How to Overcome Pro-Change Bias: Incorporating Passive and Active Innovation Resistance in Innovation Decision Models

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Adoption literature is largely subject to a pro-change bias; researchers mainly assume that consumers are open to change and thus interested in evaluating new products. However, consumers often reject innovations without considering their potential, such that the adoption process ends before it really has begun. The present study instead argues that innovation resistance, prior to product evaluation, is a regular consumer response that must be recognized and managed to facilitate new product adoption. The authors suggest differentiating passive from active innovation resistance. While passive innovation resistance results from a consumer’s generic predisposition to resist innovations prior to new product evaluation, active innovation resistance is an attitudinal outcome that follows an unfavorable new product evaluation. This study also extends extant innovation decision models by describing how passive and active innovation resistance emerge and how they affect decision-making in later stages of the process.

Introduction

For decades, innovation literature has reported astronomical failure rates for innovations ranging between 50% and 90% (e.g., Andrew and Sirkin, 2003; Crawford, 1977; Sivadas and Dwyer, 2000). If most new products thus get rejected, then investigating the phenomenon of innovation resistance is highly relevant for both academic research and management practice (Ellen, Bearden, and Sharma, 1991; Ram, 1987; Szmigin and Foxall, 1998). Yet, adoption literature largely reveals a pro-change bias, such that authors make the (biased) assumption that consumers are open to change and thus interested in evaluating and eventually adopting new products (e.g., Ram, 1987, 1989; Rogers, 2003; Sheth, 1981). Accordingly, most research focuses on positive outcomes of the adoption process, such as innovation acceptance, the intention to adopt an innovation, or adoption behavior (e.g., Rogers, 1976; Speier and Venkatesh, 2002). Only few authors explicitly explore anticonsumption and its manifestation as negative outcomes of the adoption process, such as innovation resistance, the intention to reject an innovation, or rejection behavior (e.g., Gatignon and Roberts, 1991; Kleijnen, Lee, and Wetzel, 2009; Moldovan and Goldenberg, 2004). So far, hardly any research attention has been devoted to conceptualizing innovation resistance. This gap is surprising; innovations demand change in consumers’ attitudes, intentions, and behaviors, and resistance to change is a common consumer response (Ellen et al., 1991; Ram, 1987, 1989).

In addition, the assumption that consumers are interested in evaluating new products prevents innovation decision models from accounting for innovation resistance that occurs prior to new product evaluation because they necessarily focus on conscious decisions that follow from new product evaluation (e.g., Ellen et al., 1991; Kleijnen et al., 2009; Szmigin and Foxall, 1998). However, consumers often reject innovations without consciously considering their potential, so that the adoption process ends before it really has begun (Bagozzi and Lee, 1999; Nabih, Bloem, and Poiesz, 1997). While Bagozzi and Lee (1999) suggest the existence of innovation resistance prior to product evaluation and call for more research that deals with the nature of this phenomenon, its systematic, theory-based integration in innovation decision models is still lacking.

This gap also is reflected in the marketing instruments currently in use, which primarily attempt to influence attitude formation and stimulate conscious adoption decisions, rather than reducing consumers’ initial innovation resistance. However, if a consumer rejects an innovation prior to evaluating its potential, any investments in later stages of the decision process are wasted (Kuisma, Laukkanen, and Hiltunen, 2007)—suggestions substantial waste in the US$135 billion spent each year in the United States on marketing new products that ultimately fail (Clancy, Wolf, and Krieg, 2006). A better understanding of initial innovation resistance is crucial for helping
managers develop effective measures to fuel the adoption process.

We seek to contribute to overcoming the persistent pro-change bias by proposing an innovation decision model that integrates consumers’ innovation resistance prior to and after new product evaluation. We start by briefly outlining innovation decision processes that prevail in adoption literature. Then, we conceptualize consumers’ resistance to innovations by differentiating active from passive innovation resistance. Whereas passive innovation resistance results from a generic predisposition of consumers to resist innovations prior to new product evaluation, active innovation resistance stems from an unfavorable new product evaluation. Next, we provide theoretical rationales for the emergence of both forms, before we present our innovation decision model, which integrates both concepts and highlights their impact on other process constructs. Finally, we detail how management practice can benefit from a clearer understanding of why consumers resist innovations, both prior to and after new product evaluation, and we suggest some avenues for further research.

The Common Understanding of Innovation Decision Processes

Although existing innovation decision models vary to some extent in their terminology (e.g., LaBay and Kinnear, 1981; Nabih et al., 1997; Olshavsky and Spreng, 1996), the fundamental structure follows the process as introduced by Rogers (2003). This process includes five stages: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. The course of the decision process depends primarily on three contextual factors: (1) adopter-specific factors or the decision-maker’s individual characteristics, including cognitive rigidity, risk aversion, or involvement; (2) situation-specific factors that reflect the circumstances of the adoption decision, such as monetary restrictions, products already possessed, or the shopping environment; and (3) innovation-specific factors, which describe the decision-maker’s perceptions of the attributes of the new product, including its relative advantage, compatibility, or complexity (e.g., Gatignon and Robertson, 1985; Ram, 1987; Rogers, 2003; Wejnert, 2002).

In the knowledge stage, consumers are exposed to an innovation, become aware of it, and gain knowledge about it. Awareness should motivate them to seek further information about the innovation attributes and thereby proceed to the persuasion stage (Kaplan, 1999). Then, in the persuasion stage, consumers form their favorable or unfavorable attitude toward the innovation depending on how they evaluated the innovation, i.e., to which extent individual expectations deviate from the impression formed during information processing (Rogers, 2003).

Next, in the decision stage, consumers refine their perception of the innovation and decide whether to adopt or reject it (Engel, Blackwell, and Miniard, 1993). The decision stage results in an intention, although not yet to concrete behavior (Nabih et al., 1997).

In contrast, in the implementation stage, intentions transform into actual behavior (Yoh, Damhorst, Sapp, and Laczniak, 2003). Adoption is the purchase of an innovation with at least one initial use; rejection is defined as nonpurchase (Nabih et al., 1997).

Finally, in the confirmation stage, consumers seek reinforcement of their adoption or rejection behavior. They may continue, stop, or reverse their behavior if they have been exposed to conflicting information about the innovation (Parthasarathy and Bhattacharjee, 1998). The adoption process ends if the innovation is in use by the adopter or will not be purchased at any later time (Rogers, 2003).

Although this outline of innovation decision processes is brief and simplified, it highlights an issue central to our research: Current models expect consumers to proceed from the knowledge stage to the persuasion stage and to decide, using their individual perceptions of the innovation, whether to adopt or reject it. Neglecting resistance and rejection behavior that occurs prior to the persuasion stage results in a pro-change bias, i.e., the assumption that

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consumers are open to change and interested in evaluating new products. However, initial resistance to change, including that sparked by an innovation, is an expected consumer response (Ellen et al., 1991; Ram, 1987, 1989) that may lead to selective exposure to or perception of information, disrupting, and perhaps even terminating, the knowledge gaining process. When consumers reject an innovation prior to the persuasion stage, they never even consider its potential (Bagozzi and Lee, 1999; Engel et al., 1993; Nabih et al., 1997).

The level of initial resistance likely depends on several drivers, and we need to understand these factors to overcome pro-change bias (e.g., Laukkanen, Sinkkonen, Kivijärvi, and Laukkanen, 2007; Nabih et al., 1997; Ram and Sheth, 1989). However, little effort has been devoted to the conceptualization of innovation resistance prior to new product evaluation or to the identification of its drivers. We intend to contribute to overcoming pro-change bias by proposing a differentiated perspective that distinguishes active and passive innovation resistance and by incorporating these concepts into innovation decision models.

**Overcoming Pro-Change Bias**

**Introducing Active and Passive Innovation Resistance**

Most studies that investigate innovation failures use the concept of innovation resistance to explain why consumers reject new products (e.g., Bagozzi and Lee, 1999; Ellen et al., 1991; Ram and Sheth, 1989). Such conceptualizations vary though; some authors conceptualize innovation resistance as an attitude (e.g., Ellen et al., 1991), others as an intention or behavior (e.g., Kleijn et al., 2009; Szmigin and Foxall, 1998), and yet others as a combination of attitude and behavior (e.g., Bagozzi and Lee, 1999; Laukkanen, Sinkkonen, and Laukkanen, 2008; Ram and Sheth, 1989). However, innovation resistance is universally assumed to result from negative product evaluation formed in the persuasion stage or beyond (LaBay and Kinnear, 1981; Nabih et al., 1997; Rogers, 2003). Thus, innovation resistance that occurs prior to the persuasion stage is neglected.

Adoption literature also widely acknowledges attitude–behavior discrepancies (e.g., Seiders, Voss, Grewal, and Godfrey, 2005; Sheppard, Hartwick, and Warshaw, 1988). A positive or negative attitude toward an innovation can, although not always, lead to aligned behavior (e.g., Chandon, Morwitz, and Reinartz, 2005; Rogers, 2003). Rogers, Medina, Rivera, and Wiley (2005) extend this view by introducing the idea of a “knowledge-attitude-practice gap,” in which discrepancies also occur between the outcomes of the knowledge stage and the persuasion stage. Thus, consumers who were initially interested in a new product might still develop a negative attitude and reject it. We build on the idea that positive and negative outcomes can occur at any stage of the adoption process, such that we can identify (1) passive innovation resistance or acceptance as outcomes of the knowledge stage, (2) active innovation resistance or acceptance as attitudinal outcomes of the persuasion stage, (3) the intention to reject or to adopt an innovation as intentional outcomes of the decision stage, (4) active rejection or adoption as behavioral outcomes of the implementation stage, and (5) discontinuous or continuous rejection or adoption as behavioral outcomes of the confirmation stage. Because Rogers et al. (2005) did not consider a scenario in which consumers halt the adoption process prior to product evaluation, we elaborate on our definitions of passive innovation resistance as a negative outcome of the knowledge stage and active innovation resistance as a negative outcome of the persuasion stage.

Adoption literature also marks a fundamental disagreement about the drivers of innovation resistance. Some scholars understand it as a result of the personality-related inclination to resist changes or satisfaction with the actual status quo (e.g., Bagozzi and Lee, 1999; Szmigin and Foxall, 1998), which causes consumers to resist innovations without evaluating them. Others equate innovation resistance with a negative attitude that consumers develop as a result of an unfavorable new product evaluation (e.g., Kleijn et al., 2009; Nabih et al., 1997). Both perspectives can be substantiated with theoretical rationales so we use them both to describe the drivers of the two forms of innovation resistance. We perceive passive innovation resistance as resulting from a generic predisposition of consumers to resist innovations prior to new product evaluation and active innovation resistance as an attitudinal outcome that follows an unfavorable new product evaluation. In the following sections, we define both concepts in more detail and provide theoretical rationales for how they emerge and which effects they have on subsequent stages of the innovation decision process.

**Conceptualizing Passive Innovation Resistance**

“The typical human tendency is to strive for consistency and status quo rather than to continuously search for, and embrace new behaviors” (Sheth, 1981, p. 275). Humans
also have an intrinsic desire for psychological equilibrium (Osgood and Tannenbaum, 1955), and any change imposed on their behavior has the potential to disturb this equilibrium. Therefore, they likely resist change rather than going through a disturbing process of readjustment (Ram, 1987). By definition, novelty is inherent to innovations, which means they must impose change, endanger the status quo, and thus provoke initial resistance (Sheth, 1981). Hence, resistance is a normal response of an individual when confronted with innovations (Ram, 1987; Szmigin and Foxall, 1998), and it is not the new product itself being resisted but rather the changes that it causes (Schein, 1985).

Hence, passive innovation resistance is defined as resistance to the changes imposed by an innovation. It evolves from adopter-specific factors that form individuals’ personality-related inclination to resist changes and situation-specific factors that determine their status quo satisfaction. These factors prompt individuals to resist innovations without evaluating them. As soon as passive innovation resistance exceeds an adopter-specific threshold, individuals engage in behaviors to maintain the status quo in face of an innovation’s pressure for alteration (Bagozzi and Lee, 1999; Zaltman and Wallendorf, 1983).

Passive innovation rejection thus describes nonpurchase behavior that happens without individuals having deliberately evaluated the new product (Engel et al., 1993; Nabih et al., 1997). Accordingly, passive innovation resistance depends primarily on individuals’ inclination to resist changes or their status quo satisfaction, or both in combination (Bagozzi and Lee, 1999; Szmigin and Foxall, 1998), as Figure 1 illustrates.

Social psychology research further indicates that resistance to change is more than just overt behavior in specific situations. Instead, it is driven by individuals’ inclination to resist changes formed by adopter-specific factors that reflect fundamental personality traits (Judge, Thoresen, Pucik, and Welbourne, 1999; Nov and Ye, 2009; Oreg, 2003, 2006). The most prominent conceptualization of individuals’ inclination to resist changes, introduced by Oreg (2003), includes six related, distinct elements: (1) reluctance to lose control refers to individuals’ tendency to resist change because he or she fears a loss of control over certain life situations (Oreg, 2003); (2) cognitive rigidity, related to the trait of dogmatism, represents a form of stubbornness and an unwillingness to consider alternative ideas or perspectives (Rokeach, 1960); (3) lack of psychological resilience, describes an individual’s limited ability to cope with change as a stressor (Judge et al., 1999); (4) intolerance to the adjustment period refers to individuals’ posture to resist change and avoid more effort in the short term (Kanter, 1985); (5) preference for low levels of stimulation relates to the fact that some individuals exhibit a weaker need for novelty and stimulation, and are more reluctant to change in general (Goldsmith, 1984); (6) reluctance to give up old habits describes a tendency to resist change because “familiar responses may be incompatible with the situation, thus producing stress, which then becomes associated with the new stimulus” (Oreg, 2003, p. 681).

Individuals’ inclination to resist changes is the most comprehensive construct described in the literature. It combines other change-related personality traits, such as sensation-seeking, openness to experience, dogmatism, locus of control, risk aversion, or tolerance for ambiguity. Compared with these traits, Oreg (2003) finds that individuals’ inclination to resist changes is the most powerful construct in predicting change-related behavior. In a new product adoption context, several studies confirm its role as an inhibitor of innovative behavior (e.g., Moldovan and Goldenberg, 2004; Oreg, 2003). Individuals’ inclination to resist change also may play an important role in impeding new product evaluations (e.g., Bagozzi and Lee, 1999; Nov and Ye, 2009). To elaborate on this line of argument, we discuss how the elements of individuals’ inclination to resist changes affect knowledge gaining and information processing prior to product evaluation, and thus how they help explain the occurrence of passive innovation resistance.

When individuals who are reluctant to lose control confront new products, the novel elements likely cause a lack of confidence in their successful use (Mukherjee and Hoyer, 2001) and thus lead to a perceived loss of control (Bagozzi and Lee, 1999). These individuals are less likely to engage in extended information processing, as are individuals with high levels of cognitive rigidity because their dogmatism and closed-mindedness decrease their openness to new situations (Oreg, 2003). Individuals with limited resilience are less willing to participate in change and exhibit inferior coping qualities (Wanberg and Banas, 2000). When exposed to new products, they refrain from

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**Figure 1. Sources of Passive Innovation Resistance**

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seeking further information, because any change will be perceived as a stressor (Judge et al., 1999). New products require learning and adjustment efforts, and individuals who are reluctant to invest the time required for adjustment may resist such efforts (Oreg, 2003). Furthermore, individuals with a preference for low levels of stimulation are also less likely to proceed to active new product evaluation because innovations increase stimulation. Reluctance to give up old habits is also likely to discourage individuals from actively dealing with the new product, thus leading to innovation resistance. Because these elements determine each individual’s inclination to resist changes, we suggest that this construct is central to explaining passive innovation resistance.

In addition to individuals’ inclination to resist changes, status quo satisfaction likely drives passive innovation resistance. Both Ram (1987) and Sheth (1981) note that situation-specific factors lead to status quo satisfaction, which may affect an individual’s desire to change. Prior research confirms that the status quo is an important reference point for individuals (Bell, 1985) and creates a tendency to prefer the existing situation, regardless of whether the alternative has a higher utility (Falk, Schepers, Hammerschmidt, and Bauer, 2007). This decision anomaly has been dubbed the status quo bias (Gourville, 2006; Samuelson and Zeckhauser, 1988) in reference to an individual’s tendency to avoid change by favoring the current situation because “the disadvantages of leaving it loom larger than the advantages” (Kahneman, Knetsch, and Thaler, 1991, p. 68).

In line with prospect theory (Kahneman and Tversky, 1979), we argue that the product possessed by the individual is a central situation-specific factor, which determines his or her status quo perception and forms a reference point in innovation decision processes. Individuals often are emotionally attached to the products they possess. When exposed to an innovation, they tend to prefer tried, proven products (Hetts, Boninger, Armor, Gleicher, and Nathanson, 2000) because switching to a new product involves potential losses that likely appear to outweigh potential gains (Hess, 2009). Such attachment often is irrational so that even alternatives with objectively superior qualities do not get considered (Szmigin and Foxall, 1998). Scholars suggest that the formation of attachment is related to the fact that individuals grow accustomed to products they own and repeatedly use over time (Bagozzi and Lee, 1999). To preserve the current status, unconscious perceptual and cognitive mechanisms disrupt the processing of information about innovations (Zaltman and Wallendorf, 1983), and because the individuals already are unreceptive to alternatives, passive innovation resistance results. Individuals are especially biased toward the status quo alternative if they are highly satisfied with their status quo (Hess, 2009; Szmigin and Foxall, 1998). Ellen et al. (1991) and Falk et al. (2007) show that satisfaction with a currently possessed product increases innovation resistance and reduces the likelihood of adopting a new, superior product. Thus, we suggest that situation-specific status quo satisfaction is also central to explaining passive innovation resistance (Ellen et al., 1991; Szmigin and Foxall, 1998).

In conclusion, two factors directly drive passive innovation resistance: (1) adopter-specific inclination to resist changes and (2) situation-specific status quo satisfaction. Cognitive passive innovation resistance is mainly driven by the individual’s personality-specific inclination to resist changes; situational passive innovation resistance is mainly caused by the individual’s high status quo satisfaction at the time he or she confronts a new product.

**Conceptualizing Active Innovation Resistance**

Active innovation resistance is understood as an attitudinal outcome that follows an unfavorable evaluation of a new product (Nabih et al., 1997). It is a deliberate form of resistance, which evolves from innovation-specific factors. Consumers shape their attitude toward an innovation on the basis of their evaluation of its attributes (Rogers, 2003). If their perception of certain attributes does not meet their expectation, innovation-specific barriers arise (Laukkanen et al., 2008). As soon as these
barriers exceed an adopter-specific tolerance level, consumers form a negative attitude toward the innovation (Kleijnen et al., 2009). A high level of active innovation resistance likely leads to congruent behavior (Kuisma et al., 2007). Consumers deliberately reject an innovation if they perceive it as functionally inadequate or conflicting with their social norms, values, and individual usage patterns (Bagozzi and Lee, 1999; Ram and Sheth, 1989). Consequently, active innovation rejection describes deliberate nonpurchase behavior following an unfavorable product evaluation (Engel et al., 1993; Nabih et al., 1997).

Several studies confirm that innovation-specific barriers affect negative attitude formation, which then can lead to nonpurchase and related behaviors, such as negative word of mouth, complaints, or boycotts (Haber, 2008; Kleijnen et al., 2009; Laukkonen et al., 2008). Following this notion, we suggest that active innovation resistance results primarily from innovation-specific barriers. As Figure 3 illustrates, these barriers can be distinguished as functional or psychological (Laukkonen et al., 2008; Lee, Morrin, and Lee, 2009; Ram and Sheth, 1989).

Functional barriers arise as soon as a consumer perceives any product attributes as dysfunctional or inadequate for his or her personal needs and usage expectations (Bagozzi and Lee, 1999; Nabih et al., 1997), as Figure 3 illustrates. Value barriers refer to a perceived lack of relative advantage or superior performance by the innovation over existing alternatives (Hoeffler, 2003; Ram and Sheth, 1989). Complexity barriers occur if an innovation is perceived as relatively difficult to understand (complexity of the idea) or use (complexity of execution) (Ram, 1987; Rogers, 2003). Trialability barriers relate to perceived difficulties in testing the innovation prior to adoption (Kuiasma et al., 2007; Ram, 1987). Compatibility barriers emerge if an innovation is perceived as incompatible with existent and past products, and co-dependence barriers emerge if consumers perceive a product as depending too heavily on additional products for full functionality (Laukkonen et al., 2008; Molesworth and Suortti, 2002). Communicability barriers reflect a perceived ineffectiveness when describing the benefits or shortcomings of an innovation to others (Moore and Benbasat, 1991; Rogers, 2003). Visibility barriers emerge when consumers perceive difficulties in observing others using the innovation (Molesworth and Suortti, 2002; Moore and Benbasat, 1991). Amenity barriers arise when an innovation seemingly has limited potential to be modified, updated, or tailored to specific consumer needs (Ram, 1987; Szmigin and Foxall, 1998). Finally, realization barriers occur if the time span before the benefits of the innovation become manifest is perceived as too long (Ram, 1987).

Psychological barriers arise as soon as the innovation conflicts with a consumer’s social norms, values, or individual usage patterns, or if its usage is perceived as being too risky (Kleijnen et al., 2009; Ram and Sheth, 1989). Norm barriers occur if an innovation is perceived as violating group norms, or societal and family values (Laukkonen et al., 2008; Ram, 1987). Image barriers relate to unfavorable associations attributed to an innovation, such as its brand, manufacturer, or country of origin (Kuisma et al., 2007; Ram and Sheth, 1989). Usage barriers relate to the innovation’s inconsistencies with past experiences that threaten to disrupt established usage patterns (Hoeffler, 2003; Ram and Sheth, 1989). Information barriers relate to perceived information asymmetries that make consumers uncertain of unwanted consequences (Kuisma et al., 2007). Risk barriers arise if consumers perceive an innovation as hazardous, such as when they fear that an innovation entails physical risks and could cause harm to them or their property, functional risks that it performs improperly and functions unreliably, economic risks such that it represents a bad value for money,
or social risks because it will prompt disapproval from relevant social groups (Ram and Sheth, 1989). In sum, we propose that active innovation resistance is driven by both innovation-specific functional and psychological barriers that result from unfavorable new product evaluations.

**Presenting an Integrative Innovation Decision Model**

To summarize our considerations and incorporate them into existing adoption literature, we demonstrate how both active and passive innovation resistance and resulting rejection behaviors can be incorporated in innovation decision models. The innovation decision model we present follows the general structure of Rogers’ (2003) model. As we show in Figure 4, the model comprises two components: (1) the decision process itself, with five stages, and (2) contextual factors, which surround the process and influence its course. When describing the model, we focus on aspects that relate to the constructs central in this article, with a particular emphasis on the early stages of the decision process, when active and passive innovation resistance emerge. For these stages, we describe which contextual factors influence the emergence of the two resistance types. In addition, we illustrate how active and passive innovation resistance affects decision-making in later stages of the process.

**Contextual Factors**

The contextual factors comprise three categories: adopter-specific, situation-specific, and innovation-specific factors (Gatignon and Robertson, 1985; Ram, 1987; Rogers, 2003; Wejnert, 2002).

1. **Adopter-specific factors** describe individual characteristics of the decision-maker that reflect his or her personality, motivation, and aspirations, including change-related personality traits, such as reluctance to lose control or cognitive rigidity, which form consumers’ inclination to resist changes. Because consumers with a high inclination to resist changes rarely engage in seeking further product-related information, their adoption process thus may get disrupted and eventually terminated prior to the persuasion stage. We therefore suggest that consumers’ inclination to resist changes directly drives the emergence of passive innovation resistance at early stages of the adoption process, primarily in the knowledge stage (e.g., Bagozzi and Lee, 1999; Nabih et al., 1997), provoking cognitive passive innovation resistance.

Other adopter-specific factors, such as involvement, previous experience, or expertise, are more likely to moderate the effect of passive innovation resistance on rejection behavior. Involvement, for example, describes the relevance of a specific product category to a consumer (Zaichkowsky, 1985). For high involvement product categories, consumers engage in more cognitive processing (Petty, Cacioppo, and Goldman, 1981) and seek out detailed information about new products (Chaiken, 1980; Maheswaran and Meyers-Levy, 1990). If consumers are highly involved in a specific product category, they may still engage in further information processing, even if passive innovation resistance prevails. In this case, the influence of passive innovation resistance on passive rejection behavior may be suppressed by the consumer’s high involvement.

2. **Situation-specific factors** describe the characteristics of the situation in which the innovation decision takes place. Possession and usage of products represent central, situation-specific factors that fuel consumers’ status quo satisfaction, and directly drive the emergence of passive innovation resistance. Consumers who are highly satisfied with the products they possess and use are unlikely to seek out information about potential substitutes when confronted with them. Their high level of situational passive innovation resistance likely halts the decision process before the persuasion stage. Therefore, status quo satisfaction should influence the early stages of the adoption process, mainly the knowledge stage (e.g., Bagozzi and Lee, 1999; Nabih et al., 1997). Other situation-specific factors, such as time pressure, monetary restrictions, and retail environment specifics, likely exert a moderating effect on the relationship between passive innovation resistance and rejection behavior. The crowdedness of a retail environment, for example, typically causes stress for consumers (Hui and Bateson, 1991) and creates social anxiety if they feel they are being watched as they examine unfamiliar products (Dabholkar and Bagozzi, 2002). In crowded retail environments, consumers with low passive innovation resistance may still passively reject a new product; that is, the effect of low passive innovation resistance on passive rejection behavior gets enhanced by this situation-specific factor.

3. **Innovation-specific factors** describe the attributes of the new product, which is in the center of the decision process. These attributes include the innovation’s relative advantage, complexity, compatibility, trialability,
Figure 4. Integrative Innovation Decision Model
and observability (Rogers, 2003). As soon as consumers start to process information about the new product, innovation-specific factors become relevant. If individual expectations and perceptions of innovation attributes deviate widely, functional and psychological barriers arise that prompt a negative attitude toward the innovation. Hence, innovation-specific factors are directly responsible for the emergence of active innovation resistance, and their effect tends to be particularly strong at the persuasion stage when a general perception of the innovation forms (Yoh et al., 2003). However, innovation-specific factors also could have impacts on all subsequent process stages, as consumers continue to reflect on their decision and actions (e.g., Ram and Sheth, 1989; Rogers, 2003).

Decision Process

As we depict in Figure 4, passive and active innovation resistance and their related outcomes can be assigned to the five stages of the decision process.

1. **Knowledge stage.** At this stage, consumers become aware of a new product. At this moment, depending on the consumer’s inclination to resist changes and status quo satisfaction, a certain level of passive innovation resistance arises (Kuisma et al., 2007). If the level of passive innovation resistance is below an adopter-specific threshold, consumers engage in further information processing to come to a judgment (Bagozzi and Lee, 1999; Nabih et al., 1997). In this case, the decision process proceeds. However, low levels of passive innovation resistance still can exert an impact on subsequent stages (Falk et al., 2007; Hess, 2009; Nov and Ye, 2009; Oreg, 2003). In particular, passive innovation resistance likely affects the mental effort devoted to new product evaluation: Higher passive innovation resistance prompts more negative responses, both cognitive and emotional, to the innovation. Because information processing demands more mental effort (Nov and Ye, 2009; Oreg, 2003), innovation attributes likely are perceived less favorably, increasing the deviation from an expected optimum (Nov and Ye, 2009). Thus, although low levels of passive innovation resistance may not directly lead to passive rejection behavior in the knowledge stage, they foster functional and psychological barriers during new product evaluation, which then may lead to active innovation resistance and rejection.

If the level of passive innovation resistance exceeds an adopter-specific threshold, passive innovation rejection results. Thereby, cognitive passive and situational passive resistance likely interact in their effect on passive rejections. A consumer with a high inclination to resist changes, and who is very satisfied with the product he or she currently owns, is less likely to engage in seeking additional information. In this case, the adoption process is terminated prior to new product evaluation (Engel et al., 1993; Nabih et al., 1997). Over time, passive rejection behavior may lead to either continuous or discontinuous passive rejection. In the first case, the decision process is not resumed, and the innovation remains rejected. In the latter case, the passive innovation rejection is revised, and the decision process resumes (Klonglan and Coward, 1970; Nabih et al., 1997; Parthasarathy and Bhattacherjee, 1998). Such behavior may occur when consumers come in contact with the same product again at a point in time when they have grown less satisfied with their current product or if the new product represents less change to them perhaps because alternative products have evolved in a similar fashion or most of their social network has adopted the product. Thus, discontinuous passive rejection carries the potential for future adoption.

The conceptual opposite of passive innovation resistance and rejection also may arise in the knowledge stage. Consumers may passively accept and subsequently adopt a new product without having evaluated it. For innovations, such behavior is rather unlikely because novelty means change that affects purchase routines, so at least some brief evaluation of the new product seems necessary. Yet in some extreme cases of impulsive purchase behavior (Beatty and Ferrell, 1998; Cobb and Hoyer, 1986; Rook, 1987), the purchase may be almost entirely stimulus driven, such that the “buying impulse translates directly into an immediate, yielding, and physical response, or . . . a ‘consumer spasm’ ” (Rook and Fisher, 1995, p. 306). Similar to passive rejection, passive adoption behavior may entail two different forms: continuous or discontinuous passive adoption. In the first case, the new product has become part of the adopter’s routines. In the latter case, the consumer may be disappointed by the usage experience and reject the innovation after the initial trial (Nabih et al., 1997).

2. **Persuasion stage.** At this stage, consumers evaluate the product and develop a general perception of it (Yoh et al., 2003). The outcome is either active innovation acceptance or active innovation resistance,
driven by the positive or negative attitude toward the innovation (Nabih et al., 1997). Within attitude formation, consumers consciously evaluate the innovation by engaging in a deliberate search for innovation-specific information (Rogers, 2003), such as its product features and functions, complementary offerings, costs involved in usage and maintenance, and ability to help solve individual problems (e.g., Talke and Snelders, 2012). Such information can come from product descriptions, product reviews, ads, press releases, or the consumer’s social network. With this acquired information, consumers evaluate innovation attributes. The outcome is highly individualistic because consumers’ needs, values, technical expertise, prior experience, and willingness to pay vary widely. Furthermore, cognitive processing of product-related information is complemented by affective elements that prompt consumers to become more psychologically involved with the innovation (Rogers, 2003). In so-called vicarious trials, consumers mentally apply the innovation to their personal usage situation (MacInnis and Price, 1987), which increases their emotional involvement and the innovation’s personal relevance (Burns, Biswas, and Babin, 1993). Again, such mental simulations are highly individualistic anchored in consumers’ own experience base.

The general perception of the innovation that results from this evaluation process then gets compared against individual expectations of an optimal innovation. If the perception conforms to expectations, functional and psychological barriers will be limited, and a positive attitude will form, which drives active innovation acceptance. However, as soon as perceptions deviate from expectations, functional and psychological barriers emerge. For example, consumers may perceive an innovation as too complex, too expensive, or incompatible with personal norms. Functional and psychological barriers then may lead to a negative attitude toward the innovation, which drives active innovation resistance (Bagozzi and Lee, 1999; Ram, 1987).

Active innovation acceptance and resistance both affect the subsequent stages of the decision process. Throughout the process, consumers continue to acquire and process information (Sahin, 2006). Active innovation acceptance and resistance act as gatekeeper and reference points for evaluation because consumers prefer to limit dissonance by avoiding stimuli that conflict with their previous perceptions and seeking information that conforms with their previously formed attitudes (Seligman, 2006).

3. **Decision stage.** At this stage, consumers choose to adopt or reject an innovation on the basis of their attitude and additionally acquired information (Engel et al., 1993). The outcome is an intention to adopt or reject the innovation (Nabih et al., 1997). In order to come to a judgment, consumers refine their understanding of how the innovation can be incorporated into their lives (Seligman, 2006). Such refinement is based on new information whether actively or accidentally acquired (Rogers, 2003). Consumers confront new pieces of information in ads or press releases, receive recommendations by their social network, and witness others using the product. According to adoption literature, an influential form of active information acquisition are small-scale trials of the innovation, such as taking a test drive, tasting new food, smelling new perfume, or playing with a new mobile phone (Sahin, 2006). If the information and experience conform with the previous perceptions, active innovation acceptance or resistance leads to the corresponding decision to adopt or to reject. However, if new stimuli conflict with the previous impression, the mental framework of the innovation can get adjusted. Such adjustment may result if an innovation was imagined to be easy to use, tasty, or pleasant to touch, but then the usage experience during the small-scale trial was disappointing. As a consequence, the mental framework of the innovation and perceptions of its attributes shift. This altered perception of innovation attributes in turn affects functional and psychological barriers. For example, if the perceived product attributes now appear less functional or inadequate for a consumer’s usage expectations, functional barriers increase. Depending on the extent of the increase or decrease, the attitude may be reversed and lead to a decision that is inconsistent with the result from the persuasion stage (Nabih et al., 1997).

4. **Implementation stage.** At this stage, behavioral components join the intentional outcomes, so that actual behavior, such as active innovation adoption or active innovation rejection, results (Rogers, 2003; Yoh et al., 2003). However, an intention to adopt or reject does not always lead to congruent behavior (Rogers et al., 2005). Consumers may still be uncertain about certain innovation attributes and consequences. To improve their mental framework of the innovation, they likely engage in activities such as seeking further information, extending product trials, or getting assistance and feedback from their social network (Seligman, 2006). When consumers confront stimuli that stand in sharp
contrast with their previous perceptions, they may reverse their decision and reject the new product they had intended to adopt. Such intention–behavior discrepancies also occur if situation-specific factors, such as limited product availability or time, or monetary restrictions, prevent the immediate purchase of an innovation (Holak, Lehmann, and Sultan, 1987; Nabih et al., 1997; Rogers, 2003). Postponement is one form of temporary rejection, which can result from this stage. In this case, consumers fall back to the decision stage to later resume the adoption process with an adoption intention (e.g., when sufficient monetary resources are available; Kleijnen et al., 2009). Leapfrogging is another form of temporary rejection (Weiber and Pohl, 1996), in which case consumers decide to wait for a superior, subsequent product generation (Goldenberg and Oreg, 2007). They stop the current adoption process and start a new one as soon as the next product generation is available. Even at this stage of the innovation decision process, the level of passive innovation resistance influences the likelihood of temporary rejections. Consumers who are satisfied with the product they own, who get stressed by uncertainty, prefer low levels of stimulation, and are reluctant to give up old habits, are more likely to avoid making a purchase decision (Judge et al., 1999; Weiber and Pohl, 1996). Hence, increased levels of passive innovation resistance affect the incidence of postponement and leapfrogging behavior.

5. **Confirmation stage.** At this stage, both adopters and nonadopters confront additional product-related information and experiences. If previous actions get called into question by new, contradictory stimuli, discontinuous active adoption or rejection behavior may result (Parthasarathy and Bhattacherjee, 1998; Rogers, 2003). In both cases, adopters and nonadopters return to the implementation stage, and the decision process proceeds from there. Thus, discontinuous active innovation adoption represents rejection after initial usage. Such behavior may result when consumers are disappointed by the usage experience, reverse their attitude, and decide to stop using the product. Discontinuous active innovation rejection describes a situation in which consumers revise their decision to reject a new product. Such behavior may occur if consumers receive recommendations from other consumers or have positive experiences with a new product trial (Parthasarathy and Bhattacherjee, 1998). Discontinuous active innovation rejection thus offers the potential for future adoption.

The adoption process instead is terminated if the information and usage experiences gained at the confirmation stage support the decision previously made and lead to a continuous active innovation adoption or rejection. Whereas continuous active adoption means that the innovation has become part of the adopter’s regular activities (Molesworth and Suortti, 2002), continuous active rejection implies that the adopter will not purchase the innovation at any later time (Rogers, 2003).

**Conclusion**

Creating a better understanding of why consumers resist innovations can contribute to refining adoption theory and helping managers take counteractions. Adoption theory is prone to a pro-change bias, which can be addressed by shedding light on passive and active innovation resistance. We propose distinguishing between innovation resistance that occurs prior to and after new product evaluation to add clarity to the unequivocal explanations in extant literature (Ellen et al., 1991; Laukkonen et al., 2008; Sheth, 1981). While passive innovation resistance occurs prior to new product evaluation and is caused by an adopter-specific inclination to resist changes and situation-specific status quo satisfaction, active innovation resistance is driven by product-specific barriers that evolve during the evaluation process. By incorporating both concepts and their outcomes in innovation decision models, we provide a differentiated explanation of the processes that lead to adoption or rejection behavior and expand current understanding of consumer behavior in innovation decisions.

A better understanding of why consumers resist innovations prior to and after new product evaluation can also be beneficial for management. Managers need to accept that consumers have an initial tendency to resist changes, underestimate the benefits of an innovation, and overrate the benefits of products already in possession (Gourville, 2006). To lower passive innovation resistance, managers should aim to reduce both the perceived change caused by a new product and consumers’ status quo satisfaction. When trying to lower cognitive passive resistance, which results from a person’s inclination to resist changes, the use of mental simulation (e.g., Hoeffler, 2003) or self-visualization (e.g., Dahl and Hoeffler, 2004) in advertisements seems promising. Such instruments can help consumers imagine themselves in the usage situation and thus may reduce their concerns about losing control or their perception of change as a stressor. The use of analogies (e.g., Feiereisen, Wong, and Broderick, 2008) and
launch messages that stress the similarity of a new product to familiar ones (Talke and O’Connor, 2011) also should help consumers overcome their reluctance to give up old habits and their intolerance to the adjustment period by minimizing perceived deviations. Several studies also show that benefit comparisons increase the perceived benefit of an innovation (e.g., Ziamou and Ratneshwar, 2003) and may reduce situational passive resistance, which results from consumers’ status quo satisfaction with extant products. The use of such instruments in communication campaigns thus should help overcome both cognitive passive and situational passive resistance.

Managers also can use our overview of innovation-specific barriers to assess systematically whether their new product evokes any such barriers among certain consumer groups. To prevent active innovation resistance, product developers and marketers should then design adequate instruments to target these barriers. For example, to reduce complexity barriers, managers could bundle a new product with existing ones to help consumers understand how to use the innovation and thereby ease product evaluation (Hess, 2009; Reinders, Frambach, and Schoormans, 2010). Using product demonstrations also can decrease consumers’ performance uncertainty and thus risk barriers (Heiman and Muller, 1996). Offering warranties may effectively diminish performance uncertainty, particularly for experience products (Bearden and Shimp, 1982). When adequate instruments for reducing product-specific barriers have been identified, managers can develop tactics that increase consumers’ active innovation resistance to competing products (Ram, 1987). For example, managers may use benefit comparisons to underline the superiority of the own product and increase the perception of value barriers against competing products (Ziamou and Ratneshwar, 2003).

Although the relevance of passive innovation resistance and rejection seems rather obvious, empirical investigations remain to be conducted. Future research may, for instance, develop an inventory that measures the level of consumers’ passive innovation resistance by assessing their status quo satisfaction and the individual traits underlying consumers’ inclination to resist changes. When testing such metrics, further research may be able to validate empirically the relevance of passive innovation resistance for passive rejection behavior. In addition, it would be fruitful to explore how the extent of passive innovation resistance influences the perceptions of innovation-specific barriers that drive active innovation resistance. From these findings, managers could develop instruments to enhance consumers’ interest and foster the formation of a positive attitude. Finally, these instruments should be evaluated on their effectiveness through consumer experiments. These findings can help managers reduce consumers’ passive and active innovation resistance and improve evaluations of their products.

We also call for research that empirically tests the influence of different adopter-specific, situation-specific, or innovation-specific factors on rejection behavior throughout the decision process. Each factor likely varies in its influence at certain stages of the process so a study that observes consumers throughout their decision process would help determine the relative influence of each factor at each stage. With such results, managers could develop targeted instruments to reduce rejection probability at each stage of the decision process, fostering adoption and continuous usage of their products.

Because our goal was to expand current understanding of consumer behavior in innovation decisions, we did not consider other types of decision-makers. Innovation resistance is unlikely to be limited to consumers per se, and incidence and effect may differ notably for other adopters, such as retailers and distributors. When choosing innovations, professional adopters face different requirements; in particular, their customers likely expect them to offer the full range of new products or a selection of the latest and most relevant innovations. Their decision processes thus must be more professional and follow a structured, analytical, and rational approach. In addition, the decision to extend an existing sales mix with a new product often takes place in buying centers, which moves the individual decision to the presumably more rational group level. It might be a fruitful avenue for further research to explore the emergence of passive and active innovation resistance in business-to-business settings and for group decisions.

References


