

# Chapter 3

## The Customer Loyalty Cascade and Its Impact on Profitability in Financial Services

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**Abstract** Building and maintaining successful, long-term relationships is one of the crucial tasks in today's financial sector, the idea being that loyal customers purchase more, demonstrate a higher willingness to spend, and act as advocates for the company. However, there is also some controversy on whether profitability indeed increases with customer loyalty. We will analyze the process of loyalty development and evaluate if and how customer loyalty (positively) affects profitability. We will do so with reference to a four stage sequential loyalty model that grounds on a chain of effects from cognitive loyalty, affective loyalty, conative loyalty to action loyalty. We will make use of PLS structural equation modeling and analyze data of almost 7000 customers of a German bank surveyed by telephone. These analyses will support practitioners in the banking and financial sector in setting-up and steering their customer retention strategies and will provide a theoretical contribution to validating one of the most prominent customer loyalty models.

**Keywords** Customer loyalty · Profitability · Financial services · Partial least squares · Path model · PLS-SEM

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### 3.1 Introduction

Building and maintaining successful, long-term relationships is crucial in many of today's competitive environments, in particular in the financial services sector. The costs for acquiring new customers is five times higher than maintaining existing customers. For credit cards, reducing customer defections by 5% doubles the average customer life span, and increases profit by 75% (Athanasopoulou 2009; Reichheld and Sasser 1990). Losing customers is costly, as loyal customers purchase more, demonstrate a higher willingness to spend, and act as advocates for the company (Harris and Goode 2004). These arguments are of special relevance in the financial services sector as it faces the challenge of partial customer defection more than other industries. Although only a minority of customers actually leaves their financial service provider, many customers simultaneously enter relationships with other providers. Specifically, bank customers spread their portfolio of services and products to different institutions, thereby reducing the individual firm's share of wallet (Aurier and N'Goala 2010; Du et al. 2007).

Given the acceptance of the link between loyalty and financial outcomes (Anderson and Mansi 2009; Anderson and Mittal 2000; Edvardsson et al. 2000; Fornell et al. 2006, 2009; Hallowell 1996; Lariviere 2008; Rust and Zahorik 1993), long-term relationships and the development of customer loyalty have become a central issue in marketing (Athanasopoulou 2009). However, there is also some controversy on whether profitability indeed increases with customer loyalty. For instance, Reinartz and Kumar (2000) show in a non-contractual setting that both short- and long-term relationships can be highly profitable. Their findings strongly challenge the notion that long-life customers trigger increased lifetime spending, lower costs of servicing, and reduced price sensitivity (Reinartz and Kumar 2000). Not all long-term customers are necessarily profitable, so focusing on the most profitable customer segments becomes crucial for companies (Niraj et al. 2001; Storbacka et al. 1994). As a result, the managerial focus shifted from "(...) mere 'loyalty' to 'customer profitability' and 'profitable loyalty'" (Kumar 2016, p. 108).

We will analyze the process of loyalty development and evaluate if and how customer loyalty (positively) affects profitability. We will do so with reference to a four stage sequential loyalty model that grounds on a chain of effects from cognitive loyalty, affective loyalty, conative loyalty to action loyalty. This analysis enables us to answer some of the key questions in today's research landscape: How can we describe the chain of effects between different stages of loyalty development? Which loyalty stages exert an impact on profitability? How can companies leverage this knowledge to drive loyalty and profit, or simply profitable loyalty? We will make use of a sample of almost 7000 customers of a German bank surveyed by telephone. Specifically, we will apply PLS structural equation modeling (PLS-SEM; Hair et al. 2017a, 2018, in press) to test the effect of the four sequential customer loyalty stages on profit. These analyses will support practitioners in the banking and financial sector in setting-up and steering their customer retention strategies and will provide a theoretical contribution to validating one of the most prominent customer loyalty models (Oliver 1999).

## 3.2 The Dynamics of Customer Relationships: A Sequential Model of Profitable Loyalty

### 3.2.1 *Theoretical Perspectives on Relational Exchanges*

“Marketing is to establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met” (Grönroos 1990, p. 138). To explain these relationships and the mechanisms through which they become loyal and profitable, several different theoretical paradigms are referred to, with Transaction Cost Theory (Williamson 1975, 1985), Relational Contracting Theory (Macneil 1978), Social Exchange Theory (Blau 1964; Thibaut and Kelley 1959), Resource Dependence Theory (Pfeffer and Salanzik 1978), and the Resource-Based View (Dyer 1996; Jap 1999, 2001) representing the most prominent frameworks. Each of these theoretical perspectives focusses on different drivers of exchange performance (Eiriz and Wilson 2006; Palmatier et al. 2006).

Transaction Cost Theory views value in a relationship as a purely rational evaluation of expected financial benefits and gains (Gassenheimer et al. 1998; Williamson 1975) and puts its primary emphasis on single transactions lacking a dynamic perspective (Doz and Prahalad 1991; Joshi and Stump 1999). It is therefore not the first choice theory for our purposes, as we are researching into an ongoing service contract. Similarly, Relational Exchange Theory is less suitable for our purposes due to its focus on relational norms. As Resource Dependence Theory and the Resource-Based View mainly concentrate on inter-organizational relationships, these frameworks are not considered first choice for a business-to-consumer context.

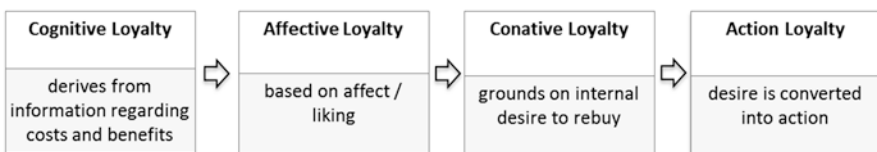
Instead, researchers analyzing relational exchange have mainly drawn on **Social Exchange Theory** (SET) which concentrates on the relational contract that develops over time (Lambe et al. 2000). Grounded on works in interpersonal relationships and sociology (Blau 1964; Thibaut and Kelley 1959), SET emphasizes the processes that lead to satisfaction for the parties involved in the exchange (Cannon and Perreault 1999). It focuses on the social benefits a relationship entails, placing emphasis on the satisfaction with the cooperation and a comparative evaluation of alternative partners (Thibaut and Kelley 1959). Accordingly, a relational exchange holds a social and economic dimension, as both the exchange process itself as well as the utility rendered are important (Singh and Sirdeshmukh 2000). SET explicitly considers exchange relationships as dynamic processes which evolve over time as the exchange partners interact and demonstrate their trustworthiness and commitment (Hallén et al. 1991). SET has also influenced popular theories such as the “commitment-trust theory” by Morgan and Hunt (1994) which identifies commitment and trust as key variables in relationships. Typical antecedents of relationship performance in this context include relationship quality, relational benefits, value, commitment, trust, and satisfaction (Chaudhuri and Holbrook 2001; Garbarino and Johnson 1999; Harris and Goode 2004; Hennig-Thurau et al. 2002; Morgan and Hunt 1994; Papassapa and Miller 2007).

We will draw on SET to explain the four stage loyalty model. Before presenting the model and research hypotheses, the concept of customer loyalty is briefly introduced.

### 3.2.2 *The Customer Loyalty Cascade*

All relationship marketing activities are eventually evaluated based on profit, customer loyalty and word-of-mouth communications (Hennig-Thurau et al. 2002). The concept of customer loyalty, until the 1970s, was considered solely as repeat purchasing behavior, induced mainly by repeated purchase cycles that were stochastic in character (Evanschitzky and Wunderlich 2006). Jacoby and Kyner (1973) were among the first scholars to introduce a new behavioral perspective, based on a biased (i.e., non-random) repeat purchase and a deliberate selection of a specific brand among a set of alternatives that results from an evaluation process. Day (1969) suggested that focusing on purchase behavior as behavioral loyalty will confound true loyalty and spurious loyalty and recommended combining attitudinal and behavioral loyalty. Extending the mere behavioral definition, Jacoby and Chestnut (1978) and Dick and Basu (1994) made seminal contributions to establish the multi-dimensional nature of loyalty. Today, scholars have adopted this multi-dimensional view of loyalty and agree that loyalty includes both behavioral and attitudinal aspects (Brunner et al. 2008; Chaudhuri and Holbrook 2001; Chiou and Droge 2006; Papassapa and Miller 2007).

Building on this multidimensional view of customer loyalty, Oliver (1997, 1999) developed a detailed framework of a four-stage sequential loyalty model based on a chain of effects from cognitive loyalty, affective loyalty, conative loyalty to action loyalty (see Fig. 3.1) which forms the basis of many empirical studies testing for loyalty determinants (e.g., Ahrholdt et al. 2016). Accordingly, customers become loyal in a cognitive sense first, then subsequently in an affective, conative and finally in a behavioral manner. Based on the assumption that the four distinct dimensions of customer loyalty do not appear simultaneously, Oliver (1999) suggested they emerge consecutively over time and that different factors influence customer loyalty at each stage. In this framework, customer loyalty is only achieved if high loyalty is attained across all four loyalty stages of the “customer loyalty cascade” (Han et al. 2008). This notion of a sequential loyalty chain is in line with frameworks such as the satisfaction-profit chain (Anderson and Mittal 2000), which conceptualize the chain of



**Fig. 3.1** Four-stage loyalty model. Source: Adapted from Oliver (1999)

effects in which customer loyalty mediates the effect of customer satisfaction to profitability. A few empirical studies have confirmed Oliver's (1999) sequential loyalty chain in do-it-yourself retailing (Evanschitzky and Wunderlich 2006), services (Han et al. 2008), online services (Harris and Goode 2004), seafood products (Olsen 2002), and department stores (Sivadas and Baker-Prewitt 2000).

The first loyalty phase is **cognitive loyalty** which derives from information about a company's offering, such as quality and price. This information indicates that the selected product or service is the best choice among its alternatives and thus preferable to others. Oliver (1999) argues that cognitive loyalty constitutes the weakest type of loyalty because it does not relate to the brand. Instead, it derives from information about costs and benefits of a company's offering and is therefore also referred to as "phantom loyalty" (Oliver 1999, p. 37). Switching behavior may occur in case of superior competitive offerings. But when this information is processed, it becomes part of the consumer's experience and can entail an affective reaction derived from cumulatively satisfying experiences (Oliver 1999). Service quality refers to such a cognitive state, while satisfaction is the affective (or emotional) state resulting from an evaluation of interaction experiences (Carrillat et al. 2009; Crosby et al. 1990).

**Affective loyalty** constitutes the second phase of loyalty and refers to a favorable attitude (or liking) towards the company or brand and comprises a sense of pleasurable fulfillment. The social exchange approach emphasizes the belief in mutually beneficial behavior and states that only social exchange can entail feelings of gratitude or trust, a mere economic exchange cannot (Blau 1964; Seppänen et al. 2007). Social relationships thus represent a source of positive or negative emotions (Lawler 2001). As a service encounter reflects on the customer's view of the entire company, positive (negative) service encounters will lead to positive (negative) feelings towards the service provider (Sierra and McQuitty 2005). Every experience with a firm (or the cognitive evaluation of it) can influence affective responses such as cumulative satisfaction and trust (Brunner et al. 2008; Chiou and Droge 2006; Garbarino and Johnson 1999; Oliver 1997). Satisfaction acts as an anchor that is updated with the information gained in every consumption experience (Bolton 1998). Hence, we hypothesize:

**Hypothesis 1 (H1):** Cognitive loyalty has a positive direct effect on affective loyalty.

According to SET, both economic rewards (e.g., value) and social rewards (e.g., trust) represent important determinants of the exchange partner's behavior (Emerson 1976). The higher the level of satisfaction with the rewards, the more likely will the exchange partners continue the relationship (Briggs and Grisaffe 2009). In other words, with repeatedly satisfying experiences, strengthened beliefs, and affect, the customer may develop a motivation to rebuy the brand (Oliver 1999). This motivation is described in the third phase of loyalty.

**Conative loyalty**, the most studied dimension of customer loyalty (Han et al. 2008): Conative loyalty describes an internal desire to repurchase a certain brand which binds the customer more strongly to the company than affective loyalty

(Brunner et al. 2008; Oliver 1999) and is characterized by a deeper level of commitment (Harris and Goode 2004). As emotions will impact the customer's loyalty towards the company (Sierra and McQuitty 2005), satisfaction leads to repurchase intentions (Cronin and Taylor 1992; Papassapa and Miller 2007). We expect:

**Hypothesis 2 (H2):** Affective loyalty has a positive direct effect on conative loyalty.

As with any intention, conative loyalty represents an internal disposition to rebuy, but this motivation may finally not be translated into real behavior (Brunner et al. 2008; Oliver 1999). Action loyalty describes the actual behavior in which the preposition or readiness to repurchase a firm's offering developed in the previous loyalty stages is converted into action. Behavioral intentions elicit a behavioral response, including repurchase or customer retention (Bolton 1998; Perkins-Munn et al. 2005; Rust and Zahorik 1993) and increased usage (Bolton and Lemon 1999). Vulnerabilities of this conversion into action may elicit from consumer idiosyncrasies (such as variety seeking) or switching incentives (stemming for instance from the competitive environment). Nonetheless, we hypothesize:

**Hypothesis 3 (H3):** Conative loyalty has a positive direct effect on action loyalty.

Summarizing the above considerations, we agree with Oliver's (1999) conceptualization and previous research (Evanschitzky and Wunderlich 2006; Han et al. 2008; Harris and Goode 2004; Sivadas and Baker-Prewitt 2000) and expect a direct positive relationship from each loyalty phase to the subsequent stage.

However, some authors highlight that customer loyalty may be more complex than depicted by the linear, sequential structure of the four stage loyalty model (Agustin and Singh 2005; Han et al. 2008). There are also theoretical considerations supporting additional relationships in the model based on SET. When assessing the satisfaction with a relationship, customers evaluate the relationship against a comparison standard of alternatives. If the outcomes in a relationship fall below this level and there are viable alternatives, the partner will terminate the relationship. Hence, this evaluation influences the decision whether to continue or leave a relationship (Thibaut and Kelley 1959). So a customer may not be satisfied with a company but still remain in the relationship due to a lack of superior alternatives. This may indicate a direct relationship between this comparative evaluation of alternatives (cognitive loyalty) as well as the intention to stay loyal (conative loyalty) and actual behavior (action loyalty). Therefore, we also test whether the relationships between loyalty dimensions on three different stages are fully mediated by the construct in between or whether there are also direct relationships surpassing the mediating construct. We will outline the following hypotheses building on the model outlined by Oliver (1999):

**Hypothesis 4 (H4):** The effect from cognitive loyalty to conative loyalty is fully mediated by affective loyalty.

**Hypothesis 5 (H5):** The effect from cognitive loyalty to action loyalty is fully mediated by affective loyalty and conative loyalty.

**Hypothesis 6 (H6):** The effect from affective loyalty to action loyalty is fully mediated by conative loyalty.

### 3.2.3 *The Impact of Loyalty on Profitability*

Although Oliver's (1999) sequential loyalty model has been confirmed in earlier studies (Evanschitzky and Wunderlich 2006; Han et al. 2008; Harris and Goode 2004; Sivadas and Baker-Prewitt 2000), the (relative) impact of each of the four individual loyalty stages on financial outcomes has—to the best of our knowledge—not been tested so far. Measuring the effect of loyalty on profitability is essential as “all relationship marketing activities are ultimately evaluated on the basis of the company's overall profitability” (Hennig-Thurau et al. 2002, p. 231). In general, we follow the logic that profits occur when a customer has been loyal for some time, as costs tend to be generated in the beginning of a relationship. The more loyal a customer and the longer the customer stays in the relationship, the larger the sales and profits (Edvardsson et al. 2000).

Some studies confirm a positive effect of action loyalty on customer profitability (Helgesen 2006). Similarly, there is evidence for a positive relationship between trust and satisfaction (i.e., affective loyalty) on financial outcomes (Anderson et al. 1994; Edvardsson et al. 2000; Hallowell 1996; O'Sullivan and McCallig 2009; Palmatier et al. 2006). Satisfaction may exert a direct effect on profit because it accounts for those contributions to revenues or cost savings that are based on a positive experience. Specifically, operating costs only decrease if the customer is satisfied as costs associated with service guarantees or complaint handling will not arise. Satisfied customers should be more willing to pay for the benefits they get and tend to be more willing to accept price increases. Conversely, the indirect effect via loyalty stems from revenue growth and higher profitability resulting from repeat purchases, cross-selling, and higher willingness to pay more (Anderson et al. 1994; Edvardsson et al. 2000). However, there is evidence that relational effects tend to be more closely related to loyalty dimensions in the cascade than to objective firm performance, for which other factors outside the relationship might be more relevant (e.g., the competitive environment or economic situation) (Palmatier et al. 2006). To contribute to a better understanding of the differential effects of loyalty phases on firm outcomes, this study will also pay special attention to determining the impact of each of the four loyalty stages on customer profitability. Hence, we outline the following hypotheses related to affective and action loyalty building on former research, yet also to cognitive and conative loyalty to be tested more exploratively:

**Hypothesis 7 (H7):** Cognitive loyalty has a positive direct effect on profitability.



**Hypothesis 8 (H8):** Affective loyalty has a positive direct effect on profitability.

**Hypothesis 9 (H9):** Conative loyalty has a positive direct effect on profitability.

**Hypothesis 10 (H10):** Action loyalty has a positive direct effect on profitability.

### 3.3 Research Design

#### 3.3.1 *Sample and Data Collection*

To test our hypotheses, we draw on a sample from the financial industry. The financial sector faces high costs of acquiring new customers, low customer loyalty and a rather high number of unprofitable customers (Di Benedetto and Kim 2016; Mittal and Katrichis 2000). A deeper understanding of the dynamics of customer relationships, therefore, is of specific practical relevance to firms and institutions in the industry.

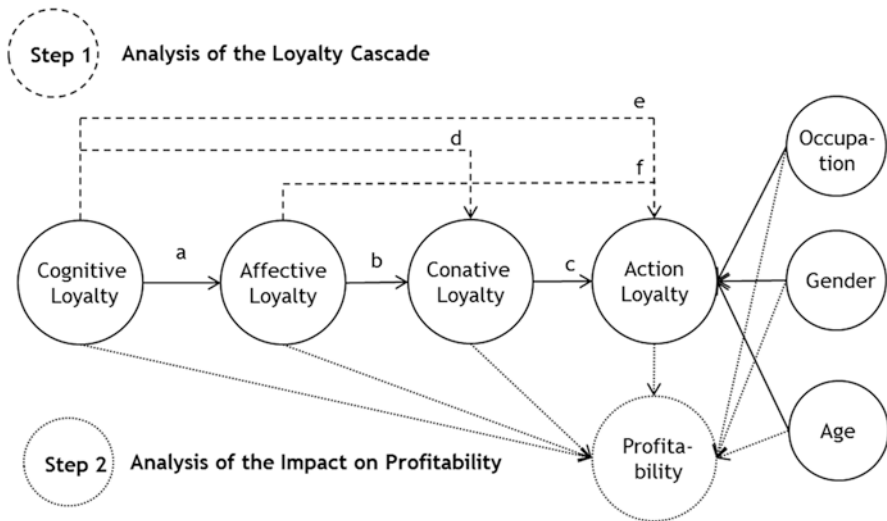
We conducted telephone interviews with more than 6852 (German) customers of one bank headquartered in Germany in 2010. In addition to the primary data collected by means of the survey, we gathered secondary data on the customers, namely figures on customer profitability received from the management accounting of the bank.

#### 3.3.2 *Research Model and Analysis Technique*

To test our hypotheses, we make use of PLS-SEM and SmartPLS 3.0 (Ringle et al. 2015). We opted for using PLS-SEM (e.g., Hair et al. 2017a, 2018, in press) as a tool that is very useful for developing and extending existing theory in management research. PLS-SEM has benefits for prediction, has the power to easily cope with formative constructs involved, and has strong features for testing mediating effects and complex models (e.g., Hair et al. 2017c; Richter et al. 2016a, 2016b; Sarstedt et al. 2017).

Our analysis involves two steps (see Fig. 3.2). First, we focus on testing the validity of the four-stage loyalty model, namely our hypotheses H1–H6. We do so by performing mediator-analyses which test whether the indirect and/or direct effects between the four constructs are significant or not. Following the procedures outlined in Zhao et al. (2010) and Nitzl et al. (2016), we determine the type of mediation between the constructs. More specifically, we test whether there is a full mediation of the constructs as defined by Oliver (1999). If this assumption holds true, we would expect the paths d, e, and f in Fig. 3.2 to be not significant, yet the indirect effects (of cognitive on conative via affective loyalty, and of cognitive on





**Fig. 3.2** A two-step research approach

action via affective and conative loyalty, and of affective on action loyalty via conative loyalty) to be significant (Hair et al. 2017b).

Second, we test the effect of each of the four loyalty stages on customer profitability, i.e., our Hypotheses 7–10. Thus, we will close the research gap which exists on individual customer level; research mostly focused on the effects of loyalty on firm performance at a company level (Edvardsson et al. 2000), and only a few studies looked at it from an individual customer level (e.g., Helgesen 2006). In both analyses, we control for the effects of gender, age and occupation on action loyalty and on customer profitability.

### 3.3.3 Measures

Researchers can generally choose between two different types of measurement models (e.g., Coltman et al. 2008; Diamantopoulos and Winklhofer 2001; Gudergan et al. 2008): reflective measurement models and formative measurement models. Reflective measurement models have direct relationships from the construct to the indicators and treat the indicators as error-prone manifestations of the underlying construct. In contrast, in a formative measurement model, a linear combination of a set of indicators forms the construct (i.e., the relationship is from the indicators to the construct). Hence, “variation in the indicators precedes variation in the latent variable” (Borsboom et al. 2003, p. 208). Indicators of formatively measured constructs do not necessarily have to correlate strongly as is the case with reflective indicators. In PLS-SEM, formative measurement models represent composite

indicator models (Sarstedt et al. 2016b, 2017). Finally, researchers often use single-item constructs. However, if not included as a control or a moderator variable, single-item constructs usually are disadvantageous compared to multi-item constructs (Diamantopoulos et al. 2012; Sarstedt et al. 2016a).

The measurement theory specifies how to measure latent variables. Thereby, researchers define the type of measurement model and the relevant indicators. In the following we define the measures based on the findings of prior research:

- We use a single-item measure to operationalize **customer profitability** on the individual customer level. Building on the definition of Storbacka et al. (1994), we measure customer profitability as the *total revenues* generated from a customer relationship *minus the total costs* from serving a customer relationship over a fiscal year (e.g., Lariviere 2008).
- **Action loyalty** is operationalised by means of two (formative) indicator variables. Following former operationalisations (Hallowell 1996), it is measured based on the *relative length of the customer relationship* and the *cross-buying intensity* per customer.
- We use two (reflective) items to operationalize **conative loyalty** which are in line with past operationalisations (Brunner et al. 2008; Evanschitzky and Wunderlich 2006): “*Based on your experience, would you select [BANK] as your bank again?*”, and “*How likely is it that you would recommend [BANK] to a friend or relative?*”.
- We use the following five (reflective) items to measure **affective loyalty** based on an affective reaction through overall satisfaction and trust (Carrillat et al. 2009; Delgado-Ballester and Munuera-Alemán 2001). The items all reflect aspects of affective loyalty related to overall satisfaction, honesty and benevolence (Evanschitzky and Wunderlich 2006; Kantsperger and Kunz 2010). Overall satisfaction is reflected in the item “*Overall, how satisfied are you with [BANK]?*” (Hallowell 1996; Sivadas and Baker-Prewitt 2000). “[*BANK*] is a bank, I have full trust in” and “[*BANK*] is honest and always keeps its promises” are two items adapted from Doney and Cannon (1997) and Dagger and O’Brien (2010) to cover the honesty aspects of affective loyalty. Finally, we refer to “[*BANK*] respects me as a customer” and “[*BANK*] always treats me seriously” to measure the benevolence aspects of affective loyalty, building on Sirdeshmukh et al. (2002).
- We use 7 (formative) items to operationalize **cognitive loyalty**. Two items cover the two defining dimensions of calculative commitment, namely the evaluation of a relationship’s costs and benefits, and the lack of better alternatives (Hansen et al. 2003): “[*BANK*] offers the best value for money” and “[*BANK*] is always one step ahead of other banks”. Furthermore, five items relate to the dimensions of the SERVQUAL instrument: *tangibles*, *reliability*, *responsiveness*, *assurance* and *empathy* (Parasuraman et al. 1985, 1988; Rust and Zahorik 1993). Although other measures of service quality were also successfully applied (e.g., Avkiran 1994, 2002), using (the performance assessment involved in) SERVQUAL in financial services is common and proved to be useful in former studies (e.g., Arasli et al. 2005; Cronin and Taylor 1992). The five items

finally in use were generated by means of five individual factor analyses on individual items as found in previous studies (e.g., Mukherjee and Nath 2005) before importing them into SmartPLS. For these factor analyses, the loadings were all on appropriate levels (with 0.766 as the lowest factor loading), as were the shares of explained variances of the factors (with 69% as the lowest share of explained variance found for assurance).

For further information on the individual items, refer to Tables 3.1 and 3.2 which provide an overview of all items used including quality criteria. Finally, we include the following single-items as **control variables** into the analysis: gender, age and occupation of the customer.

### 3.4 Discussion of Results

#### 3.4.1 Evaluation of Measurement Models

Before interpreting the results of our structural models, we evaluate the quality of our measurement models (e.g., Chin 2010; Sarstedt et al. 2017; Tenenhaus et al. 2005). As summarized in Table 3.1, all of our reflective measurement models perform well with regard to standard quality criteria: All outer loadings are above 0.70; even the item with the lowest loading (“*Overall, how satisfied are you with [BANK]?*”) still is (with 0.752) well above the threshold value. The average variances extracted of affective loyalty (0.699) and conative loyalty (0.820) exceed 0.50 indicating appropriate convergent validity of the constructs. Finally, the composite reliabilities are above 0.90, yet below 0.95 for both reflective constructs (with 0.921 for affective loyalty and 0.901 for conative loyalty), which indicates appropriate construct reliability (Hair et al. 2017b). The evaluation of collinearity along the variance inflation factors does not point to collinearity issues for our formative indicators (see Table 3.2). Most of our formative weights are moreover significant, yet not all. For the indicator variables showing insignificant weights, we opted for not eliminating the variables from further analysis after evaluating loadings, significance of loadings and reassessing the theoretical contents of the constructs to be covered.

#### 3.4.2 Step 1: Analysis of the Loyalty Cascade

Table 3.3 presents the results of our mediator analysis. It provides the path coefficients for all direct and indirect effects including information on their significance based on bias-corrected and accelerated (BCa) bootstrap confidence intervals. Furthermore, variance inflation factors are given. The variance inflation factors do not point to problems of collinearity in the structural model. Furthermore the model shows a high share of explained variance for affective ( $R^2 = 0.619$ ) and conative

**Table 3.1** Reflective and single-item measurements and quality criteria

Reflective and single-item measures	Loading >0.70	AVE >0.50	CR >0.70	HTMT CI without 1
<b>Customer profitability</b>				
<i>Total revenues—total costs of serving the customer, categorized into four groups: negative, low, medium and high</i>	1			
<b>Conative loyalty</b>				
<i>Based on your experience, would you select [BANK] as your bank again? (1 = no, definitely not, 5 = yes, definitely)</i>	0.911	0.820	0.901	[0.892; 0.909]
<i>How likely is it that you would recommend [BANK] to a friend or relative? (0 = surely not, 10 = yes, definitely)</i>	0.900			
<b>Affective loyalty</b>				
<i>Overall, how satisfied are you with [BANK]? (1 = dissatisfied, 5 = very satisfied)</i>	0.752	0.699	0.921	[0.916; 0.925]
<i>[BANK] is a bank that I have full trust in (1 = I do not agree at all, 7 = I fully agree)</i>	0.866			
<i>[BANK] is honest and always keeps its promises. (1 = I do not agree at all, 7 = I fully agree)</i>	0.845			
<i>[BANK] respects me as a customer (1 = I do not agree at all, 7 = I fully agree)</i>	0.850			
<i>[BANK] always treats me seriously (1 = I do not agree at all, 7 = I fully agree)</i>	0.863			
<b>Controls</b>				
<i>Gender (1 = male, 0 = female)</i>	1			
<i>Age</i>	1			
<i>Occupation (1 = blue collar, 0 = white collar)</i>	1			

Note: AVE average variance extracted, CR composite reliability, CI 95% bias corrected confidence interval, HTMT heterotrait-monotrait-ratio

loyalty ( $R^2 = 0.569$ ). However, the model shows a very poor share of explained variance for action loyalty ( $R^2 = 0.040$ ).

The four stage model indicates that affective loyalty is positively and directly impacted by cognitive loyalty (H1). Indeed the relationship between the two constructs shows the highest and a significant path coefficient (0.787). Second, the model indicates that conative loyalty is positively and directly impacted by affective loyalty (H2). This also receives strong support with a significant path coefficient of 0.571. Third, the model suggests that action loyalty is positively and directly impacted by conative loyalty (H3). This is not supported; our results do not show a significant path coefficient for this relationship.

Furthermore, the following mediations are implicit in the four stages of the model: First, cognitive loyalty impacts conative loyalty via affective loyalty, i.e., the relationship between the two is fully mediated by affective loyalty (H4). For this to hold true, the indirect effect of cognitive and conative loyalty via affective loyalty ( $a \times b$ ) needs to be significant while the direct effect (d) is not significant. The indi-

**Table 3.2** Formative measurements and quality criteria

Formative measures	Weights	P	P < 0.10	VIF < 5
<b>Action loyalty</b>				
<i>Length of the customer relationship in months related to age</i>	0.133	0.471	No	1.002
<i>Cross-buying intensity (number of products owned from the bank)</i>	0.986	0.000	Yes	1.002
<b>Cognitive loyalty</b>				
<i>[BANK] offers the best value for money. (1 = I do not agree at all, 7 = I fully agree)</i>	0.360	0.000	Yes	1.649
<i>[BANK] is always one step ahead of other banks. (1 = I do not agree at all, 7 = I fully agree)</i>	0.542	0.000	Yes	1.711
<i>Tangibles (factor score) from two items: (1) location and accessibility of the branch, (2) cleanliness and order in the branch</i>	-0.030	0.197	No	1.963
<i>Reliability (factor score) from two items: (1) banking personal can be reached easily, (2) reliability of statements made by the consultant</i>	0.298	0.000	Yes	3.447
<i>Responsiveness (factor score) from two items: (1) Motivation to help, (2) Length of the waiting time before you speak to a consultant</i>	0.056	0.039	Yes	3.097
<i>Assurance (factor score) from three items: (1) competency of the consultant, (2) friendliness of the consultant, (3) discretion in the branch</i>	0.032	0.271	No	3.616
<i>Empathy (factor score) from two items: (1) opening hours of the branch, (2) time the consultant took for customer</i>	-0.010	0.652	No	3.159

Note: VIF variance inflation factor

rect effect is with a value of 0.449 highly significant. The direct effect of cognitive on conative loyalty is, however, likewise quite strong (0.218) and significant. Hence, there is only a partial mediation, more specifically there is a complementary partial mediation. This indicates that a portion of the effect of cognitive loyalty on conative loyalty is mediated through affective loyalty, yet cognitive loyalty still explains a portion of conative loyalty that is independent of affective loyalty. This partly contradicts our hypothesis H4.

Second, the model suggests that cognitive loyalty impacts action loyalty via affective and conative loyalty, i.e., the relationship between the two is fully mediated by affective and conative loyalty (H5). The indirect effect ( $a \times b \times c$ ) is with a value of 0.041 not significant; the direct effect of cognitive loyalty on action loyalty (e) is likewise not significant. Hence, the results do neither support a mediated effect nor a direct effect of cognitive on action loyalty, and thus, contradict our hypothesis H5.

Third, the model implies that affective loyalty impacts action loyalty via conative loyalty, i.e., the relationship between the two is fully mediated by conative loyalty (H6). The indirect effect of affective loyalty on action loyalty ( $b \times c$ ) is not significant; the direct effect (f) likewise is not significant. Hence, the results do neither support a

**Table 3.3** Results of the mediator analyses of the loyalty cascade (Step 1)

Relationship	Path coefficient [95% confidence interval]		VIF	Significant? [building on confidence intervals]
<b>Indirect effects significant?</b>				
Cognitive → conative loyalty (via affective loyalty) (a × b)	0.449 [0.412;0.480]	***		Yes
Cognitive → action loyalty (via affective & conative loyalty) (a × b × c)	0.041 [-0.016;0.109]			No
Affective → action loyalty (via conative loyalty) (b × c)	0.022 [-0.005; 0.048]			No
<b>Direct effects significant?</b>				
(a) Cognitive → affective loyalty	0.787 [0.770;0.801]	***	1.000	Yes
(b) Affective loyalty → conative loyalty	0.571 [0.526; 0.610]	***	2.623	Yes
(c) Conative loyalty → action loyalty	0.035 [-0.010; 0.086]		2.321	No
(d) Cognitive → conative loyalty	0.218 [0.176; 0.259]	***	2.623	Yes
(e) Cognitive → action loyalty	-0.054 [-0.106; 0.002]		2.734	No
(f) Affective → action loyalty	0.022 [-0.060; 0.093]		3.379	No

Note: \*\*\*p < 0.001; VIF variance inflation factor

mediated effect nor a direct effect of affective loyalty on action loyalty. Thus, results contradict our hypothesis H6.

### 3.4.3 Step 2: Impact on Profitability

In the second step we test for the effects of the loyalty dimensions on customer profitability. Figure 3.3 presents the results of the model involving the four loyalty dimensions along the four stage approach as well as the direct effect of cognitive on conative loyalty which showed significance in our mediator analyses. It provides the path coefficients, their significance and R-square values.

The model explains a very low share of variance in customer profitability, namely around 2% ( $R^2 = 0.02$ ). The only loyalty construct that has a significant effect on customer profitability is action loyalty (with a path of 0.14). All other loyalty constructs do not directly impact customer profitability. In addition to the path coefficients given in the figure, we calculated effect sizes for the relationships which enables further testing of the strength of the effect of action loyalty on profitability. The  $f^2$  effect size of action loyalty on customer profitability is 0.018. Following the guidelines outlined by Cohen (1988) effect sizes of 0.02, 0.15 and 0.35 point to low,

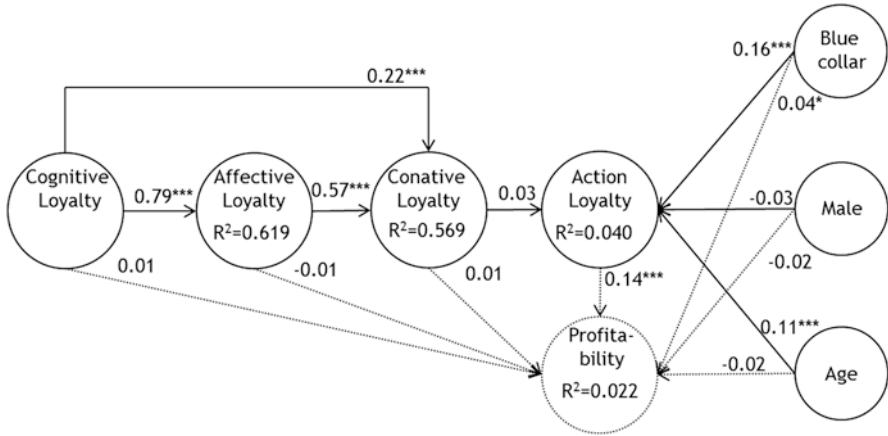


Fig. 3.3 Results of the analyses on the impact on profitability (Step 2)

medium and strong effects of the exogeneous on the endogeneous construct. Effect sizes below 0.02 point to no effect. Hence, we conclude that the effect of action loyalty on customer profitability can, if at all, be deemed as low.

To further test the effects on customer profitability and derive practical implications, we also analyse  $q^2$  effect sizes and performed a blindfolding to assess the predictive relevance of the model (Geisser 1974; Stone 1974). Blindfolding generates the following values for the predictive relevance of constructs: affective loyalty has a  $Q^2$  of 0.422, conative loyalty of 0.456, action loyalty of 0.019 and customer profitability of 0.018.  $Q^2$  is a measure indicating the out-of-sample predictive relevance, i.e., the capability of the model to predict endogenous constructs such as customer profitability.  $Q^2$  values above zero indicate predictive relevance. Hence, we have predictive relevance for all constructs especially for affective and conative loyalty. The  $q^2$  effect sizes can be interpreted correspondingly to the threshold values for the  $f^2$  effect sizes, i.e., values of 0.02 point to a low predictive relevance of a specific exogenous on an endogenous construct. We calculated the  $q^2$  effect size of action loyalty on customer profitability by means of estimating two models, one including the action loyalty construct and one excluding the action loyalty construct. The following formula building on the  $Q^2$  values then generates the  $q^2$  value:  $(Q^2_{included} - Q^2_{excluded}) / (1 - Q^2_{included})$ . The  $q^2$  effect size of action loyalty on customer profitability is 0.016  $((0.018 - 0.002) / (1 - 0.018))$ , again indicating a low, if at all, predictive relevance.

In sum, the model well explains and predicts affective and conative loyalty, yet, performs poor in terms of explaining and predicting action loyalty and customer profitability. Hence, in deriving managerial implications, we are able to derive recommendations to drive affective and conative loyalty. The effect of these measures on action related aspects of loyalty and finally on hard financial data is however rather weak if looked at from a cross-sectional perspective.



### 3.5 Summary and Conclusions

The four stage model theoretically is highly appealing and some of its key implications are valid in the financial industry. There are strong effects of cognitive on affective and of cognitive and affective on conative loyalty; the model explains well and predicts these constructs in the financial sector. Corresponding to former studies the relationship between conative and action loyalty is, however, the weakest (Evanschitzky and Wunderlich 2006; Harris and Goode 2004; Sivadas and Baker-Prewitt 2000). The former is not fully surprising given the correlation between intentions and action in general is not perfect (Sun and Morwitz 2010). Moreover, the notion of individual loyalty stages which each affect the construct on the next (higher) level or stage is not fully supported in our study in the financial sector.

This corresponds to findings of other authors highlighting that customer loyalty may be more complex than depicted by the linear, sequential structure of the four stage loyalty model (Agustin and Singh 2005; Han et al. 2008). Moreover, there are no significant effects between the cognitive, affective and conative loyalty dimensions on customer profitability. The only construct showing at least a significant path—yet a very low effect—on profitability is action loyalty. Even this construct does not strongly contribute to explaining and predicting profitability. Profitability is influenced by many other variables than customer loyalty, such as competitive and environmental effects (Zeithaml 2000). Hence, the following recommendations derived for managers are to be understood as investments into loyalty dimensions that should have a long-term impact on future success, yet do not trigger immediate positive paybacks in terms of cross-selling and customer profitability on the individual customer level (see also the findings of Rust and Zahorik 1993). At least, investments will trigger conative loyalty and therewith, recommendation of the financial products to friends and relatives, which is a likewise interesting endogenous construct in the financial sector, taking the high acquisition costs of customers into account.

In order to understand what drives recommendation, as well as affective loyalty of customers (i.e., satisfaction and trust), the following cognitive loyalty aspects are of specific relevance in the financial sector. First, the hard facts in the competitive environment count, namely being ahead of the competition and offering the best possible value for money. Second, from the SERVQUAL dimensions, two show a significant impact: reliability and responsiveness (see also Avkiran 1999). Hence, it seems to be about offering individual service, i.e., low waiting times before speaking to consultants and staff that are willing to help and offer reliable consulting. Assurance, empathy and tangibles do not play a significant role in driving up affective and conative loyalty.

Our study in the financial sector finds only partial support for one of the most prominent models in loyalty research, Oliver's (1999) four stage loyalty framework. While we are able to confirm most of the direct relationships in the loyalty cascade,

namely, from cognitive to affective loyalty, and affective to conative loyalty, there is no full mediation of constructs between the different stages. Furthermore, our findings do not support the notion that intentions indeed fully reflect actual behavior as has been questioned by other authors in the field (Oliva et al. 1992; Rust et al. 1995). Hence, we call for further research on the cascade model. Moreover, there is only a very small effect from loyalty on profitability, namely, from action loyalty on profitability. This minor effect is rather in line with earlier research which found that action loyalty explains 10% of the variations of customer profitability (Helgesen 2006). Our research questions the assumed link between loyalty and profitability on the individual customer level. Nonetheless, we suggest more research to test this link to profitability which might also look at more operational performance measures such as product market outcomes (sales growth), cost efficiency and productivity outcomes or may take an information cost perspective (Richter et al. 2017; Richter 2014).

For management in the financial sector, the recommendation is to carefully identify the profitable customer segments, as there is no clear cut effect from loyalty to profitability. For these segments, actionable strategies to drive loyalty in different stages are a fruitful approach in developing customer retention plans and increasing the financial outcome of customer relationships. For researchers, PLS-SEM is a useful tool in the domain due to the explorative nature of the study in analyzing competing loyalty cascades and their impact on profitability in a dynamic and complex context.

The above findings need to be considered in light of the following limitations of our empirical study regarding the sample, time frame and data collected. First, as in every empirical research design, the operationalization of our variables involves weaknesses and is not a perfect reflection of business realities. Second, our sampling focused on the customers of one bank only. To further validate findings, research involving a broader set of financial institutions would be desirable. This is especially true as research suggests that the chain of effects in the loyalty cascade may differ depending on the product under study (Olsen 2002). Third, we performed a cross-section study focusing on 1 year only. In order to derive in-depth insights into the development of customer profitability and the development of individual loyalty dimensions over time, a panel design would be desirable collecting information from individual customers over a longer period. Fourth, future studies may extend the empirical analyses by considering advanced PLS-SEM techniques (Hair et al. 2018, *in press*) such as the importance-performance map analysis (Ringle and Sarstedt 2016), the FIMIX-PLS and PLS-POS methods to uncover unobserved heterogeneity (e.g., Becker et al. 2013; Hair et al. 2016; Matthews et al. 2016), and the PLS multigroup analysis (Chin 2003; Sarstedt et al. 2011) to generate further differentiated findings and conclusions.

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