

# Journal of Service Research

<http://jsr.sagepub.com>

---

## Identifying Cross-Channel Dissynergies for Multichannel Service Providers

Tomas Falk, Jeroen Schepers, Maik Hammerschmidt and Hans H. Bauer

*Journal of Service Research* 2007; 10; 143

DOI: 10.1177/1094670507306683

The online version of this article can be found at:  
<http://jsr.sagepub.com/cgi/content/abstract/10/2/143>

---

Published by:

 SAGE Publications

<http://www.sagepublications.com>

On behalf of:

Center for Excellence in Service, University of Maryland

**Additional services and information for *Journal of Service Research* can be found at:**

**Email Alerts:** <http://jsr.sagepub.com/cgi/alerts>

**Subscriptions:** <http://jsr.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

**Citations** (this article cites 65 articles hosted on the SAGE Journals Online and HighWire Press platforms):

<http://jsr.sagepub.com/cgi/content/refs/10/2/143>

# Identifying Cross-Channel Dissynergies for Multichannel Service Providers

**Tomas Falk**

*Fraunhofer Institute for Innovation and Systems Research*

**Jeroen Schepers**

*Eindhoven University of Technology*

**Maik Hammerschmidt**

**Hans H. Bauer**

*University of Mannheim*

---

*In this article, the authors propose that in a multichannel environment, evaluative conflicts (dissynergies) between service channels exist. Building on status quo bias theory, they develop a model that relates offline channel satisfaction to perceptions about a new self-service channel. Data were collected from 639 customers currently using offline investment banking. Results show that offline channel satisfaction reduces the perceived usefulness and enhances the perceived risk of the online channel. These inhibiting effects represent a status quo bias. Trust in the bank shows both adoption-enhancing effects and an adoption-inhibiting effect. Finally, the negative relationship between offline channel satisfaction and perceived usefulness is significantly stronger for men, older people, and less experienced Internet users. This study has both theoretical and managerial relevance as it helps to understand consumer behavior in multichannel environments and provides implications for the design of multichannel service strategies.*

**Keywords:** *multichannel marketing; self-service technologies; status quo bias; channel dissynergies; e-commerce*

---

Recently, numerous traditional service providers have created multichannel systems by introducing technology-based self-service channels (SSCs) (Neslin et al. 2006). These are technologies that enable customers to “produce a service independent of direct service employee involvement” (Meuter et al. 2000, p. 50). Examples include services over the Internet or via interactive kiosks. These SSCs allow service firms to handle varying demand without the expensive adjustment of employee levels (Curran, Meuter, and Surprenant 2003), resulting in increased productivity while cutting costs. On the customer side, benefits include increased flexibility, greater control over the service process, and time savings compared to traditional service options (Meuter et al. 2000).

---

The authors would like to thank three anonymous reviewers and the editor for their valuable comments on earlier drafts of the article.

Journal of Service Research, Volume 10, No. 2, November 2007 143-160

DOI: 10.1177/1094670507306683

© 2007 Sage Publications

Despite large efforts to drive customers from traditional (“brick-and-mortar”) branch offices to SSCs, many companies struggle to increase the number of SSC users (Curran, Meuter, and Surprenant 2003). Multichannel service providers have started to realize that the performance of the total channel system suffers due to conflicts between the channels. These conflicts between channels can be so severe that firms quit their online distribution activities completely (Deleersnyder et al. 2002). For example, Levi Strauss withdrew its Internet channel after 1 year. Entrenched channels viewed the Internet channel as unwelcome competition and reduced their support for the firm’s products, resulting in more brand switching toward the firm’s competitors and decreasing total sales (Coughlan et al. 2001).

While observing cross-channel tensions, Van Birgelen, De Jong, and De Ruyter (2006) and Neslin et al. (2006) conclude that the majority of studies have applied a myopic perspective on innovative service channels, not considering the impact of traditional channels on the evaluation and use of these innovative options. Yet, a number of studies exist that consider channel interactions. The majority of these studies propose channel synergies: Channels are regarded as complementary; that is, satisfaction with one channel enhances a customer’s intention to use another channel (Balasubramanian, Raghunathan, and Mahajan 2005; Strelbel, Erdem, and Swait 2004; Verhoef, Neslin, and Vroomen 2007; Wallace, Giese, and Johnson 2004). However, Verhoef, Neslin, and Vroomen (2007) state that although Internet-related channels can display synergies with offline channels, “the valence could turn out to be negative as well” (p. 132). Indeed, Avery et al. (2007) and Pauwels and Neslin (2006) report that the brick-and-mortar channel can cannibalize other channels (catalog, Internet) in terms of purchase frequency, order size, number of exchanges and sales. Hence, a customer’s intention to use the online channel is diminished because of his or her preference for the offline channel. Nevertheless, as the studies reporting channel conflicts are mainly based on econometric methods, “research on cannibalization investigates the impact on overall performance, but does not identify the sources of this impact” (Pauwels and Neslin 2006, p. 3). To understand economic conflicts between channels, we need to explore the cognitive processes that determine channel evaluations as this in turn drives channel choice behavior.

In a recent study, Montoya-Weiss, Voss, and Grewal (2003) have started to explore the noneconometric perspective on channel conflicts. They report a competitive effect between two channels: The perceived service quality for the currently used channel is negatively associated with online channel use. As they state, though, their findings are only “a first step toward understanding online channel use

and overall satisfaction in a relational, multichannel service context” (p. 457) and warrant further exploration. We believe that only exploring the direct relationship between satisfaction with the traditional channel and intention to use the new channel masks the underlying complexity of a multichannel system, particularly with respect to customers’ cognitive processes. Hence, in this study we introduce the concept of *evaluative channel dissynergies* to explore in depth the causes and mechanisms of channel conflicts and how they could be reduced. Evaluative channel dissynergies result from evaluative conflicts from the customer’s viewpoint rather than from economic conflicts in terms of revenue shifts between channels. Accordingly, our goal is not to optimize overall sales, turnover, or profits of a multichannel system as has been done in previous studies on channel synergies (Shine, Park, and Wyrer 2007). In contrast, our focus is on identifying cognitive processes underlying multichannel conflicts to explain the relatively slow adoption of SSCs. Hereby, we do not only account for the effect of current channel assessment on online channel use but also consider its impact on online channel evaluations. This allows a better understanding of consumers’ channel choice behavior, which is a precondition for successfully managing multichannel systems (Neslin et al. 2006). In doing so, our study makes three major contributions to the existing literature.

First, the traditionally used channel can be regarded as an alternative “in possession,” whereas the online channel constitutes a new alternative in the choice set. Therefore, we build on status quo bias theory in our exploration. This theory states that when confronted with multiple options to choose from, individuals often stick with the status quo alternative (Kahneman, Knetsch, and Thaler 1991; Ritov and Baron 1992; Samuelson and Zeckhauser 1988). Although status quo bias is one of the most important “traps” in decision making (Hammond, Keeney, and Raiffa 2006), it has not been applied in multichannel studies or in technology adoption literature. By designating the traditionally used channel as the status quo option, we analyze effects of evaluations of the current channel on usefulness and risk perceptions of the new channel.

Second, trust has been identified as an important construct in the adoption of Internet-based technologies (Gefen, Karahanna, and Straub 2003; Pavlou 2003). Trust can also be a major driver of multichannel synergies (Balasubramanian, Konana, and Menon 2003). Additionally, it can enhance positive evaluations of the currently used channel, since it drives customer service satisfaction (Geyskens, Steenkamp, and Kumar 1998). However, enhancing offline channel evaluations could negatively affect innovative channel adoption if channel conflicts arise. This leads us to analyze whether trust can alleviate channel dissynergies.

Finally, by investigating moderating effects of individual characteristics (age, gender, and Internet experience), we address the call of Montoya-Weiss, Voss, and Grewal (2003) for further research examining such characteristics as segmentation variables. Based on results from past moderation analyses in technology adoption studies (Czaja et al. 2006; Morris and Venkatesh 2000; Venkatesh and Morris 2000), we hypothesize and test effects in this particular context.

To address these issues, we structure our article as follows. We begin with the theoretical backgrounds of concurrent channel evaluations and status quo bias. Next, we build our conceptual model. Subsequently, we empirically test the specified hypotheses and discuss the results. We conclude with managerial implications, limitations, and future research directions.

## THEORETICAL BACKGROUND

### Concurrent Channel Evaluations

The phenomenon of concurrent channels, owned by one company and providing similar services simultaneously, is relatively new (Neslin et al. 2006). Using offline and online service channels concurrently, service providers can adapt to customers' needs and shopping patterns while also increasing coverage and sales (Balasubramanian, Raghunathan, and Mahajan 2005). Customers can use a mix of both channel formats according to situational or transaction-related factors. For instance, Balasubramanian, Konana, and Menon (2003) describe that in the presence of an offline and online channel, online investors can partition their asset portfolios into two components. One is managed independently using online brokers, and one carries investments through human brokers.

However, many modern-day providers do not consider online activities within the context of the conventional channels. Therefore, recent studies have discussed enablers of first-time trial of SSCs in situations where customers can choose between the traditional (offline) channel and a new (online) channel. For instance, Meuter et al. (2005) divide predictors of SSC trial into innovation characteristics, individual differences, and consumer readiness. Yet, interaction effects of the traditional offline channel and the new online channel are not examined.

The majority of studies that do take into account interaction effects between different channels suggest synergetic relationships between alternative channels of the same provider. Wallace, Giese, and Johnson (2004) state that satisfaction with one channel drives customer patronage, enhancing customers' intentions to use alternative channels operating side by side. Strebel, Erdem,

and Swait (2004) investigate the choice behavior for information channels during the purchase process for high-technology durable goods. Their results show that the probability of using a specific channel is a function of the perceived quality of the other channels, where channels act as complements with synergistic effects. Van Birgelen, De Jong, and De Ruyter (2006) compare cross-channel effects for different product/service types. In their study, complementary interaction effects between satisfaction with the traditional channel and technology-mediated channel satisfaction can only be confirmed for nonroutine (complex and knowledge-intensive) financial services. In contrast, for routine services, these effects could not be found.

In line with this missing complementary effect for routine services, other works even suggest that conflicts between channels might be observed (Avery et al. 2007; Pauwels and Neslin 2006). For instance, Montoya-Weiss, Voss, and Grewal (2003) show that positive evaluations of the old channel can inhibit the use of the innovative channel. Therefore, the first step for predicting the usage of new channels and for creating complementary relations between channel formats should be to explore the drivers of customers' relative evaluations of alternative channels (Van Birgelen, De Jong, and De Ruyter 2006). In view of this, we propose the existence of channel dissynergies. When we use the term *dissynergies*, we do not refer to economic conflicts between channels, but we stress evaluative conflicts. Again, our focus is on identifying cognitive processes underlying multichannel conflicts.

### Status Quo Bias Theory

Neoclassical economic theory supposes that when a consumer is confronted with a choice situation, he or she switches to the new alternative if a certain alternative supersedes the utility of the alternative currently possessed (Kahneman, Knetsch, and Thaler 1991). However, several literature streams have questioned this classical underpinning in situations where an individual already possesses one of the choice options. Individuals might have a tendency to prefer the situation or decision already in place, irrespective of whether the alternative has a higher utility. This decision anomaly is denoted *status quo bias* and has been indicated as being both "robust and important" for analyzing consumer behavior (Kahneman, Knetsch, and Thaler 1991, p. 205).

Experiments in various fields show empirical evidence for this hypothesis. Samuelson and Zeckhauser (1988) conducted several experiments related to funds to invest. Their results implied that an investment scenario became more popular once it was designated as the status quo, despite other alternatives providing a better input-output

ratio. The phenomenon was also found in other settings, including residential electrical services (Hartman, Doane, and Woo 1991), political plans (Hershey et al. 1990), and retirement saving plans (Madrian and Shea 2000).

The concept of status quo bias has several closely related effects identified by different literature streams. In strategic management literature, decisions have been recognized as based on previous rational decisions (routine) or behavior (habit) (March and Simon 1993). Habitual behavior requires multiple repetitions of a decision to become a habit. In contrast, status quo bias is not completely habitual, since it neither requires more than one previous action nor that this action be carried out by the respective decision maker (Burmeister and Schade 2005). Thus, a person might experience a status quo situation that he or she did not create.

From cognitive and behavioral psychology literature, other factors related to status quo bias arise. Anderson (2003) distinguishes four decision avoidance effects: choice deferral, status quo bias, omission bias, and inaction inertia. One of the key mechanisms underlying all decision avoidance effects is loss aversion. This is people's tendency to put more weight on potential losses than potential gains of the same amount (Kahneman, Knetsch, and Thaler 1991). Since avoidance regret theory states that individuals seek to minimize regret resulting from decisions, the choice of maintaining a status quo option is a domain-general vehicle for avoiding or reducing postdecisional regret (Tsiros and Mittal 2000).

Kahneman, Knetsch, and Thaler (1991) treat status quo bias from a behavioral economics perspective by indicating that each person has a willingness to accept (WTA) and willingness to pay (WTP). In a typical experiment, someone is given an item (e.g., a pencil) and offered money to return it to the experimenter. The monetary amount he or she asks is his or her WTA. The monetary amount another person likes to pay for the object is his or her WTP (Horowitz and McConnell 2002). Most studies find that the WTA responses greatly exceed WTP answers (Kahneman, Knetsch, and Thaler 1991). Differences up to a factor 7 have been reported (Horowitz and McConnell 2002). This asymmetry in buying and selling preferences (i.e., maintaining a status quo or deciding for an alternative choice) gives an economic underpinning for status quo bias and is called the endowment effect (Kahneman, Knetsch, and Thaler 1991).

### **Status Quo Bias Theory vis-à-vis Alternative Theories**

Inertia and switching cost theory are two theories closely related to status quo bias theory. Yet, for examining

consumer behavior in multichannel environments, the latter provides a richer avenue. For instance, Meuter et al. (2005) point out that trying an SSC for the first time involves a significant behavior change in which patterns that are ingrained must be altered. In this respect, the authors posit the construct of inertia to influence an individual's readiness to interact with innovative technologies. Inertia is conceptualized as a characteristic that affects a consumer's willingness to try out new self-service technologies. Compared to status quo bias theory, inertia differs in two ways. First, Meuter et al. (2005) conceptualize inertia as a situational individual difference, whereas status quo bias reflects individual behavior that is expected to occur regardless of personal predispositions (Burmeister and Schade 2005; Samuelson and Zeckhauser 1988). Second, inertia does not relate to SSC evaluations but merely to customer self-perceptions regarding his or her interaction with a specific technology (Tykocinski, Pittman, and Tuttle 1995). As a consequence, we propose that status quo bias theory is better suited for investigating customers' channel perceptions and evaluations than is inertia.

Another theory closely related to status quo bias theory is switching cost theory. Switching costs are "the onetime costs that customers associate with the process of switching from one provider to another" (Burnham, Frels, and Mahajan 2003, p. 110). From literature, different facets of switching costs can be identified, including procedural (e.g., evaluation costs), financial (e.g., monetary costs), and relational (e.g., relationship costs) (Fornell 1992). Like inertia, switching cost theory reveals a close relatedness to status quo bias theory, as switching costs may help in understanding the described asymmetry in an individual's buying and selling preferences. In doing so, switching cost theory underlines the more rational aspect of status quo bias. Yet, for fully explaining an individual's preference for the status quo, irrational elements have to be considered as well. Rational models that ignore the (irrational) status quo bias tend to predict "greater instability than is observed in the world" (Samuelson and Zeckhauser 1988, pp. 47-48).

Other aspects set status quo bias theory apart from switching cost theory as well. First, switching costs are a onetime phenomenon, whereas status quo bias effects are more ongoing after a customer has repeated interactions with a product, service, or provider (Porter 1998). Second, switching costs have been mainly studied in the context of switching providers but are seldom applied for multiple channels of one provider. Third, switching costs are studied as an antecedent to switching behavior, whereas we posit status quo effects as an underpinning for evaluative channel conflicts. Finally, authors have noted that when customers can try new offers or channels



without fully switching to them, such as in a multichannel environment, the “switching cost frame” may be inappropriate (Burnham, Frels, and Mahajan 2003). In such situations, alternative cognitive theories such as status quo bias theory may be more insightful.

In sum, related yet distinct concepts and theories in previous literature fall short in trying to fully explain channel dissynergies. Therefore, in the next section, we build our conceptual model based on status quo bias theory.

## CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

Applying status quo bias theory in a multichannel environment, we expect customers currently using an alternative channel to be systematically biased in their SSC evaluations. In our conceptual model, we capture these evaluations by perceived usefulness and perceived risk. First, we propose direct effects of the status quo option on the perceived usefulness and the perceived risk of the new SSC. Second, consistent with technology adoption literature (Davis, Bagozzi, and Warshaw 1989; Venkatesh and Davis 2000), we hypothesize perceived usefulness and perceived risk to relate to the intention to use the SSC. Consequently, whereas Montoya-Weiss, Voss, and Grewal (2003) show a direct path to exist between offline channel assessment (in terms of service quality perceptions) and online channel use, we propose two mediated paths. Next, we provide detailed theoretical arguments for this conceptualization.

### Status Quo Bias Effect on Perceived Usefulness

According to status quo bias theory, an individual has a preference for keeping the current state of affairs. Moreover, it emphasizes individuals’ reluctance for taking action that will change this state irrespective of alternative states which would yield higher utilities (Ritov and Baron 1992). In the case of a multichannel environment, status quo bias would lead to customers’ patronage of the currently used channel. Thus, the perceived usefulness of the alternative must far outweigh the perceived usefulness of the current offering to make a customer switch, since there is a large difference between an individual’s WTA and WTP (Horowitz and McConnell 2002; Kahneman, Knetsch, and Thaler 1991). In the customer’s mind, this asymmetry can be represented by a bias in the perception of the usefulness of the alternative offering.

Montoya-Weiss, Voss, and Grewal (2003) examine whether alternative channel assessments influence online channel use, and represent these assessments by the

perceived service quality of a channel. A higher perceived quality of the primary channel leads to less use of the online channel. We take a slightly different but strongly related approach by representing the channel performance assessment by “satisfaction.” According to Johnson, Anderson, and Fornell (1995), satisfaction can be defined as a “cumulative, abstract construct that describes customers’ total consumption experience with a product or service” (p. 699). Therefore, specifically for our context, satisfaction corresponds to a customer’s overall evaluation of his or her consumption experience with a specific channel to date. Consequently, satisfaction is expected to better predict customers’ intentions and behavior than a transaction-specific measure such as service quality (Olsen and Johnson 2003). In fact, numerous studies have elaborated on the relationship between service quality and satisfaction, and general consensus has emerged that the two constructs are highly correlated, where service quality is oftentimes the primary determinant of satisfaction (see Cronin, Brady, and Hult 2000 for an overview).

Applying status quo bias theory, an SSC might be perceived less useful by a customer in a satisfying status quo situation than by a customer in a neutral situation, although they both face the same offer. This anomaly may be explained by the special role preference theory assigns to the status quo, “giving up some standard assumptions of stability, symmetry and reversibility with respect to preference orders” (Kahneman, Knetsch, and Thaler 1991, p. 205). As a consequence, status quo bias theory amends preference theory by putting forward a preference order that depends on the current reference level, which is represented by an individual’s status quo. In our multichannel context, we reflect this current reference level by customer satisfaction with the existing service channel. Thus, we expect satisfaction with the traditional channel to determine the extent of underestimation of the usefulness of a new alternative. Therefore, we hypothesize,

*Hypothesis 1:* Satisfaction with the traditional channel decreases the perceived usefulness of the SSC.

### Status Quo Bias Effect on Perceived Risk

Consumers consciously and unconsciously perceive risk when evaluating products and services for purchase and/or adoption. Especially the impersonal and distant nature of SSCs renders risk as an inevitable element of these technologies. Following works examining perceived risk in the context of SSCs, we distinguish between four different risk facets, namely psychological risk, performance risk, financial risk, and time risk (Cunningham, Gerlach, and Harper 2005; Featherman and Pavlou 2003; Forsythe et al. 2006).

Some consumers may experience a psychological risk when being confronted with self-service technologies, that is, they do not feel comfortable using a digital interface instead of the traditional and familiar branch office (Featherman and Pavlou 2003). For instance, since the standardized interface does not allow any personal questions and also lacks the tacit clues on the general service quality to be expected, a certain degree of performance risk is introduced (Curran, Meuter, and Surprenant 2003; Meuter et al. 2000). Additionally, although the service provider might not charge its customers for using the innovative SSC, time-related risk may be reflected in learning efforts (Forsythe et al. 2006). Since we follow Montoya-Weiss, Voss, and Grewal (2003) by using a financial setting, financial risk can also occur. Afraid of losing money in using an online service channel, for instance due to fraud in the form of phishing, people may have more trust in a financial expert in a branch office (Cunningham, Gerlach, and Harper 2005).

Applying status quo bias theory, an SSC might be perceived more risky by a customer in a satisfying status quo situation than by a customer in a neutral situation, although they face the same offer. As individuals tend to put more weight on potential losses compared to potential gains, we expect the predisposition toward the status quo getting stronger with increased satisfaction levels (Kahneman, Knetsch, and Thaler 1991). In line with this, Samuelson and Zeckhauser (1988) demonstrate that the disadvantages of leaving a satisfying status quo situation loom larger than potential advantages. This in turn amplifies the perceived risk of deciding in favor of the new service channel.

Furthermore, more satisfied customers are strongly directed at maintaining their satisfaction levels, which in turn stimulates the risk perception of alternative actions (Gotlieb, Grewal, and Brown 1994). Changing a satisfying status quo not only requires an act but also yields uncertainty of finding a new situation that is at least equivalently satisfying. In contrast, maintaining the satisfying status quo only involves inaction and provides certainty on the benefits of the situation (Ritov and Baron 1992). Since individuals display both preference for maintaining a current state and preference for inaction (Burmeister and Schade 2005), we expect satisfaction with the traditional channel to determine the extent of overestimation of the risk of adopting the new channel. Hence, we hypothesize,

*Hypothesis 2:* Satisfaction with the traditional channel increases the perceived risk of the SSC.

The relationship between perceived risk and perceived usefulness has not received much attention in literature. A notable exception is the study conducted by Lu, Hsu, and Hsu (2005). Analogous to their results, we propose that the usefulness of an SSC will be poor if its usage entails

taking a big risk. If people perceive high chances of losing money using the system or fear they would have to spend a lot of time learning to operate the system, the utility will likewise be rated lower. Hence,

*Hypothesis 3:* Perceived risk decreases the perceived usefulness of the SSC.

## Effects of Trust

Studies on the adoption of technology in online environments have consistently stressed the importance of trust (Corritore, Kracher, and Wiedenbeck 2003; Gefen, Karahanna, and Straub 2003; Jarvenpaa, Tractinsky, and Vitale 2000; Pavlou 2003). Trust allows the consumer to subjectively rule out undesirable yet possible behaviors of the vendors by reducing risk, fear, and (social) complexity both in an offline and online environment (Gefen, Karahanna, and Straub 2003). For instance, Jarvenpaa, Tractinsky, and Vitale (2000) find empirical evidence that trust in an Internet store reduces the risk of buying from that store. Additionally, Pavlou (2003) states that trust creates more positive attitudes toward an SSC.

Most of the previous multichannel studies, in describing complementary relations between both channels, assume the dominance of trust-based global evaluations of providers as a whole (Montoya-Weiss, Voss, and Grewal 2003; Van Birgelen et al. 2002). Positive assessments of a specific distribution channel may transfer to the brand and consequently influence a new channel associated with that brand. For instance, consumers perceive retailers owning a local retail store to be more trustworthy on the Internet (Avery et al. 2007). Overall satisfaction with and trust in the service provider result in an attitude that stimulates favorable behavioral intentions toward the provider in general and perceptions of its services offered (Van Birgelen et al. 2002). We therefore expect that trust in the service provider enhances the perceived usefulness of the SSC, while also decreasing its perceived risk. Hence, we hypothesize,

*Hypothesis 4:* Trust in the service provider increases the perceived usefulness of the SSC.

*Hypothesis 5:* Trust in the service provider decreases the perceived risk of the SSC.

In contrast to the beneficial effects on SSC evaluations, we also expect trust in the service provider to strengthen status quo bias and thus indirectly inhibit SSC adoption. In marketing literature focusing on channel dynamics, trust has often been identified as an important driver of satisfaction with the service (Geyskens, Steenkamp, and Kumar 1998). The underlying mechanism is derived from social exchange theory, which states that consumers may prefer to transact with service providers they can trust and with whom they

have shared understanding about mutual obligations in their relationship (Blau 1964). Knowing what to expect, in combination with a provider living up to those expectations, spurs satisfaction in services consumed. Singh and Sirdeshmukh (2000) take this as a basis for developing their trust-satisfaction framework in which they state that preservice encounter trust influences current or postservice encounter satisfaction. Therefore, we propose that a global evaluation of the service provider, built on past experiences (i.e., trust), enhances the customer's satisfaction with a currently used specific service of that provider (i.e., the offline service channel). Hence, we hypothesize,

*Hypothesis 6:* Trust in the service provider increases the satisfaction with the traditional channel.

Due to this hypothesized effect, we expect that trust in the service provider increases status quo bias as increased offline satisfaction in turn reduces the usefulness of the SSC and increases the risk of the SSC. This again inhibits the intention to use the SSC.

### Effects on Intention to Use the SSC

Following traditional technology adoption literature, we hypothesize that perceived usefulness constitutes a significant positive influence on an individual's intention to use a technology-based channel. This relationship has received strong empirical support over the years (Scheepers and Wetzels 2007), also in the online context (Featherman and Pavlou 2003). Therefore, we propose

*Hypothesis 7:* The perceived risk of the SSC decreases the behavioral intention to use it.

Perceived risk factors have been considered important in online transactions (Jarvenpaa, Tractinsky, and Vitale 2000). Dowling and Staelin (1994) propose that when perceived risk of an SSC cannot be reduced to an acceptable level, it will prove a major barrier for adoption of an SSC. Customers will not even evaluate an option if an unacceptable amount of risk is involved. In general, perceived risk decreases the likelihood of rewards, reducing the motivation to use an SSC and hindering feelings of ability and desire to learn about the new channel (Meuter et al. 2005). We therefore hypothesize,

*Hypothesis 8:* The perceived risk of the SSC decreases the behavioral intention to use it.

### Moderating Effects

Gender and age are among the most fundamental groups to which individuals can belong, and membership in such groups is likely to have a profound influence on

individual perceptions, attitudes, and performance (Morris, Venkatesh, and Ackerman 2005). Not surprisingly, numerous scholarly articles in fields such as marketing and e-commerce adoption have investigated gender and age differences (e.g., Czaja et al. 2006; Garbarino and Strahilevitz 2004; Morris and Venkatesh 2000; Rodgers and Harris 2003; Venkatesh and Morris 2000).

Psychology research indicates that schematic processing by women and men is different (Venkatesh and Morris 2000). As a result, males and females respond differently to alternative tasks and stimuli. This not only holds true in offline situations, but researchers have noted that gender could also moderate the extent and pattern of participation in and attitudes toward online activities (Lin and Ding 2006; Rodgers and Harris 2003). In general, men tend to place more emphasis on accomplishment and achievement and have a higher task orientation (Venkatesh and Morris 2000). Women, on the other hand, are considered to value interpersonal relationships and are more likely to conform, to be convinced, and to be more influenced by experts (Lin and Ding 2006). Additionally, women rate the importance of service aspects and the physical environment higher than men do (Hofstede 1980) and are consequently less interested in the Internet than men are (Garbarino and Strahilevitz 2004).

It has been argued that as a result of their assertiveness, males are more likely to switch brands immediately in response to declining relationship quality. Additionally, they take strongly aggressive actions to resolve conflict or dissatisfaction with the current situation (Lin and Ding 2006). Therefore, for men, it is likely that if the satisfaction with the current offline situation drops only marginally, they will develop far more positive attitudes toward the online alternative since they are used to taking more aggressive actions. Additionally, their higher task orientation spurs a rapid assessment of alternative channel choices when the primary option starts deteriorating in quality and satisfaction. In contrast, women are generally considered to be more patient and understanding in situations of discontent (Lin and Ding 2006). They will first try to resolve the dissatisfaction within the current framework of (offline) possibilities. Statistically, it is obvious that interaction effects cut both ways. Hence, with increasing offline satisfaction, that is, the opposite effect of deteriorating satisfaction, the stronger effect size expected for men in relation to perceived usefulness will hold as well. Hence, we expect that the relationship between offline channel satisfaction and perceived usefulness is more negative for men:

*Hypothesis 9a:* The negative relationship between offline channel satisfaction and perceived usefulness of the SSC will be stronger for men.

With regard to risk, studies have concluded that women are generally more risk averse than men. It has been observed



that women are more concerned with online security and privacy-related issues, even when controlled for differences in Internet expertise or experience (Garbarino and Strahilevitz 2004). More specifically, women are less trusting and more skeptical toward e-commerce than men and do not regard online shopping as practical and convenient as men do (Rodgers and Harris 2003).

Analogous to our reasoning above, since women are less assertive, take less aggressive actions, and have less extreme opinions than men, it is likely that their risk assessment is less influenced by external factors such as their current satisfaction level. In contrast, if the satisfaction with the current offline situation decreases only marginally, men will develop far more positive attitudes toward the SSC (i.e., perceive less risk) because of their tendency to be impatient and to take aggressive actions. Similar to previous reasoning, with enhanced offline satisfaction, that is, the opposite effect of decreasing satisfaction, the stronger effect size expected for men in relation to perceived risk will hold as well. Consequently, we expect that the relationship between offline channel satisfaction and perceived risk is more positive for men. Hence,

*Hypothesis 9b:* The positive relationship between offline channel satisfaction and perceived risk of the SSC will be stronger for men.

Age is another demographic factor that can influence the extent and pattern of participation in and attitudes to online activities. Remarkably, although age differences have been of interest to psychology researchers for more than 60 years, relatively little research on the influence of age on individual technology interactions has been performed (Morris and Venkatesh 2000). Previous research has stated that older individuals are less likely to take risks and more likely to avoid uncertainty (Hofstede 1980). Also, older individuals "will likely take refuge in methods that are familiar to them" (Morris and Venkatesh 2000, p. 380). Consequently, consumers of more advanced age will become less accepting of new and unusual ideas. In contrast, younger people are more open toward new, Internet-related technologies. They more fully embrace the usefulness of these technologies and accept the security and privacy risks involved. The introduction of the SSC will be judged as just another addition to their "virtual life" instead of being a trade-off between offline and online channels. Therefore, we would expect that offline channel satisfaction will be less salient in determining their perceived usefulness and perceived risk of the online channel. Hence, we hypothesize,

*Hypothesis 10a:* The negative relationship between offline channel satisfaction and perceived usefulness of the SSC will be weaker for younger individuals.

*Hypothesis 10b:* The positive relationship between offline channel satisfaction and the perceived risk of the SSC will be weaker for younger individuals.

Finally, computer efficacy and anxiety have been identified as important factors in technology adoption (Czaja et al. 2006). Translating this to the context of our study, it is essential to know whether status quo bias also occurs among users that have no problems picking up new systems (i.e., have low levels of computer anxiety or self-service anxiety). If "rational" utility obstacles do not exist and status quo bias does not diminish, this indicates the robustness of the effect. We capture the absence of self-service anxiety by measuring the extent of Internet experience of our respondents. This trait has been used in a direct as well as a moderating role in previous Internet-related studies, with mixed results however (Nysveen and Pedersen 2004).

We expect that people with more Internet experience will display a lower status quo bias, since they experience a sense of comfort with a service provider's online channel and this reduces the perceived risk and increases usefulness (Montoya-Weiss, Voss, and Grewal 2003). In other words and analogous to previous reasoning, for experienced Internet users, the SSC will be judged as just another addition to their existing Internet services instead of being a trade-off between offline and online channels. Therefore, we expect offline channel satisfaction to be less salient in predicting their perceived usefulness and perceived risk. Hence, we hypothesize,

*Hypothesis 11a:* The negative relationship between offline channel satisfaction and perceived usefulness of the SSC will be weaker for individuals with higher Internet experience.

*Hypothesis 11b:* The positive relationship between offline channel satisfaction and perceived risk of the SSC will be weaker for individuals with higher Internet experience.

Figure 1 gives an overview on the hypothesized model.

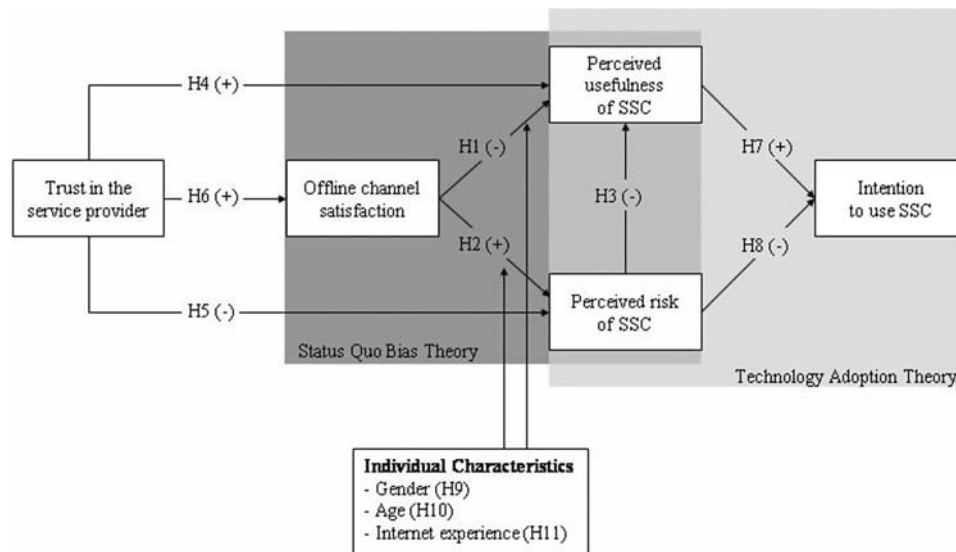
## METHODOLOGY AND STUDY DESIGN

### Data Collection and Sample Characteristics

We selected complex financial investment services as an empirical setting for testing our conceptual model. Such services are rarely distributed via the Internet so far (TNS Infratest 2004). Nevertheless, current inquiries among Internet banking users indicate a growing interest in financial investments via the Internet (TNS Infratest 2004). Therefore, we designate offline investment services in the bank office as the status quo situation, whereas the Internet channel represents the innovative service channel.

We collected data from randomly selected customers of a German bank. Customers from the same bank were

**FIGURE 1**  
**Research Model**



selected to eliminate potential institution-related confounding factors. For being able to evaluate the status quo situation, we ensured that all participants currently used investment services via the offline channel. A quasi-experimental setting was applied (Dabholkar and Bagozzi 2002). First, we asked customers for their satisfaction with the offline channel. Second, we exposed the customers to a simulated online investment Web site. This prototype was not available to the general public at the time of the inquiry. Selected respondents could get in touch with the features and benefits of the innovative channel. Since the bank planned to introduce the service in the near future, a realistic and accurate simulation of the service was guaranteed. Third, we administered a pretested online questionnaire. As an incentive for participating, respondents took part in a lottery.

We received a total of 639 completed surveys. The characteristics of respondents are reported in Table 1. Although our average respondent is quite young (female: 28.3 years; male: 30.0 years), this is nearly representative for Internet banking users in Germany (TNS Infratest 2004).

## Measurement

We conceptualize the constructs by using existing measures and adapting them to the context of Internet banking where necessary. Perceived usefulness of the channel was measured by three items derived from Wixom and Todd (2005). Two items acquired from interaction

theory (Thibaut and Kelley 1959) were used to measure status quo satisfaction. Risk was operationalized as a multidimensional higher order construct comprising four risk facets: financial risk, time risk, performance risk, and psychological risk. This view of perceived risk has shown to be valid in self-service contexts (Featherman and Pavlou 2003; Forsythe et al. 2006). The four risk facets were assessed using eight validated items adapted from Laroche et al. (2004). Trust was measured by four items put forward by Gefen, Karahanna, and Straub (2003). We measured behavioral intention to use the new SSC adapting the two-item operationalization proposed by Dabholkar and Bagozzi (2002). Finally, we collected information on gender, age, and Internet experience, which was needed in our moderation analysis.

Behavioral intention to use the innovative SSC was measured using 7-point Likert-type scales of bipolar adjectives. For all other variables, participants indicated their (dis)agreement with a set of statements using a 7-point Likert-type scale that ranged from *strongly disagree* to *strongly agree*. Table 2 contains the statements used to operationalize the various constructs.

## DATA ANALYSIS AND RESULTS

### Test of Construct Validity and Reliability

To test the validity and reliability of the measures, we first estimated a measurement model (Anderson and

**TABLE 1**  
**Sample Profile**

Demographics	Males n = 421		Females n = 218	
	Mean	SD	Mean	SD
Age (years)	30.0	9.6	28.3	9.9
Length of business relationship (years)	14.9	10.3	14.2	11.9
<i>Percentage</i>				
<b>Education</b>				
Low (secondary school)		13		18
Middle (high school; apprenticeship)		52		52
High (university; polytechnic)		35		30
<b>Internet usage</b>				
Daily		84		74
Weekly		15		24
Less		1		2

NOTE: *SD* = standard deviation.

Gerbing 1988) and observed the factor loadings of the confirmatory factor analysis (CFA) in AMOS 5.0 (Arbuckle 2003) using the maximum-likelihood estimator. This analysis showed satisfactory global fit measures ( $\chi^2(140) = 388.3$ , CFI = 0.97, TLI = 0.96, RMSEA = 0.05, SRMR = 0.05). The factor loadings from the CFA provide evidence for convergent validity as all items load sufficiently high on the corresponding constructs, exceeding the threshold value of 0.50 suggested by Anderson and Gerbing (1988). Composite reliability values vary from 0.78 to 0.94 and are above the minimum value of 0.7 (Nunnally 1978).

We conceptualized perceived risk to be a second-order construct. Each of the four first-order risk dimensions has significantly large and positive loadings on the second-order factor, ranging from 0.71 to 0.90 ( $p < .001$ ). Furthermore, all correlations between the four dimensions are significant ( $p < .001$ ), indicating that the four scales converge on a common underlying construct (Bauer, Falk, and Hammerschmidt 2006). Table 2 displays the corresponding fit measures.

To check for discriminant validity, we applied the Fornell and Larcker (1981) test. This requires the square root of the average variance extracted (AVE) of each construct to exceed the correlation shared between the latent construct and other latent constructs in the model. Table 3 shows the details of this analysis and indicates that all constructs pass the test.

In sum, all fit criteria exceeded the threshold levels commonly suggested in the literature and demonstrate a high degree of reliability and validity of all constructs.

### Test of the Base Model

To test our base model (Anderson and Gerbing 1988), we included the hypothesized relationships (Hypothesis 1 to Hypothesis 8) in a structural equation model and obtained estimations using AMOS 5.0 (Arbuckle 2003) with the maximum-likelihood estimator. The path diagram in Figure 2 shows fit indexes and standardized path coefficients for the suggested model. All fit indexes are within acceptable intervals, indicating a good fit of our hypothesized research model to the data. Moreover, with one exception all path coefficients are significant at  $p < .01$ . The explained variance ( $R^2$ ) was 41% for behavioral intention, 27% for perceived usefulness, 23% for perceived risk, and 9% for offline channel satisfaction. In sum, the results provide support for our Hypotheses 1 to 8.

The standardized total effect of offline channel satisfaction on intention to use is  $-0.36$ . Thus, the probability of switching to the innovative service channel is strongly reduced by offline channel satisfaction. Additionally, the standardized total effect of trust on intention to use is only 0.03 since there is an adoption-enhancing effect via perceived usefulness and perceived risk as well as an adoption-inhibiting effect by increasing offline channel satisfaction, which consequently reinforces the status quo bias. Given the cardinal role of trust in previous Internet-based technology adoption studies (Gefen, Karahanna, and Straub 2003), we also examined the magnitude of a possible direct effect of trust on intention to use the SSC. Adding this path to the structural model did not significantly

**TABLE 2**  
**Construct Reliability and Validity Measures**

Item	Construct				
	Mean	SD	FL	CR	AVE
<b>Offline channel satisfaction</b>					
For financial investment services, I am satisfied with the service quality provided by my bank branch.	3.89	1.50	0.95	0.90	0.82
Overall, I am satisfied to buy financial investment services via my bank branch.	4.00	1.66	0.86		
<b>Perceived usefulness</b>				0.79	0.56
Using the new option allows me to handle my banking transactions quickly.	3.24	1.48	0.65		
Using the new option allows me to save money.	1.84	1.26	0.80		
Using the new option enhances the effectiveness of my banking transactions.	2.68	1.47	0.78		
<b>Perceived risk</b>				0.87	0.63
Financial risk	—	—	0.84		
Time risk	—	—	0.71		
Performance risk	—	—	0.71		
Psychological risk	—	—	0.90		
<b>Financial risk</b>				0.78	0.64
Using the new option could involve important financial losses.	5.50	1.54	0.82		
If I used the new option within the next 12 months, I would be concerned that I wouldn't get my money's worth.	5.32	1.51	0.78		
<b>Time risk</b>				0.87	0.78
Using the new option could involve important time losses.	5.34	1.64	0.92		
Using the new option could lead to an inefficient use of my time.	4.87	1.77	0.84		
<b>Performance risk</b>				0.90	0.82
If I were to use the new option within the next 12 months, I would become concerned that it will not provide the level of benefits that I would be expecting.	6.30	1.27	0.89		
The thought of using the new option causes me to be concerned for how reliable it will be.	6.10	1.43	0.92		
<b>Psychological risk</b>				0.94	0.88
The thought of using the new option makes me feel psychologically uncomfortable.	5.40	1.76	0.93		
The thought of using the new option causes me to experience unnecessary tension.	5.60	1.66	0.95		
<b>Trust in the service provider</b>				0.81	0.52
Based on my experience with the bank in the past, I know it is honest.	2.14	1.02	0.62		
Based on my experience with the bank in the past, I know it cares about customers.	2.60	1.14	0.70		
Based on my experience with the bank in the past, I know it provides good service.	2.34	1.00	0.88		
Based on my experience with the bank in the past, I know it is predictable.	2.35	1.11	0.65		
<b>Intention to use SSC</b>				0.93	0.87
Would you intend to use financial services via Internet banking? (Endpoints: <i>impossible-possible</i> )	3.08	1.51	0.92		
Would you intend to use financial services via Internet banking? (Endpoints: <i>unlikely-likely</i> )	2.80	1.47	0.95		

NOTE: SD = standard deviation; FL = factor loading; CR = composite reliability; AVE = average variance extracted; SSC = self-service channel.

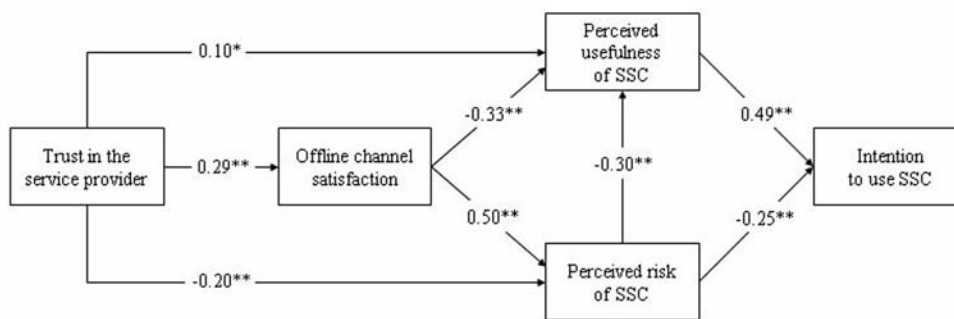


**TABLE 3**  
**Fornell and Larcker Test for Discriminant Validity**

	<i>Offline Channel Satisfaction</i>	<i>Perceived Usefulness</i>	<i>Perceived Risk</i>	<i>Trust in the Service Provider</i>	<i>Intention to Use</i>
Offline channel satisfaction	<i>0.91</i>				
Perceived usefulness	-0.41	<i>0.75</i>			
Perceived risk	0.44	-0.45	<i>0.79</i>		
Trust in the service provider	0.29	0.01	-0.05	<i>0.72</i>	
Intention to use	-0.37	0.59	-0.47	0.09	<i>0.93</i>

NOTE: Correlations, square root of average variance extracted on diagonal (in italics).

**FIGURE 2**  
**Maximum-Likelihood Results for the Base Model**



\* significant at  $p < .05$ , \*\* significant at  $p < .01$   
 $\chi^2(140)=388.3$ , CFI=0.97, TLI=0.96, RMSEA=0.05, SRMR=0.05

enhance the model fit ( $\Delta\chi^2/df = 3.3$ ;  $p = .069$ ). Additionally, the path was found to be nonsignificant.

**Test of the Moderation Hypotheses**

Next, we test our moderation Hypotheses 9 to 11. For gender, we split our sample into male and female subsamples. This allowed us to evaluate Hypothesis 9 by comparing the path coefficients of the two subsamples. Formally, we calculated two models: One base model where the structural path of interest (e.g., from offline channel satisfaction to perceived usefulness, Hypothesis 9a) is freely estimated and one alternative model where this path is fixed (static). If a significant  $\chi^2$  change is observed in comparing the models, we conclude a significant moderation effect exists.

In contrast, with age and Internet experience being continuous variables, we implemented a latent variable interaction estimation technique based on foundations by Ping (1996) and James, Mulaik, and Brett (1982). First, we satisfied the precondition that the indicators of offline channel satisfaction, age, and Internet experience have only one underlying construct each (i.e., are unidimensional). Second, all items of offline channel satisfaction, age, and Internet experience were mean centered. Third, nonlinear indicators of interaction variables were created by multiplying each indicator of offline channel satisfaction with age and Internet experience, respectively. Fourth, Ping (1996) advocates retrieving the loadings and error variances for indicators of the linear latent variables from a first-step measurement model, which are subsequently used as input in stated equations. As a final step, the relations among

**TABLE 4**  
**Moderating Effects of Individual Characteristics**

Hypothesis	Structural Relations	Group	n	$\beta$	$\Delta\chi^2/df$	p Value	Result	
<b>Gender</b>								
H9a	OCS => Perceived Usefulness	Male	421	-0.38	4.3	.04	Significant moderation effect, support for H9a	
		Female	218	-0.21				
H9b	OCS => Perceived Risk	Male	421	0.43	2.1	.15		No significant moderation effect, reject H9b
		Female	218	0.58				
<b>Age</b>								
H10a	OCS => Perceived Usefulness			-0.33		<.01	Significant moderation effect, support for H10a	
	Age => Perceived Usefulness			-0.09		.03		
	OCS $\times$ Age => Perceived Usefulness			-0.09		.04		
H10b	OCS => Perceived Risk			0.50		<.01	No significant moderation effect, reject H10b	
	Age => Perceived Risk			0.01		.91		
	OCS $\times$ Age => Perceived Risk			-0.01		.74		
<b>Internet experience</b>								
H11a	OCS => Perceived Usefulness			-0.33		<.01	Significant moderation effect, support for H11a	
	Internet Experience => Perceived Usefulness			0.11		.01		
	OCS $\times$ Internet Experience => Perceived Usefulness			0.11		.01		
H11b	OCS => Perceived Risk			0.47		<.01	No significant moderation effect, reject H11b	
	Internet Experience => Perceived Risk			0.20		<.01		
	OCS $\times$ Internet Experience => Perceived Risk			-0.07		.11		

NOTE: OCS = offline channel satisfaction.

linear and interaction latent variables can be estimated by using a second-step structural model where loadings and error variances for the nonlinear indicators are specified as constants obtained from the equations.

However, in this specific situation, age and Internet experience are observed variables, assessed by a single item. Therefore, in the first-step measurement model, loadings of these constructs' indicators were set to 1, and the error variances involved were set to 0. Implementing a single-item construct interaction term is not accounted for in the Ping (1996) methodology, as the error variance of the nonlinear indicators would erroneously be set to 0 in the second-step structural model using his equations. As a solution, we treated the error variance of the nonlinear indicators as being the variance of that indicator, multiplied by 1 minus the square of the standardized loading of the offline channel satisfaction indicator involved in the multiplication (James, Mulaik, and Brett 1982).

The results for the moderator hypotheses are presented in Table 4. The outcomes indicate that gender, age, and Internet experience all moderate the relationship between satisfaction with the offline channel and perceived usefulness, yielding support for Hypotheses 9a, 10a, and 11a, respectively. No significant moderation effects were found for the relationship between offline channel satisfaction and perceived risk.

### Test of Alternative Model Specification

Additionally, we test whether the direct path from satisfaction with the offline channel to behavioral intention to use the SSC is significant. This allows us to make statements about whether perceived usefulness and perceived risk fully or partially mediate this relationship. Additionally, if the direct path is nonsignificant, this diminishes the contribution of the switching costs paradigm in this context, since the dependent variable represents behavioral action.

The additional path was found nonsignificant and the resulting model also did not display an improved fit ( $\Delta\chi^2/df = 3.1; p = .078$ ). This is a preliminary indication for a fully mediated chain of relationships. As a second test, we applied the procedure put forward by Salanova, Agut, and Peiró (2005). They suggest fixing the path(s) from the mediating variable(s) to the dependent variable(s) with the unstandardized coefficient of the estimated base model. Thereafter, a comparison is made between the  $\chi^2$  scores of this model and the model with the direct relationship included. If the difference between the chi-square scores is not significant, full mediation is said to exist. The results of this procedure show a direct-path model fit of  $\chi^2(139) = 385.2$  and a fixed-parameter model fit of  $\chi^2(142) = 388.4$ . Since this difference is not significant

( $\Delta\chi^2/df = 1.07, p = .362$ ), we conclude that perceived usefulness and perceived risk fully mediate the relationship between offline channel satisfaction and intention to use the SSC.

## CONCLUSION

### Discussion

This study focused on the identification of channel dissynergies in a multichannel service environment. More specifically, we examined whether individuals' satisfaction with their status quo situation influences their evaluations of a self-service option. In doing so, we drew on literature describing one of the most important traps in decision making: status quo bias (Hammond, Keeney, and Raiffa 2006). Results indicate the existence of a status quo bias effect on SSC perceived usefulness. For individuals more satisfied with their current offering, the perceived usefulness of the innovative channel option diminishes. This may indicate that customers patronize their currently used channel, causing a myopic view that lets them judge the innovative SSC as less useful. However, objectively, the new channel can bring equal benefits to both currently satisfied as well as currently unsatisfied customers.

A second status quo bias effect was found with respect to perceived risk. From a rational point of view, satisfied customers do not have to expect more performance uncertainty, and they do not need to have more fear of losing money, compared to unsatisfied customers. But our findings show they do. Hence, delivering services through multiple channels can be seen as an integrated system. Evaluations of Channel A influence evaluations of Channel B. However, where previous studies have mainly found synergistic effects between the multiple channels, our study shows evaluative channel dissynergies to exist. Consequently, successfully influencing online channel use does not only depend on designing the benefits of the online option but also on managing customers' satisfaction with the status quo.

We find perceived usefulness and perceived risk to fully mediate the relationship between offline channel satisfaction and intention to use the SSC. This is in accordance with a general principle of the classic technology adoption theory, which states that factors influencing behavior only do so indirectly by influencing technology perceptions (Davis 1989). The finding that the direct link between offline satisfaction and online channel use is nonsignificant suggests that switching cost theory, which provides underpinnings to switching behavior, cannot fully explain the channel dissynergies. These dissynergies show that assessments of one channel affect evaluations of another channel but relate to (intentions to) use (i.e., behavior) only indirectly.

Furthermore, our findings also display a differential role of trust. Where previous literature has mainly described adoption-enhancing effects of trust in online environments (Corritore, Kracher, and Wiedenbeck 2003; Gefen, Karahanna, and Straub 2003), we show trust to have both an enhancing as well as an inhibiting effect on SSC adoption. Traditionally, when people perceive their bank as being honest and reliable, the perceived risk of the SSC would drop (e.g., less fear of losing money or less performance uncertainty), whereas its perceived usefulness increases. Although we find this effect, trust in the bank also influences the satisfaction with the service currently used. Consequently, this enhances status quo bias and therefore inhibits SSC adoption. Finding a negative trust component in technology adoption adds new insights to existing literature.

By considering individual characteristics as moderators, we are able to make statements on whether the status quo bias is stronger or weaker for certain types of individuals. Interestingly, moderation effects were only found to be significant for the relationship between offline channel satisfaction and perceived usefulness. The relationship between offline channel satisfaction and risk perceptions of the SSC remained unaffected by any of the three moderating variables. This indicates the robustness of the status quo bias effect on perceived risk, since these perceptions are universally influenced by the satisfaction with the offline situation across different individuals. In this respect, they are more stable than perceptions of usefulness, which might serve as an interesting insight to the field of e-commerce studies.

Regarding the significant moderating effects, the effect between offline channel satisfaction and perceived usefulness of the SSC is stronger for men compared to women. This might be explained by observing men's tendency to take more aggressive actions in the case of decreasing satisfaction with the current situation. Additionally, men typically are interested in achieving social status (Venkatesh and Morris 2000), and being able to tell friends and relatives that they regularly talk to a financial expert is a way to do so. Since they do not gather this social status by using the impersonal SSC, having a satisfying offline encounter could reinforce the negative perceptions toward the online alternative. Alternatively, it could be that in general, women have less time and prefer the most efficient and quick alternative. Particularly if most of the financial advisors are men, women may believe that financial advisors talk down to them, and using the SSC avoids this psychological pain or anxiety. Hence, women would be less influenced by their satisfaction with the offline service and more influenced by the inherent attractiveness of the online alternative.<sup>1</sup>

We also find a significant moderation effect such that younger people display a lower status quo bias on

perceived usefulness ( $\beta_{\text{interaction\_term}} = -0.09$ ;  $p = .04$ ). This corresponds to popular general belief that younger people more easily incorporate new technologies into their lifestyles (Czaja et al. 2006; Morris and Venkatesh 2000). Hence, they are less influenced by their current offline satisfaction in determining the usefulness of the new service channel. This finding adds to the relatively limited literature of age differences in technology adoption studies (Morris and Venkatesh 2000).

Finally, Internet experience displayed an interaction effect such that individuals with higher levels of experience are less influenced by offline channel satisfaction in assessing the perceived usefulness of the SSC ( $\beta_{\text{interaction\_term}} = 0.11$ ;  $p = .01$ ). The positive interaction term dampens the negative main influence of satisfaction perceptions on SSC usefulness. However, the effect is relatively small. This also indicates that the consequences of status quo bias are fairly robust, even among individuals that are highly experienced with the Internet and would thus have no difficulty picking up Internet-related systems. This finding adds insight to the literature discussing Internet experience effects. Bruner and Kumar (2000) report positive direct effects of Internet experience on users' attitudes toward Web sites. Nysveen and Pedersen (2004) do not find a similar effect but report Internet experience to moderate the influence of Web site characteristics on perceived usefulness. Our findings further substantiate this role and connect to classic technology adoption theory, which states that experience might interact with antecedents of perceived usefulness (Venkatesh and Davis 2000).

### Managerial Implications

Our findings yield interesting implications for the integration of an SSC in a multichannel context. In line with recent findings, we stress that within a multichannel system, service channels should be synchronized to reduce channel conflicts and to enhance the overall channel system performance (Neslin et al. 2006; Bendoly et al. 2005). When firms want to trigger the use of both channels and can unbundle the different service stages, a channel integration strategy can be implemented by differentiating channel offers along the stages of the service delivery process (Bauer, Falk, and Hammerschmidt 2006; Neslin et al. 2006). For example, in their (offline) stores and kiosks, Dell offers customers advice, support, and the possibility to "touch and feel" their products. However, customers are not able to order products in the stores. This can only be done via the Dell order system on the Internet. The company thereby ensures that customers experience the flexible and superior on-demand order and delivery system, which is one of the unique selling points of Dell.

However, channel integration may be inappropriate if coordination is too costly, for example, because of large investments in technology, marketing efforts, and management expertise. In such a scenario, companies could opt to focus on a single channel, either by switching customers from the traditional to the new channel (status quo substitution strategy) or by strengthening the conventional channel (status quo preserving strategy). Following a substitution strategy can positively affect overall sales, steady-state growth rate, and even stock market performance (Deleersnyder et al. 2002; Pauwels and Neslin 2006). One mechanism to shift customers to the Internet channel would be to position the benefits of the online channel against the disadvantages of the traditional format rather than communicating solely the benefits of the new channel option. By gradually communicating the disadvantages of the old service delivery mode to customers (e.g., lower flexibility, longer waiting time, higher costs), the perceived usefulness of the new channel might be enhanced. In this context, providers could even decide on a more radical strategy to drive customers to use the SSC by cutting back office hours or reducing the number of branches and service employees. This would be in line with the offensive marketing efforts proposed by Neslin et al. (2006) in their research agenda for multichannel customer management. Nevertheless, this offensive strategy has a high amount of risk involved, especially when competition is fierce. Customers might feel trapped or forced into using a particular channel and might switch to a different service provider. Consequently, it could be better to follow a status quo preserving strategy.

Finally, given our results from moderation analyses, companies should analyze their target customer groups, and differentiate the strategy to enhance channel switching accordingly. Since men, older people, and less experienced Internet users display a stronger status quo bias involving perceived usefulness, efforts (advertising, general communication, etc.) to make the benefits and drawbacks of the respective channels clear should be more intense for these particular subgroups. A viable strategy would be to create positive word of mouth by providing special introduction programs (for older people or inexperienced users). Additionally, for men, advertising communication could focus on creating a "cool image" of the SSC since men are usually more interested in (social) status than women (Venkatesh and Morris 2000).

### Limitations and Future Research

The results of this study are based on 639 usable responses to statements regarding a prototype experienced by the respondents. Although this number of cases constitutes a good sample for structural equation modeling techniques, the research design used in the study has



some drawbacks. One disadvantage is that responses to the statements are partially dependent on the realism of the simulation of the innovative SSC. This problem is alleviated, however, by securing close cooperation of bank staff. As the Internet-based financial investment service will be introduced in the near future, a simulation was developed and used in this study. Using a prototype design forced us to use behavioral intention as a proxy for actual usage behavior, since the new service offering was not yet launched. Although the use of intentions has been generally accepted as an indicator of technology adoption, different measures of intention can affect the predictive power of the construct (Kim and Malhotra 2005). Similar studies could therefore make more insightful claims by adopting a longitudinal research setting and including actual use.

Furthermore, as both inertia and switching cost theory are closely related to status quo bias theory, the results may also be partially explained by these theories. Therefore, future studies could integrate inertia and switching cost measures to further clarify the contributions of the mentioned theories for explaining decision anomalies in multichannel contexts. For example, inertia could be applied as a segmentation variable for comparing channel (dis)synergies in different groups. Apart from that, integrating switching costs could help to deepen the understanding of rational and irrational aspects of channel perception and evaluation.

Finally, we did not deem it possible to reliably measure perceived ease of use or SSC complexity with the prototype under consideration. As this variable requires users to have worked with the system for a certain period of time and our simulation was only used to give an impression of the system, we chose to refrain from incorporating perceived ease of use in our model. However, as perceived ease of use is a key variable in technology adoption (Davis, Bagozzi, and Warshaw 1989; Venkatesh and Davis 2000), future studies should incorporate it. This opens opportunities for future research to examine whether status quo bias affects technology perceptions other than usefulness and risk. For instance, the dimensions of the diffusion of innovations theory (Rogers 2003) could be used as a guideline.

Another interesting future research avenue relates to variety seeking, which relies on an inherent need for alteration to explain why consumers switch among alternatives and thus more easily adopt innovative technologies. Consumer behaviorists have linked different types of behavior to the existence of an ideal level of stimulation (McAlister and Pessemier 1982). In case stimulation falls below the ideal level, cognitive action such as exploration or novelty seeking will provide more input. By transferring

this idea to the adoption of innovative service channels, we suggest that if the ideal level is not reached by using the traditional service channel, switching to a new option will produce additional stimulation. Thus, comparable to the innovativeness construct, variety seeking tendencies can lessen individual status quo bias. Future research could investigate the relationships between these constructs.

## NOTE

1. We thank an anonymous reviewer for raising this suggestion.

## REFERENCES

- Anderson, James C. (2003), "The Psychology of Doing Nothing: Forms of Decision Avoidance Result from Reason and Emotion," *Psychological Bulletin*, 129 (1), 139-167.
- , and David W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological Bulletin*, 103 (3), 411-423.
- Arbuckle, James L. (2003), *AMOS 5.0 Update to the AMOS User's Guide*. Chicago, IL: Smallwaters Corporation.
- Avery, Jill, Mary Caravella, John Deighton, and Thomas J. Steenburgh (2007), "Adding Bricks to Clicks: The Effects of Store Openings on Sales through Direct Channels," working paper no. 07-043, Harvard Business School, Boston.
- Balasubramanian, Sridhar, Rajagopal Raghunathan, and Vijay Mahajan (2005), "Consumers in a Multichannel Environment: Product Utility, Process Utility, and Channel Choice," *Journal of Interactive Marketing*, 19 (Spring), 12-30.
- , Prabhudev Konana, and Nirup M. Menon (2003), "Customer Satisfaction in Virtual Environments: A Study of Online Investing," *Management Science*, 49 (7), 871-889.
- Bauer, Hans H., Tomas Falk, and Maik Hammerschmidt (2006), "eTransQual: A Transaction Process-Based Approach for Capturing Service Quality in Online Shopping," *Journal of Business Research*, 59 (7), 866-875.
- Bendoly, Elliot, James D. Blocher, Kurt M. Bretthauer, Shankar Krishnan, and M. A. Venkataramanan (2005), "Online/In-Store Integration and Customer Retention," *Journal of Service Research*, 7 (4), 313-327.
- Blau, Peter M. (1964), *Exchange and Power in Social Life*. New York: John Wiley.
- Bruner, Gordon C., and Anand Kumar (2000), "Web Commercials and Advertising Hierarchy-of-Effects," *Journal of Advertising Research*, 4 (1/2), 35-43.
- Burmeister, Katrin, and Christian Schade (2005), "Status Quo Bias versus Variety Seeking," *Marketing: Journal of Research and Management*, 1 (1), 14-25.
- Burnham, Thomas A., Judy K. Frels, and Vijay Mahajan (2003), "Consumer Switching Costs: A Typology, Antecedents, and Consequences," *Journal of the Academy of Marketing Science*, 31 (2), 109-126.
- Corritore, Chyntia L., Beverly Kracher, and Susan Wiedenbeck (2003), "On-line Trust: Concepts Evolving Themes, A Model," *International Journal of Human-Computer Studies*, 58 (June), 737-758.
- Coughlan, Anne T., Erin Anderson, Louis W. Stern, and Adel I. El-Ansary (2001), *Marketing Channels*. New Jersey: Prentice Hall.
- Cronin, J. Joseph, Michael K. Brady, and G. Tomas M. Hult (2000), "Assessing the Effects of Quality, Value, and Customer Satisfaction on Customer Behavioral Intentions in Service Environments," *Journal of Retailing*, 76 (2), 193-218.

- Cunningham, Lawrence F., James Gerlach, and Michael D. Harper (2005), "Perceived Risk and E-Services: An Analysis from the Perspective of the Customer," *Journal of Financial Services Marketing*, 10 (2), 165-178.
- Curran, James M., Matthew L. Meuter, and Carol F. Surprenant (2003), "Intentions to Use Self-Service Technologies: A Confluence of Multiple Attitudes," *Journal of Service Research*, 5 (February), 209-225.
- Czaja, Sara J., Neil Charness, Arthur D. Fisk, Christopher Hertzog, Sankaran N. Nair, Wendy A. Rogers, and Joseph Sharit (2006), "Factors Predicting the Use of Technology; Findings from the Center for Research and Education on Aging and Technology Enhancement (CREATE)," *Psychology and Aging*, 21 (2), 333-352.
- Dabholkar, Pratibha A., and Richard P. Bagozzi (2002), "An Attitudinal Model of Technology-Based Risk-Service: Moderating Effects of Consumer Traits and Situational Factors," *Journal of the Academy of Marketing Science*, 30 (3), 184-201.
- Davis, Fred D. (1989), "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, 13 (3), 318-340.
- , Richard P. Bagozzi, and Paul R. Warshaw (1989), "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," *Management Science*, 35 (8), 982-1003.
- Deleersnyder, Barbara, Inge Geyskens, Katrijn Gielens, and Marnik G. Dekimpe (2002), "How Cannibalistic Is the Internet Channel?" *International Journal of Research in Marketing*, 19 (4), 337-348.
- Dowling, Grahame R., and Richard Staelin (1994), "A Model of Perceived Risk and Intended Risk-Handling Activity," *Journal of Consumer Research*, 21 (1), 119-134.
- Featherman, Mauricio S., and Paul A. Pavlou (2003), "Predicting E-Services Adoption: A Perceived Risk Facets Perspective," *International Journal of Human-Computer Studies*, 59 (4), 451-474.
- Fornell, Claes (1992), "A National Customer Satisfaction Barometer: The Swedish Experience," *Journal of Marketing*, 56 (1), 6-21.
- , and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (1), 39-50.
- Forsythe, Sandra, Chuanlan Liu, David Shannon, and Liu Chun Gardner (2006), "Development of a Scale to Measure the Perceived Benefits and Risks of Online Shopping," *Journal of Interactive Marketing*, 20 (2), 55-75.
- Garbarino, Ellen, and Michal Strahilevitz (2004), "Gender Differences in the Perceived Risk of Buying Online and the Effects of Receiving a Site Recommendation," *Journal of Business Research*, 57 (7), 768-775.
- Gefen, David, Elena Karahanna, and Detmar W. Straub (2003), "Trust and TAM in Online Shopping: An Integrated Model," *MIS Quarterly*, 27 (1), 51-90.
- Geyskens, Inge, Jan-Benedict E. M. Steenkamp, and Nirmalya Kumar (1998), "Generalizations about Trust in Marketing Channel Relationships Using Meta-Analysis," *International Journal of Research in Marketing*, 15 (3), 223-248.
- Gotlieb, Jerry B., Dhruv Grewal, and Stephen W. Brown (1994), "Consumer Satisfaction and Perceived Quality: Complementary or Divergent Constructs?" *Journal of Applied Psychology*, 79 (6), 875-885.
- Hammond, John S., Ralph L. Keeney, and Howard Raiffa (2006), "The Hidden Traps in Decision Making," *Harvard Business Review*, 84 (1), 118-126.
- Hartman, Raymond S., Michael J. Doane, and Chi-Keung Woo (1991), "Consumer Rationality and the Status Quo," *The Quarterly Journal of Economics*, 106 (1), 141-161.
- Hershey, John, Eric Johnson, Jacqueline Meszaros, and Matthew Robinson (1990), *What Is the Right to Sue Worth?* Philadelphia: Wharton School, University of Pennsylvania.
- Hofstede, Geert (1980), *Culture's Consequences: International Differences in Work Related Values*, London: Sage.
- Horowitz, John K., and Kenneth E. McConnell (2002), "A Review of WTA/WTP Studies," *Journal of Environmental Economics and Management*, 44 (2), 426-447.
- James, Lawrence R., Stanley A. Mulaik, Jeanne M. Brett (1982), *Causal Analysis: Assumptions, Models and Data*. Beverly Hills, CA: Sage.
- Jarvenpaa, Sirkka L., Noam Tractinsky, and Michael Vitale (2000), "Consumer Trust in an Internet Store," *Information Technology and Management*, 1 (1-2), 45-71.
- Johnson, Michael D., Eugene W. Anderson, and Claes Fornell (1995), "Rational and Adaptive Performance Expectations in a Customer Satisfaction Framework," *Journal of Consumer Research*, 21 (March), 128-140.
- Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler (1991), "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias," *Journal of Economic Perspectives*, 5 (1), 695-707.
- Kim, Sung S., and Naresh K. Malhotra (2005), "Predicting System Usage from Intention and Past Use: Scale Issues in the Predictors," *Decision Sciences*, 36 (1), 187-196.
- Laroche, Michel, Gordon H. G. McDougall, Jasmin Bergeron, and Zhiyong Yang (2004), "Exploring How Intangibility Affects Perceived Risk," *Journal of Service Research*, 6 (May), 373-389.
- Lin, Chieh-Peng, and Cherg G. Ding (2006), "Evaluating Group Differences in Gender During the Formation of Relationship Quality and Loyalty in ISP Service," *Journal of Organizational and End User Computing*, 18 (2), 38-62.
- Lu, His-Peng, Chin-Lun Hsu, and Hsiu-Ying Hsu (2005), "An Empirical Study of the Effect of Perceived Risk upon Intention to Use Online Applications," *Information Management & Computer Security*, 13 (2), 106-120.
- Madrian, Birgitte, and Dennis F. Shea (2000), "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," *Quarterly Journal of Economics*, 116 (4), 1149-1187.
- March, James G., and Herbert A. Simon (1993), *Organizations*. Cambridge, MA: Blackwell.
- McAlister, Leigh, and Edgar Pessemier, (1982), "Variety Seeking Behavior: An Interdisciplinary Review," *Journal of Consumer Research*, 9 (3), 311-322.
- Meuter, Matthew L., Mary J. Bitner, Amy L. Ostrom, and Stephen W. Brown (2005), "Choosing among Alternative Service Delivery Modes: An Investigation of Customer Trial of Self-Service Technologies," *Journal of Marketing*, 69 (2), 64-84.
- , Amy L. Ostrom, Robert I. Roundtree, and Mary J. Bitner (2000), "Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters," *Journal of Marketing*, 64 (3), 50-65.
- Montoya-Weiss, Mitzi M., Glenn B. Voss, and Dhruv Grewal (2003), "Determinants of Online Channel Use and Overall Satisfaction with a Relational Multichannel Service Provider," *Journal of the Academy of Marketing Science*, 31 (4), 448-458.
- Morris, Michael G., Viswanath Venkatesh, and Phillip L. Ackerman (2005), "Gender and Age Differences in Employee Decisions about New Technology: An Extension to the Theory of Planned Behavior," *IEEE Transactions on Engineering Management*, 52 (1), 69-84.
- , and ——— (2000), "Age Differences in Technology Adoption Decisions: Implications for a Changing Work Force," *Personnel Psychology*, 53 (2), 375-403.
- Neslin, Scott A., Dhruv Grewal, Robert Leghorn, Venkatesh Shankar, Marije L. Teerling, Jacquelyn S. Thomas, and Peter C. Verhoef (2006), "Opportunities and Challenges in Multichannel Customer Management," *Journal of Service Research*, 9 (2), 95-112.
- Nunnally, Jum C. (1978), *Psychometric Theory*, 2nd ed. New York: McGraw-Hill.
- Nysveen, Herbjørn, and Per E. Pedersen (2004), "An Exploratory Study of Customers' Perception of Company Web Sites Offering Various Interactive Applications: Moderating Effects of Customers' Internet Experience," *Decision Support Systems*, 37 (1), 137-150.

- Olsen, Line Lervik, and Michael D. Johnson (2003), "Service Equity, Satisfaction, and Loyalty: From Transaction-Specific to Cumulative Evaluations," *Journal of Service Research*, 5 (3), 184-195.
- Pauwels, Koen, and Scott A. Neslin (2006), "Building with Bricks and Mortar: The Revenue Impact of Opening Physical Stores in a Multichannel Environment," working paper, Dartmouth College, Hanover, NH.
- Pavlou, Paul A. (2003), "Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model," *International Journal of Electronic Commerce*, 7 (3), 101-134.
- Ping, Robert A., Jr. (1996), "Latent Variable Interaction and Quadratic Effect Estimation: A Two-Step Technique Using Structural Equation Analysis," *Psychological Bulletin*, 119 (1), 166-175.
- Porter, Michael E. (1998), *Competitive Strategy*. New York: Free Press.
- Ritov, Ilana, and Jonathan Baron (1992), "Status-Quo and Omission Bias," *Journal of Risk and Uncertainty*, 5, 49-61.
- Rodgers, Shelly, and Mary Ann Harris (2003), "Gender and E-Commerce: An Exploratory Study," *Journal of Advertising Research*, 43 (3), 322-329.
- Rogers, Everett M. (2003), *Diffusion of Innovations*, 5th ed. New York: Free Press.
- Salanova, Marisa, Sonia Agut, and José María Peiró (2005), "Linking Organizational Resources and Work Engagement to Employee Performance and Customer Loyalty: The Mediation of Service Climate," *Journal of Applied Psychology*, 90 (6), 1217-1227.
- Samuelson, William, and Richard J. Zeckhauser (1988), "Status Quo Bias in Decision Making," *Journal of Risk and Uncertainty*, 1 (1), 7-59.
- Schepers, Jeroen, and Martin Wetzels (2007), "A Meta-Analysis of the Technology Acceptance Model: Investigating Subjective Norm and Moderation Effects," *Information & Management*, 44 (1), 90-103.
- Shine, Byung Chul, Jongwon Park, and Robert S. Wyer Jr. (2007), "Brand Synergy Effects in Multiple Brand Extensions," *Journal of Marketing Research*, 44 (4).
- Singh, Jagdip, and Deepak Sirdeshmukh (2000), "Agency and Trust Mechanisms in Consumer Satisfaction and Loyalty Judgments," *Journal of the Academy of Marketing Science*, 28 (1), 150-167.
- Stebel, Judi, Tülin Erdem, and Joffre Swait (2004), "Consumer Search in High Technology Markets: Exploring the Use of Traditional Information Channels," *Journal of Consumer Psychology*, 14 (1-2), 96-104.
- Thibaut, John W., and Harold H. Kelley (1959), *The Social Psychology of Groups*. New York: John Wiley.
- TNS Infratest (2004), *Monitoring Informationswirtschaft*, Munich. <http://www.nfo-bi.com/bmwal> (accessed March 19, 2005).
- Tsiros, Michael, and Vikas Mittal (2000), "Regret: A Model of Its Antecedents and Consequences in Consumer Decision Making," *Journal of Consumer Research*, 26 (4), 401-417.
- Tykcinski, Orit E., Thane S. Pittman, and Erin E. Tuttle (1995), "Inaction Inertia: Foregoing Future Benefits as a Result of an Initial Failure to Act," *Journal of Personality and Social Psychology*, 68 (5), 793-803.
- Van Birgelen, Marcel, Ad de Jong, and Ko de Ruyter (2006), "Multi-Channel Service Retailing: The Effects of Channel Performance Satisfaction on Behavioral Intentions," *Journal of Retailing*, 82 (4), 367-377.
- , Ko de Ruyter, Ad de Jong, and Martin Wetzels (2002), "Customer Evaluations of After-Sales Service Contact Modes: An Empirical Analysis of National Culture's Consequences," *International Journal of Research in Marketing*, 19 (1), 43-64.
- Venkatesh, Viswanath, and Fred D. Davis (2000), "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies," *Management Science*, 46 (2), 186-204.
- , and Michael G. Morris (2000), "Why Don't Men Ever Stop to Ask for Directions? Gender, Social Influence, and Their Role in Technology Acceptance and Usage Behavior," *MIS Quarterly*, 24 (1), 115-139.
- Verhoef, Peter C., Scott A. Neslin, and Björn Vroomen (2007), "Multichannel Customer Management: Understanding the Research Shopper Phenomenon," *International Journal of Research in Marketing*, 24 (2), 129-148.
- Wallace, David W., Joan L. Giese, and Jean L. Johnson (2004), "Customer Retailer Loyalty in the Context of Multiple Channel Strategies," *Journal of Retailing*, 80 (4), 249-263.
- Wixom, Barbara H., and Peter A. Todd (2005), "A Theoretical Integration of User Satisfaction and Technology Acceptance," *Information Systems Research*, 16 (1), 85-102.

**Tomas Falk** is a postdoctoral research fellow at the Fraunhofer Institute for Systems and Innovation Research in Karlsruhe (Germany). He received his PhD from the University of Mannheim (Germany). His areas of expertise comprise the fields of service innovation, service quality, and industrial services. He has received research grants from the European Institute for Advanced Studies in Management (EIASM), Marcus Wallenberg Foundation, and the Julius-Paul-Stiegler-Gedächtnis-Stiftung. His research work has been published in refereed journals, including *Journal of Service Research*, *Journal of Business Research*, and *International Journal of Bank Marketing*.

**Jeroen Schepers** is a PhD candidate in organization science and marketing at Eindhoven University of Technology in the Netherlands. Before becoming a PhD candidate, he studied information management at Tilburg University. His research interests include user acceptance of information technology, especially the role of social processes such as interpersonal trust and support in this field, and multichannel marketing. He has published articles in *Information & Management*, *Computers & Education*, and *Managing Service Quality*. Finally, he has presented papers and contributed to proceedings of the European Marketing Academy Conference and the INFORMS Marketing Science Conference.

**Maik Hammerschmidt** (PhD, University of Mannheim) is an assistant professor of marketing at the Business School, University of Mannheim, Germany. His research interests focus on marketing efficiency analysis, value-based marketing, service marketing (particularly for electronic services), and multichannel management. His research has been published in the *Journal of Business Research*, *Management Decision*, and *International Journal of Business Performance Management*. He has recently written a book on marketing efficiency and a book on marketing performance measurement. He accompanied several consulting projects on implementing performance measurement systems.

**Hans H. Bauer** (PhD, University of Mannheim) is a professor of marketing and dean of the Business School, University of Mannheim, Germany, as well as scientific director of the Institute for Market-Oriented Management. He earned his PhD in marketing in 1979. He has authored and published several articles, books, and book chapters in his research areas, consumer behavior, brand management, e-business, and mobile commerce. His research has been published in the *International Journal of Research in Marketing*, *Industrial Marketing Management*, *European Journal of Marketing*, and *Journal of Business Research*.