Power and interdependence in buyer supplier relationships:
A purchasing portfolio approach

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Abstract

Power and interdependence are generally considered to be important concepts for understanding buyer–supplier relationships. Yet, empirical research on power and interdependence in buyer–supplier relationships is still limited. Power and interdependence issues also play an important role in Kraljic’s portfolio approach, which is increasingly used by purchasing practitioners for managing different supplier relations and developing appropriate purchasing strategies. In this paper, the concepts of power and interdependence have been quantified for each quadrant of the Kraljic portfolio matrix, using data from a comprehensive survey among Dutch purchasing professionals. Several hypotheses have been tested and the findings largely confirm the theoretical expectations. The observed supplier dominance in the strategic quadrant of the Kraljic matrix is a notable finding, which indicates that even satisfactory partnerships are dominated by the supplier. Therefore, the presumed power symmetry of buyer–supplier relationships in the strategic quadrant seems no longer valid.

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1. Introduction

Purchasing portfolio models have received much attention in recent literature about professional purchasing. Not only did Kraljic’s seminal paper in the Harvard Business Review in 1983 have a broad influence on professional purchasing (see the evidence of Gelderman, 2003; Kamann & Bakker, 2004), it has also inspired many academic writers to undertake further research into portfolio models (e.g. Bensaou, 1999; Croom, 2000; Dubois & Pedersen, 2002; Dyer, Cho, & Chu, 1998; Gelderman & Van Weele, 2002, 2003; Lilliecreutz & Yderskog, 1999; Nellore & Soderquist, 2000; Olsen & Ellram, 1997; Wagner & Johnson, 2004; Wynstra & ten Pierick, 2000; Zolkiewski & Tumbull, 2002).

Kraljic’s model classifies a firm’s purchased intermediate goods into four categories on the basis of two dimensions: (1) profit impact and (2) supply risk. Recent adaptations and refinements of Kraljic’s model have led to alternative portfolio models using other classification dimensions (e.g. Bensaou, 1999; Olsen & Ellram, 1997; Van Stekelenborg & Kornelius, 1994). However, the fundamental assumption of all portfolio models seems to be the occurrence of differences in power and dependence between buyers and suppliers (Dubois & Pedersen, 2002). Kraljic (1983) does not explicitly deal with issues of power and dependence. However, some of his recommendations obviously refer to the power structure (‘exploit power’). Others are aimed at reducing the dependence on suppliers (‘diversify’). Moreover, Kraljic (1983: 112) stated that the general idea of the portfolio approach is to “minimize supply vulnerability and make the most of potential buying power”. Therefore, power and dependence play a significant part in the Kraljic approach.

Although power and dependence are generally considered important for the understanding of buyer–supplier relationships (e.g. Cox, 2001; Frazier & Antia, 1995), it seems that they are still often overlooked factors in conceptual and empirical studies (e.g. Cox, 2001; Maloni & Benton, 2000). Little is known about the exact way in which power and dependence in buyer–supplier relationships enter the Kraljic matrix (Dubois & Pedersen, 2002; Gelderman & Van Weele, 2003). Moreover, the few portfolio models that do discuss power and dependence issues in relation to portfolio matrices
generally focus on the strategic quadrant only (Wagner & Johnson, 2004). Buyer–supplier relationships in this quadrant can be characterized as strategic partnerships. However, many studies have acknowledged that not all supplier relationships can or should be strategic partnerships (e.g. Gadde & Snehota, 2000; Wagner & Johnson, 2004). In fact, firms are found to benefit from entering into a variety of relationships with different suppliers (e.g. Bensaou, 1999; Lilliecreutz & Ydreskog, 1999). Therefore, undertaking research into power and dependence in all four quadrants of the matrix for all relationship types is critically important.

The aim of this paper is to empirically test hypotheses that can be deduced from the literature on power and dependence with respect to all quadrants of the Kraljic purchasing portfolio matrix. In order to do this we have defined the concepts of power and dependence in terms of buyer’s and supplier’s dependence. Subsequently, we have developed constructs for buyer’s dependence as well as supplier’s dependence. The empirical analysis is founded on a survey among 250 purchasing professionals. On the basis of the survey data we have assessed power and interdependence in buyer–supplier relationships for all quadrants of the Kraljic matrix. In general terms this study contributes to a better understanding of the (perceived) power and interdependence in buyer–supplier relationships.

The organization of the paper is as follows. In Section 2 a brief overview of the Kraljic approach is given and, on the basis of recent literature, we will identify hypotheses with respect to power and dependence for each quadrant. In Section 3 the survey design and the constructs for the key variables are presented. The results of the survey are shown in Section 4. Section 5 will conclude and give suggestions for further research.

2. Conceptual background

2.1. The Kraljic matrix

Kraljic (1977, 1983) introduced a comprehensive portfolio approach as a tool for professional purchasers. With the help of the portfolio matrix, professional purchasers could optimize the use of capabilities of different suppliers (Nellore & Soderquist, 2000) and thereby effectively manage suppliers. Currently, Kraljic’s matrix is widely used by purchasing professionals. Especially in Western Europe the Kraljic approach has received large-scale recognition and has attained an increasing degree of adoption. Lamming and Harrison (2001) stated that Kraljic’s matrix remains the foundation for purchasing strategies of many organizations across sectors. In a survey of Dutch companies Boodie (1997) found that 44% of the responding purchasing managers used the Kraljic matrix for formulating purchasing strategies. No less than 80% of industrial companies that operate on a mass production basis use it. Several years later, Bos, Van der Heijden, Goedhart, and Notermans (2005) reported in a similar study that portfolio usage was increased to 61%. In the course of time the Kraljic approach has entered many textbooks on purchasing and supply management. Gradually Kraljic has gained acceptance in other countries, notably in the USA, Canada and Northern Europe.

Kraljic’s approach includes the construction of two portfolio matrices. The first matrix classifies a firm’s purchased products on the basis of two dimensions: profit impact and supply risk. Each dimension has two possible values: ‘low’ and ‘high’. The resulting 2 × 2 matrix consists of four quadrants (see Table 1). Depending on the category, Kraljic identifies certain ‘main tasks’ for the firm in the interaction with its supplier. He also identifies the required information and the decision level in organizations per category.

The main purpose of Kraljic’s approach is to identify strategic items. The second Kraljic matrix focuses on this category. This matrix shows the relative power position of the company in the corresponding supply markets. Three general purchasing strategies are distinguished, depending on the balance of power in the buyer–supplier relationship: exploit (in case of buyer dominance), balance (in case of a balanced relationship), and diversify (in case of supplier dominance).

Note that Kraljic does not pay much attention to strategic aspects of product categories other than the strategic items. Other scholars have filled this gap (e.g. Bensaou, 1999; Elliott-Shircore & Steele, 1985; Lilliecreutz & Ydreskog, 1999; Olsen & Ellram, 1997; Syson, 1992; Van Weele, 2000). They refined the original matrix and elaborated on the ‘main tasks’ for bottleneck, non-critical and leverage items. In addition, they formulated strategic recommendations, resulting in one overall purchasing strategy for each cell/category.

Although power and interdependence issues underpin these purchasing strategies, they are not explicitly discussed in any of the studies referred to above. Yet, the purchasing strategies for each of the Kraljic quadrants give rise to hypotheses on the importance of power and dependence in the Kraljic matrix. In Section 2.3 we will revisit these strategies and connect them to the power and interdependence balance.

2.2. Power and interdependence

Firms always depend, to varying extents, on their trading partner. Early studies on dependence focused on the effects for the buyer of its dependence on the supplier, without taking into account the supplier’s dependence (e.g., El-Ansary & Stern, 1972). More recent studies have incorporated dependence from the perspective of the buyer as well as the supplier (Buchanan, 1992; Geyskens, Steenkamp, Sheer, & Kumar, 1996; Kumar, Sheer, & Steenkamp, 1995). In other words, dependence is mutual.

Mutual dependence and power are closely related concepts. The buyer’s dependence on the supplier is a source of power for

<table>
<thead>
<tr>
<th>Profit impact</th>
<th>Supply risk</th>
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<tbody>
<tr>
<td><strong>High</strong></td>
<td><strong>Low</strong></td>
</tr>
<tr>
<td>Leverage items</td>
<td>Strategic items</td>
</tr>
<tr>
<td>Exploitation of purchasing power</td>
<td>Diversify, balance, or exploit</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td><strong>High</strong></td>
</tr>
<tr>
<td>Non-critical items</td>
<td>Bottleneck items</td>
</tr>
<tr>
<td>Efficient processing</td>
<td>Volume assurance</td>
</tr>
</tbody>
</table>

Table 1
The Kraljic purchasing portfolio model (modified from Kraljic, 1983: 111)
<table>
<thead>
<tr>
<th>متن کامل مقاله</th>
<th>دریافت فوری</th>
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