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Satisfied and unwilling: Exploring cognitive and situational resistance to innovations☆

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ABSTRACT

Every company is buzzing "innovation" these days, while continuously launching new products. Yet previous studies point to high failure rates and suggest that most innovations get rejected due to consumers' innovation resistance. Within this respect, prior research acknowledges the role of passive innovation resistance as significant inhibitor for the adoption of new products. However, empirical evidence on whether and how different types of passive innovation resistance (i.e., cognitive and situational passive resistance) affect new product adoption still lacks. Using a scenario-based experiment ($n = 307$), this study delivers first empirical evidence that both resistance types are strong inhibitors for new product adoption. Results show that consumers with high cognitive or situational passive resistance show negative effects that are similar in their magnitude, whereas consumers with high levels of both dimensions exhibit the strongest predisposition to resist innovations. Hence, these consumers represent the most critical segment when launching new products.

1. Introduction

For decades, new product adoption literature reports high failure rates for new products, roughly 50% (Castellion & Markham, 2013). The economic consequences of high innovation failure rates are alarming. A study by the GfK (2006) finds that a flop rate of 70% for Fast Moving Consumer Goods (FMCG) led to an accumulated mis-investment of over 10 billion Euros in Germany in 2006. In 2004, U.S. companies wasted around 90 billion Euros unsuccessfully marketing new products (Clancy, Krieg, & Wolf, 2006). New products that fail represent mis-investments on a large scale that cannot generate future revenues and might even lead to a loss of reputation (Heidenreich & Spieth, 2013; Hess, 2009). Past research also confirms that innovation failures are especially harmful to high-equity brands that have preannounced the innovation (Liao & Cheng, 2014) and might even endanger the competitiveness of companies (Bayus, Erickson, & Jacobson, 2003). In this regard, past research points to consumers' innovation resistance as a major cause of such innovation failures (Heidenreich & Spieth, 2013; Ram, 1989).

Both scientific research (e.g., Laukkanen, Sinkkonen, & Laukkanen, 2008; Sheth, 1981) and management practice (Garcia, Bardhi, & Friedrich, 2007; Gourville, 2006) acknowledge innovation resistance. However, scant research investigates this phenomenon's nature and consequences (Heidenreich & Spieth, 2013; Kleijnen, Lee, & Wetzels, 2009). Research primarily focuses on motivating factors and positive outcomes of the adoption process, while only a few studies examine the factors inhibiting or delaying the innovation's adoption and diffusion (Ellen, Bearden, & Sharma, 1991; Heidenreich & Spieth, 2013; Talke & Heidenreich, 2014). The extant literature dubs this phenomenon as "pro-change" bias, describing the fact that the literature follows the assumption that individuals principally are open to change and thus desire to evaluate and adopt new products (e.g., Rogers, 1976; Talke & Heidenreich, 2014).

To overcome this "pro-change" bias, recent research suggests that the concept of passive innovation resistance should receive more attention (Talke & Heidenreich, 2014). Active innovation resistance is a conscious form of resistance that comes from functional and psychological barriers following a deliberate evaluation of a new product (e.g., Kleijnen et al., 2009; Patsiotis, Hughes, & Webber, 2013). On the other hand, passive innovation resistance is an unconscious form of resistance that is driven by individuals' resistance to change disposition and satisfaction with the status quo, evolving prior to the evaluation of a new product (e.g., Heidenreich & Kraemer, 2015a; Nabih, Bloem, & Poiesz, 1997). Prior research separates passive innovation resistance into two related but distinct branches: (1) cognitive passive resistance driven by an individual's inclination to resist changes and (2) situational passive resistance driven by an individual's satisfaction with the status quo (Heidenreich & Spieth, 2013). While researchers examine active innovation resistance empirically (Kuisma, Laukkanen, & Hiltunen, 2007; Wiedmann, Hennigs, Pankalla, Kassubek, & Seegebarth, 2011), empirical research on passive innovation resistance remains scarce (Heidenreich & Kraemer, 2015b; Talke & Heidenreich, 2014). Limited

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empirical research on passive resistance is surprising because adopting an innovation always entails behavioral changes, which might endanger the status quo, likely provoking passive innovation resistance (Heidenreich & Handrich, 2014; Sheth, 1981). Accordingly, passive innovation resistance serves as an influential construct within the adoption process of consumers, but few studies empirically examine this behavior (Heidenreich & Handrich, 2014). Previous findings indicate that passive innovation resistance exerts negative effects on new product evaluation (Heidenreich & Spieth, 2013) and adoption (Heidenreich & Handrich, 2014) as well as innovative consumer behavior (Heidenreich & Kraemer, 2015b). However, past empirical studies do not separately assess the effect of cognitive and situational passive resistance. Hence, empirical evidence on how different types of passive innovation resistance affect new product adoption is still missing. Yet previous research suggests that passive resistance types differ in the way they impact new product adoption (Heidenreich & Kraemer, 2015b; Talke & Heidenreich, 2014). To address this gap, the first research goal is to investigate whether and how different types of passive innovation resistance (i.e., situational and cognitive resistance) may affect new product adoption.

Further, recent research shows that perceived stimulation enhances negative effects of passive innovation resistance on innovative consumer behavior (Heidenreich & Kraemer, 2015b). Following assessments of an innovation's continuous or discontinuous nature, consumers classify innovations as congruent or incongruent with their established usage patterns (Heidenreich & Kraemer, 2015a; Hirschman, 1980). Radical new products characterized by a high degree of newness and thus high levels of stimulation are seen as incongruent with existing products (Veryzer, 1998). For this reason, prior research findings suggest that a radical innovation requires significantly more behavioral changes than an incremental innovation (Heidenreich & Handrich, 2014). Resulting negative effects of cognitive and situational passive innovation resistance might be more severe for radical versus incremental new products (Heidenreich & Kraemer, 2015a). However, an empirical examination of whether and how different passive innovation resistance types might interact with the degree of newness to affect new product adoption still remains unanswered. Consequently, this study's second research aim is to empirically examine this issue.

The first part of this manuscript develops the conceptual framework of this research, conceptualizes the core concepts, and derives hypotheses on their relationships. The subsequent section summarizes the research design and statistical methods before presenting the results. The last part discusses the findings, derives implications for theory and practice, and outlines limitations and directions for further research.

2. Conceptual development

Prior studies confirm that the probability of market success for new products is extremely low (Castellion & Markham, 2013). One key reason for innovations' low success rate is that consumers often experience a certain degree of resistance preceding new product adoption (Kuisma et al., 2007). Prior research often differentiates active from passive innovation resistance. Active innovation resistance represents a negative attitude formation based on innovation-specific factors that follows the deliberate evaluation of new products (Laukkanen et al., 2008; Talke & Heidenreich, 2014). Consumer perceptions that innovation-specific factors do not meet expectations lead to functional (i.e., usage, value and risk barrier) and psychological barriers (i.e., tradition and image barrier) (Heidenreich & Handrich, 2014; Kuisma et al., 2007; Ram, 1989). As soon as these barriers exceed the potential adopter's specific tolerance level, a negative attitude forms about the new product that causes active innovation resistance (Talke & Heidenreich, 2014).

Passive innovation resistance represents a predisposition to resist innovations that is caused by an individual's inclination to resist changes and satisfaction with status quo prior to new product evaluation (Heidenreich & Spieth, 2013). Since individuals strive for psychological equilibrium (Osgood & Tannenbaum, 1955) and balance (Heider, 2013), anything new or different disturbs an individual's psychological balance and endangers the psychological equilibrium. This state likely provokes initial resistance to the changes necessary for new product adoption (Szmigin & Foxall, 1998; Talke & Heidenreich, 2014). This initial resistance is commonly dubbed passive innovation resistance and represents the consumer's initial response to the changes imposed by a new product, without any consideration of the innovation's specific factors (Heidenreich & Handrich, 2014). Rather than functional and psychological barriers, passive innovation resistance evolves from the degree of discontinuity or change necessary to adopt the new product (Heidenreich & Kraemer, 2015b; Nabih et al., 1997). Both active and passive innovation resistances emerge prior to the adoption process. While their determinants differ, these constructs intertwine. Passive innovation resistance influences the mental effort devoted to new product evaluation, prompting cognitive and emotional negative responses about the innovation. This action fosters functional and psychological barriers while evaluating the innovation, leading to active innovation resistance (Talke & Heidenreich, 2014).

Early research almost exclusively focuses on active innovation resistance. Recent research empirically examines how passive innovation resistance affects new product evaluation (Heidenreich & Spieth, 2013), adoption (Heidenreich & Handrich, 2014), and different types of innovative consumer behavior (Heidenreich & Kraemer, 2015b) as well as strategies to overcome passive innovation resistance (Heidenreich & Kraemer, 2015a). However, these studies neglect to separately assess the effects of different types of passive innovation resistance on individual's adoption behavior. Prior research suggests that passive innovation resistance bifurcates into related but distinct types that differ in their impact on new product adoption: (1) cognitive passive resistance and (2) situational passive resistance (Heidenreich & Kraemer, 2015b; Talke & Heidenreich, 2014).

Cognitive passive resistance refers to the degree to which an individual's cognitive style hinders the consideration and adoption of new products. An individual's inclination to resist changes primarily drives cognitive passive resistance (Heidenreich & Kraemer, 2015a; Oreg, 2003). By definition, consumers who are highly inclined to resist changes are less open to innovations. These people encounter great difficulty breaking routines, become emotionally stressed in the face of change, and experience cognitive difficulty changing their minds (Heidenreich & Spieth, 2013; Nov & Ye, 2008). Any innovation appears to impose change and likely provokes cognitive passive resistance which inhibits the adoption of new products (Ram, 1989; Talke & Heidenreich, 2014). Situational passive resistance suggests an individual's preference for the current status quo hinders the consideration and adoption of new products (Heidenreich & Kraemer, 2015a). The consumers' status quo satisfaction is upset by changes necessary to adopt the new product. High-level status quo satisfaction suggests that a person is satisfied with current products and services. Status quo satisfaction encourages repetition in buying behavior and increases the resistance to alternatives (Ellen et al., 1991). As a result, situational passive resistance inhibits new product adoption. Both cognitive and situational passive resistance types likely interact to affect new product adoption (Talke & Heidenreich, 2014). A consumer with high cognitive passive resistance is less likely to positively evaluate and adopt new products when high status quo satisfaction exists. On the other hand, a consumer with high situational passive resistance is less likely to positively evaluate and adopt new products when high individual resistance to change is also present. If both resistance to change and status quo satisfaction of an individual are high, dual passive resistance most likely prevents the adoption of new products. However, if both individuals' resistance to change disposition and satisfaction with the status quo are low, conditions for positive attitude formation and new product adoption are favorable. Plausibly, consumers with cognitive,

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