotra, 2007, p. 343-345). Although pure probability samples are generally favored, it seemed advantageous for the purpose of this study to combine probability and non-probability sampling to seize greater control over the sampling process and thus increase representativeness (Malhotra, 2007, p. 354).⁹ As a third channel we used a mixture of suitable web and print media to advert our research project. The choice of media was a function of target group congruency.¹⁰ Hence, we only employed media where the chances were high that our target group embodied a large audience.

⁷Similar experiences are encountered by for instance Seiler (2011, p. 99) and Degen (2010, p. 179).

⁸Some affiliates of the chair were willing to ask suitable acquaintances for participating in this study.

⁹It is common practice in research to combine probability and non-probability sampling methods (Mallett, 2006, p. 160).

¹⁰To ensure congruency, we received socio-demographic statistics of the respective audience and compared them to our target group profile.

Data were collected from October 2011 until February 2012 in three consecutive waves, one for each channel. To address the first two channels we followed Dillman et al. (2009, p. 243) and prepared a mail package including a personalized cover letter outlining the goals of the study, a questionnaire and a prepaid envelope. Access to the web survey and a corresponding phone number were additionally provided. The third channel was addressed by providing a link to the web survey and relevant information such as the study goals and contact details. As incentive, we offered all participants a personalized report of the results of the study. At the end of the collection period we were able to receive 406 usable responses.¹¹

A glance at the socio-demographic profile provides a first but strong support for the appropriateness of the sample: The average age of respondents is 64 years. Almost 60% of the respondents are either pensioners or self-employed / entrepreneurs, whereby the former constitutes the strongest group with a share of 33%. The arithmetic mean of the respondents private financial wealth amounts to $\sim 2,4$ M Euro.¹² With respect to the provider category over 75% revealed that their main provider is a classical private bank. The remainder is with universal banks, savings banks or independent fund managers. The relationship to the main provider has an average lengths of 12 years, and $\sim 60\%$ of the private wealth is managed there. In line with this, respondents declared that they seldom constrain themselves to only one private banking provider. More specifically, they seek advice from two providers on average. In total, respondents provided information for 38 different private banking providers.

Data quality and sample characteristics were assessed in several ways. In a first step, we compared key demographic variables between our final sample and the database of the cooperating bank to detect signs for non-response bias (Armstrong and Overton, 1977, p. 396-397). Differences were not noticeable. We made an additional comparison to the sample of Seiler (2011) and exhibited slight differences in terms of age and occupation. However, other key demographics were not noteworthy different. We concluded that non-response bias does not pose a threat for the present study. In a second step, we used *Harman's single factor test* to address potential for common method bias (Podsakoff et al., 2003, p. 889). For this purpose, an exploratory factor analysis was conducted. Results show that no single factor is responsible for the majority of variance between

¹¹Eventually, an overall response rate cannot be reported due to the specificity of the channels: For the first channel a non-disclosure agreement prohibits us to report the size of the frame and sample. For the second channel the final sample cannot be determined as we made use of judgmental and snowball sampling. For the third channel we addressed the entire audience which cannot be quantified accurately.

¹²Respondents were asked to indicate their private financial wealth by means of an ordinal scale with pre-defined ranges. The average wealth was then approximated by using the middle value of each range.

the items, suggesting that common method bias does not cause serious problems. In a third step, missing values were analyzed. While the amount of missing values for model relevant items is considerably low, merely .1%, it is yet important to detect if they follow a certain pattern. Adhering to the criteria proposed by Little and Rubin (2002) we used SPSS 19.0 to test if data is missing completely at random (MCAR). Results ($p = .199$) suggest that data is missing completely at random as the null hypothesis of *Little's MCAR test* cannot be rejected. To continue with further analyses missing values were imputed by mean substitution. This is a valid procedure as the amount of missing values is smaller than 1% and data is missing completely at random (Roth, 1994, p. 551). In the fourth step, it was examined if the manifest variables follow a multivariate normal distribution. Typically, this is a relevant criterion as the upcoming confirmatory factor analysis (CFA) and structural equation modeling (SEM) rely on the multivariate normality assumption (Jöreskog and Sörbom, 1982, p. 405). Nonetheless, a *Kolmogorov-Smirnov test* shows that the normality assumption is clearly violated as the distribution of the manifest variables is significantly non-normal. Although this is not an uncommon phenomenon in this field of research (Fornell and Bookstein, 1982, p. 440) it needs to be properly addressed. Thus, for subsequent analyses we used Satorra-Bentler's scaling corrections to estimate parameters with standard errors and χ^2 fit statistics that are robust to non-normality (Muthén and Muthén (2010); Satorra and Bentler (2001)).

It needs to be acknowledged that a disproportionate share of respondents came from one provider. As expected, this emanated to a large extent out of our cooperation with the discussed German private bank. One option to account for this issue, is to weight the data and thus close the gap between sample and population characteristics (Mallett, 2006, p. 170). We used the approximate market share of the provider to weight the data. Then we compared weighted parameter estimates to unweighted ones. The results did not change significantly. Due to this finding, and the fact that weighting as such increases the likelihood of sampling error (Mallett, 2006, p. 170), we decided to refrain from this option. Further, remembering that a comparison of key demographics to other sources (e.g., Seiler (2011)) revealed no substantial differences, it seems questionable to assume that the private banking client population is disproportionately covered. This is especially true as clients are not bound to one provider but rather uphold relationships to two providers on average.

Still, if it is assumed that provider specific characteristics adversely affect the generalizability of the study, measurement invariance needs to be examined, before data aggregation is justified (Steenkamp and Baumgartner, 1998). Consequently, two groups were compared. One group included respondents from the cooperating provider, the other from all remaining providers. Using Mplus 6.12 (Muthén and Muthén, 2010) we

conducted a multigroup confirmatory factor analysis of the overall measurement model following the procedure proposed by Steenkamp and Baumgartner (1998, p. 83). In a first step the model was assessed for each group individually. Then configural invariance was analyzed. The results show satisfying fit statistics (as depicted in table 3.1) and highly significant factor loadings across groups. The assumption of configural invariance is therefore strongly supported. Afterwards, full metric invariance was assessed by applying the Satorra-Bentler χ^2 difference test to compare the full metric model against the configural model, that is the baseline model. With $\Delta\chi^2(33) = 54.99$ ($p < .01$) the increase in χ^2 is significant and does not support full metric invariance. Nonetheless, a subsequent test for partial metric invariance is supported with $\Delta\chi^2(20) = 21.85$ ($p > .10$). Also the fit statistics of the partial metric invariance model are quite satisfactory and did not worsen compared to the baseline model (see table 3.1). Hence, it can be concluded that data aggregation is justified for subsequent analyses.

Table 3.1: Analysis of Measurement Invariance

Type of Model	χ^2 ^a	df	RMSEA	CFI	SRMR
Configural Invariance Model	3175.20	2272	.04	.94	.05
Partial Metric Invariance Model	3197.68	2292	.04	.94	.05

Notes: df = degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, SRMR = standardized root mean square residual.

^a Satorra-Bentler scaled chi-square.

3.4.3 Measure Assessment

Exploratory and confirmatory factor analyses were employed on several levels of analysis (moving from single constructs to the full measurement model) to assess reliability and validity of the measures. In a first step, an exploratory factor analysis using SPSS 19.0 was applied to the 11 private banking specific quality dimensions. Since the structure of these dimensions has yet been based solely on qualitative analysis this was necessary to assure their adequacy (Homburg and Giering, 1996). Results confirm the pre-determined factor structure to a large extent. However, two items had to be removed from further analyses, because of low factor loadings (Gerbing and Anderson, 1988, p. 189).

In a second step, all constructs were assessed individually. Firstly, we assessed coefficient alpha and item-to-total correlation (Churchill, 1979, p. 68). Relatively low item-to-total correlations led to an elimination of another six items. Afterwards, all constructs exhibited alphas surpassing the generally accepted threshold of .70 (Homburg and Giering, 1996, p. 120). Subsequently, an exploratory factor analysis was used to confirm the structure of each construct. We found exactly one factor for each proposed construct.

Also, the variance extracted exceeded 50% for each construct (Homburg and Giering, 1996, p. 128). Then, we used Mplus 6.12 (Muthén and Muthén, 2010) to conduct a confirmatory factor analysis. In this respect, we evaluated means, standard deviations, factor loadings, *t*-values, item reliabilities, composite reliabilities, and average variance extracted. All measures exhibited satisfying psychometric properties, adhering to standards recommended in the literature.¹³

In a third step, we ran a confirmatory factor analysis for all constructs belonging to a certain domain. More specifically, this involved constructs reflecting the quality dimensions and behavioral intentions dimensions, respectively. We started with all 15 quality constructs. Next to reliability issues we paid special attention to the constructs discriminability and model fit statistics. For the former, we used the Fornell-Larcker criterion (Fornell and Larcker, 1981). Hereby, discriminant validity is ensured if, for any pairs of constructs, the estimates for average variance extracted are higher than their shared variance (Fornell and Larcker, 1981). Since the Fornell-Larcker criterion is rather strict, we also made use of the Satorra-Bentler χ^2 difference test, in case of violation. To ensure adequate discriminant validity and model fit six items were eliminated. We repeated the analyses for the behavioral intentions dimensions and eliminated two items.

Lastly, we conducted a confirmatory factor analysis including all constructs. We obtained very satisfying results in terms of reliability, validity, and model fit, so that no further items had to be deleted. In detail, we ensured internal consistency with composite reliability estimates all above the recommended threshold of .60 (Homburg and Giering, 1996, p. 130) (see table 3.2). We also assessed item reliability estimates and obtained values above the recommended standard of .40 (Homburg and Giering, 1996, p. 130) for all but two items. More precisely, one item to measure product offering and one to measure perceived value exhibited slightly deviating values of .36 and .38, respectively (see table 3.7 in the appendix). Nevertheless, we decided to keep those items in the model for the sake of prioritizing conceptual concerns (Little et al., 1999, p. 207).¹⁴ Convergent validity was investigated using average variance extracted estimates and the significance of factor loadings. All estimates for average variance extracted exceeded the threshold of .50 (Fornell and Larcker, 1981, p. 46) (see table 3.2), and all factor loadings were highly significant ($p < .001$)(see table 3.7 in the appendix). Discriminant validity was assessed using the Fornell-Larcker criterion. All but five construct pairs adhered to the criterion (see table 3.2). For the remaining five pairs the Satorra-Bentler χ^2 difference test confirmed discriminant validity with $p < .001$. Furthermore, the overall model fit

¹³A more detailed description of the recommended standards ensues at the end of this subsection. A corresponding overview can for instance be found in Homburg and Giering (1996), and Fornell and Larcker (1981).

¹⁴Cf. for instance Homburg et al. (2011) or Morhart et al. (2009) for a similar procedure.

yielded satisfactory results (Satorra-Bentler scaled $\chi^2 = 1687.77$, degrees of freedom [df] = 1136, root mean square error of approximation [RMSEA] = .04, comparative fit index [CFI] = .97, standardized root mean square residual [SRMR] = .04). We continued the analyses with 53 items. A complete list of retained and deleted items including relevant statistics can be found in table 3.7 in the appendix.

Table 3.2: Measurement Statistics including Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 Social Competence	.70	.62	.82	.81	.68	.81	.73	.64	.63	.82	.71	.83	.77	.88	.70	.68	.68	.62	.82	.55
2 Reachability		.49	.53	.38	.40	.01	.21	.30	.12	.15	.26	.43	.21	.24	.33	.39	.21	.20	.35	.08
3 Expertise			.48	.45	.49	.00	.16	.30	.26	.23	.28	.52	.25	.28	.41	.46	.32	.26	.37	.13
4 Investment Proposal				.40	.53	.00	.12	.37	.26	.27	.28	.57	.18	.35	.44	.50	.35	.24	.45	.18
5 Transparent Counseling					.58	.00	.09	.28	.20	.22	.26	.48	.19	.30	.40	.43	.31	.20	.36	.17
6 Geographical Position						.01	.09	.36	.26	.33	.27	.56	.20	.36	.46	.46	.41	.32	.43	.30
7 Ambience							.11	.05	.01	.01	.03	.01	.24	.01	.01	.02	.00	.02	.02	.00
8 Reputation								.21	.09	.05	.17	.13	.52	.09	.15	.21	.07	.05	.15	.04
9 Product Offering									.38	.27	.27	.40	.42	.38	.49	.50	.36	.32	.43	.27
10 Performance										.32	.24	.27	.17	.43	.44	.41	.28	.26	.33	.32
11 Reporting											.22	.38	.19	.77	.59	.63	.52	.31	.52	.46
12 Interaction Quality												.33	.25	.34	.34	.38	.23	.17	.24	.12
13 Environment Quality													.26	.50	.64	.66	.40	.31	.59	.23
14 Outcome Quality														.27	.30	.32	.16	.16	.28	.11
15 Service Quality															.73	.73	.52	.33	.61	.46
16 Customer Satisfaction																.85	.57	.37	.70	.43
17 Perceived Value																	.61	.42	.82	.47
18 Word-of-Mouth																		.38	.62	.66
19 Loyalty																			.52	.37
20 Willingness-to-Pay																			.72	.48
																			.81	.69

Notes: Lower left triangle depicts correlations among latent variables. Upper right triangle depicts shared variance among latent variables. CR = composite reliability, AVE = average variance extracted.

3.5 Results

3.5.1 Results Related to Main Effects

The hypothesized structural relationships in our theoretical model were estimated using Mplus 6.12. Just like in confirmatory factor analysis we estimated several model fit statistics, ranging from a test of exact fit (Satorra-Bentler scaled χ^2) to a non-centrality based fit statistic (RMSEA), incremental fit statistic (CFI), and residual-based fit statistic (SRMR). A glance at the respective estimates indicates that our model convincingly reflects the structure of the underlying data. More precisely, all fit statistics yield values in accordance with generally accepted standards (Satorra-Bentler scaled $\chi^2 = 1996.44$, $df = 1244$, $RMSEA = .04$, $CFI = .95$, $SRMR = .06$).¹⁵ In summary, 24 hypotheses were tested on direct effects. 18 of these hypotheses are supported with path coefficients significant at the 1% level, and one hypothesis with a path coefficient significant at the 10% level. An overview of all corresponding (standardized) coefficients and significance levels is reported in figure 3.2. In addition, we tested three hypotheses measuring the relative importance of interaction quality, environment quality, and outcome quality. Two of these hypotheses are supported at the 1% level.

Starting chronologically, we yield striking results by assessing the private banking specific determinants of interaction quality (H_{1-5}). Most notably, H_1 cannot be supported, as the positive influence of social competence is found to be insignificant ($\gamma_{11} = .04$, $p > .10$). This is surprising and stands in contrast to the findings of Horn and Rudolf (2011), who find support for the positive influence of emotional competence on interaction quality, from an expert's point of view. The experts, who participated in our qualitative study unanimously rendered the social competence to be the most important determinant of interaction quality. Likewise, Lassar et al. (2000) emphasize "that the private banking industry represents both a high-contact and high-level service situation" (p. 195), where the functional quality, that is "care and/or manners of the personnel" (p. 183) plays a dominant role. Apart from that, we find strong statistical support for the positive influence of reachability, expertise, and transparent counseling, with $\gamma_{12} = .22$ ($p < .01$), $\gamma_{13} = .30$ ($p < .01$), and $\gamma_{15} = .28$ ($p < .01$), respectively. These results provide a strong confirmation of H_2 , H_3 , and H_5 . In addition, the influence of the investment proposal is found to be positive ($\gamma_{14} = .14$, $p < .10$), but we only find statistical support for H_4 at the 10% significance level. Altogether, a cohesive picture emerges: more technically oriented determinants such as expertise and transparent counseling (except for investment

¹⁵Among others, an elaborate discussion of recommended cut-off values for model fit statistics can be found in Hu and Bentler (1999) or Homburg and Giering (1996).

proposal) seem to have a (relatively) stronger influence on the interaction quality than more functional oriented determinants such as social competence or reachability.

With regard to the environment quality, three determinants were analyzed. We find that the geographical position ($\gamma_{26} = .25, p < .01$), ambience ($\gamma_{27} = .46, p < .01$), and reputation ($\gamma_{28} = .40, p < .01$) all have a significant and positive effect on the environment quality, thus affirming H_{6-8} . In addition, a glance at the magnitude of the path coefficients reveals that the influence of the geographical position is weaker than the influence of ambience or the provider's reputation. This result is similar to the result of Horn and Rudolf (2011). They also find that the influence of outer appearance on environment quality is more pronounced than the influence of geographical presence. Concerning the outcome quality, we find support for H_{9-11} , as all determinants in the form of product offering ($\gamma_{39} = .19, p < .01$), performance ($\gamma_{310} = .69, p < .01$), and reporting ($\gamma_{311} = .18, p < .01$) demonstrate a significant and positive effect. In this context, the utterly strong impact of performance needs to be accentuated. Apparently, private banking clients view performance as one of the key determinants when assessing service quality in general, and outcome quality in particular. In line with this, Horn and Rudolf (2011) find a seemingly comparable result by analyzing the viewpoint of the provider.

In turn, we examined the influence of interaction quality ($\beta_{41} = .40, p < .01$), environment quality ($\beta_{42} = .09, p < .01$), and outcome quality ($\beta_{43} = .61, p < .01$) on the overall service quality perception. All effects are found to be significant and positive, and thus confirm H_{12-14} . The effect of outcome quality appears to have the largest impact on the overall service quality perception, followed by the interaction quality. The environment quality only has a marginal, although significant impact. At least to some extent, these findings contradict with our expectations. Precisely, by comparing the magnitudes of the parameter estimates for interaction quality (β_{41}) and outcome quality (β_{43}) we find no confirmation for H_{15b} . This seems to be the case as β_{43} is stronger in magnitude than β_{41} . In contrast, the magnitudes of β_{41} and β_{42} provide initial support for H_{15a} . The same is true for H_{16} , when comparing β_{42} and β_{43} .

To provide a solid statistical argument for effect differences, a Satorra-Bentler χ^2 difference test was applied. For each hypothesis, the two parameter estimates under consideration were set equal (e.g., $\beta_{41} = \beta_{43}$) (Homburg et al., 2007). The result was a constrained model. The constrained model was then compared to the unconstrained (original) model by means of a χ^2 difference test. This procedure is valid, as the constrained model is nested in the unconstrained model (Bollen, 1989). A significant increase in χ^2 provides evidence that the magnitudes of the parameter estimates differ significantly

from each other.¹⁶ Hence, to ultimately support the hypotheses two criteria have to be satisfied. Firstly, the magnitudes of parameter estimates have to match the hypothesized order, and secondly, the Satorra-Bentler χ^2 difference test has to exceed the critical value.

As mentioned before, H_{15b} cannot be supported as the first criterion is violated. However, we are still interested if the magnitudes differ significantly from each other. With $\Delta\chi^2(1) = 1.32$ ($p > .10$) the increase in χ^2 is not critical. Thus, it can be concluded that the effect of outcome quality (albeit higher in magnitude) does not differ significantly from the effect of interaction quality on the overall service quality perception. We repeated the analysis for H_{15a} and H_{16} , respectively. The Satorra-Bentler χ^2 difference test yields statistical support for both H_{15a} , with $\Delta\chi^2(1) = 30.74$ ($p < .01$), and H_{16} , with $\Delta\chi^2(1) = 61.70$ ($p < .01$). These results show that the effects of interaction quality and outcome quality are significantly higher than the effect of environment quality. By comparing our results to values found in the private banking literature, Horn and Rudolf (2011) come to similar results with respect to the impact of outcome quality. However, the authors additionally find that the impact of the environment quality is stronger than the impact of the interaction quality, which contradicts our findings.

With respect to the hypothesized consequences of perceived service quality, the results are mixed. Perceived service quality has a positive and significant effect on perceived value ($\beta_{54} = .77$, $p < .01$), thus confirming H_{17a} . Also the influence of service quality on customer satisfaction is positive and significant ($\beta_{64} = .85$, $p < .01$), which supports H_{17b} . The magnitudes of the path coefficients are also very high, suggesting that perceived service quality has a strong impact on both, perceived value and customer satisfaction. However, when examining the influence on the behavioral intentions dimensions, the picture changes. In detail, service quality does not have a significant effect on word-of-mouth ($\beta_{74} = .09$, $p > .10$), loyalty ($\beta_{84} = -.07$, $p > .10$), and willingness-to-pay ($\beta_{94} = .04$, $p > .10$). Therefore, H_{17c-e} cannot be supported. These findings are striking, as it suggests that a positive or negative perception of service quality does not directly trigger intentions to take further actions. We offer an explanation for this finding: irrespective of the industry, service quality is evaluated by rather specific determinants (Rust and Oliver, 1994, p. 6). For the private banking industry the results show that especially performance and technically oriented interaction variables are key determinants. In other words, one could describe the key determinants as more rational and less emotional by nature. However, emotions are likely to play a substantial role in triggering behavioral intentions. From this perspective, the insignificant relationships seem to be attributable to an absence of emotions when evaluating the quality of private banking services. Since

¹⁶The constrained model has one degree of freedom less than the unconstrained model. On a 5% significance level, the critical value is 3.84.

comparable studies in other industries have found significant relationships (Cronin et al. (2000); Zeithaml et al. (1996)) this seems to be an industry specific phenomenon.

Concerning the influence of perceived value, the results illustrate a positive and significant effect on customer satisfaction ($\beta_{65} = .14, p < .01$) and on willingness-to-pay ($\beta_{95} = .68, p < .01$). Both hypotheses (H_{18a-b}) can therefore be confirmed. Although the effect on customer satisfaction is significant, the parameter value is not strong in magnitude. In contrast, the influence on willingness-to-pay is substantially stronger. For the latter, the result also seems intuitive as perceived value and willingness-to-pay are both to some extent a function of the underlying price.

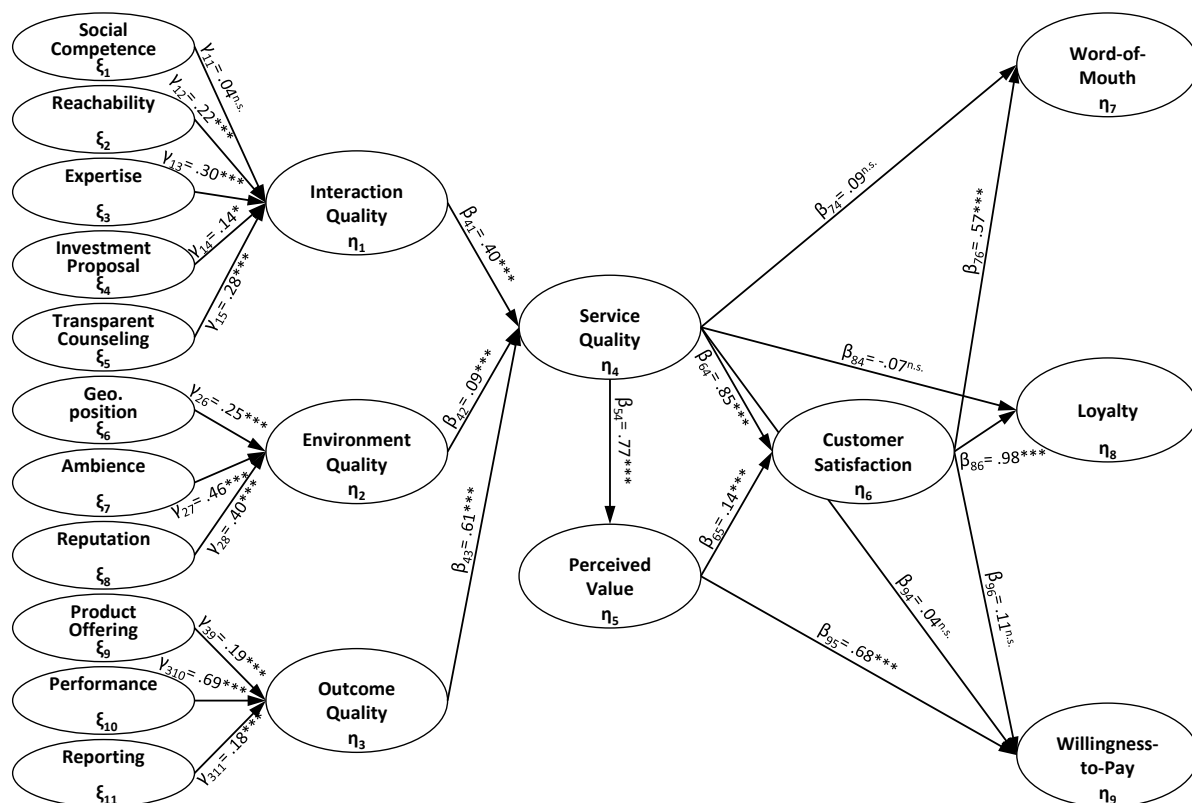
For the remaining set of hypotheses, occupied with relationships between customer satisfaction and behavioral intentions, we obtain mixed support. More precisely, we have to reject H_{19c} as the influence of customer satisfaction on willingness-to-pay is found to be insignificant ($\beta_{96} = .11, p > .10$). This result stands in contrast to our expectations and other empirical findings (Homburg et al., 2005). Nonetheless, we show that customer satisfaction has a positive and significant influence on word-of-mouth ($\beta_{76} = .57, p < .01$), and on loyalty ($\beta_{86} = .98, p < .01$). Also, the magnitudes of the parameter estimates underscore that the influence on both constructs is substantial. Hypotheses H_{19a-b} are therefore supported. Table 3.3 summarizes the results of all hypotheses.

3.5.2 Results Related to Moderating Effects

Two variables, namely wealth class and length of relationship, were tested on moderating effects. The assessment was based on multigroup analysis, which is a commonly accepted technique when dealing with latent variables (Homburg and Giering (2001); Homburg et al. (2003)). Accordingly, two subgroups were created and compared for both variables, respectively. To discriminate among wealth classes we used prevalent industry classifications. This means, respondents with a private financial wealth in a range of 100,000 Euro to 1 M Euro were classified as “affluent” clients, and respondents with a private financial wealth of more than 1 M Euro were classified as “HNWIs” (Capgemini and Merrill Lynch (2010); Capgemini and Merrill Lynch (2011)). We were able to compare 243 affluent clients and 157 HNWIs. For the other variable, length of relationship, a median split was conducted (Homburg and Giering, 2001, p. 52). 214 respondents with a relationship of up to eight years and 183 respondents with a relationship of over eight years were compared.

To begin with, the existence of a general moderating effect was analyzed for each of the variables. More specifically, a Satorra-Bentler χ^2 difference test was employed

Figure 3.2: Results of Model Estimation



* $p < .10$; ** $p < .05$; *** $p < .01$.

Notes: all coefficients are completely standardized and depict the direct effect on the variables. n.s. = not significant, geo. position = geographical position.

to compare a model that imposed equality constraints on all path coefficients across groups to a model that allowed all coefficients to vary freely across groups (Homburg and Giering, 2001, p. 54). A significant increase in χ^2 supports the existence of a moderating effect. For the variable wealth class no moderating effect is observable as the increase in χ^2 is insignificant. This finding implies that affluent clients and HNWI do not react significantly different from each other to changes in the antecedents and consequences of perceived service quality. On the contrary, the variable length of relationship appears to have a significant moderation effect with $\Delta\chi^2(24) = 43.51$ ($p < .01$).

After finding support for the existence of a general moderation effect for length of relationship, we further examined the specific moderating effects. This involved an analysis of each of the 24 path coefficients (Homburg and Giering, 2001, p. 52). Two models were again compared by means of the Satorra-Bentler χ^2 difference test. This time the models only differed in terms of one path coefficient (i.e., one model constrained one specific coefficient across groups, the other model allowed this specific coefficient to

Table 3.3: Summarized Results of Hypotheses

Hypothesis	Relationship	Postulated Effect	Result
H_1	social competence → interaction quality	+	✗
H_2	reachability → interaction quality	+	✓
H_3	expertise → interaction quality	+	✓
H_4	investment proposal → interaction quality	+	✓
H_5	transparent counseling → interaction quality	+	✓
H_6	geographical position → environment quality	+	✓
H_7	ambience → environment quality	+	✓
H_8	reputation → environment quality	+	✓
H_9	product offering → outcome quality	+	✓
H_{10}	performance → outcome quality	+	✓
H_{11}	reporting → outcome quality	+	✓
H_{12}	interaction quality → service quality	+	✓
H_{13}	environment quality → service quality	+	✓
H_{14}	outcome quality → service quality	+	✓
H_{15a}	interaction quality > environment quality	>	✓
H_{15b}	interaction quality > outcome quality	>	✗
H_{16}	outcome quality > environment quality	>	✓
H_{17a}	service quality → perceived value	+	✓
H_{17b}	service quality → customer satisfaction	+	✓
H_{17c}	service quality → word-of-mouth	+	✗
H_{17d}	service quality → loyalty	+	✗
H_{17e}	service quality → willingness-to-pay	+	✗
H_{18a}	perceived value → customer satisfaction	+	✓
H_{18b}	perceived value → willingness-to-pay	+	✓
H_{19a}	customer satisfaction → word-of-mouth	+	✓
H_{19b}	customer satisfaction → loyalty	+	✓
H_{19c}	customer satisfaction → willingness-to-pay	+	✗

Notes: + = effect is positive, > = effect on service quality is stronger in magnitude, ✗ = no confirmation of hypothesis, ✓ = confirmation of hypothesis.

vary freely across groups). The results for significant moderation effects are presented in table 3.4. It can be shown that social competence has a significant and positive effect on interaction quality for respondents in comparatively young relationships, but no significant effect for respondents in more established relationships. Also, the influences of reachability and expertise on interaction quality are significantly stronger for respondents in younger relationships. In addition, the influence of ambience on environment quality and the influence of the product offering on outcome quality are both significantly stronger for respondents in younger relationships.

3.5.3 Robustness Checks

Due to the complexity of our model several robustness checks were conducted (Homburg and Klarmann, 2006). In a first step, a *stability test* of the parameter estimates was performed. We followed the recommendation of Homburg and Stock (2004) and re-

Table 3.4: Results of Moderating Effects (Length of Relationship)

General Effect	$\Delta\chi^2$ for all path coefficients set equal across groups ($\Delta df=24$): 43.51***				
Specific Effect	≤ 8 years ($n=214$)		> 8 years ($n=183$)		$\Delta\chi^2$ ($\Delta df=1$)
Path	Coefficients	<i>t</i> -value	Coefficients	<i>t</i> -value	
SOC \rightarrow INQ	.26	2.02	-.06	-0.62	5.00**
REA \rightarrow INQ	.32	4.88	.13	2.11	5.05**
EXP \rightarrow INQ	.42	7.38	.18	3.06	9.50***
AMB \rightarrow ENQ	.66	12.39	.40	7.30	6.05**
PRO \rightarrow OUQ	.38	6.37	.20	3.26	4.05**

** $p < .05$; *** $p < .01$.

Notes: all paths that are not shown were found to be insignificantly different.

df = degrees of freedom, SOC = social competence, INQ = interaction quality,

REA = reachability, EXP = expertise, AMB = ambience, ENQ = environment quality,

PRO = product offering, OUQ = outcome quality.

analyzed the model by randomly deleting approximately 10% of the sample. With a reduced sample the analysis was repeated in 10 independent tests. For all stability tests the results are consistent with our hypotheses test. More precisely, all parameters that are found to be either highly significant or insignificant in the hypotheses test show the same pattern in all independent tests. In addition, the magnitudes of the parameter estimates reveal a consistent pattern. Fluctuations of significance levels are only found for the relationship between investment proposal and interaction quality. Nevertheless, this was more or less expected as the hypothesis was only supported at the 10% level. Overall, it can be concluded that the stability tests affirm our findings.

To preclude the assumption that other models better reflect the structure of the underlying data, we also assessed theoretically valid *alternative models*. For the first alternative model the construct reputation was not depicted as an antecedent but as a consequence of perceived service quality. The underlying theoretical motivation was twofold. Firstly, to describe the environment quality only in terms of physical dimensions, in the sense of Bitner (1990) and Bitner (1992). And secondly, because studies by for instance Chang and Zhu (2011) and Wang et al. (2003) support the influence of service quality on the firm’s reputation instead of vice versa. However, the results suggest that our proposed model exhibits a slightly better model fit (see table 3.5). For the second alternative model, the constructs investment proposal and transparent counseling were depicted as outcome dimensions. This alternative conceptualization was based on follow up discussions with experts. Again, the results in table 3.5 suggest that the proposed model performs slightly better. Hence, we find strong support for our proposed theoretical model.

We also addressed potential problems that could stem from *multicollinearity*. As Grewal et al. (2004) indicate, “the problem of *multicollinearity* [emphasis added] is closely related to the issue of discriminant validity” (p. 527). We ensured discriminant validity by means of the Fornell-Larcker criterion and the Satorra-Bentler χ^2 difference test. Thus, it is unlikely that *multicollinearity* poses a serious threat in this study (Grewal et al., 2004, p. 528). In addition, *endogeneity* problems are addressed, as a result of omitted variables (Chenhall and Moers, 2007). We controlled for this problem early in the data collection phase by asking respondents if any relevant variables are missing. No respondent pointed in this direction. Hence, it seems unlikely that omitted variables pose a serious threat. In summary, we are able to confirm the robustness of our results.

Table 3.5: Results of Alternative Models

Type of Model	χ^{2a}	df	RMSEA	CFI	SRMR
Proposed Model	1996.44	1244	.04	.95	.06
Alternative Model I	2087.92	1251	.04	.95	.07
Alternative Model II	2018.31	1244	.04	.95	.06

Notes: df = degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, SRMR = standardized root mean square residual.

^a Satorra-Bentler scaled chi-square.

3.6 Discussion

Service quality, customer satisfaction and behavioral intentions are highly debated topics in the private banking industry. However, studies in this field remain scarce, especially from a client perspective. More precisely, the literature remains unclear in view of the driving forces that influence the perception of service quality, and how this perception is related to customer satisfaction and behavioral intentions. The study presented in this chapter addresses these issues theoretically and empirically using survey data from 406 private banking clients. Our findings advance knowledge for researchers and managers in several ways.

3.6.1 Research Issues

Firstly, our study introduces private banking specific service quality dimensions, conceptualized from the client perspective. In this way, we respond to a call for research to investigate industry specific service quality dimensions (e.g., Horn and Rudolf (2011);

Bedi (2010); Brady and Cronin (2001)). Our findings show that clients value the interaction and outcome quality as important determinants of the overall service quality. The environment quality only plays a subordinate role. In terms of interaction quality, more technically oriented dimensions such as expertise and transparent counseling play a dominant role. More functionally oriented dimensions such as social competence or reachability are less important. This insight is complemented by the importance of portfolio performance (being purely technical) as most influential determinant for outcome quality.

Two issues evolve from this observation. First, private banking clients seem to discriminate between the relevance of functional and technical quality dimensions, by attributing more importance to the latter. At least in terms of interaction, our view on technical and functional service components is not completely congruent with the view provided by Grönroos (1984) and Brady and Cronin (2001). These authors clearly separate the interaction as being functional and the outcome as being technical. However, such a separation does not seem appropriate for the private banking industry. Rather, interaction in private banking is utterly complex and involves a mixture of functional and technical components. Therefore, further research should pay attention to this understanding when investigating service quality in private banking. Second, a comparison of our results to those of Horn and Rudolf (2011) reveals that in some aspects experts have a different view on the importance of service quality dimensions than clients. While clients value interaction and outcome, experts stress the importance of the environment and outcome. These differences should also be considered by further research. One possibility to specifically analyze diverging perceptions is by means of a dyadic analysis.

A second contribution of this study is to provide an advanced understanding of the relationship between perceived service quality, perceived value, and customer satisfaction in private banking. We find that service quality has a strong influence on customer satisfaction. In addition, we find that this influence is much stronger than the influence of perceived value on customer satisfaction. The studies of Horn and Rudolf (2011) and Fornell et al. (1996) reveal similar results. The underlying implication is that customer satisfaction in private banking is much more quality than price driven. To exactly specify the price sensitivity of private banking clients, further research should analyze the value dimension in more detail.

Thirdly, our study provides insights on how service quality and customer satisfaction have an influence on behavioral intentions in private banking. More precisely, we find that service quality has no direct effect on behavioral intentions. By contrast, customer satisfaction has a strong influence on word-of-mouth and loyalty intentions. We argue that this phenomenon is due to the specificity of the service quality determinants. In

fact, it is shown that the key determinants of service quality are rather technical and therefore driven by more rational and less emotional reasoning. Customer satisfaction on the other hand “is known to be influenced by a number of cognitive and affective processes including equity, attribution, and emotion” (Rust and Oliver, 1994, p. 6). Hence, it is not far fetched to assume that the emotional determinants of customer satisfaction play a substantial role in influencing behavioral intentions. Further research should scrutinize this issue closely to deepen the understanding on customer satisfaction in private banking and its determinants.

Finally, we make a contribution by collecting a dataset, which allows us to conduct in-depth analysis of client characteristics. More specifically, the dataset enables us to segment private banking clients according to wealth classes and length of relationship. With respect to the former, no significant differences are found among affluent clients and HNWIs. This implies that the wealth of clients has no significant moderating effect. On the other hand, the length of relationship exposes itself as a relevant moderator. We find that clients in younger relationships are more sensitive to changes in social competence, reachability, expertise, ambience, and product offerings than clients in more established relationships. This insight should encourage scholars to pay more attention to the length of relationship also in other business-to-customer settings.

Additionally, a few limitations need to be mentioned, which entail prospects for further research. First, our analysis is based on cross-sectional data. Additional research should analyze data from different time periods or panel data to observe if developments over time occur. However, due to the aforementioned difficulties to access data the latter option is utterly difficult to accomplish. Second, we constrain the analyses to a few moderating variables, largely due to limited data. For instance, a large proportion of our respondents are clients at classical private banks. With an enlarged dataset it would be interesting to observe if differences exist between private banking clients from different provider groups (e.g., universal banks, or savings banks). Since we also restrict our analyses to clients of private banking providers in German speaking countries an international dataset would allow for regional or cultural comparisons. Lastly, our estimations are limited to direct effects and effects of relative importance. A mediation analysis could provide further insights into the impact of indirect effects.

3.6.2 Managerial Implications

Our study offers five major managerial implications. Firstly, a comparison between our results and the study of Horn and Rudolf (2011) reveals some diverging perceptions between clients and experts regarding relevant service quality determinants. In detail,

experts seem to overestimate the relevance of social competence and environmental aspects (i.e., outer appearance and geographical presence). Whereas, clients place more importance on portfolio performance, expertise and transparent counseling. This insight is considerably relevant and should encourage providers to prioritize educational and transparency promoting measures, in an attempt to improve service quality perceptions.

Secondly, managers are advised to rethink geographical expansion strategies, if the underlying motivation is to increase service quality. We already highlighted that in terms of quality perception the influence of geographical presence is relatively low. However, the costs associated with geographical presence are relatively high. In light of the current discussion of stagnating profitability in private banking (McKinsey & Company, 2012), this unfavorable trade-off seems particularly relevant. Hence, one option to save costs while not adversely affecting service quality is to concentrate geographical presence.

Thirdly, concerning the revenue side, Gupta and Zeithaml (2006) stress that “satisfaction is strongly correlated with behavioral outcome and financial performance” (p. 735). In this study we show that customer satisfaction positively influences the intention for word-of-mouth and loyalty. If the intention results in actual behavior, the likelihood to increase future revenues is high (Reichheld and Sasser, 1990). Also, quality perception is an important determinant of satisfaction. Managers are therefore advised to consistently improve relevant service quality determinants, as it could ultimately have a positive effect on the firm’s financial performance.

Fourthly, we reveal that customer satisfaction is much more quality driven than price driven. On a more abstract level one could argue that competitive advantages in private banking (if customer satisfaction is a type of competitive advantage) are likely to be the result of quality differentiation, rather than price differentiation. Hence, our model can serve as a benchmark tool to evaluate providers in terms of service quality. The advantages are at least threefold. First, managers can reveal the providers strengths and weaknesses as perceived by customers. Second, managers can uncover their competitive positioning by comparing themselves to peers, a group of peers, or even the whole market. These insights can in turn be used to improve or sustain their competitive positioning. Third, managers can avoid a misallocation of resources by focusing on the most relevant determinants.

Finally, our study allows to alter existing views on certain customer segments. For instance, we show that affluent clients and HNWIs share a common perception regarding the influence of antecedents and consequences of service quality. This insight is highly valuable as it allows managers to formulate their service strategy irrespective of the clients wealth class. In addition, it is valuable to know that rather new clients are more sensitive

to changes in social competence, reachability, expertise, ambience, and product offerings. Hence, managers are encouraged to appoint their most qualified employees to counsel new clients.

As a closing remark, we would like to address the difference between service quality and customer satisfaction once again. Our research emphasizes the difference between the constructs by showing that service quality does not have a significant impact on behavioral intentions, while customer satisfaction does. It is argued that this phenomenon is related to the way service quality and customer satisfaction decisions are determined. Although this chapter specifically examines the way service quality decisions are formed, there is a need to further illuminate the formation of customer satisfaction decisions in private banking. The following chapter is dedicated to this need by conducting a large scale empirical analysis of a private banking specific customer satisfaction model. In addition, the analysis is performed using survey data from three time periods to assess if the relationships in the model are constant over time. In this way, the upcoming chapter is able to address a further research gap.

3.7 Appendix

Table 3.6: Results of the Qualitative Study

Service Quality Subdimensions	Key Attributes
Social Competence	attitude; behavior / manners; friendliness; appearance; personal fit
Reachability	short notice; outside business hours; via telephone; via email / mail
Expertise	knowledge about capital markets / financial products; access to specialists
Investment Proposal	individualized; reflects needs / personal circumstances; easy to understand
Transparent Counseling	transparency on risks / costs; didactical skills; careful listening
Geographical Position	proximity of branches; access (traffic connection); parking space
Ambience	outer appearance; inner appearance; well-tended; classy; discrete
Reputation	positive image in public; financial stability; crisis proof
Product Offering	from independent parties; in-house; exclusive; broad range
Performance	return; relation to risk / market situation
Reporting	individualized; clearly illustrated; easy to understand

Table 3.7: Scale Item Statistics

Scale Items	M	SD	FL	t	IR
Social Competence					
<i>Source: partially self-developed, partially adapted from Seiler (2011)</i>					
My private banking adviser is always friendly.	4.77	.53	.44	11.84	.68
I consider my private banking adviser very likable.	4.50	.79	.65	18.41	.68
My private banking adviser has good manners.	4.69	.65	.56	14.47	.76
Reachability					
<i>Source: adapted from Seiler (2011)</i>					
My private banking adviser's reachability over the phone is very good.	4.26	.90	.74	17.77	.67
My private banking adviser immediately responds to written requests.	4.34	.89	.68	16.77	.58
My private banking adviser is available for appointments on short notice.	4.23	.92	.71	16.25	.61
Expertise					
<i>Source: partially self-developed, partially adapted from Seiler (2011), Horn (2009)</i>					
My private banking adviser has very good knowledge about capital markets in general.	4.33	.80	.74	25.89	.85
My private banking adviser's knowledge about financial products is broad.	4.35	.80	.73	21.60	.83
My private banking adviser has the required expertise for my needs.	4.46	.78	.69	19.41	.78
Investment Proposal					
<i>Source: adapted from Seiler (2011)</i>					
My private banking provider prepares an individual investment proposal for me.	4.24	.91	.81	23.06	.81
My private banking provider uses information from the counseling interview when preparing the investment proposal.	4.39	.81	.73	19.89	.81
Transparent Counseling					
<i>Source: self-developed</i>					
My private banking adviser is transparent about the risks throughout the whole counseling process.	4.19	.89	.74	21.45	.70
My private banking adviser is transparent about the costs.	3.95	1.06	.87	22.59	.66
Geographical Position					
<i>Source: adapted from Seiler (2011), Oppewal and Vriens (2000)</i>					
My private banking provider's next branch is located close to me.	3.37	1.34	1.08	25.26	.65
I can access my private banking provider's next branch easily.	3.67	1.26	1.26	36.14	1.00
Ambience					
<i>Source: adapted from Seiler (2011), Horn (2009)</i>					
The outer appearance of my private banking provider's branch matches my expectations.	4.23	.93	.72	21.94	.60

Continued on next page

Continued from previous page

Scale Items	M	SD	FL	<i>t</i>	IR
My private banking provider's premises appear well-tended.	4.53	.78	.73	23.22	.86
The ambience of my private banking provider's premises is classy.	4.28	.90	.78	26.24	.75
My private banking provider's premises are discrete.	4.53	.81	.69	19.51	.74
Reputation					
<i>Source: self-developed</i>					
My private banking provider has an excellent reputation.	4.22	.85	.65	18.62	.59
My private banking provider's name stands for financial stability.	4.11	.93	.80	20.90	.74
My private banking provider is well positioned in times of crisis.	3.87	.91	.70	19.21	.58
Product Offering					
<i>Source: adapted from Seiler (2011)</i>					
My private banking provider offers me a broad range of products from independent parties.	3.99	1.01	.61	12.67	.36
My private banking provider offers me an exclusive set of products that I would not get from other providers.	3.45	1.12	.94	22.47	.70
My private banking provider offers me a broader range of products than other providers.	3.45	1.08	.96	24.94	.80
Performance					
<i>Source: partially self-developed, partially adapted from Seiler (2011)</i>					
The medium term (2-3 years) performance of my portfolio meets my expectations.	3.29	1.22	1.11	29.04	.83
Considering the risks I take, the performance of my portfolio meets my expectations.	3.44	1.21	1.16	32.08	.91
Considering the current market situation, the performance of my portfolio meets my expectations.	3.59	1.13	.95	22.99	.71
Reporting					
<i>Source: adapted from Seiler (2011)</i>					
My portfolio's reporting statements are easy to understand.	4.08	.91	.72	18.21	.64
Information on the reporting statements are clearly illustrated (e.g., with charts and diagrams).	4.16	.96	.85	18.90	.77
Interaction Quality					
<i>Source: adapted from Brady and Cronin (2001)</i>					
Overall, I would say the quality of my interaction with my private banking provider's employees is excellent.	4.27	.89	.81	22.06	.82
The quality of my interaction with my private banking provider's employees matches my needs.	4.29	.93	.85	22.82	.84
Environment Quality					
<i>Source: adapted from Brady and Cronin (2001)</i>					
Overall, I would say the quality of the environment (geographical position, ambience, and reputation) offered by my private banking provider is excellent.	4.06	.94	.84	24.23	.80
The quality of the environment (geographical position, ambience, and reputation) offered by my private banking provider matches my needs.	4.08	.96	.83	22.24	.75
Outcome Quality					
<i>Source: adapted from Brady and Cronin (2001)</i>					
Overall, I would say the quality of the outcome (product offering, performance, and reporting) provided by my private banking provider is excellent.	3.64	1.06	.98	27.41	.86
The quality of the outcome (product offering, performance, and reporting) provided by my private banking provider matches my needs.	3.71	1.11	1.05	28.51	.89
Service Quality					
<i>Source: adapted from Horn (2009), Fornell et al. (1996)</i>					
The quality of the services offered by my private banking provider is excellent.	4.04	.90	.83	24.09	.85
The services provided by my private banking provider match my needs.	4.08	.93	.86	24.30	.86
There is a need to improve the service quality of my private banking provider. [†]	3.70	1.18	.85	19.25	.52
Perceived Value					
<i>Source: adapted from Seiler (2011)</i>					
My private banking provider is worth the money I pay.	3.64	1.08	1.03	30.51	.91
The value provided by my private banking provider is excellent.	3.42	1.06	.95	27.06	.80
The fees charged by my private banking provider are too high for the quality offered. [†]	3.21	1.16	.72	13.78	.38

Continued on next page

Continued from previous page

Scale Items	M	SD	FL	<i>t</i>	IR
Customer Satisfaction					
<i>Source: adapted from Seiler (2011)</i>					
Overall, I am very satisfied with my private banking provider.	4.06	.97	.91	26.08	.86
I am more satisfied with my private banking provider than I expected.	3.32	1.18	.76	17.76	.42
My private banking provider matches my ideal profile of a private banking provider.	3.83	1.09	1.00	28.68	.83
Word-of-Mouth					
<i>Source: adapted from Zeithaml et al. (1996)</i>					
I say positive things about my private banking provider to other people.	3.60	1.35	1.00	18.81	.55
I recommend my private banking provider to friends / acquaintances / relatives when they seek advice.	3.68	1.26	1.09	24.34	.75
I encourage friends / acquaintances / relatives to place money with my private banking provider.	3.05	1.36	1.04	22.80	.59
Loyalty					
<i>Source: adapted from Seiler (2011), Cronin et al. (2000)</i>					
The probability is high that I stay with my private banking provider.	4.18	1.03	.95	23.03	.84
If I had to decide again I would still choose my private banking provider at any time.	4.00	1.15	1.01	24.82	.77
I stay with my private banking provider even when friends / acquaintances / relatives recommend someone else.	4.02	1.12	1.03	27.22	.85
Willingness-to-Pay					
<i>Source: adapted from Zeithaml et al. (1996)</i>					
I continue to do business with my private banking provider even if its prices increase somewhat.	3.16	1.24	.92	18.23	.55
The services offered by my private banking provider are worth a higher price than competitors charge.	2.61	1.22	.90	17.82	.54
Deleted Items					
My private banking adviser is trustworthy.	4.50	.75			
My private banking adviser and I meet at eye level.	4.39	.88			
I can reach my private banking adviser even outside business hours.	3.47	1.30			
When in-depth knowledge is requested my private banking adviser consults a specialist.	4.30	.94			
My private banking adviser explains complex issues in an understandable manner.	4.36	.77			
My private banking adviser listens carefully to what I say.	4.52	.76			
The investment proposal is formulated in a way that I can understand it.	4.36	.79			
In times of crisis my private banking adviser continues to seek contact to me on a regular basis.	3.98	1.13			
My private banking provider's next branch offers a sufficient number of parking places.	3.40	1.36			
My private banking providers employees always demonstrate a positive image in public.	4.23	.83			
My private banking provider offers me a broad range of in-house products.	3.41	1.24			
My portfolio's reporting statements match my needs.	3.90	1.00			
I recommend my private banking provider to other people without concerns.	3.81	1.22			
I say negative things about my private banking provider to other people. ^r	4.04	1.24			
I am thinking about switching my private banking provider. ^r	4.25	1.15			
The fees charged by my private banking provider are too low for the quality offered.	2.04	1.01			

Notes: for the purpose of this study all items were translated from German to English. Items were measured on a five-point Likert scale ranging from 1 "totally disagree" to 5 "totally agree". M = mean, SD = standard deviation, FL = factor loading, *t* = *t*-value, IR = item reliability.
^r rescaled negative item.

Chapter 4

Customer Satisfaction in Private Banking: An Extended Perspective

4.1 Introduction¹

Limited capital requirements and stable growth rates are just two of the characteristics that render private banking an attractive field of business (McKinsey & Company, 2012). A further distinctive feature is that it resembles a “people’s business” with high contact and high involvement (e.g., Lassar et al. (2000); Cronin and Taylor (1992)). More precisely, private banking is about financial planning and risk planning services for wealthy individuals, who demand individualized advice (Horn and Rudolf, 2011). Since the client-provider relationships are build on trust and discretion they also have a long-term orientation (Horn and Rudolf, 2011). Nevertheless, the outburst of the financial crisis had severe consequences on the industry. As revealed by a survey in 2008, more than a quarter of the global wealth population showed dissatisfaction with its private banking provider (Capgemini and Merrill Lynch, 2009). As a consequence, clients started to withdraw assets or left the company altogether (Capgemini and Merrill Lynch, 2009). Moreover, with particular focus on Europe, a turning point is still not in sight: 40% of the European private banks suffered from net asset outflows in 2011 (McKinsey & Company, 2012). Collectively, these insights indicate a demand to address customer satisfaction and loyalty issues in private banking, as these seem to have far reaching implications on the industry.

¹This chapter is based on a homonymous unpublished working paper co-authored by Volker Seiler and Markus Rudolf (Krume et al., 2013).

From an academic perspective, issues involving customer satisfaction and loyalty take center stage in various research settings (e.g., Fornell et al. (2010); Homburg and Giering (2001); Fornell et al. (1996); Anderson and Sullivan (1993)). In particular, studies that depict customer satisfaction and loyalty in a multidimensional context are frequently employed as mechanisms to measure firm performance (e.g., Martensen et al. (2000); Fornell et al. (1996)). Further, it can be shown that customer satisfaction has a direct impact on the financial performance of the firm (e.g., Schneider et al. (2009); Fornell et al. (2006); Anderson et al. (2004)). However, it is noticeable that the majority of incumbent satisfaction models are developed for cross-industry applications, and thus focus on general satisfaction determinants. Yet, when the focus rests on one industry, it seems more appropriate to account for industry specific determinants. This is especially true, since different industries offer different products or services with varying degrees of involvement (Chiou and Droge, 2006) and contact intensity (Mittal and Lassar, 1998).

With regard to the private banking industry, the literature is still scarce, especially when empirical issues are involved. One dominant reason is rooted in the discreteness of the business, which makes it difficult to approach private banking clients for data collection purposes (Seiler, 2011). Despite this obstacle, Seiler (2011) is the first to develop and test a private banking specific model to measure customer satisfaction and loyalty. Still, the underlying dataset is not large enough to measure a covariance based structural equation model (SEM) with robust parameters. Also, since the initial analysis is based on one cross-sectional dataset, there is no proof for constant relationships over time.

The study presented in this chapter has the objective to overcome these shortcomings and advance the understanding of customer satisfaction in private banking. More precisely, we use the insights from Seiler (2011) to derive a private banking specific customer satisfaction model, and apply a covariance based SEM to measure it. For this purpose, we use a rich aggregated database encompassing 985 private banking clients. One notable characteristic of the database is that it includes data from three cross-sectional studies, conducted from 2009 through 2012. Thereby, we are able to assess if the relationships are constant over time.

Concerning the structure, this chapter is organized as follows: section 4.2 illuminates the theoretical background. In section 4.3, hypotheses are derived and the model is formulated. The methodology and results are presented in section 4.4 and 4.5, respectively. Section 4.6 concludes this chapter with a discussion of research issues, limitations, and managerial implications.

4.2 Theoretical Background

Literature on customer satisfaction is diverse and has received considerable attention among marketing scholars for decades (e.g., Luo et al. (2010); Anderson and Fornell (2000); Oliver (1993a); Fornell (1992); Churchill and Surprenant (1982); Oliver (1980)). Throughout the years, various conceptual and operational definitions have been suggested. For instance, Fornell (1992) broadly defines satisfaction as the customer's "overall postpurchase evaluation" (p. 11). Similarly, Rust and Oliver (1994) also link satisfaction to the customer's postpurchase experience, but they view "satisfaction as a state of fulfillment related to reinforcement and arousal" (p. 4). From this, it can be derived that satisfaction is determined by a variety of cognitive and affective processes (e.g., Oliver (1993a); Westbrook (1987)). Further, the literature offers two perspectives on the evaluation of customer satisfaction. While some scholars view satisfaction as a transaction specific evaluative judgment (Cronin and Taylor, 1992), others use a cumulative perspective of the total consumption experience (Anderson et al., 1994). This research concurs with the latter view, as cumulative satisfaction is recognized to be "a more fundamental indicator of the firm's past, current, and future performance" (Anderson et al., 1994, p. 54). Moreover, in attempts to discuss the relationship between satisfaction and loyalty it seems unlikely to assume that single transaction satisfaction causes long-term loyalty (Homburg and Giering, 2001).

With regard to the theoretical backbone, seminal studies occupied with customer satisfaction are founded on the reasoning of the disconfirmation paradigm (e.g., Bearden and Teel (1983); Churchill and Surprenant (1982); Oliver (1980)). In this paradigm, disconfirmation is defined as the difference between prior expectations and actual performance (Churchill and Surprenant, 1982, p. 492). With particular focus on service environments, disconfirmation results when the performance of a delivered service exceeds (positive disconfirmation) or falls short (negative disconfirmation) on expectations. Satisfaction only occurs when the service meets or exceeds the initial expectations (Rust and Oliver, 1994).

The reasoning of the disconfirmation paradigm has also manifested itself in the majority of empirical satisfaction studies (e.g., Martensen et al. (2000); Fornell et al. (1996); Anderson et al. (1994)). Furthermore, since satisfaction judgments are typically influenced by a variety of factors (Rust and Oliver, 1994), the literature encourages to depict satisfaction in a multidimensional context (Yi, 1990). In fact, multidimensional modeling is likely to be associated with at least two advantages. First, it aids researchers to grasp the complexity associated with satisfaction decisions; and second, it sheds light on the influence of the determinants.

As a supplement, the advantages of depicting satisfaction in a multidimensional context are likely to gain in weight through the formation of indices. One dominant reason is that satisfaction indices can be utilized as an alternative mechanism for measuring firm performance (e.g., Fornell et al. (1996); Anderson et al. (1994)). The foundation is laid by Fornell (1992) and Anderson et al. (1994), who introduce and apply the Swedish customer satisfaction barometer (SCSB). Moreover, Anderson et al. (1994) are among the first to demonstrate that an increase in customer satisfaction has a positive effect on a firm's financial performance.² This insight has served as inspiration for scholars to develop alternative indices, also for other countries (Martensen et al., 2000). Among others, these include the American customer satisfaction index (ACSI) (Anderson and Fornell (2000); Fornell et al. (1996)), the European customer satisfaction index (ECSI) (Martensen et al., 2000), and the Hong Kong consumer satisfaction index (HKCSI) (Chan et al., 2003). In this context, it is worth mentioning that all these studies conceptualize their determinants in a rather generic way. While this can be an advantage when the objective is to conduct cross-industry comparisons, it is likely to be a drawback when the focus rests on a single industry. In case of the latter, the identification of industry specific determinants seems more appropriate, as suggested by Kristensen et al. (2000) and Fornell (1992).

Based on these insights, we resume that customer satisfaction in private banking should be viewed in a multidimensional context, affected by industry specific determinants. For this purpose, we use insights from Seiler (2011), who conducts an industry specific study on customer satisfaction. More precisely, Seiler uses an extensive literature review and a qualitative study to derive private banking specific determinants. In the end, we argue that satisfaction in private banking is determined by eight industry specific dimensions: (1) reachability, (2) ambience, (3) product offering, (4) investment proposal, (5) reporting, (6) portfolio performance,³ (7) adviser, and (8) perceived value. An elaborate discussion of the dimensions, postulated relationships, and supportive literature is presented in section 4.3 on hypotheses.

Next to the relationships between satisfaction and its determinants, this study is further interested in an analysis of potential consequences. In this respect, customer loyalty is of particular interest, as it reflects an essential ingredient for the firm's profitability (Reichheld and Sasser, 1990). According to Oliver (1999), loyalty reflects "a deeply held commitment to rebuy or repatronize a preferred product/service" (p. 34). Other scholars such as Cronin et al. (2000) and Fornell et al. (1996) concord with this view

²Anderson et al. (1994, p. 62) find a positive effect of customer satisfaction on return on investment (ROI).

³In the following interchangeably referred to as simply performance.

and consider repurchasing a sign of loyalty. Homburg and Giering (2001) and Zeithaml et al. (1996) add to this and argue that loyalty can also be expressed by multiple signs, such as repurchasing, and recommendation. We agree with this perspective, although we add that client-provider relationships in private banking go beyond simple purchasing transactions. Rather, they include complex financial and risk planning services (Horn and Rudolf, 2011, p. 176) that make it more appropriate to describe repurchasing more general as staying with the provider. Still, the question remains, on which level loyalty should be measured. While some scholars use actual behavior (e.g., Bolton and Lemon (1999); Rust and Zahorik (1993)), others settle for the mere intention (e.g., Fornell et al. (1996); Zeithaml et al. (1996); Anderson and Sullivan (1993)). We agree with the latter view, as the intention to stay loyal is already a strong indicator for commitment (Oliver, 1999). In sum, we define loyalty as the intention to stay and willingness-to-recommend.

4.3 Model and Hypotheses

The section above insinuated favoring a multidimensional approach depicting customer satisfaction with eight industry specific determinants: (1) reachability, (2) ambience, (3) product offering, (4) investment proposal, (5) reporting, (6) portfolio performance, (7) adviser, and (8) perceived value. This section illuminates the concrete relationships among all constructs of interest and develops our hypotheses. In the end, 14 hypotheses are formulated that build the basis for a private banking specific customer satisfaction model. An overview of all hypotheses is provided in figure 4.1. We proceed with the derivation of each individual hypothesis.

The relevance of reachability in service encounters is widely acknowledged. For instance, Parasuraman et al. (1985) argue that ease of contact (e.g., via phone) is a critical determinant for service quality (they refer to it as “access”). Further, Brown and Swartz (1989) point out that a convenient and quick arrangement of appointments is a sign for professionalism in services. For the private banking industry, reachability seems particularly relevant considering that it “represents both a high-contact and high-level service situation” (Lassar et al., 2000, p. 195). Moreover, it seems likely that reachability is critical for clients when the adviser / provider is responsible for managing a large share of wealth. Against this backdrop, it seems naturally to assume that reachability is a relevant determinant of satisfaction in private banking. Hence, we hypothesize:

H_1 : A positive perception of reachability has a direct, positive effect on customer satisfaction.

The dimensionality of ambience has been subject to various studies, predominantly in the service quality literature (e.g., Brady and Cronin (2001); Bitner (1992)). With regard

to the private banking industry, it has proven to significantly influence the perception of the environment quality (Horn and Rudolf, 2011). Similar insights can also be found in the context of satisfaction. For instance, Spies et al. (1997) find support for the idea that a more pleasant atmosphere in furniture stores leads to greater satisfaction. In combination with the insights provided by Horn and Rudolf (2011), it seems reasonable to assume that this relationship should hold as well in private banking. Thus, we hypothesize:

H₂: A positive perception of the ambience has a direct, positive effect on customer satisfaction.

The qualitative research of Seiler (2011) gives reason to assume that an exclusive, broad and independent product offering is a distinguishing factor in private banking. In addition, Horn and Rudolf (2011) empirically show that the product offering (they refer to it as “product and service range”) has a significant and positive effect on service product quality in private banking. Hence, it seems likely to assume that a positive perception of the product offering also positively affects customer satisfaction. Further, since the purchase of products is directly tied to a certain price, an examination of the underlying value should be the consequence. In sum, we hypothesize:

H₃: A positive perception of the product offering has a direct, positive effect on a) customer satisfaction, b) service value perception.

The investment proposal reflects a key output of the service delivery (Seiler, 2011). We postulate that the client’s perception of the investment proposal is related to satisfaction and perceived value for at least two reasons. First, since the investment proposal outlines the asset allocation strategy in consideration of the client’s personal circumstances and preferences it should have a direct impact on satisfaction. Second, the investment proposal is a manifestation of the provider’s competence and thus provides a verifiable indication of the service value. Hence, we hypothesize:

H₄: A positive perception of the investment proposal has a direct, positive effect on a) customer satisfaction, b) service value perception.

According to Viebahn (2005), reporting statements that provide an overview of the portfolio’s performance are a central component of the service offering in private banking. Moreover, the qualitative study of Seiler (2011) reveals that customers stress the relevance of reporting in private banking. This argument is empirically supported by Horn and Rudolf (2011), who find a significant influence of reporting on service product quality. Against this background, it stands to reason that reporting in private banking is also linked to customer satisfaction. As a result, we hypothesize:

H₅: A positive perception of the reporting has a direct, positive effect on customer satisfaction.

In the course of his qualitative study, Seiler (2011) reveals that portfolio performance is a key determinant for satisfaction in private banking. Further, Capgemini and Merrill

Lynch (2009) conduct a survey among high net worth individuals and disclose that performance has a strong impact on client retention. In addition, Horn and Rudolf (2011) indicate that performance is a key determinant of the quality perception, which in turn could have an influence on the value perception (Cronin et al., 2000). Taken together, it seems that performance has an influence on several factors in our model. Specifically, we hypothesize:

H₆: A positive perception of the performance has a direct, positive effect on a) customer satisfaction, b) service value perception, c) customer loyalty.

It is generally acknowledged that customer satisfaction and / or loyalty in service encounters are to a large extent determined by the interaction with the personnel (e.g., Mittal and Lassar (1996); Crosby et al. (1990); Solomon et al. (1985)). Solomon et al. (1985) even argue that “customer satisfaction and repeat patronage may be determined solely by the quality of the personal encounter” (p. 100). In private banking, the personal encounter is to a large extent realized by the adviser, who should be well-versed in terms of social competence, expertise and didactical skills (Carl, 2008). In this respect, one could argue that the adviser takes a key role in the service delivery. This is also confirmed in the qualitative study of Seiler (2011). As a result, we hypothesize:

H₇: A positive perception of the adviser has a direct, positive effect on a) customer satisfaction, b) customer loyalty.

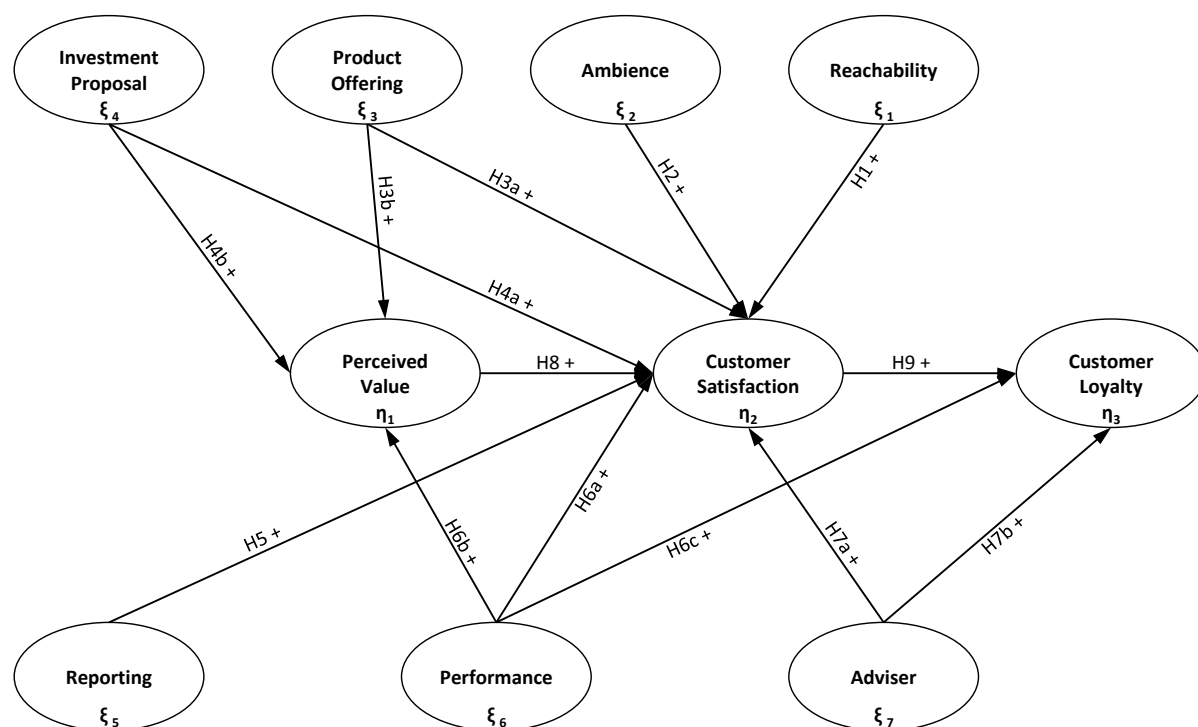
The final postulated determinant of customer satisfaction is the perceived value of the service encounter. We define perceived value as ratio of perceived quality to price (Rust and Oliver, 1994). A positive relationship between this ratio and satisfaction finds support in cross-industry studies of for instance Cronin et al. (2000) and Fornell et al. (1996). With focus on the private banking industry, Horn and Rudolf (2012) provide additional support. Hence, it seems justified to hypothesize:

H₈: A positive perception of the service value has a direct, positive effect on customer satisfaction.

After drafting hypotheses for the determinants of customer satisfaction, the final hypothesis is occupied with the relationship between satisfaction and loyalty. As the results of Homburg and Giering (2001) suggest, there likely is a strong relationship between satisfaction and loyalty in general. With regard to the specific attributes of loyalty, Anderson and Sullivan (1993) and Cronin and Taylor (1992) reveal a positive influence of customer satisfaction on repurchase intentions. Also, the willingness-to-recommend has proven to be significantly influenced by satisfaction (Brown et al., 2005). Consequently, we hypothesize:

H₉: Customer satisfaction has a direct, positive effect on customer loyalty.

Figure 4.1: Model and Hypotheses Overview



4.3.1 Mediating and Moderating Effects

A glance at our hypothesized model reveals a combination of direct and indirect relationships. Especially, the endogenous variables perceived value and customer satisfaction seem to intervene with other relationships. In order to test if these interventions have a significant effect our study conducts a mediation analysis (Baron and Kenny, 1986). In addition, it is likely that other variables have a moderating effect on our model. Three variables are of particular interest: (1) wealth class, (2) time period, and (3) provider type. First, an analysis of wealth class seems reasonable, as clients in different wealth segments tend to receive a different set of services (Vielhaber, 2011). This means, more wealthy clients are likely to receive more individualized services than less wealthy clients. As a consequence, we expect that both groups have different perceptions regarding the influence of satisfaction determinants. In order to define different wealth groups we use a commonly accepted classification scheme: clients with a private financial wealth⁴ in a range of 100,000 Euro to 1 M Euro are classified as “affluent” clients, and clients with a private financial wealth of more than 1 M Euro are classified as high net worth individuals “HNWIs” (Capgemini and Merrill Lynch (2010); Capgemini and Merrill Lynch

⁴Private financial wealth includes all types of liquid private assets, such as cash and marketable securities but excludes illiquid assets, such as proprietary businesses or real estates (BCG (2012, p. 9); Capgemini and Merrill Lynch (2012, p. 6)).

(2011)). With regard to the second variable, we attempt to assess if respondents from different time periods have different perceptions regarding the influence of satisfaction determinants. Our reasoning is based on the assumption that different time periods are likely to be associated with different extraneous circumstances (e.g., the economic state), which could alter the individual perception. For this purpose, our study compares two samples, one from 2009 and the other from 2012. The rationale is that the 2009 sample is likely to be worst affected by extraneous effects imposed by the financial crisis (which had its outburst in 2008) and the 2012 sample is likely to be least affected. Hence, if time periods indeed exert a moderating effect it should become apparent by comparing these two periods. Finally, the analysis of the third variable attempts to answer the question, if differences exist between clients at different provider types (e.g., private banks and savings banks). We argue that clients are likely to generalize and associate different provider types with different strengths and weaknesses. As a consequence, they choose a provider type that best reflects their needs. To accomplish this analysis, our study compares clients from private banks to clients from other providers, including universal banks, savings banks, cooperative banks, and independent fund managers.

4.4 Methodology

It is the goal of the study presented in this chapter to conduct a large scale empirical analysis of the customer satisfaction model and to reveal if the hypothesized relationships are constant over time. Since panel data do not exist from private banking clients, we draw on cross-sectional data from three independent studies. The studies were executed in three different time periods ranging from 2009 until 2012. In order to ensure high explanatory power, three criteria had to be satisfied: (1) sufficient item overlap between the studies to identify and measure the structural model; (2) congruency among the target group and assurance of measurement invariance to pool the data; (3) satisfactory levels of reliability, validity, and model fit statistics to confirm the appropriateness of the measurement model. The following subsections illuminate these aspects in detail.

4.4.1 Measure Development

Two of the studies we utilize relied on the measurement scale provided by Seiler (2011) and one relied on the measurement scale provided by Krume (2013b). Since it was our goal to incorporate the data from all three studies, our measurement scale constitutes an overlap of the items proposed by Seiler (2011) and Krume (2013b). All of these items

were originally developed in accordance with Churchill (1979) and relied on existing scales from the literature and expert interviews. If necessary, existing scales were modified to account for industry specific characteristics. Throughout the development phase, special attention was also paid to the wording of the items, to reduce the potential for common method bias (Podsakoff et al., 2003) and detect signs for acquiescence (Churchill, 1979, p. 68). Content validity was ensured by means of intensive pre-tests including rating (Hardesty and Bearden, 2004, p. 103) and sorting (Hinkin, 1995, p. 982) of items in personal interviews. For the purpose of this study, all relevant items were reviewed by means of the criteria proposed by Jarvis et al. (2003, p. 203) and ultimately specified as reflective items. With respect to the response format, all items were measured on a five-point Likert scale ranging from totally agree to totally disagree. In total, 37 items were identified as depicted in table 4.9 in the appendix.

For model identification and measurement purposes, we had to identify at least two overlapping items for each construct (Bollen, 1989). This was accomplished for all constructs except for performance. Although the performance construct was similarly included in Seiler (2011) and Krume (2013b), the underlying measurement scales were not completely congruent. Yet, we decided to keep the construct in our model for the sake of prioritizing theoretical concerns. The respective measurement scale for performance was established by approximating items with a similar meaning from Seiler (2011) and Krume (2013b). More precisely, we established two overarching performance items that are consistent across the studies. Regarding the first overarching item, we used the average of two rather specific items⁵ from Krume (2013b) as proxy for one more general item⁶ from Seiler (2011). The rationale is rooted in the idea that the more general item can be viewed as an aggregate of the two specific items.⁷ This rationale also found support in a follow up discussion with private banking clients, which revealed that performance expectations are primarily a function of (1) the perceived risk and (2) the market situation, even if these criteria are not explicitly mentioned. Regarding the second overarching item, we equated one item from Seiler (2011), which asks to evaluate the performance on a horizon of “1 year or longer” with an item from Krume (2013b), which asks to evaluate the performance on a horizon of “2-3 years”. Since the time horizon of the former item is upwardly open, our rationale is that respondents are likely to include a horizon of “2-3 years” in their considerations. This was also confirmed in our follow up discussion with private banking clients. Hence, it seems justifiable to equate the items.

⁵(1) “Considering the risks I take, the performance of my portfolio meets my expectations.”

(2) “Considering the current market situation, the performance of my portfolio meets my expectations.”

⁶“The performance of my portfolio meets my expectations.”

⁷A strong correlation of .81 ($p < .01$) between the specific items proposed by Krume (2013b) also supports the notion to build an aggregated item.

For all remaining constructs we found at least two overlapping items in Seiler (2011) and Krume (2013b). Likewise, all of these items base their origin on a variety of sources, which ought to be mentioned. Starting with the exogenous constructs, the measurement of reachability was inspired by the work of Brown and Swartz (1989) and Parasuraman et al. (1985). With respect to ambience, we relied on Johnston (1997) and Baker et al. (1988). To measure product offering we consulted Riegler (2005) and Javalgi (1992). The investment proposal was measured by relying on Riegler (2005) and Levesque and McDougall (1996). Concerning the reporting measures, the work of Maude (2006), Johnston (1997), and Levesque and McDougall (1996) served as basis. To assess the adviser we relied on the studies of Brady et al. (2002), Stafford (1994), and Parasuraman et al. (1985). With respect to the endogenous constructs, we measured perceived value and customer satisfaction by relying on the work of Kristensen et al. (2000) and Fornell et al. (1996). Customer loyalty was measured by adapting items from Bruhn (2003) and Kristensen et al. (2000).

4.4.2 Data Collection and Sample

The database we relied on constitutes an aggregate of three independent studies, conducted in 2009, 2011, and 2012, respectively. All of these studies relied on the same method of administration and sampling design to collect the data. More specifically, they all used a combination of print and web questionnaires. In these questionnaires, respondents were asked, on an anonymous basis, to evaluate their main private banking provider. As a target group, solely clients of private banking providers in German speaking countries were addressed. To ensure consistency, a congruent definition on what constitutes private banking services⁸ and private banking clients⁹ was applied across studies. Concerning the data collection, a variety of channels were utilized. Among others, these include co-operations with well known German and Austrian private banking providers, the directory of the chair, a variety of print and web media, as well as a range of societal meetings and conferences of, for example, family business owners. As an incentive, all participants were offered a personalized report on the respective study results. Altogether, we were able to receive 985 usable responses from private banking clients. An overview of key socio-demographics on the aggregated sample is provided in table 4.1.

⁸Broadly speaking, “*an integrated, individual- and needs-oriented financial and risk planning service for HNWIs who require individualized advice*” (Horn and Rudolf, 2011, p. 176).

⁹In general, individuals with a private financial wealth of 250,000 Euro and above (Horn and Rudolf, 2011, p. 176). In addition, individuals that do not necessarily adhere to the monetary criterion but who are still segmented as private banking clients by their respective providers.

Table 4.1: Descriptive Statistics

Sample Composition	in %
2009	28
2011	31
2012	41
Occupation of Respondents	in %
Self-employed / entrepreneur	32
Employee	25
Pensioner	22
Other	21
Wealth Classification of Respondents	in %
Affluent ^a	66
HNWI ^b	29
Unknown	4
Provider Category of Respondents	in %
Private bank	47
Universal bank	24
Savings bank / cooperative bank	16
Other	12
Number of Different Providers in Sample	absolute
Private bank	19
Universal bank	12
Savings bank / cooperative bank	41
Other	21
Other Descriptives	average
Age of respondents (in years)	57
Length of relationship to main provider (in years)	14
Private financial wealth ^c of respondents (in M Euro)	2.2
Share of wealth at main provider (in %)	65
Number of private banking relationships	2

Notes: Numbers presented in % or as averages are rounded.

^a Private banking clients with a private financial wealth ranging from 100,000 Euro to 1 M Euro.

^b Private banking clients with a private financial wealth over 1 M Euro.

^c Private financial wealth includes all types of liquid private assets, such as cash and marketable securities but excludes illiquid assets, such as proprietary businesses or real estates. Respondents were asked to indicate their private financial wealth by means of an ordinal scale with pre-defined ranges. The average wealth was then approximated by using the middle value of each range.

The underlying data quality and sample characteristics were assessed in several steps. First, we scrutinized the possibility for non-response bias. For this purpose, we compared key demographic variables with the database of one of the cooperating banks (Armstrong and Overton, 1977, p. 396-397). No noteworthy differences were observable. In addition, we compared key demographics between the samples. We observed slight differences between the 2009 and 2012 samples with regard to age and occupation. All other demographics were not noteworthy different. Hence, we concluded that non-response bias is not a serious threat in our study. Second, we analyzed signs for common method bias using *Harman's single factor test* (Podsakoff et al., 2003, p. 889). The results of the corresponding exploratory factor analysis reveal that no single factor accounts for the majority of variance between the items. Thus, we concluded that common method bias does not cause severe problems. Third, we utilized *Little's MCAR test* in SPSS 19.0 to analyze missing values. The results suggest that the data is missing at random (MAR) (Little and Rubin, 2002). Since the amount of missing data for model relevant items is below 1% we used maximum likelihood estimation in the form of the expectation maximization (EM) algorithm, to impute the data (Roth, 1994, p. 551). Finally, the *Kolmogorov-Smirnov test* was used to examine if the manifest variables follow a multivariate normal distribution. This is essential since confirmatory factor analysis (CFA) and structural equation modeling (SEM) usually rely on the normality assumption (Fornell and Bookstein, 1982, p. 440). However, the results suggest that the normality assumption is clearly violated. Hence, for forthcoming analyses we employed Satorra-Bentler's scaling corrections in order to estimate parameters with standard errors and χ^2 fit statistics that are robust to non-normality (Muthén and Muthén (2010); Satorra and Bentler (2001)).

As it was our goal to continue the analyses with an aggregated dataset, measurement invariance needed to be examined (Steenkamp and Baumgartner, 1998). For this purpose, a multigroup comparison was conducted across the samples of 2009, 2011, and 2012. We followed the procedure offered by Steenkamp and Baumgartner (1998, p. 83), and ran a multigroup confirmatory factor analysis on the overall measurement model using Mplus 6.12 (Muthén and Muthén, 2010). We started with a separate model estimation for each group. Then, the configural invariance model was examined. The results support the assumption of configural invariance as the model exhibits satisfying fit statistics (see table 4.2), and highly significant factor loadings across groups. Subsequently, a test for full metric invariance was conducted. We used the Satorra-Bentler χ^2 difference test to compare the full metric model against the configural model. We find no support for full metric invariance as the increase in χ^2 is significant with $\Delta\chi^2(46) = 336.52$ ($p < .01$). A test for partial metric invariance was conducted afterwards. Once more, we find a significant increase in χ^2 with $\Delta\chi^2(20) = 49.93$ ($p < .01$). However, since χ^2 is

utterly sensitive to sample size (Byrne et al., 1989, p. 458) researchers recommend to base the assessment on multiple criteria, including alternative fit indices (Steenkamp and Baumgartner, 1998, p. 84). In this respect, it can be observed that the model fit stays satisfactory as we move from the configural model to the partial metric invariance model (see table 4.2). Thus, we conclude that partial metric invariance is supported, which justifies data aggregation for the upcoming analyses.

Table 4.2: Analysis of Measurement Invariance

Type of Model	χ^2 ^a	df	RMSEA	CFI	SRMR
Configural Invariance Model	2522.25	1350	.05	.94	.05
Partial Metric Invariance Model	2571.42	1370	.05	.94	.06

Notes: df = degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, SRMR = standardized root mean square residual.

^a Satorra-Bentler scaled chi-square.

4.4.3 Measure Assessment

We assessed reliability and validity of the measures utilizing exploratory and confirmatory factor analysis. We started with an assessment of each individual construct. In this regard, coefficient alpha and item-to-total correlation were analyzed first (Churchill, 1979, p. 68). This led to an elimination of two items, to ensure that all alpha scores exceeded the generally accepted threshold of .70 (Homburg and Giering, 1996, p. 120). A subsequent exploratory factor analysis confirmed the factor structure. More precisely, we found exactly one factor for each proposed construct, with variances extracted above 50% (Homburg and Giering, 1996, p. 128). Further, we used Mplus 6.12 to run a confirmatory factor analysis to evaluate means, standard deviations, factor loadings, *t*-values, item reliabilities, composite reliabilities, and average variance extracted. This led to an elimination of another two items, due to relatively low item reliability estimates. Thereafter, all measures revealed satisfying psychometric properties.

In addition, we ran a confirmatory factor analysis including all constructs. The results were satisfactory in terms of reliability, validity, and model fit. More precisely, we analyzed internal consistency using composite reliability estimates. As illustrated in table 4.3, all estimates ranged from .81 to .91, and thus exceeded the recommended threshold of .60 by far (Homburg and Giering, 1996, p. 130). Further, item reliability estimates were above the recommended value of .40 (Homburg and Giering, 1996, p. 130) for all but one item. The exception was a perceived value item with an estimate of .38 (see table 4.9 in the appendix). Yet, we kept the item in the model since the deviation is only marginal. Likewise, this decision is in line with our intent to prioritize conceptual

concerns (Little et al., 1999, p. 207). Convergent validity was established by relying on average variance extracted estimates and the significance of factor loadings. As depicted in table 4.3, all average variance extracted estimates were above the threshold of .50 (Fornell and Larcker, 1981, p. 46). Also, all factor loadings were highly significant with $p < .01$ (see table 4.9 in the appendix). Discriminant validity was assessed by relying on the Fornell-Larcker criterion. The criterion was satisfied for all but six pairs of constructs (see table 4.3). Nonetheless, we confirmed discriminant validity for these six pairs by means of the Satorra-Bentler χ^2 difference test with $p < .01$. With regard to the overall model fit we found only acceptable fit for the ratio of Satorra-Bentler scaled χ^2 (1492.90) / degrees of freedom (450) = 3.32, being slightly above the recommended threshold of 3.00 (Homburg and Giering, 1996). However, this is not surprising given that χ^2 is utterly sensitive to sample size (Byrne et al., 1989). For all remaining fit indices we found satisfying results with root mean square error of approximation [RMSEA] = .05, comparative fit index [CFI] = .95, and standardized root mean square residual [SRMR] = .04. We conclude that the fit of our measurement model is satisfactory in general. We continued our analysis with 33 items. A list of all retained and deleted items including relevant statistics is depicted in table 4.9 in the appendix.

Table 4.3: Measurement Statistics including Correlations

				1	2	3	4	5	6	7	8	9	10
Variable	CR	AVE	.58	.66	.60	.67	.64	.76	.61	.66	.68	.73	
1 Reachability	.81	.58		.29	.40	.57	.37	.32	.68	.40	.57	.49	
2 Ambience	.85	.66	.54		.23	.27	.25	.10	.35	.12	.29	.21	
3 Product Offering	.82	.60	.63	.48		.45	.43	.37	.42	.40	.55	.47	
4 Investment Proposal	.86	.67	.75	.52	.67		.47	.38	.80	.48	.64	.56	
5 Reporting	.84	.64	.61	.50	.66	.68		.36	.45	.37	.53	.44	
6 Performance	.86	.76	.57	.31	.61	.62	.60		.40	.52	.60	.51	
7 Adviser	.90	.61	.83	.60	.65	.90	.67	.63		.53	.73	.63	
8 Perceived Value	.85	.66	.64	.35	.63	.69	.61	.72	.73		.70	.65	
9 Customer Satisfaction	.87	.68	.76	.53	.74	.80	.73	.78	.85	.84		.93	
10 Customer Loyalty	.91	.73	.70	.45	.69	.75	.67	.72	.80	.81	.97		

Notes: Lower left triangle depicts correlations among latent variables. Upper right triangle depicts shared variance among latent variables.

CR = composite reliability, AVE = average variance extracted.

4.5 Results

4.5.1 Results Related to Main Effects

We used Mplus 6.12 to test the hypothesized relationships in a full structural model. Again, we ensured robustness against non-normality by applying the Satorra-Bentler

scaling correction (Satorra and Bentler, 2001). In terms of the overall model fit, we gain satisfying fit statistics for the root mean square error of approximation, the comparative fit index, and the standardized root mean square residual (RMSEA = .05, CFI = .95, SRMR = .04).¹⁰ Only acceptable fit is indicated by the ratio of Satorra-Bentler scaled χ^2 (1532.87) / degrees of freedom (460) = 3.33. Nevertheless, by considering that χ^2 parameters are utterly sensitive to sample size this result is not surprising and should not preponderate (Byrne et al., 1989). In sum, it can be stated that our model convincingly delineates the structure underlying the data.

Collectively, 14 hypotheses were tested on direct effects. Nine of these hypotheses are supported with path coefficients significant at the 1% level and pointing in the postulated direction. An overview of all (standardized) path coefficients is presented in figure 4.2. With respect to the determinants of customer satisfaction, five out of eight hypotheses can be confirmed. However, contrary to our expectations H_1 cannot be supported, as the positive influence of reachability on customer satisfaction is found to be insignificant ($\gamma_{21} = .03, p > .10$). Similarly, the influence of ambience ($\gamma_{22} = .03, p > .10$), and investment proposal ($\gamma_{24} = -.03, p > .10$) on customer satisfaction is insignificant, rendering no support for H_2 and H_{4a} , respectively. Apart from that, we find strong statistical support for the influence of product offering ($\gamma_{23} = .12, p < .01$), reporting ($\gamma_{25} = .08, p < .01$), performance ($\gamma_{26} = .20, p < .01$), adviser ($\gamma_{27} = .37, p < .01$), and perceived value ($\beta_{21} = .31, p < .01$) on customer satisfaction. Hence, confirmation is provided for H_{3a} , H_5 , H_{6a} , H_{7a} , and H_8 , respectively. A glance at the magnitudes of the path coefficients reveals that the influence of the adviser (γ_{27}) is the strongest, followed by perceived value (β_{21}), and performance (γ_{26}). The influences of product offering (γ_{23}) and reporting (γ_{25}) are comparatively weaker.

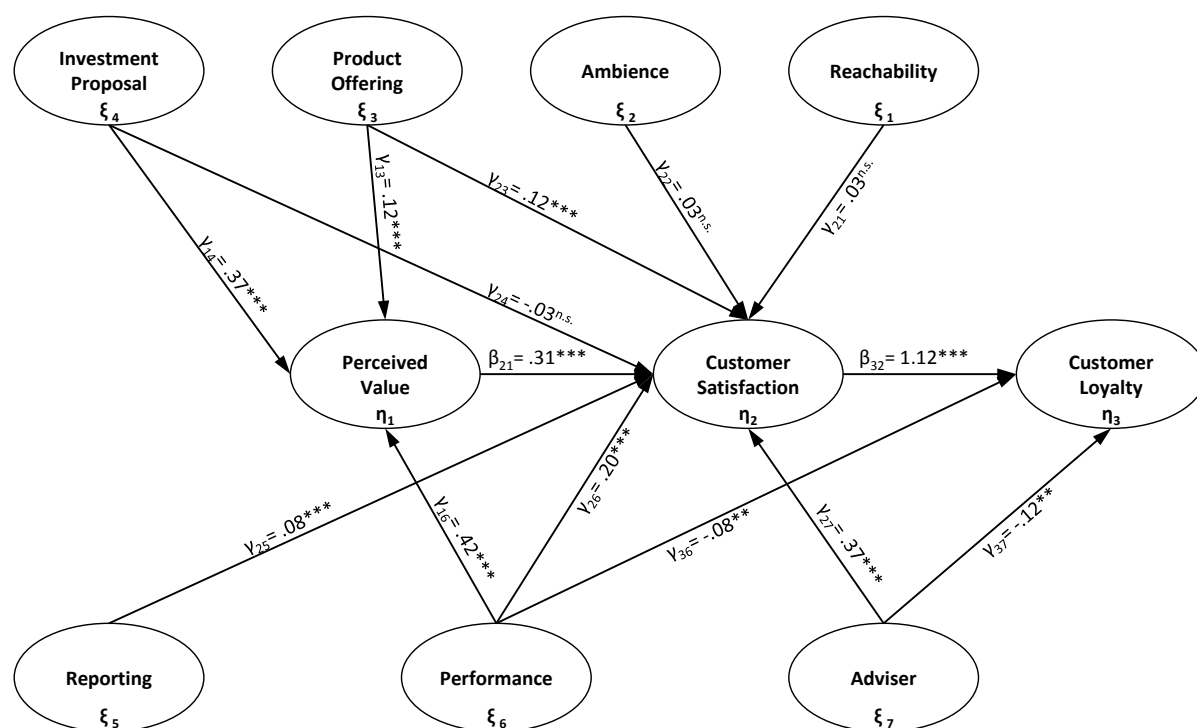
Concerning perceived value, three determinants were assessed. We find a significant and positive effect of product offering ($\gamma_{13} = .12, p < .01$), investment proposal ($\gamma_{14} = .37, p < .01$), and performance ($\gamma_{16} = .42, p < .01$) on perceived value, thereby affirming H_{3b} , H_{4b} , and H_{6b} , respectively. Notably, the path coefficients of performance (γ_{16}) and investment proposal (γ_{14}) are high in magnitude, and thus underscore their relevance in the formation of a quality-relative-to-price perception.

With regard to customer loyalty, three determinants were analyzed with astonishing results. Firstly, we find that customer satisfaction ($\beta_{32} = 1.12, p < .01$) has a positive and significant influence on customer loyalty, in support of H_9 . In this context, the strong magnitude of the coefficient needs to be accentuated, as it expresses an utterly strong relationship between the constructs. In addition, we find that both, performance

¹⁰Cf. Hu and Bentler (1999) for an elaborate discussion of recommended cut-off values for model fit statistics.

($\gamma_{36} = -.08$, $p < .05$) and the adviser ($\gamma_{37} = -.12$, $p < .05$) have a significant effect on customer loyalty, but in a negative direction. Although the magnitudes of the coefficients are rather small, this finding is counter-intuitive, and stands in contrast to what was expected. Hence, H_{6c} and H_{7b} cannot be supported. Still, it needs to be mentioned that the direct effects are likely to be supplemented by indirect effects resulting from mediator(s) (Baron and Kenny, 1986). In this particular case, for instance customer satisfaction could take on a mediating role. An elaborate discussion of mediating effects follows in the subsection hereinafter. Table 4.4 provides a summary of the results of all hypotheses.

Figure 4.2: Results of Model Estimation



* $p < .10$; ** $p < .05$; *** $p < .01$.

Notes: all coefficients are completely standardized and depict the direct effect on the variables.
n.s. = not significant.

4.5.2 Results Related to Mediating Effects

Due to their interrelated nature, we tested if the variables perceived value and customer satisfaction function as mediators in our model. Following the definition of Baron and Kenny (1986, p. 1176) a variable can be considered mediator, if it accounts at least to some extent for the relation between an independent and a dependent variable. In this

Table 4.4: Summarized Results of Hypotheses

Hypothesis	Relationship	Postulated Effect	Result
H_1	reachability \rightarrow customer satisfaction	+	\times
H_2	ambience \rightarrow customer satisfaction	+	\times
H_{3a}	product offering \rightarrow customer satisfaction	+	\checkmark
H_{3b}	product offering \rightarrow perceived value	+	\checkmark
H_{4a}	investment proposal \rightarrow customer satisfaction	+	\times
H_{4b}	investment proposal \rightarrow perceived value	+	\checkmark
H_5	reporting \rightarrow customer satisfaction	+	\checkmark
H_{6a}	performance \rightarrow customer satisfaction	+	\checkmark
H_{6b}	performance \rightarrow perceived value	+	\checkmark
H_{6c}	performance \rightarrow customer loyalty	+	\times
H_{7a}	adviser \rightarrow customer satisfaction	+	\checkmark
H_{7b}	adviser \rightarrow customer loyalty	+	\times
H_8	perceived value \rightarrow customer satisfaction	+	\checkmark
H_9	customer satisfaction \rightarrow customer loyalty	+	\checkmark

Notes: + = effect is positive, \times = no confirmation of hypothesis, \checkmark = confirmation of hypothesis.

respect, mediation can take the form of *full* mediation or *partial* mediation (Iacobucci et al., 2007). When tested simultaneously, *full* mediation exists when the indirect effect (i.e., the quantified product of a) the path between the independent variable and the mediator and b) the path between the mediator and the dependent variable) is statistically significant, but the direct effect (i.e., the path between the independent and dependent variable) is not significant. *Partial* mediation exists when the indirect effect and the direct effect are both significant. It is the sum of direct and indirect effects that ultimately describes the total effect (Shrout and Bolger, 2002). Yet, for any form of mediation to occur, it is a prerequisite that the individual path coefficients forming the indirect effect are statistically significant (Iacobucci et al., 2007).

In order to compute the statistical significance of the indirect effect, the literature offers a variety of options. One commonly used option is proposed by Baron and Kenny (1986), or Iacobucci et al. (2007), and relies on a modified version of the Sobel (1982) test to estimate the standard error of the indirect effect. Despite its popularity, the test is founded on the assumption of a normality distribution, which does not necessarily hold for the product of two variables (MacKinnon et al., 2002). As a consequence, the accuracy of the Sobel (1982) test is not always guaranteed. A more accurate method is suggested by MacKinnon et al. (2004) in the form of a bias-corrected bootstrap. The benefit of this method is twofold. First, it adjusts for non-normal distributions; and second, it corrects for the eventuality of a central tendency bias (MacKinnon et al., 2004). For the sake of accuracy, this study employs both methods to determine the significance of the indirect effect. We followed Preacher and Hayes (2008) and used 5,000 resamples to minimize sampling variance under the bias-corrected bootstrap method.

As mentioned above, we are interested in the mediation effects of perceived value and customer satisfaction. The findings are depicted in table 4.5. With respect to perceived value, it can be shown that the construct acts as a single mediator in three distinct relationships. First, there is evidence for a mediating effect on the relationship between product offering and customer satisfaction. This is supported by the significance of the positive paths from product offering to perceived value and from perceived value to customer satisfaction. The resulting indirect effect is also significant ($p < .05$),¹¹ positive, but relatively weak in magnitude (.04). Since the direct effect is positive (.12) and significant ($p < .01$), partial mediation can be observed. The sum of direct and indirect effects results in a total effect that is significant ($p < .01$), but in its magnitude (.15) only slightly higher than the direct effect.

Second, there is evidence for a mediating effect on the relationship between investment proposal and customer satisfaction. This is indicated by the positive and significant individual paths from investment proposal to perceived value and from perceived value to customer satisfaction. The resultant indirect effect is also found to be positive, relatively high in magnitude (.12), and significant ($p < .01$). However, given that the direct effect is found to be negative (-.03) and not significant, a suppression occurs (Shrout and Bolger, 2002).¹² The consequence is that the indirect effect is higher in magnitude than the total effect (.08). While the total effect reveals no signs of significance, we observe full mediation.¹³

The third mediation effect concerns the relationship between performance and customer satisfaction. The positive and significant paths from performance to perceived value and from perceived value to customer satisfaction provide strong evidence for the existence of mediation. The consequent indirect effect is also positive, relatively high in magnitude (.13), and significant ($p < .01$). Considering that the direct effect is also positive (.20) and highly significant ($p < .01$), we observe partial mediation. The combination of the direct and indirect effects results in a significant total effect ($p < .01$) with relatively strong magnitude (.33).

Concerning the mediating role of customer satisfaction, we observe effects on two distinct relationships. First, support is provided for a mediating effect on the relationship between performance and customer loyalty. This is indicated by the positive and significant paths from performance to customer satisfaction and from customer satisfaction to

¹¹The Sobel test indicates significance at the 1% level, the bias-corrected bootstrap indicates significance at the 5% level.

¹²When the direct effect has a different algebraic sign than the indirect effect suppression occurs (Shrout and Bolger, 2002, p. 430).

¹³Mediation is possible without significance of the total effect (Preacher and Hayes, 2008, p. 880). This phenomenon is not unusual, when suppression is involved (MacKinnon et al., 2000, p. 175).

customer loyalty. The resultant indirect effect is also positive, strong in magnitude (.22), and significant ($p < .01$). In addition, we observe a joint mediation of perceived value and customer satisfaction on the relationship between performance and customer loyalty. The rationale is founded on the positive and significant paths from performance to perceived value, from perceived value to customer satisfaction, and from customer satisfaction to customer loyalty. The supplemental indirect effect also reveals a positive magnitude (.15) and significance ($p < .01$). Accordingly, we find a total indirect effect that is positive, relatively high in magnitude (.37), and significant ($p < .01$). However, this result stands in contrast to our finding on the direct effect, which is negative, relatively weak in magnitude (-.08), and not associated with a high level of significance ($p < .10$).¹⁴ Ultimately, we find partial mediation with a suppression, and a positive total effect that is high in magnitude (.29), and significant ($p < .01$).

Lastly, we provide evidence for a mediating effect of customer satisfaction on the relationship between adviser and customer loyalty. Evidence for this effect is substantiated by the positive and significant paths from adviser to customer satisfaction and from customer satisfaction to customer loyalty. Since the individual paths are positive and relatively high in magnitude, the resultant indirect effect is also positive, high in magnitude (.42) and significant ($p < .01$). Nevertheless, given that the direct effect is negative (-.12) and significant ($p < .05$), the result reflects partial mediation with a suppression. Ultimately, we find a positive total effect that is high in magnitude (.30), and significant ($p < .01$).

4.5.3 Results Related to Moderating Effects

As far as moderating effects are concerned, three variables were subjects of our analysis: (1) wealth class, (2) time period, and (3) provider type. In line with Homburg and Giering (2001) and Homburg et al. (2003) we based the assessment on a multigroup analysis, as it reflects the most appropriate method when dealing with structural equation modeling. For each variable, two subgroups were created and compared. With regard to wealth class, we differentiated between “affluent” clients and “HNWIs”, and thus relied on a classification scheme that is widely accepted in the industry (Capgemini and Merrill Lynch (2010); Capgemini and Merrill Lynch (2011)). Accordingly, we identified respondents with a private financial wealth ranging from 100,000 Euro to 1 M Euro as affluent clients, and respondents with more than 1 M Euro as HNWIs. The database allowed us to compare 651 affluent clients and 290 HNWIs. Moderating effects of the time period were

¹⁴The t -value indicates significance at the 5% level, the bias-corrected bootstrap indicates significance at the 10% level.

Table 4.5: Results of Mediating Effects

Effect	Coefficient	Significance ^a	Significance ^b
PRO → CUS			
Total	.15	***	***
Total indirect	.04	***	**
Indirect (PRO → PEV → CUS)	.04	***	**
Direct (PRO → CUS)	.12	***	***
INP → CUS			
Total	.08	n.s.	n.s.
Total indirect	.12	***	***
Indirect (INP → PEV → CUS)	.12	***	***
Direct (INP → CUS)	-.03	n.s.	n.s.
PER → CUS			
Total	.33	***	***
Total indirect	.13	***	***
Indirect (PER → PEV → CUS)	.13	***	***
Direct (PER → CUS)	.20	***	***
PER → CUL			
Total	.29	***	***
Total indirect	.37	***	***
Indirect (PER → CUS → CUL)	.22	***	***
Indirect (PER → PEV → CUS → CUL)	.15	***	***
Direct (PER → CUL)	-.08	**	*
ADV → CUL			
Total	.30	***	***
Total indirect	.42	***	***
Indirect (ADV → CUS → CUL)	.42	***	***
Direct (ADV → CUL)	-.12	**	**

* $p < .10$; ** $p < .05$; *** $p < .01$.

Notes: all coefficients are completely standardized.

n.s. = not significant, PRO = product offering, PEV = perceived value, CUS = customer satisfaction, INP = investment proposal, PER = performance, CUL = customer loyalty, ADV = adviser.

^a Significance is determined by using the t -value for direct effects and the Sobel test for indirect effects.

^b Significance is determined using bias-corrected bootstrapping with 5000 resamples.

assessed by comparing data from the earliest survey in 2009 to data from the latest survey in 2012. We were able to compare 276 respondents from 2009 and 406 respondents from 2012. Concerning the provider type, we separated clients of private banks from clients of other providers, including universal banks, savings banks, cooperative banks, and independent fund managers. Ultimately, we were able to compare 467 clients of private banks and 438 clients of other providers. We proceeded with the moderation analysis in two consecutive steps.

In a first step, the existence of a general moderating effect was analyzed for each of the variables. For this purpose, we conducted a Satorra-Bentler χ^2 difference test to compare two models. One model imposed equality constraints on all path coefficients across groups, the other model allowed all coefficients to vary freely across groups (Homburg and Giering, 2001, p. 54). The existence of a moderating effect can be confirmed when a significant increase in χ^2 is observed. With regard to wealth class, the increase in χ^2 is not significant, leaving no evidence for the existence of a moderating effect. This result implies that affluent clients and HNWI do not react significantly different from each other to changes in the determinants of customer satisfaction and customer loyalty. On the contrary, we find a significant moderating effect for the other two variables. More precisely, time period and provider type reveal a significant effect with $\Delta\chi^2(14) = 40.13$ ($p < .01$), and $\Delta\chi^2(14) = 35.67$ ($p < .01$), respectively.

After discovering general moderating effects for time period and provider type, the second step encompassed an examination of the specific moderating effects. For both variables this involved an analysis of each of the 14 path coefficients in the model (Homburg and Giering, 2001, p. 52). Similar to the above mentioned procedure, two models were compared using the Satorra-Bentler χ^2 difference test. However, this time the models only differed in terms of one path coefficient (i.e., one model constrained one specific coefficient across groups, the other model allowed this specific coefficient to vary freely across groups). The results for the significant moderating effects of time period and provider type are presented in table 4.6 and table 4.7, respectively. Concerning the effects of time period, it can be shown that the influence of investment proposal on perceived value is significantly stronger for respondents in the period 2009. Also, the influences of product offering and perceived value on customer satisfaction are significantly stronger for respondents in the period 2009. With regard to provider type, the results show that the influence of investment proposal on perceived value is significantly stronger for respondents, who are not clients of private banks. Instead, the influence of the adviser on customer satisfaction is significantly stronger for respondents, whose majority of assets are administered by private banks.

Table 4.6: Results of Moderating Effects (Time Period)

General Effect	$\Delta\chi^2$ for all path coefficients set equal across groups ($\Delta df=14$): 40.13***				
Specific Effect	2009 ($n=276$)		2012 ($n=406$)		$\Delta\chi^2$ ($\Delta df=1$)
Path	Coefficients	<i>t</i>-value	Coefficients	<i>t</i>-value	
INP → PEV	.59	10.52	.39	6.70	6.42**
PRO → CUS	.26	5.78	.15	4.05	3.99**
PEV → CUS	.39	11.05	.29	8.04	8.09***

** $p < .05$; *** $p < .01$.

Notes: all paths that are not shown were found to be insignificantly different. df = degrees of freedom, INP = investment proposal, PEV = perceived value, PRO = product offering, CUS = customer satisfaction.

Table 4.7: Results of Moderating Effects (Provider Type)

General Effect	$\Delta\chi^2$ for all path coefficients set equal across groups ($\Delta df=14$): 35.67***				
Specific Effect	PBs ($n=467$)		Others^a ($n=438$)		$\Delta\chi^2$ ($\Delta df=1$)
Path	Coefficients	<i>t</i>-value	Coefficients	<i>t</i>-value	
INP → PEV	.35	5.75	.49	8.01	4.32**
ADV → CUS	1.01	5.69	.81	5.37	6.04**

** $p < .05$; *** $p < .01$.

Notes: all paths that are not shown were found to be insignificantly different. df = degrees of freedom, PBs = Private Banks, INP = investment proposal, PEV = perceived value, ADV = adviser, CUS = customer satisfaction.

^a predominantly providers that can be classified as universal banks, savings banks, cooperative banks, independent fund managers.

4.5.4 Robustness Checks

In order to confirm the robustness of our results, we followed the recommendation of Homburg and Klarmann (2006) and applied a variety of tests. First, we conducted a *stability test* of the parameter estimates in the sense of Homburg and Stock (2004). That means, we re-analyzed the model in 10 independent tests and randomly deleted approximately 10% of the sample in each iteration. The results of the hypotheses test (i.e., the pattern of significance and insignificance regarding the individual path relationships) are confirmed in each run. In addition, we observe only marginal variance in the parameter estimates with a maximal deviation of (.05) for γ_{16} and a minimal deviation of (.02) for γ_{23} . In sum, it can be stated that the stability tests affirm our findings.

Second, we tested two *alternative models* to ensure the validity of our proposed model. The results are presented in table 4.8. For the first alternative model, we omitted indirect paths in our proposed model and channelled the focus on the paths directed on customer satisfaction. This alternative way of modeling has previously been demonstrated by Seiler (2011). The results exhibit no improvement of the fit statistics. For the second

alternative model, we omitted customer loyalty as consequence of customer satisfaction. The idea was to analyze a pure customer satisfaction model, but without altering the theoretically valid paths of the antecedents. Still, the results suggest that the proposed model performs slightly better. Hence, we find confirmation of our proposed model.

In order to address potential problems that could result from *multicollinearity* we utilized the Fornell-Larcker criterion and the Satorra-Bentler χ^2 difference test. This is a valid procedure, as “the problem of *multicollinearity* [emphasis added] is closely related to the issue of discriminant validity” (Grewal et al., 2004, p. 527). Recalling that we ensured discriminant validity in a prior stage, it seems unlikely that *multicollinearity* poses a serious threat (Grewal et al., 2004, p. 528). Further, we addressed potential *endogeneity* problems resulting from omitted variables (Chenhall and Moers, 2007). We controlled for this problem in the data collection phase. Respondents were asked if any relevant variables are missing in the questionnaire. Since no such answers were provided, we conclude that omitted variables do not pose a serious threat. In total, we are able to demonstrate robust results.

Table 4.8: Results of Alternative Models

Type of Model	χ^2 ^a	df	RMSEA	CFI	SRMR
Proposed Model	1532.87	460	.05	.95	.04
Alternative Model I	1512.97	458	.05	.95	.04
Alternative Model II	1331.10	345	.05	.94	.05

Notes: df = degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, SRMR = standardized root mean square residual.

^a Satorra-Bentler scaled chi-square.

4.6 Discussion

Customer satisfaction is a highly relevant topic in general, but particularly in the private banking industry. Yet, the private banking literature remains scarce, especially when empirical issues are involved. More precisely, a large scale empirical analysis of customer satisfaction and its determinants has not yet been conducted. Similarly, it remains unclear if the relationships between customer satisfaction and its determinants are constant over time. Using survey data from 985 private banking clients from three distinct periods, the study presented in this chapter addresses these issues. Our findings entail implications for researchers and managers in several ways.

4.6.1 Research Issues

First, our study offers a parsimonious and reflective measurement scale, particularly designed to measure customer satisfaction in private banking. In the sense of Churchill (1979), the scale is the result of a continuous refinement process that has started with an initial study of Seiler (2011). Further research benefits from this scale in two ways. On the one hand, we confirm its suitability for prospective studies as its reflective structure yields satisfying model fit statistics. On the other hand, the scale eases future attempts of data collection, as private banking clients are more likely to respond to a parsimonious questionnaire.

Second, we advance the understanding of customer satisfaction and its determinants in private banking from several perspectives. From a methodological perspective, our study enters new ground as it is the first to apply a large scale covariance based SEM analysis on a private banking specific customer satisfaction model. The empirical evidence confirms the suitability of the model. From a content-wise perspective, we identify three factors as most influential determinants of customer satisfaction: (1) the adviser, (2) portfolio performance, and (3) perceived value. This is true for the direct effects, but particularly for the total effects (sum of direct and indirect effects). Other factors, such as reporting and product offering only play a subordinate role. The investment proposal, ambience, and reachability fail to reveal a significant impact. From this we conclude that satisfaction in private banking is highly sensitive to factors that are either directly connected to the customer's bottom line (perceived value and portfolio performance) or directly connected to the customer's emotions (adviser¹⁵). This combination of rational and emotional determinants is in line with Rust and Oliver (1994), who state that "satisfaction (...) is known to be influenced by a number of cognitive and affective processes including equity, attribution, and emotion" (p. 6). In this context, the question arises whether rational or emotional factors are more important in private banking. Further research could build upon our insights to develop aggregated indices of rational and emotional factors to analyze their relative importance.

Third, our research provides insights into the relationship between customer satisfaction and customer loyalty (intentions). Two complementary observations are worth mentioning. On the one hand, we reveal an utterly strong impact of customer satisfaction on customer loyalty. This stresses the importance of satisfaction as direct antecedent of

¹⁵In private banking the emotional bond between the client and the adviser is utterly pronounced. The predominant reason is that the relationship needs to be founded on trust, as the adviser is responsible for the management of the client's private financial wealth. Often times, the adviser also reflects the single point of contact, communicating positive as well as negative information about the financial status. The sensitivity associated with such information is likely to augment the emotional bond.

behavioral intentions. On the other hand, we observe a strong mediating effect of customer satisfaction. More precisely, while performance and adviser both show a weak but negative direct effect on customer loyalty, the total effect is positive and strong in magnitude. This is the result of a highly positive indirect effect (via customer satisfaction). Hence, our findings also stress the relevance of customer satisfaction as indirect antecedent of behavioral intentions. Nevertheless, while intentions provide a sound indication of behavior, the actual consequence remains open for debate. It is therefore a cue to future research to go one step further and analyze the extent to which intentions result in actual behavior.

Finally, the dimensionality of our aggregated dataset allows a comparison of time periods and an analysis of client characteristics in a multigroup context. With respect to the former, we find that respondents in the 2009 sample are more sensitive to changes in the investment proposal, product offering, and perceived value than respondents in the 2012 sample. We argue that this sensitivity is likely to be attributable to a perceived uncertainty, which emanated from the outset of the financial crisis in 2008. On a more abstract level, this finding shows that the relationships between customer satisfaction and its determinants are not constant over time. Rather, these relationships are likely to be affected by changes in the psyche, potentially triggered by external factors, such as press releases about the economic state in general, or banking in particular.

Concerning client characteristics we analyzed the impact of wealth class and provider type as potential moderators. With regard to the former, we find that affluent clients and HNWI do not react significantly different from each other to changes in the determinants of customer satisfaction and customer loyalty. On the other hand, we reveal that the provider type exerts a significant moderating effect. More specifically, we find that clients from private banks do not value the influence of the investment proposal as much as clients from other providers. Instead, clients from private banks place more importance on the role of the adviser. We suggest that further research should use this insight and conduct an in-depth study on the customer's underlying motives for the choice of a specific provider type.

A few limitations need to be considered as well, which also entail prospects for further research. First, our study examines the impact of customer satisfaction on customer loyalty. Although this form of consequence is highly relevant, it would additionally be relevant to analyze alternative consequences, such as the impact of customer satisfaction on the financial performance of providers. A variety of studies have affirmed a positive relationship between customer satisfaction and financial performance in other industries (e.g., Fornell et al. (2006); Gruca and Rego (2005); Anderson et al. (2004); Anderson et al. (1994)). Nevertheless, with focus on the private banking industry such an analysis

is not yet existent. Second, we use moderation analysis to compare private banks with other providers in order to detect differences between the groups. Unfortunately, we are not able to make a more specific comparison between individual provider groups or even individual providers, largely due to limited data. An enlarged dataset would allow to reveal explicit differences between provider groups and individual institutions. Finally, our study relies on data from three distinct cross-sectional surveys. While this enables us to conduct a comparison across time periods, the validity of our inferences is limited. The predominant reason is that each sample contains a different set of respondents. Therefore, differences between the periods cannot be reduced to period specific effects only. An improvement of validity would require the utilization of panel data.

4.6.2 Managerial Implications

Four findings are of particular managerial interest. First, this study sheds light on the driving forces behind customer satisfaction in private banking. We argue that in attempts to sustain or increase customer satisfaction managers are advised to pay special attention to three factors: (1) the adviser, (2) portfolio performance, and (3) perceived value. The adviser takes the central role in the formation of customer satisfaction. However, the combination of social skills, didactical skills, and expertise cannot easily be unified in each adviser. Managers are therefore encouraged to place great attention on recruiting and educational matters, in order to constantly improve their workforce. Further, the importance of portfolio performance confirms the necessity of a sound and transparent asset management. Nonetheless, since we measure portfolio performance as a function of personal perception and expectation we do not argue that high yields are a direct indicator for high satisfaction. Rather, we argue that providers should manage performance expectations on an ongoing basis to sustain or increase satisfaction. Similarly, with regard to perceived value, providers are not under compulsion to offer the most competitive price, but to offer an attractive ratio of quality to price. In this context, price transparency seems advantageous, so that customers have a clear understanding of the value behind the services.

Based on these insights, managers also have the opportunity to prioritize financial resources. As argued above, it seems wisely to invest in means that improve the customer's perception of the adviser, portfolio performance, and value. Conversely, our findings suggest that other factors, such as ambience or reachability do not significantly affect customer satisfaction. Thus, if the primary intention is to increase customer satisfaction, investments in these factors should be considered with caution.

Second, several studies suggest that customer satisfaction has a positive impact on the financial performance of the firm (e.g., Fornell et al. (2006); Gruca and Rego (2005)). From this point of view it seems crucial for managers to have a constant focus on sustaining or increasing customer satisfaction. To achieve this, our model could serve as a benchmark tool, which offers at least three advantages. First, it assists providers to reveal their strengths and weaknesses from a customer's perspective. Second, it provides the means to uncover the provider's competitive positioning in terms of satisfaction relative to peers. Finally, since the model sheds light on the relevant determinants managers are able to allocate their resources in a target-oriented manner.

Third, we urge practitioners not to view the relationships between customer satisfaction and its determinants as constant over time. Rather, the importance of the determinants varies over time. For instance, we find that customers in the 2009 sample are more sensitive to changes in the investment proposal, product offering, and perceived value than customers in the 2012 sample. Since 2009 is close to the outset of the financial crisis in 2008 it seems likely that the increased sensitivity is stimulated by period specific external factors, such as an augmented coverage of (bad) banking practices in the press. Hence, managers should constantly react to market developments and pro-actively seek the dialogue with their clients. This seems crucial in order to stay abreast with the client's needs and solitudes.

Finally, our study provides two practical insights that refer to customer characteristics. First, we reveal that affluent clients and HNWI's do not have a different perception on the influence of the determinants of customer satisfaction. Thus, managers can formulate measures to sustain or increase customer satisfaction without discriminating among wealth classes. While this insight suggests a certain degree of homogeneity among clients, the second insight reveals that clients at different provider types have a different perception on the influence of the determinants of customer satisfaction. More precisely, clients from private banks place more importance on the role of the adviser than clients from other providers. And clients from other providers place more importance on the role of the investment proposal. From this it follows that private banking clients are not so homogeneous after all, but instead have different needs that they seek to find at different provider types. Hence, it seems advisable for managers to align specific client needs with the provider's core competences.

4.7 Appendix

Table 4.9: Scale Item Statistics

Scale Items	M	SD	FL	<i>t</i>	IR
Reachability					
<i>Source: adapted from Brown and Swartz (1989), Parasuraman et al. (1985)</i>					
My private banking adviser's reachability over the phone is very good.	3.97	.96	.74	27.21	.60
My private banking adviser immediately responds to written requests.	3.82	1.01	.75	26.54	.55
My private banking adviser is available for appointments on short notice.	3.89	1.01	.78	26.33	.59
Ambience					
<i>Source: adapted from Johnston (1997), Baker et al. (1988)</i>					
My private banking provider's premises appear well-tended.	4.21	.83	.71	30.43	.73
The ambience of my private banking provider's premises is classy.	3.89	1.01	.82	32.58	.65
My private banking provider's premises are discrete.	4.26	.84	.65	23.87	.59
Product Offering					
<i>Source: adapted from Riegler (2005), Javalgi (1992)</i>					
My private banking provider offers me a broad range of products from independent parties.	3.60	1.16	.82	27.11	.51
My private banking provider offers me an exclusive set of products that I would not get from other providers.	3.13	1.09	.87	28.60	.64
My private banking provider offers me a broader range of products than other providers.	3.16	1.04	.85	29.85	.67
Investment Proposal					
<i>Source: adapted from Riegler (2005), Levesque and McDougall (1996)</i>					
My private banking provider prepares an individual investment proposal for me.	3.76	1.08	.89	32.52	.67
My private banking provider uses information from the counseling interview when preparing the investment proposal.	3.96	.96	.85	33.68	.78
The investment proposal is formulated in a way that I can understand it.	3.96	.92	.67	24.69	.54
Reporting					
<i>Source: adapted from Maude (2006), Johnston (1997), Levesque and McDougall (1996)</i>					
My portfolio's reporting statements match my needs.	3.47	1.09	.86	30.48	.62
My portfolio's reporting statements are easy to understand.	3.71	.99	.80	28.50	.66
Information on the reporting statements are clearly illustrated (e.g., with charts and diagrams).	3.76	1.02	.82	29.37	.64
Performance					
<i>Source: adapted from Krume (2013b), Seiler (2011)</i>					
The medium term (2-3 years) performance of my portfolio meets my expectations.	3.21	1.08	.90	32.88	.69
The performance of my portfolio meets my expectations.	3.10	1.11	1.01	40.86	.83
Adviser					
<i>Source: adapted from Brady et al. (2002), Stafford (1994), Parasuraman et al. (1985)</i>					
My private banking adviser is always friendly.	4.44	.76	.51	20.86	.46
My private banking adviser is trustworthy.	4.14	.93	.76	27.62	.66
My private banking adviser has the required expertise for my needs.	4.05	.95	.74	29.19	.61
My private banking adviser explains complex issues in an understandable manner.	3.89	.96	.77	30.59	.65
My private banking adviser listens carefully to what I say.	4.09	.91	.72	31.28	.62
My private banking adviser and I meet at eye level.	3.87	1.08	.84	28.50	.61
Perceived Value					
<i>Source: adapted from Kristensen et al. (2000), Fornell et al. (1996)</i>					
My private banking provider is worth the money I pay.	3.38	1.11	1.06	44.96	.91
The value provided by my private banking provider is excellent.	3.11	1.06	.89	33.96	.71
The fees charged by my private banking provider are too high for the quality offered. ^f	3.29	1.15	.71	19.59	.38

Continued on next page

Continued from previous page

Scale Items	M	SD	FL	<i>t</i>	IR
Customer Satisfaction					
<i>Source: adapted Kristensen et al. (2000), Fornell et al. (1996)</i>					
Overall, I am very satisfied with my private banking provider.	3.67	1.06	.97	39.27	.84
I am more satisfied with my private banking provider than I expected.	2.95	1.16	.83	28.19	.51
My private banking provider matches my ideal profile of a private banking provider.	3.16	1.22	1.03	42.90	.72
Customer Loyalty					
<i>Source: adapted from Bruhn (2003), Kristensen et al. (2000)</i>					
I recommend my private banking provider to other people without concerns.	3.42	1.23	1.09	41.65	.79
I am thinking about switching my private banking provider. ^r	3.78	1.32	1.03	31.29	.61
If I had to decide again I would still choose my private banking provider at any time.	3.54	1.22	1.08	40.17	.78
I stay with my private banking provider even when friends / acquaintances / relatives recommend someone else.	3.64	1.20	1.03	39.38	.74
Deleted Items					
I can reach my private banking adviser even outside business hours.	3.31	1.27			
I can access my private banking provider's next branch easily.	3.48	1.21			
My private banking provider offers me a broad range of in-house products.	3.50	1.16			
I plan on placing more of my wealth with my private banking provider.	2.73	1.18			

Notes: for the purpose of this study all items were translated from German to English.

Items were measured on a five-point Likert scale ranging from 1 "totally disagree" to 5 "totally agree".

M = mean, SD = standard deviation, FL = factor loading, *t* = *t*-value, IR = item reliability.

^r rescaled negative item.

Chapter 5

Conclusion

The private banking industry still has to deal with severe repercussions of the financial crisis. Particularly on the customer side an increase in sensitivity is observable, which has manifested itself in a combination of higher demand for service quality and lower levels of satisfaction and loyalty than before the crisis (McKinsey & Company (2012); BCG (2012); McKinsey & Company (2011); McKinsey & Company (2010)). On the firm side, a decline in profitability and asset outflows can be observed (McKinsey & Company, 2012). From this it can be deduced that the need to understand issues involving service quality and customer satisfaction has seldom been more topical in private banking than today. Against this background, this doctoral thesis has the overriding objective to advance the understanding of these topics, by shedding light on the determinants, relationships, and consequences of service quality and customer satisfaction in private banking. In order to accomplish this, three related studies are conducted, which are presented in chapter 2, 3, and 4, respectively.

Chapter 2 provides an integrated review of service quality and customer satisfaction literature, paying particular attention to private banking services. By utilizing general and private banking specific literature, the goal of this study is to provide a sound understanding of the current stage of knowledge in both literature streams and to identify research gaps, especially with respect to private banking services. Collectively, the review adverts to a variety of research gaps, of which three are subject of analysis in the course of this thesis. First, with respect to service quality literature, it is shown that generic models – which measure the customer’s perception of service quality – are not equally applicable across industries. Hence, when the research focus rests on a single industry the literature advises to identify and analyze industry specific service quality determinants. Nevertheless, for the private banking industry no such research is yet existent. Second, with respect to customer satisfaction, the literature also advises to employ industry spe-

cific models when the focus rests on a single industry. Although first contributions exist in this direction more research is needed to advance the understanding customer satisfaction in private banking. More specifically, a large scale empirical analysis of a private banking specific customer satisfaction model using covariance based structural equation modeling is not yet existent. Moreover, no research has yet proven if the relationships of interest are constant over time. Third, when considering the consequences of service quality and customer satisfaction the review shows that a comprehensive examination of the relationships between service quality, customer satisfaction, and behavioral intentions is not yet existent for private banking services. The studies presented in chapter 3 and 4 address these gaps by combining qualitative and empirical research.

Chapter 3 is primarily occupied with service quality issues and pursues the goals to fill two of the above mentioned research gaps. More precisely, the first goal is to identify the relevant private banking specific service quality determinants as perceived by private banking clients. The second goal is to examine the relationships between service quality, customer satisfaction, and behavioral intentions in private banking. To address the first goal a qualitative study is conducted, questioning 12 private banking clients and 13 experts in in-depth interviews. As a result, 11 private banking specific determinants are identified and categorized in terms of interaction quality [(1) social competence, (2) reachability, (3) expertise, (4) investment proposal, (5) transparent counseling], environment quality [(6) geographical position, (7) ambience, (8) reputation], and outcome quality [(9) product offering, (10) portfolio performance, (11) reporting]. Subsequently, the determinants are embedded in an industry specific holistic model to address the second goal, that is to investigate the relationships between service quality, customer satisfaction, and behavioral intentions. The empirical analysis is conducted using survey data from 406 private banking clients. The findings show satisfying model fit statistics and reveal that interaction quality and outcome quality are relevant determinants of the overall service quality. The environment quality is less important. With regard to interaction quality, expertise and transparent counseling are noteworthy quality determinants. With regard to outcome quality, portfolio performance is the most important determinant. Further, it is shown that the overall service quality has a strong impact on customer satisfaction, but no significant impact on behavioral intentions. On the contrary, customer satisfaction has a strong impact on word-of-mouth and loyalty intentions. As a supplement, the moderating effects of two client characteristics, namely wealth class and length of relationship, are investigated. Concerning the former, no significant differences are found between affluent clients and HNWIs. Concerning the latter, clients in relationships up to 8 years are more sensitive to changes in social competence, reachability, expertise, ambience, and product offering compared to clients in relationships over 8 years.

Chapter 4 focuses on customer satisfaction issues and pursues the goal to fill the final research gap. Reaching this goal involves two parts. First, to conduct a large scale empirical analysis of a private banking specific customer satisfaction model using covariance based structural equation modeling. Second, to investigate if the relationships of interest are constant over time. In order to accomplish this, this study builds upon the insights provided by Seiler (2011) to derive a model encompassing eight industry specific determinants [(1) reachability, (2) ambience, (3) product offering, (4) investment proposal, (5) reporting, (6) portfolio performance, (7) adviser, and (8) perceived value]. In addition, customer loyalty intentions are depicted in the model as consequence of customer satisfaction. The empirical analysis is conducted using survey data from 985 private banking clients from three studies collected between 2009 and 2012. Again, the model fit statistics are satisfying. The results suggest that the adviser, portfolio performance, and perceived value are the most influential determinants of customer satisfaction. In addition, customer satisfaction has a strong impact on loyalty intentions. Further, a comparison of time periods suggests that the relationships are not constant over time as clients in the 2009 sample are more sensitive than clients in the 2012 sample, particularly with respect to changes in the investment proposal, product offering, and perceived value. As a supplement, the moderating effects of two client characteristics are analyzed, namely wealth class and provider type. With regard to the former, no significant differences can be revealed between affluent clients and HNWI's. This result is similar to the finding presented in chapter 3. However, with regard to the latter, it is found that clients from private banks value the role of the adviser more than clients from other providers, whereas clients from other providers place more importance on the role of the investment proposal.

Overall, it can be concluded that this doctoral thesis advances the understanding of service quality and customer satisfaction in private banking by combining theoretical, qualitative, and empirical research. In this respect, the practical value of this research needs to be highlighted, which is rooted in the possible use of the models as rating instruments. More precisely, the models can serve as benchmark tools to rate private banking providers in terms of service quality and customer satisfaction, respectively. The advantages are at least threefold. First, the models can be used to uncover the strengths and weaknesses of private banking providers as perceived by customers. Second, the models can be used to reveal the competitive positioning of individual providers relative to peers in terms of service quality and customer satisfaction. As a result of these insights customers are able to evaluate the providers' attractiveness in terms of service quality and customer satisfaction. In turn, providers can use the insights to develop measures in order to sustain or improve their competitive positioning. The third advantage is that the models shed light on the driving determinants behind service

quality and customer satisfaction. Consequently, providers are in the position to allocate their resources purposefully by concentrating on the most relevant determinants. In this context, it is valuable to know that affluent clients and HNWI's do not seem to have a different perception on the influence of determinants across models. Thus, providers can develop their service strategies without differentiating between wealth classes.

As a final remark, a few limitations need to be considered, which also entail avenues for further research. First, the presented models focus on behavioral intentions as consequences of service quality and / or customer satisfaction. Although intentions are sound indicators of customer behavior the evidence linking service quality and customer satisfaction to actual customer behavior is still missing. In the context of retail banking, Loveman (1998) and Rust and Zahorik (1993) make a contribution by revealing a significant link between satisfaction and actual customer behavior. However, for the private banking industry such a relationship has not yet been confirmed. Similarly, there is no evidence for a relationship between service quality and / or customer satisfaction and financial variables in private banking. Since such insights are of relevance for scholars and practitioners alike further research should address these issues. Second, the empirical research in this thesis is primarily based on cross-sectional data, which constrains the ability to assess relationships over time. While the customer satisfaction study compares data from different time periods the results have to be considered with caution. The reason is that the individual samples do not contain the same set of respondents, and thus make it difficult to reduce the results solely to period specific effects. Nevertheless, more accurate results would require to utilize panel data. Although desirable, the development of a panel database in private banking is likely to impose severe difficulties. Third, a diverse range of moderating effects are analyzed in this thesis, including a comparison of provider types. Still, this analysis is restricted to a general comparison between private banks and a group of other providers. Yet, it would be interesting to conduct more detailed comparisons between individual provider types or individual providers. In addition, it would be interesting to examine the effects of other relevant client characteristics, such as investment strategy, or share of wealth. Naturally, this would require to further expand the database. Finally, the methodological course of action employed in this thesis concentrates on covariance based structural equation modeling. While this way of proceeding is highly appropriate for the presented studies, it would additionally be insightful to consider alternative methodologies. In particular, experimental studies are likely to be of great interest in the field of private banking in order to establish causal inferences between a set of variables. Nevertheless, by considering the difficulties of attracting private banking clients for research purposes an experimental study is likely to constitute a challenging endeavor.

Bibliography

- Anderson, E. W. (1996). Customer Satisfaction and Price Tolerance. *Marketing Letters*, 7(3):265–274.
- Anderson, E. W. (1998). Customer Satisfaction and Word of Mouth. *Journal of Service Research*, 1(1):5–17.
- Anderson, E. W. and Fornell, C. (2000). Foundations of the American Customer Satisfaction Index. *Total Quality Management*, 11(7):869–882.
- Anderson, E. W., Fornell, C., and Lehmann, D. R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings From Sweden. *Journal of Marketing*, 58(3):53–66.
- Anderson, E. W., Fornell, C., and Mazvancheryl, S. K. (2004). Customer Satisfaction and Shareholder Value. *Journal of Marketing*, 68(4):172–185.
- Anderson, E. W. and Mansi, S. A. (2009). Does Customer Satisfaction Matter to Investors? Findings from the Bond Market. *Journal of Marketing Research*, 46(5):703–714.
- Anderson, E. W. and Sullivan, M. W. (1993). The Antecedents and Consequences of Customer Satisfaction for Firms. *Marketing Science*, 12(2):125–143.
- Armstrong, J. S. and Overton, T. S. (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, 14(3):396–402.
- Babakus, E. and Boller, G. W. (1992). An Empirical Assessment of the SERVQUAL Scale. *Journal of Business Research*, 24(3):253–268.
- Baker, J., Berry, L. L., and Parasuraman, A. (1988). The Marketing Impact Of Branch Facility Design. *Journal of Retail Banking*, 10(2):33–42.
- Bala, M. N., Sandhu, H. S., and Nagpal, N. (2011). Measuring Life Insurance Service Quality: An Empirical Assessment of SERVQUAL Instrument. *International Business Research*, 4(4):176–190.

- Baron, R. M. and Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6):1173–1182.
- Baumgartner, H. and Steenkamp, J.-B. E. M. (2006). Response Biases in Marketing Research. In Grover, R. and Vriens, M., editors, *The handbook of marketing research*, pages 95–109. SAGE Publications, Thousand Oaks.
- BCG (2012). BCG Global Wealth Report 2012: The Battle to Regain Strength.
- Bearden, W. O. and Teel, J. E. (1983). Selected Determinants of Consumer Satisfaction and Complaint Reports. *Journal of Marketing Research*, 20(1):21–28.
- Bedi, M. (2010). An integrated Framework for Service Quality, Customer Satisfaction and Behavioral Responses in Indian Banking Industry – A Comparison of Public and Private Sector Banks. *Journal of Services Research*, 10(1):157–172.
- Bitner, M. J. (1990). Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses. *Journal of Marketing*, 54(2):69–82.
- Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, 56(2):57–71.
- Blumberg, B., Cooper, D. R., and Schindler, P. S. (2005). *Business research methods*. McGraw-Hill Education, Maidenhead.
- Bollen, K. A. (1989). *Structural equations with latent variables*. A Wiley-interscience publication. Wiley, New York.
- Bolton, R. N. (1998). A Dynamic Model of the Duration of the Customer’s Relationship With a Continuous Service Provider: The Role of Satisfaction. *Marketing Science*, 17(1):45–65.
- Bolton, R. N. and Drew, J. H. (1991). A Multistage Model of Customers’ Assessments of Service Quality and Value. *Journal of Consumer Research*, 17(4):375–384.
- Bolton, R. N. and Lemon, K. N. (1999). A Dynamic Model of Customers’ Usage of Services: Usage as an Antecedent and Consequence of Satisfaction. *Journal of Marketing Research*, 36(2):171–186.
- Boulding, W., Kalra, A., Staelin, R., and Zeithaml, V. A. (1993). A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions. *Journal of Marketing Research*, 30(1):7–27.

- Brady, M. K. and Cronin, J. J. (2001). Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach. *Journal of Marketing*, 65(3):34–49.
- Brady, M. K., Cronin, J. J., and Brand, R. R. (2002). Performance-only measurement of service quality: a replication and extension. *Journal of Business Research*, 55(1):17–31.
- Brown, S. W. and Swartz, T. A. (1989). A Gap Analysis of Professional Service Quality. *Journal of Marketing*, 53(2):92–98.
- Brown, T. J., Barry, T. E., Dacin, P. A., and Gunst, R. F. (2005). Spreading the Word: Investigating Antecedents of Consumers' Positive Word-of-Mouth Intentions and Behaviors in a Retailing Context. *Journal of the Academy of Marketing Science*, 33(2):123–138.
- Brown, T. J., Churchill, G. A., and Peter, J. P. (1993). Improving the measurement of service quality. *Journal of Retailing*, 69(1):127–139.
- Bruhn, M. (2003). Nationale Kundenzufriedenheitsindizes. In Homburg, C., editor, *Kundenzufriedenheit. Konzepte - Methoden - Erfahrungen*, pages 179–204. Gabler, Wiesbaden.
- Byrne, B. M., Shavelson, R. J., and Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin*, 105(3):456–466.
- Capgemini and Merrill Lynch (2009). World Wealth Report 2009.
- Capgemini and Merrill Lynch (2010). World Wealth Report 2010.
- Capgemini and Merrill Lynch (2011). World Wealth Report 2011.
- Capgemini and Merrill Lynch (2012). World Wealth Report 2012.
- Cardozo, R. N. (1965). An Experimental Study of Customer Effort, Expectation, and Satisfaction. *Journal of Marketing Research*, 2(3):244–249.
- Carl, R. (2008). Die emotionalen Faktoren im Private Banking: Kein Share of Wallet ohne Share of Heart. *Die Bank*, 48(4):34–39.
- Carman, J. M. (1990). Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions. *Journal of Retailing*, 66(1):33–55.
- Chan, L. K., Hui, Y. V., Lo, H. P., Tse, S. K., Tso, G. K., and Wu, M. L. (2003). Consumer satisfaction index: new practice and findings. *European Journal of Marketing*, 37(5):872–909.

- Chang, T.-I. S. and Zhu, W. (2011). Enhancing corporate reputation for market expansion in China: customer orientation and the mediating effect of product and service quality. *Journal of Strategic Marketing*, 19(2):153–170.
- Chase, R. B. (1981). The Customer Contact Approach to Services: Theoretical Bases and Practical Extensions. *Operations Research*, 29(4):698–706.
- Chenhall, R. H. and Moers, F. (2007). The Issue of Endogeneity within Theory-Based, Quantitative Management Accounting Research. *European Accounting Review*, 16(1):173–195.
- Chiou, J.-S. and Droge, C. (2006). Service Quality, Trust, Specific Asset Investment, and Expertise: Direct and Indirect Effects in a Satisfaction-Loyalty Framework. *Journal of the Academy of Marketing Science*, 34(4):613–627.
- Churchill, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1):64–73.
- Churchill, G. A. (1999). *Marketing research: Methodological foundations*. Dryden Press, Fort Worth, 7th edition.
- Churchill, G. A. and Iacobucci, D. (2005). *Marketing research: Methodological foundations*. South-Western, Mason and Ohio [u.a.], 9th edition.
- Churchill, G. A. and Surprenant, C. (1982). An Investigation Into the Determinants of Customer Satisfaction. *Journal of Marketing Research*, 19(4):491–504.
- Cohen, J. B. and Goldberg, M. E. (1970). The Dissonance Model in Post-Decision Product Evaluation. *Journal of Marketing Research*, 7(3):315–321.
- Cronin, J. J., Brady, M. K., and Hult, G. T. M. (2000). Assessing the Effects of Quality, Value, and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*, 76(2):193–218.
- Cronin, J. J. and Taylor, S. A. (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56(3):55–68.
- Crosby, L. A., Evans, K. A., and Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3):68–81.
- Dabholkar, P. A., Shepherd, C. D., and Thorpe, D. I. (2000). A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study. *Journal of Retailing*, 76(2):139–173.

- Dabholkar, P. A., Thorpe, D. I., and Rentz, J. O. (1996). A Measure of Service Quality for Retail Stores: Scale Development and Validation. *Journal of the Academy of Marketing Science*, 24(1):3–16.
- Dagger, T. S., Sweeney, J. C., and Johnson, L. W. (2007). A Hierarchical Model of Health Service Quality: Scale Development and Investigation of an Integrated Model. *Journal of Service Research*, 10(2):123–142.
- Degen, R. (2010). *Preisakzeptanz im Private Banking: Dissertation, Universität St. Gallen - Hochschule für Wirtschafts-, Rechts- und Sozialwissenschaften (HSG)*. Difo-Druck GmbH, Bamberg.
- Dillman, D. A., Smyth, J. D., and Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method*. Wiley & Sons, Hoboken, 3rd edition.
- Ennew, C. T. and Binks, M. R. (1999). Impact of Participative Service Relationships on Quality, Satisfaction and Retention: An Exploratory Study. *Journal of Business Research*, 46(2):121–132.
- Fassnacht, M. and Köse, I. (2006). Quality of Electronic Services: Conceptualizing and Testing a Hierarchical Model. *Journal of Service Research*, 9(1):19–37.
- Fassnacht, M. and Köse, I. (2007). Consequences of Web-based service quality: Uncovering a multi-faceted chain of effects. *Journal of Interactive Marketing*, 21(3):35–54.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford University Press, Stanford.
- Fornell, C. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing*, 56(1):6–21.
- Fornell, C. and Bookstein, F. L. (1982). Two Structural Equation Models: LISREL and PLS Applied to Consumer Exit-Voice Theory. *Journal of Marketing Research*, 19(4):440–452.
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., and Bryant, B. E. (1996). The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing*, 60(4):7–18.
- Fornell, C. and Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1):39–50.

- Fornell, C., Mithas, S., Morgeson III, F. V., and Krishnan, M. S. (2006). Customer Satisfaction and Stock Prices: High Returns, Low Risk. *Journal of Marketing*, 70(1):3–14.
- Fornell, C., Rust, R. T., and Dekimpe, M. G. (2010). The Effect of Customer Satisfaction on Consumer Spending Growth. *Journal of Marketing Research*, 47(1):28–35.
- García, J. A. M. and Caro, L. M. (2010). Rethinking perceived service quality: An alternative to hierarchical and multidimensional models. *Total Quality Management*, 21(1):93–118.
- Gerbing, D. W. and Anderson, J. C. (1988). An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment. *Journal of Marketing Research*, 25(2):186–192.
- Grewal, R., Cote, J. A., and Baumgartner, H. (2004). Multicollinearity and Measurement Error in Structural Equation Models: Implications for Theory Testing. *Marketing Science*, 23(4):519–529.
- Grönroos, C. (1984). A Service Quality Model and its Marketing Implications. *European Journal of Marketing*, 18(4):36–44.
- Grove, S. J. and Fisk, R. P. (1997). The Impact of Other Customers on Service Experiences: A Critical Incident Examination of Getting Along. *Journal of Retailing*, 73(1):63–85.
- Gruca, T. S. and Rego, L. L. (2005). Customer Satisfaction, Cash Flow, and Shareholder Value. *Journal of Marketing*, 69(3):115–130.
- Gupta, S. and Zeithaml, V. (2006). Customer Metrics and Their Impact on Financial Performance. *Marketing Science*, 25(6):718–739.
- Hair, J. F., Ringle, C. M., and Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory & Practice*, 19(2):139–151.
- Hardesty, D. M. and Bearden, W. O. (2004). The use of expert judges in scale development: Implications for improving face validity of measures of unobservable constructs. *Journal of Business Research*, 57(2):98–107.
- Harrison-Walker, L. J. (2001). The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents. *Journal of Service Research*, 4(1):60–75.

- Helson, H. (1948). Adaptation-Level as a Basis for a Quantitative Theory of Frames of Reference. *The Psychological Review*, 55(6):297–313.
- Helson, H. (1964). Current Trends and Issues in Adaptation-Level Theory. *American Psychologist*, 19(1):26–38.
- Hinkin, T. R. (1995). A Review of Scale Development Practices in the Study of Organizations. *Journal of Management*, 21(5):967–988.
- Homburg, C., editor (2003). *Kundenzufriedenheit. Konzepte - Methoden - Erfahrungen*. Gabler, Wiesbaden, 5th edition.
- Homburg, C. and Giering, A. (1996). Konzeptualisierung und Operationalisierung komplexer Konstrukte: Ein Leitfaden für die Marketingforschung. *Marketing Zeitschrift für Forschung und Praxis*, 18(1):5–24.
- Homburg, C. and Giering, A. (2001). Personal Characteristics as Moderators of the Relationship Between Customer Satisfaction and Loyalty—An Empirical Analysis. *Psychology & Marketing*, 18(1):43–66.
- Homburg, C., Giering, A., and Menon, A. (2003). Relationship Characteristics as Moderators of the Satisfaction-Loyalty Link: Findings in a Business-to-Business Context. *Journal of Business-to-Business Marketing*, 10(3):35–62.
- Homburg, C., Grozdanovic, M., and Klarmann, M. (2007). Responsiveness to Customers and Competitors: The Role of Affective and Cognitive Organizational Systems. *Journal of Marketing*, 71(3):18–38.
- Homburg, C. and Klarmann, M. (2006). Die Kausalanalyse in der empirischen betriebswirtschaftlichen Forschung: Problemfelder und Anwendungsempfehlungen. *Die Betriebswirtschaft*, 66(6):727–748.
- Homburg, C., Koschate, N., and Hoyer, W. D. (2005). Do Satisfied Customers Really Pay More? A Study of the Relationship Between Customer Satisfaction and Willingness to Pay. *Journal of Marketing*, 69(2):84–96.
- Homburg, C., Müller, M., and Klarmann, M. (2011). When Should the Customer Really Be King? On the Optimum Level of Salesperson Customer Orientation in Sales Encounters. *Journal of Marketing*, 75(2):55–74.
- Homburg, C. and Stock, R. M. (2004). The Link Between Salespeople’s Job Satisfaction and Customer Satisfaction in a Business-to-Business Context: A Dyadic Analysis. *Journal of the Academy of Marketing Science*, 32(2):144–158.

- Homburg, C., Wieseke, J., and Hoyer, W. D. (2009). Social Identity and the Service-Profit Chain. *Journal of Marketing*, 73(2):38–54.
- Horn, C. (2009). *Qualitätsmessung im Private Banking: Eine Analyse der Dienstleistungsqualität und deren Auswirkungen: Dissertation, WHU - Otto Beisheim School of Management*. Eul, Lohmar-Köln, 1st edition.
- Horn, C. and Rudolf, M. (2011). Service quality in the private banking business. *Financial Markets and Portfolio Management*, 25(2):173–195.
- Horn, C. and Rudolf, M. (2012). Outcomes of Service Quality in Private Banking Business: Uncovering a Chain of Effects. *International Journal of Business and Management*, 7(4):44–56.
- Howell, R. D., Breivik, E., and Wilcox, J. B. (2007). Reconsidering formative measurement. *Psychological Methods*, 12(2):205–218.
- Hu, L.-t. and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1):1–55.
- Iacobucci, D., Saldanha, N., and Deng, X. (2007). A meditation on mediation: Evidence that structural equations models perform better than regressions. *Journal of Consumer Psychology (Lawrence Erlbaum Associates)*, 17(2):139–153.
- Ittner, C. D. and Larcker, D. F. (1998). Are nonfinancial measures leading indicators of financial performance? an analysis of customer satisfaction. *Journal of Accounting Research*, 36(3):1–35.
- Jarvis, C. B., Mackenzie, S. B., and Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30(2):199–218.
- Javalgi, R. G. (1992). Marketing financial services to affluent consumers. *Journal of Services Marketing*, 6(2):33–44.
- Johnston, R. (1997). Identifying the critical determinants of service quality in retail banking: importance and effect. *International Journal of Bank Marketing*, 15(4):111–116.
- Jöreskog, K. G. and Sörbom, D. (1982). Recent developments in structural equation modeling. *Journal of Marketing Research*, 19(4):404–416.

- Kamakura, W. A., Mittal, V., Rosa, F. d., and Mazzon, J. A. (2002). Assessing the service-profit chain. *Marketing Science*, 21(3):294–317.
- Kristensen, K., Martensen, A., and Gronholdt, L. (2000). Customer satisfaction measurement at post denmark: Results of application of the european customer satisfaction index methodology. *Total Quality Management*, 11(7):1007–1015.
- Krume, T. (2013a). Service quality and customer satisfaction: Reviewing the literature with a private banking perspective: Unpublished working paper.
- Krume, T. (2013b). Service quality in private banking: A holistic perspective on antecedents and consequences: Unpublished working paper.
- Krume, T., Seiler, V., and Rudolf, M. (2013). Customer satisfaction in private banking: An extended perspective: Unpublished working paper.
- Lassar, W. M., Manolis, C., and Winsor, R. D. (2000). Service quality perspectives and satisfaction in private banking. *International Journal of Bank Marketing*, 18(4):181–199.
- Levesque, T. and McDougall, G. H. (1996). Determinants of customer satisfaction in retail banking. *International Journal of Bank Marketing*, 14(7):12–20.
- Ligas, M. and Chaudhuri, A. (2012). The moderating roles of shopper experience and store type on the relationship between perceived merchandise value and willingness to pay a higher price. *Journal of Retailing and Consumer Services*, 19(2):249–258.
- Little, R. J. A. and Rubin, D. B. (2002). *Statistical analysis with missing data*. Wiley, Hoboken, 2nd edition.
- Little, T. D., Lindenberger, U., and Nesselroade, J. R. (1999). On selecting indicators for multivariate measurement and modeling with latent variables: When good indicators are bad and bad indicators are good. *Psychological Methods*, 4(2):192–211.
- Liu, C.-M. (2005). The multidimensional and hierarchical structure of perceived quality and customer satisfaction. *International Journal of Management*, 22(3):426–435.
- Loveman, G. W. (1998). Employee satisfaction, customer loyalty, and financial performance: An empirical examination of the service profit chain in retail banking. *Journal of Service Research*, 1(1):18–31.
- Luo, X., Homburg, C., and Wieseke, J. (2010). Customer satisfaction, analyst stock recommendations, and firm value. *Journal of Marketing Research*, 47(6):1041–1058.

- MacKinnon, D. P., Krull, J. L., and Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, 1(4):173–181.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., and Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1):83–104.
- MacKinnon, D. P., Lockwood, C. M., and Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39(1):99–128.
- Madhavaiah, C., Durga Rao, S., and Akthar, P. (2008). Perceived service quality measurement in parcel delivery services: Development and validation of a multidimensional hierarchical model. *Journal of Marketing & Communication*, 4(1):4–22.
- Malhotra, N. K. (2007). *Marketing research: An applied orientation*. Pearson/Prentice Hall, Upper Saddle River, 5th edition.
- Mallett, D. (2006). Sampling and weighting. In Grover, R. and Vriens, M., editors, *The handbook of marketing research*, pages 159–177. SAGE Publications, Thousand Oaks.
- Mano, H. and Oliver, R. L. (1993). Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling, and satisfaction. *Journal of Consumer Research*, 20(3):451–466.
- Martensen, A., Gronhold, L., and Kristensen, K. (2000). The drivers of customer satisfaction and loyalty: cross-industry findings from denmark. *Total Quality Management*, 11(4/5/6):544–553.
- Maude, D. (2006). *Global private banking and wealth management: The new realities*. J. Wiley & Sons, Chichester.
- McAlexander, J. H., Kaldenberg, D. O., and Koenig, H. F. (1994). Service quality measurement. *Journal of Health Care Marketing*, 14(3):34–40.
- McKinsey & Company (2010). McKinsey private banking survey 2010.
- McKinsey & Company (2011). McKinsey private banking survey 2011.
- McKinsey & Company (2012). McKinsey private banking survey 2012.
- Mengi, P. (2009). Customer satisfaction with service quality: An empirical study of public and private sector banks. *IUP Journal of Management Research*, 8(9):7–17.

- Miles, M. B. and Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. SAGE, London, 2nd edition.
- Mittal, B. and Lassar, W. M. (1996). The role of personalization in service encounters. *Journal of Retailing*, 72(1):95–109.
- Mittal, B. and Lassar, W. M. (1998). Why do customers switch? the dynamics of satisfaction versus loyalty. *Journal of Services Marketing*, 12(3):177–194.
- Morhart, F. M., Herzog, W., and Tomczak, T. (2009). Brand-specific leadership: Turning employees into brand champions. *Journal of Marketing*, 73(5):122–142.
- Mummendey, H. D. (2003). *Die Fragebogen-Methode: Grundlagen und Anwendungen in Persönlichkeits-, Einstellungs- und Selbstkonzeptforschung*. Hogrefe Verl. für Psychologie, Göttingen, 4th edition.
- Muthén, B. O. and Muthén, L. K. (2010). *Mplus User's Guide*. Muthén & Muthén, Los Angeles, 6th edition.
- Oliver, R. L. (1977). Effect of expectation and disconfirmation on postexposure product evaluations: An alternative interpretation. *Journal of Applied Psychology*, 62(4):480–486.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4):460–469.
- Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*, 57(3):25–48.
- Oliver, R. L. (1993a). Cognitive, affective, and attribute bases of the satisfaction response. *Journal of Consumer Research*, 20(3):418–430.
- Oliver, R. L. (1993b). A conceptual model of service quality and service satisfaction: compatible goals, different concepts. In *Advances in services marketing and management: Research and practice*, pages 65–85. Greenwich CT.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(4):33–44.
- Olshavsky, R. W. and Miller, J. A. (1972). Consumer expectations, product performance, and perceived product quality. *Journal of Marketing Research*, 9(1):19–21.
- Olson, J. C. and Dover, P. A. (1979). Disconfirmation of consumer expectations through product trial. *Journal of Applied Psychology*, 64(2):179–189.

- Oppewal, H. and Vriens, M. (2000). Measuring perceived service quality using integrated conjoint experiments. *International Journal of Bank Marketing*, 18(4):154–169.
- Parasuraman, A., Berry, L. L., and Zeithaml, V. A. (1991). Refinement and reassessment of the servqual scale. *Journal of Retailing*, 67(4):420–450.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4):41–50.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1):12–40.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research. *Journal of Marketing*, 58(1):111–124.
- Podsakoff, P. M., Mackenzie, S. B., Lee, J.-Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5):879–903.
- Preacher, K. J. and Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3):879–891.
- Ravichandran, K., Mani, B. T., Kumar, S. A., and Prabhakaran, S. (2010). Influence of service quality on customer satisfaction: Application of servqual model. *International Journal of Business & Management*, 5(4):117–124.
- Reeves, C. A. and Bednar, D. A. (1994). Defining quality: Alternatives and implications. *Academy of Management Review*, 19(3):419–445.
- Reichheld, F. F. and Sasser, W. E. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, 68(5):105–111.
- Riegler, C. E. (2005). *Kunden- und ertragsorientierte Ansätze der Preisgestaltung für Beratungsleistungen im Private Banking: Dissertation, Universität Basel.*
- Roth, P. L. (1994). Missing data: A conceptual review for applied psychologists. *Personnel Psychology*, 47(3):537–560.
- Rust, R. T. and Oliver, R. L. (1994). Service quality: Insights and managerial implications from the frontier. In Rust, R. T. and Oliver, R. L., editors, *Service Quality: New Directions in Theory and Practice*, pages 1–19. SAGE Publications.

- Rust, R. T. and Zahorik, A. J. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing*, 69(2):193–215.
- Satorra, A. and Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66(4):507–514.
- Schneider, B., Macey, W. H., Lee, W. C., and Young, S. A. (2009). Organizational service climate drivers of the american customer satisfaction index (acsi) and financial and market performance. *Journal of Service Research*, 12(1):3–14.
- Seiler, V. (2011). *Kundenzufriedenheit im Private Banking: Eine empirische Analyse: Dissertation, WHU - Otto Beisheim School of Management*. Eul, Lohmar-Köln, 1st edition.
- Seiler, V., Rudolf, M., and Krume, T. (2013). The influence of socio-demographic variables on customer satisfaction and loyalty in the private banking industry: forthcoming. *International Journal of Bank Marketing*.
- Shrout, P. E. and Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4):422–445.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13:290–312.
- Solomon, M. R., Surprenant, C., Czepiel, J. A., and Gutman, E. G. (1985). A role theory perspective on dyadic interactions: The service encounter. *Journal of Marketing*, 49(1):99–111.
- Soteriou, A. and Zenios, S. A. (1999). Operations, quality, and profitability in the provision of banking services. *Management Science*, 45(9):1221–1238.
- Spies, K., Hesse, F., and Loesch, K. (1997). Store atmosphere, mood and purchasing behavior. *International Journal of Research in Marketing*, 14(1):1–17.
- Spiggle, S. (1994). Analysis and interpretation of qualitative data in consumer research. *Journal of Consumer Research*, 21(3):491–503.
- Spreng, R. A. and Mackoy, R. D. (1996). An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing*, 72(2):201–214.
- Stafford, M. R. (1994). How customers perceive service quality. *Journal of Retail Banking*, 16(2):29–37.

- Steenkamp, J.-B. E. M. and Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, 25(1):78–90.
- Tam, J. L. M. (2004). Customer satisfaction, service quality and perceived value: An integrative model. *Journal of Marketing Management*, 20(7/8):897–917.
- Teas, R. K. (1993). Expectations, performance evaluation, and consumers' perceptions of quality. *Journal of Marketing*, 57(4):18–34.
- Tse, D. K. and Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. *Journal of Marketing Research*, 25(2):204–212.
- Viebahn, M. (2005). *Vermögensreporting im Private Banking: Informationsbedarf, -bereitstellung und -nachfrage im Berichtswesen der privaten Vermögensverwaltung*. Logos Verlag, Berlin.
- Vielhaber, R. (2011). *Tops 2012: TOP-Berater für die Krise*. Fuchsbriefe, Berlin.
- Wang, Y., Lo, H.-P., and Hui, Y. V. (2003). The antecedents of service quality and product quality and their influences on bank reputation: evidence from the banking industry in china. *Managing Service Quality*, 13(1):72–83.
- Westbrook, R. A. (1987). Product/ consumption-based affective responses and postpurchase processes. *Journal of Marketing Research*, 24(3):258–270.
- Yi, Y. (1990). A critical review of consumer satisfaction. In Zeithaml, V. A., editor, *Review of Marketing 1990*, pages 68–123. American Marketing Association.
- Zeithaml, V. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28(1):67–85.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3):2–22.
- Zeithaml, V. A., Berry, L. L., and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2):31–46.