

# **Salesforce Integration in New Product Development – A Key Driver of New Product Success?**

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## **Abstract**

In our study, we investigate the impact of salesforce integration intensity on new product success. Drawing on the resource-based view of the firm, we argue that the company-internal processing of market information provided by salespeople represents a critical resource for the development of successful new products. Data on 269 companies provide empirical evidence that salesforce integration represents a key driver of new product success. This effect can partly be explained by new products' competitive advantage that results from the incorporation of salespersons' market insights. The study also demonstrates that information quality, timing, and environmental turbulence influence the effectiveness of salesforce integration intensity in achieving higher levels of new product performance.

## **1. Introduction**

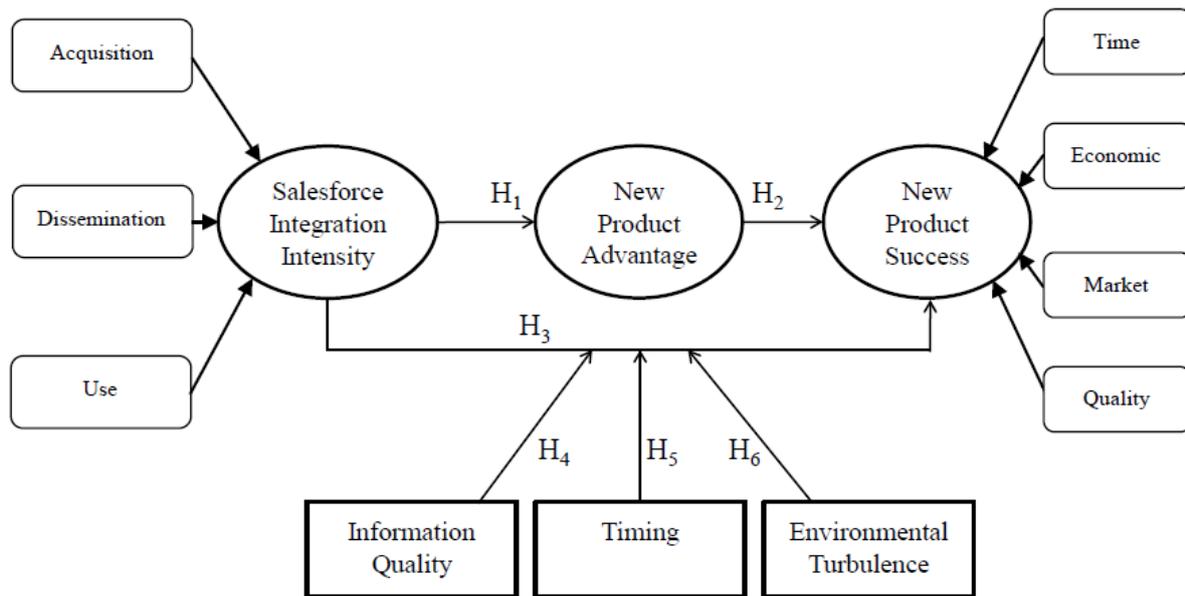
The continuous development and successful launch of new products represents a prerequisite for the survival and growth of individual firms, as well as for long-term organizational success (Prins and Verhoef, 2007; Talke and Hultink, 2010). However, failure rates of new products remain at high levels (Gourville, 2006; Judson et al., 2006). Drawing on innovation success factor research, a main reason for new product failure is a lack of market orientation, leading to the development of new products that do not adequately meet customer demands (Joshi and Sharma, 2004; Yli-Renko and Janakiraman, 2008). Previous research commonly acknowledges that market information processing activities throughout the new product development (NPD) process help firms to create new products that better meet customer needs, are perceived superior to competing product offerings, and are thus more successful in the market (Baker and Sinkula, 1999; Veldhuizen, Hultink, and Griffin, 2006). Whereas previous studies have mainly advocated the integration of company-external sources of market information – such as customers or suppliers – into the NPD process (Gruner and Homburg, 2000; Song and Thieme, 2009), this study concentrates on the company's salesforce as a critical internal resource. Operating at the frontline of the organization, salespeople have the most frequent and most direct interaction with customers and absorb market insights that other company-internal stakeholders may not be aware of (Homburg and Jensen, 2007). Therefore, the salesforce has often been recognized as a valuable source of market information (Cross et al., 2001; Pass, Evans, and Schlacter, 2004). However, empirical research on the effectiveness of salesforce integration in achieving higher levels of new product success is very scarce. In addition, the role of contingency factors in salesforce integration effectiveness has been neglected in previous research. The present study addresses these research gaps.

## **2. Theoretical Background and Conceptual Development**

### **2.1 Overview**

Building on the resource-based view of the firm (RBV), our study aims at resolving the question whether salesforce integration intensity drives new product success via new product advantage. Salesforce integration intensity refers to the extent to which salespersons' market insights are gathered, shared, and used company-internally in the scope of new product-related decision-making. We additionally investigate the direct relationship between salesforce integration intensity and new product success and propose context-specific factors that potentially influence this direct link. Figure 1 presents an overview of our conceptual model.

**Figure 1: Conceptual Model**



## 2.2 The Resource-Based View of the Firm as Theoretical Framework

The relevance of internal knowledge exploitation is well-founded on theories of strategic management and can be particularly derived from the RBV (see Wernerfelt, 1984). The RBV postulates that a firm's competitive advantage largely depends on the internal resources that it owns and controls. Resources that are valuable, rare, and difficult to imitate can generate a sustained competitive advantage as they enable organizations to continuously increase the efficiency and effectiveness of their business activities. The realization and exploitation of such resource potentials for improvement lead, in turn, to sustained success (Barney, 1991; Wernerfelt 1984). In the NPD context, salesforce integration can be regarded as a critical firm-level resource. Salesforce integration is valuable as market insights obtained by salespeople allow for the consideration of current market trends and customer needs that complement company-internal market knowledge in important ways (Homburg and Jensen, 2007; Gordon et al. 1993). Therefore, firms that consistently process salesforce insights on the market are better able to "recognize opportunities and threats in their environment" (Barney, 1991, p.113). In addition, salesforce integration is a rare strategy that is not "simultaneously implemented by large numbers of firms" (Barney, 1991, p.106). This is based on the contention that salespeople still represent an underutilized resource of market intelligence in the scope of new product-related decision-making (Liu and Comer, 2007; Tanner and Shipp, 2005). Ultimately, salesforce integration is difficult to imitate based on the fact that neither salesforce insights nor a company's processing capabilities can be observed by external stakeholders such as competitors (Li and Calantone, 1998; Zahay, Griffin, and Fredericks, 2004). Thus, salesforce integration can be considered as a source of sustained competitive

advantage and long-term success from a theoretical point of view. To prove empirically whether this holds true in the NPD context is the major goal of this study.

### 2.3 Hypothesis Development

Referring to the RBV, salesforce integration represents a critical resource in the development process of new products. Therefore, companies that effectively and efficiently gather, share, and ultimately use salesforce insights in the scope of NPD processes will be better able to respond to current customer needs and therefore, develop new products that create a superior value in the eyes of customers relative to competing firms (Atuahene-Gima, 1996; Barney, 1991; Wernerfelt, 1984). Therefore, we posit that:

*H1: Salesforce integration intensity has a positive impact on new product advantage.*

Rogers (2003) has emphasized that the adoption of a new product by customers largely depends on its relative advantage over competing product offerings. This is based on the rationale that customers are more likely to purchase a new product when it offers superior features and unique benefits that cannot be found in products that already exist in the market (Maidique and Zirger, 1983). This is consistent with the RBV that considers the link between competitive advantage and success as a logical consequence emanating from the exploitation of firm-internal resources (Barney, 1991; Wernerfelt, 1984). Thus, we suppose that:

*H2: New product advantage has a positive impact on new product success.*

Empirical research on innovation success factors has shown that market information processing positively affects new product performance in a direct way. For example, Ottum and Moore (1997) have found that there is a very strong relationship between the gathering, sharing, and use of market information and the financial success of a new product. Similarly, Wei and Morgan (2004) have indicated that market information processing activities positively impact new product performance outcomes. Following these previous findings, we further posit that:

*H3: Salesforce integration intensity has a positive impact on new product success.*

#### *Moderating factors:*

In addition to the main effect framework, we also consider several contextual factors that potentially moderate the strength of the relationship between salesforce integration intensity and new product success.

*Information Quality:* New product-related decision-making is characterized by high levels of uncertainty that can be counteracted by processing information that is unbiased, relevant, and directly useful for a specific task without the need for clarification or further refinement (Hoeffler, 2003; Maltz, 2000). The importance of such high-quality information is based on the argument that accurate and unbiased information best reduces uncertainty whereas unclear and irrelevant information may increase uncertainty rather than reduce it (Liu and Comer, 2007; Zimmer, Henry, and Butler, 2007). Following this argumentation, we expect that it largely depends on the quality of salespersons' market insights whether they can contribute to the achievement of NPD-related goals such as new product success.

*H4: The higher the quality of salesforce information, the stronger the relationship between salesforce integration intensity and new product success.*

*Timing:* Previous studies have placed a particular importance on a very early integration of customer insights and market trends into the NPD process for two major reasons. Firstly, as the early part of the NPD process requires the most information for the identification of customer needs and the evaluation of market potentials (Sethi, Smith, and Park, 2001), it is suggested that the consideration of market insights has a more positive impact at earlier stages than at later stages (Troy, Hirunyawipada, and Paswan, 2008; Veldhuizen, Hultink, and Griffin, 2006). Secondly, it is argued that the incorporation of market information in the earliest stages of the NPD process will prevent costs and problems in the later and riskier stages (Koufteros, Vonderembse, and Jayaram, 2005). Therefore, we hypothesize that:

*H5: The link between salesforce integration intensity and new product success is stronger the more intensely salespeople are integrated in the earliest stages of the NPD process.*

*Environmental Turbulence:* Previous works have shown that the effectiveness of information processing activities in the scope of NPD is contingent upon turbulent environments that are characterized by high levels of *competitive intensity* and *market turbulence* (Jaworski and Kohli, 1993; Kirca, Jayachandra, and Bearden, 2005). In case of high competition, market information processing is thought to be especially crucial for quick and adequate reactions to competitive moves (Grewal and Tansuhaj, 2001; Kumar, Subramanian, and Yauger, 1998). Similarly, the processing of superior market insights is imperative in highly turbulent markets where it enables firms to continuously uncover changing customer preferences and to quickly adjust product offerings to match these most current needs (Diamantopoulos and Hart, 1993; Kohli and Jaworski, 1990). Following the above argumentation, we expect that salesforce integration intensity is particularly effective under turbulent environmental conditions.

*H6: The greater the environmental turbulence surrounding new products, the stronger the relationship between salesforce integration intensity and new product success.*

### **3. Methodology**

To obtain the data for testing our conceptual model, we developed an online survey that targeted managers as key informants. Using a commercial manager panel yielded 269 complete and usable questionnaires of managers who were highly knowledgeable about their firm's NPD processes. The majority of respondents were (new) product managers (22.7%), managing directors (18.6%), production managers (12.3%), and marketing managers (11.2%). Following the four steps of formative index construction that have been proposed by Diamantopoulos and Winklhofer (2001), we were able to support the validity of the two formative indices of salesforce integration intensity and new product success. Based on the concept of behavioral market orientation, salesforce integration intensity is conceived as an explanatory combination of the three key market information processing activities: acquisition, dissemination, and use (Kohli and Jaworski, 1990). New product success is characterized by four dimensions that are related to a company's new product success in terms of time, economic viability, market acceptance, and quality (Rodríguez, Pérez, and Gutiérrez, 2008; Gruner and Homburg, 2000). All formative indicators were measured with reflective items on 7-point Likert scales. The constructs of new product advantage and information quality were measured reflectively on the basis of multi-item scales. We calculated the arithmetic mean over the respective items for each of the two dimensions 'competitive intensity' and 'market turbulence', which were subsequently used as indicators for the measurement of environmental turbulence. Finally, we gauged the moderating construct of timing on a 7-point intensity scale for each of the three NPD process phases

(predevelopment, development, commercialization). Table 1a and 1b provide more detailed information with regard to the measurement reliabilities of the constructs under investigation.

**Table 1a: Measurement Reliabilities of Formative Indices**

<b>Formative Index</b>	<b>Formative Indicators</b>	<b>Cronbach's Alpha</b>	<b>AVE</b>	<b>Composite Reliability</b>	<b>Max. Variance Inflation Factor</b>
<b>Salesforce Integration Intensity</b>	Acquisition	.913	.743	.935	2.553
	Dissemination	.920	.759	.940	
	Use	.952	.777	.961	
<b>New Product Success</b>	Time	.929	.778	.946	2.679
	Economic	.906	.780	.934	
	Market	.895	.826	.934	
	Quality	.893	.701	.921	

**Table 1b: Measurement Reliabilities of Mediator and Moderator Variables**

	<b>Cronbach's Alpha</b>	<b>AVE</b>	<b>Composite Reliability</b>
<b>New Product Advantage</b>	.927	.774	.945
<b>Information Quality</b>	.923	.812	.945
<b>Market Turbulence</b>	.759	.672	.860
<b>Competitive Intensity</b>	.861	.706	.906

#### 4. Data Analysis and Results

We tested the hypothesized relationships with partial least squares (PLS) structural equation modeling as PLS is preferable in case of formative construct measurements (MacCallum and Browne, 1993; Ringle, Wende, and Will, 2005). The investigation of the model that contains our main effects between salesforce integration intensity, new product advantage, and new product success explains 53.6% of new product success. Our analyses reveal a significant positive direct relationship between salesforce integration intensity and new product success ( $\beta=.611$ ;  $T=13.455$ ;  $p<.01$ ). In addition, salesforce integration intensity exerts a significant positive impact on new product advantage ( $\beta=.481$ ;  $T=8.525$ ;  $p<.01$ ), which in turn, positively affects new product success ( $\beta=.666$ ;  $T=12.026$ ;  $p<.01$ ). Taken together, these findings support Hypotheses 1, 2, and 3. Following the procedure for testing mediations proposed by Baron and Kenny (1986), we found that new product advantage partially mediates the relationship between salesforce integration intensity and new product success. In support of Hypotheses 4, 5, and 6, our results also demonstrate that higher levels of information quality ( $\beta=.119$ ;  $T=1.805$ ,  $p<.05$ ), salesforce integration in the predevelopment phase of the NPD process ( $\beta=.130$ ;  $T=1.914$ ,  $p<.05$ ), and environmental turbulence ( $\beta=.113$ ;  $T=1.926$ ;  $p<.05$ ) strengthen the effect that salesforce integration intensity exerts on new product success.

As the data for the measurement of both independent and dependent variables stem from the same data source, there is the possibility that an unwanted common method bias would threaten the validity of our results (Podsakoff et al., 2003). We therefore conducted the Harman single-factor test to assess a potential common method bias in our data. The results of the exploratory factor analysis identified 12 factors that showed Eigenvalues greater than 1, and that together accounted for 82% of the total variance. As requested, the strongest factor did not explain the majority of variance (31%). Also, there did not exist an overarching factor in the un-rotated factor loading matrix. Moreover, the single-common-method-factor test showed that the goodness of fit of the single-factor model ( $\chi^2=688.2$ ;  $df=246$ ;  $\chi^2/df = 2.80$ ) was significantly worse than the goodness of fit of the research model including all constructs

( $\Delta\chi^2=576.3$ ;  $\Delta df=184$ ;  $p<.01$ ). These results provide evidence that a common method bias is unlikely to negatively affect the validity of our results (Frazier et al., 2009).

## **5. Discussion and Managerial Implications**

High new product failure rates indicate that the development of successful new products remains a critical challenge for many companies (Clancy and Stone, 2005; Gourville, 2006). Drawing on the RBV, our study adds to the innovation success factor research by identifying salesforce integration as a key driver of new product success. As salesforce insights complement company-internal knowledge with important market insights, firms can use this knowledge advantage for the creation of new products that better meet customer needs and therefore, offer a superior performance than competing products in the eyes of customers. As a consequence, new products are better adopted by the market and impress by an increased economic performance. In order to fully exploit the benefits of salesforce integration, we advise NPD decision makers to keep an eye on the quality of information that is provided by salespeople as low-quality information mitigates the positive effect on new product success. We believe that it is essential that NPD managers clearly advise salespeople regarding the types of information that are considered useful and relevant for developing successful new products. In this context, continuous trainings on questioning and listening skills will increase the proficiency of salespeople in providing high-quality information (Le Bon and Merunka, 2006; Sharma and Lambert, 1994). In addition, we suggest that salesforce insights are accounted for in early phases of the NPD process where they are particularly valuable for the identification of customer requirements and promising product concepts. In this most information-intensive phase, market insights provided by salespeople obviously support the identification of product concepts that have significant potential of success when such concepts materialize as marketable products. Finally, we particularly recommend companies that operate in highly turbulent environments to listen to the voice of their salesforce as their insights are most effective in industries that are characterized by high levels of market turbulence and competitive intensity.

## **6. Suggestions for Further Research**

Although we have clearly identified that salesforce integration represents a key driver of new product success, descriptive analyses of our study show that only 50% of the companies under investigation directly integrate salespeople in their NPD processes. This is in line with previous research that has regarded the salesforce as an underutilized resource of market intelligence (Liu and Comer, 2007; Pass, Evans, and Schlacter, 2004). It is still not very clear which factors prevent firms from leveraging this valuable information source, making the identification of salesforce integration barriers a fruitful area for further research endeavors. One such barrier might be the time and effort that salespeople require to communicate their market insights to firm-internal recipients, leading to a potential conflict with their primary duty of selling products (Le Bon and Merunka, 2006; Liu and Comer, 2007). Thus, we propose that future studies seek to determine the optimal level of time that salespeople should invest in each of these tasks to support their firm's overall product performance outcomes in the best possible way.

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