Supplier satisfaction: Explanation and out-of-sample prediction

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A B S T R A C T

Many firms not only compete for customers, but increasingly compete for suppliers. Supplier satisfaction is a necessary condition for gaining and maintaining access to capable suppliers and their resources in this new competitive environment. This research replicates and extends the previous empirical research on supplier satisfaction. Additionally, this study tests an extended model for direct and indirect procurement, which assesses antecedents as well as consequences of supplier satisfaction. The findings indicate that next to growth opportunities and reliability, profitability of the relationship has a major impact on supplier satisfaction for both direct and indirect procurement. The results also show that supplier satisfaction has a positive impact on awarding the buyer preferred status, ultimately leading to preferential treatment. An additional exploratory analysis suggests the possibility for a hierarchical model consisting of first- and second-tier antecedents of satisfaction, which are particularly useful in direct procurement. Ultimately, the study provides a guide for purchasers to identify the dimensions of satisfaction to manage for satisfactory buyer–supplier relationships, namely perceived growth opportunity, relational behavior, operative excellence and profitability. The application of the new procedure for creating cross-validated, out-of-sample point predictions reinforces the practical relevance of these findings, which indicates a satisfactory prediction of cases outside the modeling sample.

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1. Introduction

In contrast to the classical view of marketing, which assumes a competition for customers, only, research in supplier satisfaction and the preferred customer concept takes the viewpoint of customers competing for capable suppliers. This so-called "reverse marketing" (Leenders & Blenkhorn, 1988, p. 2) recently gains increased attention among supply management scholars (Baxter, 2012). Two main reasons for this phenomenon exist (Schiele, Calvi, & Gibbert, 2012). Firstly, companies, especially in mature markets, reduce their supply base to receive benefits, such as lower transaction costs and larger economies of scale. However, this behavior causes supplier reduction or even supplier scarcity, which can lead to oligopolistic supply market structures (Lavie, 2007; Wagner & Bode, 2011). Secondly, due to increased outsourcing of non-core activities and open innovation initiatives, buying firms are increasingly dependent on their suppliers (Rahmoun & Debabi, 2012; Schiele, 2012).

Therefore, scholars argue that buyers should view the supplier as a key source of competitive advantage and innovation and try to achieve preferred customer status (Schiele, Veldman, & Hüttinger, 2011). However, suppliers have the choice to assign buyers a regular or preferred status (Schiele et al., 2012; Steinle & Schiele, 2008). Buying firms desire to receive preferential treatment over other buyers (Hüttinger, Schiele,

& Schröer, 2014). However, the question that emerges in this context is how to become a preferred customer and receive preferential treatment. A necessary condition for achieving preferred customer status could be supplier satisfaction (Hüttinger, Schiele, & Veldman, 2012).

Supplier satisfaction is the buyer's ability to live up to the expectations of the supplier (Schiele et al., 2012), and the relationship between the buyer and supplier influences this satisfaction (Forker & Stannack, 2000). Satisfaction directly links to the quality of the relationship and to value creation. Christiansen and Maltz (2010) reason that being an "interesting" customer to suppliers assures their attention and loyalty. Accordingly, the buyers who can satisfy the suppliers receive the best resources and ultimately a preferred status over other buyers (Hüttinger et al., 2012).

Still, despite such benefits of supplier satisfaction, research in this field is in its infancy. Just since the last decade authors identified critical antecedents and consequences of supplier satisfaction (Hüttinger et al., 2012). Here, researchers increasingly focus on specific relational factors that constitute supplier satisfaction (Essig & Amann, 2009; Ghijsen, Semeijn, & Ernstson, 2010). Most recently, Hüttinger et al. (2014) empirically tested a new model including eight relational antecedents of supplier satisfaction. They are the first researchers to show statistically through partial least squares (PLS) analyses that three significant key antecedents exist in supplier satisfaction: growth opportunity, reliability and relational behavior of the buyer. Despite this advancement, in their study they acknowledge that "[…] the results can hardly be generalized to all industry settings. […] in other industries, other factors or weights could emerge" (Hüttinger et al., 2014, p. 713).

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Therefore, building on research of Hüttinger et al. (2014), the aims of this paper are: (1) To replicate their study in a new context (i.e., indirect procurement); (2) to further extend their analyses by (a) assessing the importance of supplier satisfaction for the buying firm to receive preferred customer status and ultimately preferential treatment and (b) adding an unexplored new antecedent (i.e., profitability) to increase the model's explanatory power; (3) finally, to apply the most up-to-date PLS analyses methods (i.e., PLS-MGA & PLSpredict) to make an evaluation of both the explanatory as well as the predictive performance of the model in the different contexts. After establishing the research background and research aims, the next section will outline the hypotheses of this study.

2. Hypotheses

2.1. Replication: from direct to indirect procurement

A main distinction of products in supply management occurs between direct procurement (direct materials) and indirect procurement (indirect materials) (Chopra & Meindl, 2007). On the one side, direct procurement includes all purchases that are necessary for a company's production process. These are, for example, raw materials or components of the final product. On the other side, indirect procurement includes everything that a company needs to ensure everyday business, but which is not directly related to the production process. This classification includes services and products, such as cleaning services, office supplies and telecommunication equipment (Chopra & Meindl, 2007).

In a typical firm the expenditure for direct materials accounts for about 60% of the total purchasing expenditure (indirect procurement ~40%), whereas direct materials only account for 20%–40% of all purchasing transactions (de Boer, Holmen, & Pop-Sitar, 2003; Neef, 2001). Additionally, predictability and volumes are normally higher in direct procurement and, therefore, require far fewer purchasing transactions than indirect material procurement (Neef, 2001). Correspondingly, the number of transactions and the processing costs relative to the value of each transaction is higher for indirect than for direct procurement (Chopra & Meindl, 2007). Also, indirect procurement usually consists of more non-standardized items purchased in small orders, a larger number of possible suppliers and a wide range of goods and services (de Boer et al., 2003; Nandeesh, Mylvaganan, & Siddappa, 2015). Additionally, buyers have a tendency to communicate less with indirect-material providers, as companies often distribute these purchases and routines and habits frequently dictate purchasing decisions (Ingram, LaForge, Avila, Schwepker, & Williams, 2007; Mosgaard, Riisgaard, & Huulgaard, 2013).

However, despite the substantial share of indirect procurement in the total purchasing expenditures of companies and its distinctiveness to direct procurement, when looking at research efforts, the emphasis of supply management research has traditionally been on direct procurement, since direct procurement is strategically more relevant for firms (Cousins, 1999; Gebauer & Segev, 2001; Kim & Shunk, 2004; Trent & Monczka, 1998). The few studies assessing indirect procurement mainly focus on automatizing indirect procurement transactions through (e-)systems (Batenburg, 2007; Caniato, Golini, Luzzini, & Ronchi, 2010; Lee, Pak, & Lee, 2004) and not on assessing how to manage buyer–supplier relationships. Correspondingly, the consequences of supplier satisfaction in indirect procurement are uncertain, as is the influence of possible antecedents. This research aims to close this gap. For this purpose, this paper replicates and extends the research of Hüttinger et al. (2014), which has only been applied to direct procurement, in the context of indirect procurement to assess the stability of their findings in this new context. The following paragraphs explain the background of their research to form a hypothesis for replication.

The emphasis of Hüttinger et al.'s (2014) research is on the relational antecedents of supplier satisfaction. Their results support theoretical assumptions that the relational behavior and atmosphere in buyer–supplier relationships are important antecedents to supplier satisfaction (Benton & Maloni, 2005; Forker & Stannack, 2000; Hüttinger et al., 2014; Nyaga, Whipple, & Lynch, 2010). More specifically, they use a mixed-methods approach, including focus group interviews and a survey, to identify and test their new model. They further examine seven relational antecedents of supplier satisfaction, which are the buyer's (1) relational behavior, (2) innovation potential, (3) growth opportunity, (4) reliability, (4) operative excellence, (5) involvement, (6) support and (7) access to contacts. After thoroughly assessing the PLS-based analyses, three significant antecedents emerged: growth opportunity, reliability and relational behavior. This study expects that these findings will be the same in the new context of indirect procurement. When replicating the full model with all seven antecedents in both direct and indirect procurement, this study expects that the perceived growth opportunity, reliability and relational behavior positively influence supplier satisfaction, whereas perceived innovation potential, operative excellence, involvement, support and access to contacts are not significant. This reasoning leads to the first hypothesis.

Hypothesis 1. Growth opportunity (H1a), reliability (H1b) and relational behavior (H1c) have a positive impact on supplier satisfaction.

2.2. Extension: profitability, preferred customer status and preferential treatment

In addition to replicating, this study also elaborates on the research of Hüttinger et al. (2014). As stated previously, the main emphasis of their research is on the relational antecedents of supplier satisfaction. Still, several researchers studying channel relationships stress the difference between economic and social perspectives in satisfaction research. They argue that satisfaction constitutes both economic and non-economic aspects (Geyskens, Steenkamp, & Kumar, 1999; Kauser & Shaw, 2004; Nyaga et al., 2010). Scholars like Ruekert and Churchill (1984) even define satisfaction in channel relationships mainly on the basis of a feeling of reward and profitability. Next to relational factors, factors such as profitability and sales growth influence the satisfaction of exchange partners in business-to-business relationships, according to Kauser and Shaw (2004) and Nyaga et al. (2010). Supporting these general notions from the context of channel relationships, scholars specializing in supplier research also argue that both economical and relational aspects are equally important antecedents of supplier satisfaction (Essig & Amann, 2009). Still, Hüttinger et al. (2014) solely take the supplier's growth opportunity into consideration and exclude the profitability of the relationship in their model. Keeping in line with channel and supplier researchers, next to growth potential, the profitability of the relationship is an important factor for suppliers' perceptions of the relationship (Hald, Cordon, & Vollmann, 2009; Hüttinger et al., 2012; Ramsay & Wagner, 2009). Accordingly, this research includes profitability as an additional antecedent of supplier satisfaction and expects that profitability should have a positive impact on supplier satisfaction. More specifically, next to the previously identified antecedents' growth opportunity (H1a), reliability (H1b) and relational behavior (H1c), the profitability of the relationship should have a positive impact on supplier satisfaction.

Hypothesis 2. The perceived profitability of the relationship has a positive impact on supplier satisfaction.

In addition to an assessment of the antecedent of satisfaction, this study further assesses the consequences of supplier satisfaction. As stated earlier, suppliers have the choice to assign buyers a regular or preferred status (Schiele et al., 2012; Steinle & Schiele, 2008). Hüttinger et al. (2012) argue that supplier satisfaction is a necessary condition for achieving such preferred customer status. Scholars