

Does customer portfolio analysis relate to customer performance? An empirical analysis of alternative strategic perspective

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Keywords

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Abstract

An important managerial task in business-to-business marketing is the strategic management of supplier-customer relationships, which is concerned with a portfolio of relationships. A review of existing customer portfolio theories reveals that: most of the portfolio dimensions have not yet been empirically validated; the theoretical base of relevant dimensions may be conceptually inadequate in terms of strategy analysis; and the link between customer portfolio dimensions and customer performance has not yet been examined. Attempts to address these gaps in the literature by studying customer portfolios of large UK-based banks. The main results indicate that the common industrial organization perspective may only give a short run picture of customer performance. Suggests that long run positioning value of a customer portfolio can be accounted for by resource-based analysis and strategic approach to customer portfolio analysis. Concludes with a discussion of the results and implications.

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An executive summary for managers and executive readers can be found at the end of this article

Introduction

Customer portfolio analysis is a concept of business-to-business marketing used for analyzing supplier-customer relationships in order to help managers allocate scarce organizational resources (Ford, 1997) and ensure long-term profitability of customer relationships (Kotler *et al.*, 1996). Customer portfolio models generally propose that the optimal composition of customer relationships is determined by assessing the relative attractiveness of customer relationships against the relative competitive position of the selling company (e.g. Fiocca, 1982; Campbell and Cunningham, 1983). Other researchers concentrate on individual strategic variables such as cost to serve customers and/or profitability of customer relationships (see Shapiro *et al.*, 1987; Krapfel *et al.*, 1991). The strategic variable or customer portfolio dimension may correspond to an independent variable or form part of a composite dimension (Pardo and Salle, 1995). The relevant subvariables of the composite dimension suggested by a particular customer portfolio model depend mainly on customer behaviour, the nature of the product, the industry, the characteristics of the company, and the preference of its management (Wind and Mahajan, 1981).

The guiding principle of different customer portfolio dimensions is often based on the notion that environmental forces (e.g. market growth, competition, technological factors) are uncontrollable or strategic decision is based on adapting the company to its environment. This line of reasoning is predominantly influenced by industrial organization (IO) economics theory, that is, a firm's position in the industry determines its competitive advantage (Porter, 1980). For example, research shows that industry structure explains some performance differences across industries (Schmalensee, 1985; Rumelt, 1991; McGahan and Porter, 1997; McGahan, 1999). The influence of IO perspective has been a useful starting point for the development of early customer portfolio models.

However, early customer portfolio models are lacking behind the development of a dominant resource-based view (RBV) theory of the firm in the strategy literature. The RBV focuses on adapting the environment to the company, and differential stocks of resources and capabilities as the basis for explaining firm performance (Wernerfelt, 1984; Peteraf, 1993). Marketing scholars have cautioned against the deterministic approach of IO perspective and its overemphasis on environmental forces (Jüttner, 1999; Eng, 2002). In addition, the long-term nature of business-to-business relationships demands explicit recognition of strategic or long run positioning value of the array of customer relationships in a portfolio as opposed to short-run profitability. Such a strategic approach may account for the long-term profitability of IO perspective and resource advantage of the customer portfolio. Existing customer portfolio models have not yet examined the integration of resources required for both short- and long-run positioning of the customer portfolio. Kotler *et al.* (1996) note the importance of a long-term view of buyer-seller relationships in business markets. These views of resource advantage and strategic perspective of customer portfolios may provide fruitful rewards to both marketing academics and practitioners. Yet, little is known about the effects of different strategic perspectives of customer portfolio dimension on customer performance.

The present study addresses the above gaps by empirically examining the link between customer portfolio dimensions and customer performance in the context of large UK-based banks.

Specifically, the main contributions are to:

- provide empirical evidence of the validity of common customer portfolio dimensions;
- integrate and examine the RBV and strategic approach to IO perspective for customer portfolio analysis; and
- explore the relative strength of the impact of different strategic perspectives on customer performance.

These contributions are accomplished by conceptualizing on and integrating different theoretical perspectives, empirical research, and in-depth study of factors used by banks in

evaluating customer firms with which they wish to form successful relationships.

The present study extends customer portfolio research by embracing an empirical approach and striving for validation of strategic dimensions from the point of view of the selling company. The choice of variables for empirical analysis is based on an extensive review of existing customer portfolio models as well as observations of business practice. Of particular relevance will be the usefulness and validity of customer portfolio variables used and whether the variables help explain customer performance. Customer performance is concerned with the overall desirability of the customer account with respect to relevant customer portfolio dimensions from the selling company's perspective.

The remainder of the article is organized as follows. The next section provides a review of existing customer portfolio models in order to identify common variables and/or theory used for analyzing supplier-customer relationships. This is followed by discussion of studies that show the link between strategy theories and firm performance. In doing so, hypotheses of the relationships among strategic perspectives and customer performance are put forward. The method section describes the study sample and data analysis. The article concludes with a discussion of the results and implications.

Reviewing models of customer portfolio analysis

Customer portfolio development and analysis is a key managerial task of the marketing function in business-to-business marketing (Turnbull and Valla, 1986). The concept of customer portfolio analysis is compatible with the interaction approach that integrates and describes the interplay of properties involved in the interaction between a supplier and customer in business markets (a detailed description is given by Hakansson (1982)). This concept encourages the analysis of a supplier's own needs and requirements from the proposed relationship before deciding on the degree of commitment of resources in the light of these objectives. It focuses on the interdependencies among the various management decisions, and

emphasizes an integrated approach to the management of the company's customer relationships.

The strategic variables of existing customer portfolio models have derived from either product portfolio analysis or been generated from a specific context of its application. As a result of this, there is little consensus as to the pertinent variables against which to analyze a customer portfolio. Some scholars argue that it is more desirable to customize portfolio analyses to allow idiosyncratic elements to be considered by management (Wind and Mahajan, 1981) or to integrate the dimensions of the various models to take advantage of their unique capabilities (Wind *et al.*, 1983). While the type of strategic variables used for the analysis may depend on the supplier's objectives, portfolio decisions are multi-functional and interdependent (Turnbull and Valla, 1986; Turnbull, 1990).

Table I illustrates in a summary form the common variables recommended and/or used in customer portfolio development and analysis. Previous customer portfolio models focus on the analysis of the cost-to-serve individual

customers, relative market share, market growth and differentiation. But there is not yet empirical analysis of the link between the strategic perspectives adopted for customer portfolio analysis and customer performance. This is partly due to the difficulty of making substantive generalization from the majority of company-specific case studies of previous research. In addition, most of the customer portfolio variables have not been empirically developed with the exception of Campbell and Cunningham's (1983) model. The common composite dimensions suggested by previous customer portfolio models are competitive strength and industry attractiveness. For instance, relative market share is used for relating the firm to its competitors (see e.g. Fiocca, 1982; Campbell and Cunningham, 1983). It can be noted that competitive positioning of the selling company's resources and/or selection of customers is mainly based on the analysis of industry characteristics.

As the preceding suggests, the IO perspective has a dominant influence on the strategy analysis of customer portfolio development. The IO theory, also known as the structure-

Table I Past studies on customer portfolio models

Customer portfolio models ^a and their dimensions	Past empirical studies	Theoretical foundations for strategy development
Fiocca (1982) Ease in managing account ^b Importance of account ^b Business attractiveness ^b Buyer-seller relationship ^b	Yorke and Droussiotis (1994) Eng (1999)	Industrial organization economics
Campbell and Cunningham (1983) Life cycle classification ^b Power balance ^b Growth rate and market share	Campbell and Cunningham (1983) Eng (1999)	Product life cycle theory Porter's (1980) five forces framework (power balance analysis) Experience curve concept (e.g. BCG matrix)
Shapiro <i>et al.</i> (1987) Cost to serve ^b Net price (sales revenue)	Turnbull and Zolkiewski (1995) Eng (1999)	Industry determinants (e.g. profitability)
Krapfel <i>et al.</i> (1991) Relationship value ^b Interest commonality ^b Perception of relative power balance ^b	Turnbull and Zolkiewski (1995)	Relational contract model (MacNeil, 1980) Transactional cost analysis approach (Williamson, 1975)

Notes: ^aThere are other customer portfolio models that do not accommodate interactions or relationship development between buyers and sellers such as Hartley's (1976) Standard Industrial Classification Grouping, Smackey's (1977) three stage model, and Canning's (1982) customer value analysis; ^bDenotes composite dimension comprised at least two subvariables

conduct-performance paradigm, states that industry structure dictates conduct, which in turn determines performance (Porter, 1980). In common with the IO theory, much of the emphasis of existing customer portfolio models is about the environment. Similarly, the interaction approach is mostly characterized by factors concerning the environment and their influence on the buyer-seller relationship. Examples of structural determinants include bargaining power, cost leadership, position in the marketplace and market structure. The perspective of IO theory provides insights into the determinants of industry structure on performance, particularly in the short run.

The present study proposes that customer portfolio development and analysis should not only examine the short run determinants of performance, but also the resource advantage and long run positioning value of the customer mix. Figure 1 provides a graphic overview of the link between strategic theory and firm performance. This conceptual framework provides the background to the variables examined in this study. Current customer portfolio models do not analyze the underlying

resource endowments that allow the supplier and customer to interact efficiently in a relational exchange. Both firm-specific resource differences and inter-industry differences have been noted as important determinants of strategy and performance (Henderson and Mitchell, 1997). Consistent with the nature of relationship development in business marketing, customer portfolio development and analysis should adopt a strategic approach to achieving successful long-term supplier-customer relationships. While there are other strategic variables concerned with the analysis of supplier-customer relationships (e.g. customer life cycle), they follow the same deterministic logic of the IO perspective. The dimensions of customer life cycle, strength of the supplier-customer relationship and ease/difficulty of managing customer accounts did not survive the preliminary scale purification procedure and therefore were not included as a measurement component of the conceptual framework in this study.

Figure 2 depicts the conceptual framework of this study that integrates the influential IO perspective with RBV, drawing on a strategic

Figure 1 An overview of key constructs relevant to firm performance

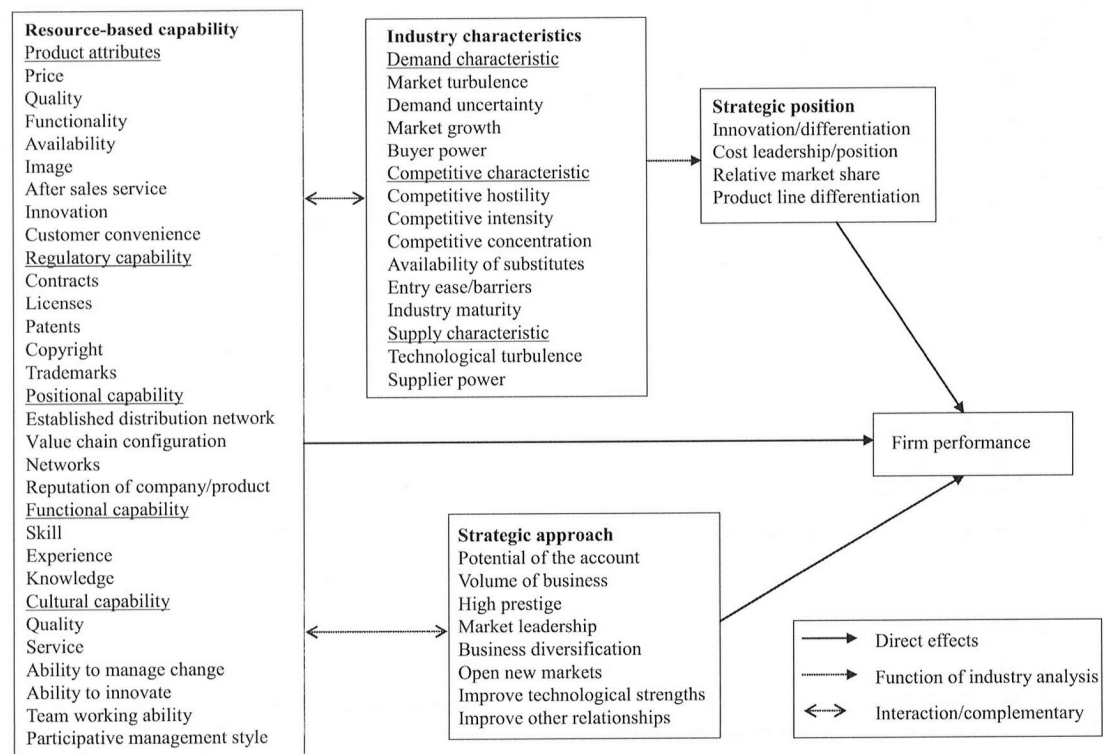
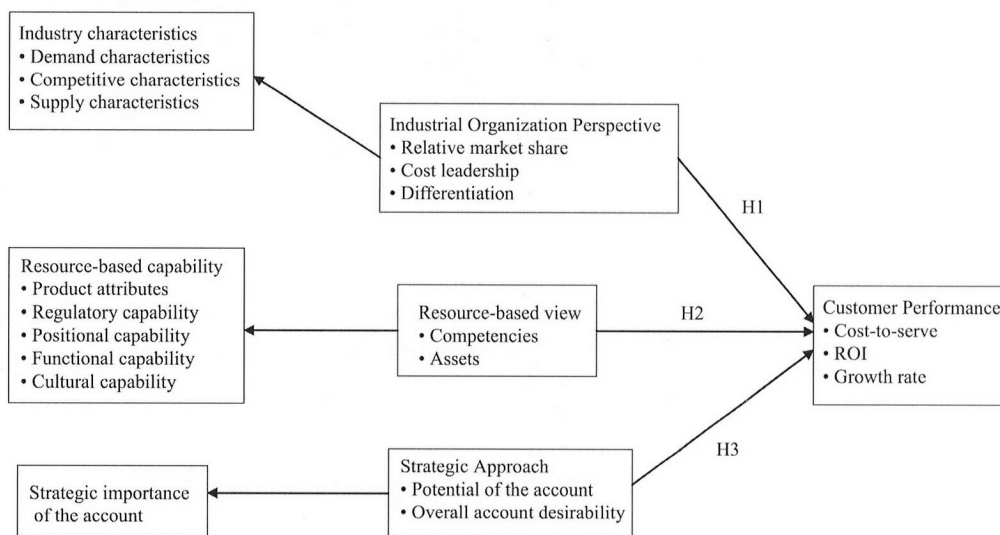


Figure 2 Model overview (from the perspective of the selling company)

approach to customer portfolio analysis. This framework extends the existing customer portfolio concept by exploring alternative strategic perspectives for customer portfolio development and examining the link to customer performance. Although various researchers have studied the link between IO and RBV, and firm performance (e.g. Rumelt, 1991; Teece *et al.*, 1997), they often focus on individual dimensions. To date, work on combining strategic perspectives and examining their influence on customer performance has not as yet been the subject of extensive empirical investigation. In the following sections, the link between the strategic dimensions and performance is discussed.

The link between industry characteristics and firm performance

There is a long tradition of empirical research associated with the IO theory as regards the identification of the elements of industries contributing to firm performance (for reviews, see Scherer, 1980). For example, a large set of environmental factors have performed differently in different studies but the factors examined are difficult to dispute (see Ravenscraft, 1983). Porter's (1980) popular five forces model provides a collective analysis of industry forces that determine industry profitability. The five forces are concerned with

the various aspects of an industry structure: bargaining power of buyer and supplier, substitutes, degree of competition and threat of new entrants. These variables have been examined as a composite dimension of industry attractiveness in customer portfolio development and analysis. IO economics has proven extremely useful to researchers of strategy content in providing a basic theoretical perspective on the influence of market structure on firm strategy and performance (Schmalensee, 1985; Hansen and Wernerfelt, 1989). It has also produced many conceptual insights (e.g. concepts of barriers to entry and mobility) which can be usefully applied to the marketing strategy area (Varadarajan *et al.*, 1992; Zinkhan and Pereira, 1994).

While research on the elements of industries from the IO perspective purports to explain firm performance, the focus is on short-term performance of firms rather than the long run positioning value of a firm's portfolio of customer relationships. In addition, no empirical investigation has been carried out to examine the influence of industry variables on customer performance. Existing customer portfolio models implicitly assume that empirical evidence from the study of firm level performance can be moved to customer level. Previous customer portfolio models have emphasized the relevance of their strategic dimensions without examining the implications for customer performance (e.g. Campbell and

Cunningham, 1983). Although Shapiro *et al.* (1987) and Krapfel *et al.* (1991) propose conceptual models for analyzing the cost-to-serve individual customers and the value of customer relationships, the link between strategy and customer performance had not been empirically examined. Thus, although there is empirical support for the relationship between industry structure and firm performance, the relationship with customer performance may differ due to the focus on customer level analysis.

According to Porter (1980), firms' actions, by triggering imitation, can positively or negatively influence the structure of an industry without leading to competitive advantage. In other words, firm performance is determined by industry structure and the firm's strategic position in the industry. Strategic position is primarily based on three generic strategies: overall cost leadership, differentiation and focus, which is a function of the number of product markets served and the degree of vertical integration. Past studies have reported equivocal results for the link between strategic position and firm performance for differentiation strategy (Pelham and Wilson, 1996) and cost position (Pelham and Wilson, 1996; Slater and Narver, 1994). Empirical results more consistently support the proposition that focus – measured as relative market share (Narver and Slater, 1990; Pelham and Wilson, 1996; Slater and Narver, 1994) or level of resources (Gatignon and Xuereb, 1997) – has a positive impact on firm performance. The emphasis on market share is evident in most part of the analysis suggested by existing customer portfolio models.

However, the three generic strategies ignore the fact that all markets are heterogeneous and thus, a non-segmented strategy is inevitably suboptimal (Wind and Robertson, 1983). Hatten and Schendel (1977) in their studies, demonstrated the existence of structural heterogeneity within industries. They add that the focus on generic strategies can serve as an obstacle to creativity and can obscure the subtlety of most successful strategies. Recently, Hawawini *et al.* (2003) conclude from their review of past studies that industry effects do not matter much with respect to a firm's performance. In addition, the static

consideration of cost position does not mirror the nature of relationship development in business markets (see Miller and Friesen, 1983; Miller, 1988). Consistent with the IO theory, it can be hypothesized that:

- H1. Customer performance will have a positive association with the industry attractiveness.

The link between resources and firm performance

While IO perspective to strategy has addressed industry determinants of competitive advantage, there is lack of analysis of the firm's internal resources. Resources are defined as those tangible (or intangible) assets that are tied semi-permanently to the firm (Maijor and Witteloostuijn, 1996). Wernerfelt (1984) proposes the resource-based theory of the firm which conceives the firm not through its activities in the product market but as a unique bundle of tangible and intangible resources (e.g. brand names, in-house knowledge of technology, skilled personnel, trade contracts etc.). The resource-based theory views industry structure as reflecting efficiency outcomes rather than market power. In this tradition, differences in performance tend to signal differences in resource endowments. The resource-based theory recognizes the importance of unique, difficult-to-imitate resources in sustaining performance. It seeks to identify the resources that may provide firms with a sustainable competitive advantage (e.g. Amit and Schoemaker, 1993; Barney, 1991; Peteraf, 1993).

While strategic management research has shown that resources and capabilities are sources of competitive advantage, little is known about the role of resources in customer portfolio development and analysis. Empirical research into the sources of advantage has begun to point to organizational capabilities rather than product market positions or tactics as the enduring sources of competitive advantage (Rumelt *et al.*, 1991; Teece *et al.*, 1997). Empirically, numerous studies have attempted to measure a firm's resources and capabilities, and then to correlate these measures with a firm's performance (e.g.

Robins and Wiersema, 1995; Henderson and Cockburn, 1994; Makadok, 1999; Barney and Arikan, 2001). These studies show that firms that build their strategies on path dependent, causally ambiguous, socially complex, and intangible assets outperform firms that build their strategies only on tangible assets. It is generally suggested that persistent firm heterogeneity in terms of resource endowments arises because of barriers to imitation (Rumelt, 1991), and firms' inability to alter their accumulated stock of resources over time (Carrol, 1993). Thus, sustained profits are regarded as a return to unique assets owned and controlled by the firm.

Literature about the resource-based theory has, for the most part, been process oriented or concerned with issues of strategy implementation (Grant, 1991). Since the RBV examines an organization's resources at the firm level, the resources allocated in a supplier-customer relationship could be unique. For instance, two companies in a business relationship could access, exchange, develop and combine their heterogeneous collections of resources. Hakansson and Snehota (1995) note that as a general rule of business-to-business exchange some resources are exchanged and transferred between the companies; others are accessed and reciprocally used in other ways. The implication of the nature of this exchange is that superior customer performance in portfolio management may stem from unique assets tied to the supplier-customer relationship. With the exception of Hall's (1993) and Barney and Griffins' (1992) RBV frameworks, there is comparative neglect of studies on normative frameworks. Hall's framework distinguishes between assets and capabilities (see Figure 1). It has not been examined in terms of the association between resource capability and customer performance:

H2. Customer performance will have a positive association with the resource advantage of the customer portfolio.

The link between strategic approach and firm performance

The preceding section suggests that to account for the relationship between strategic position

and customer performance the long-term cost positioning of customer mix needs to be considered. In this study, the concept of strategic approach has been used to refer to strategic predisposition and long-term view of customer performance. This is in line with the nature of strategic orientation that has been variously described as strategic fit, strategic predisposition, strategic thrust, and strategic choice (Morgan and Strong, 1998). It is also compatible with the RBV which recognizes the nature of resource accumulation and path dependence resource competency. For example, the development of supplier-customer relationships often requires substantial investment of strategic resources and success of the relationships depends on ongoing activities (Hakansson and Snehota, 1995). A strategic approach suggests that with a long-term view of the resources such as capabilities, competitive position and cost implications of customer relationship development, an organization can enhance its performance (see Porter, 1991).

The concept of strategic approach focuses on strategic predisposition rather than the broad treatment of strategic orientation. The latter has not been well established due to different definitions and treatments of the construct in the literature (Morgan and Strong, 1998; Noble *et al.*, 2002). Also, strategic orientation can be defined as a multidimensional construct that captures an organization's relative emphasis in understanding and managing the environmental forces acting on it (Gatignon and Xuereb, 1997). In this view, strategic orientation encompasses customer, competitor and product orientations. Empirical results provide support for the relationship between strategic orientation and firm performance (Han *et al.*, 1998; Gatignon and Xuereb, 1997). In order to consider the long-term positioning of customer performance, a strategic approach must be examined within the context of customer portfolio analysis. On reviewing existing customer portfolio dimensions, it is possible to identify and examine the strategic approach of customer portfolio development and analysis by using the dimension of strategic importance of account (Fiocca, 1982). While the importance of the strategic approach has been recognized, work to date remains conceptual and/or limited to operationalization

of the construct (e.g. Eng, 1999). The direct relationship between strategic approach and customer performance has not yet been examined. Thus:

- H3.* Customer performance will have a positive association with the long-term value of the customer portfolio.

Methodology

To examine these hypotheses, the present study chose a single industry setting of large commercial UK-based banks in London. A total of 17 banks were approached and they accounted for more than half of the banking business in the UK. This approach allows performance consequences to be considered in the same competitive environment and avoids inter-industry effects that could confound the results. The financial services industry is an interesting context given the importance of corporate accounts, intense competition in a mature market, and rent-producing strategic assets such as patents, knowledge services and other unique advantages.

A total of nine banks were prepared to participate in the study on the condition that their identity would not be disclosed in any publication. Non-response bias was not a problem because the banks operate in the same geographic location and the study focused on a single corporate banking division and examined portfolios of large customers (e.g. national and/or multinational companies) of the banks.

The unit of analysis for this study is a specific supplier-customer relationship. While it may be conceptually appealing to collect data from both the supplier's and customer's perspective, this research analyzed customer performance from the supplier's vantage point. In this study, individual customer accounts were examined from the selling company's perspective for the purpose of customer portfolio management.

The present study used a standard questionnaire guide based on customer portfolio variables identified in Figure 1. Items of the questionnaire are presented in Table II. The wording of scale items and directions and other survey procedures was refined on the basis of a small pilot study with 11 senior executives prior to the actual study. As

indicated earlier, several customer portfolio dimensions were removed from the analysis due to poor reliability results. In general, items reported in previous research were used and measured on five-point Likert scales.

Personal in-depth interview technique was employed to collect data specific to customer portfolios of the banks. A letter explaining the purpose of the study was first sent to chief executive officers (CEOs) or managing directors of the sample population. This was followed up with telephone calls to assure anonymity and provide further information about the study. Research access was established through CEOs, and a snowball technique was used to contact relevant managers with knowledge of specific customer portfolio dimensions.

A final sample of 225 supplier-customer relationships was examined in this study. This sample comprised one customer portfolio of large corporate customers from each bank. The sample size cannot be determined by statistical sampling technique because it depends on the number of corporate customers managed by individual banks. Also, the number of large customers in a portfolio is relatively small (e.g. ranging from 15 to 25) due to the substantial amount of resources required to manage large accounts and the limited number of large accounts in the industry. The availability of data at an individual level means that the customers were considered important to the banks.

Measures

The relationship between the various customer portfolio dimensions and customer performance was examined using multiple, objective, and subjective measures. As the descriptions that follow indicate, the majority of measures were drawn from the literature and examined in the context of the financial services industry.

Dependent variables

Customer performance was measured using multiple indicators. This is not only because of

Table II Scales, items and loadings of exploratory factor analysis on customer portfolio variables

Factors and items	Loadings
The following criteria were calculated and measured on five-point Likert scales with 1 being anchored at "very unfavourable performance" and 5 being anchored at "very favourable performance"	
<i>Customer performance</i> (% of variance = 15.951; Eigenvalue = 3.287)	
<i>Net profit</i> of individual customers was estimated by deducting both direct and indirect cost-to-serve customer from sales revenue. Since data on indirect costs may not be readily available, costs were apportioned based on contribution of sales revenue to relevant cost centres	0.751
<i>Return on investment</i> (calculated by dividing gross profit against total assets employed)	0.672
<i>Growth rate</i> was examined in terms of sales growth and/or growth of the customer's business	0.744
<i>Industrial organization perspective</i> (percentage of variance = 14.715; Eigenvalue = 2.761)	
The following scale items were measured on five-point Likert scales with 1 being anchored at "strongly disagree" and 5 being anchored at "strongly agree"	
To what extent do the following statements reflect the customer's operating business environment?	
<i>Demand characteristic</i>	
The demand of customer's business is very high	0.601
Market turbulence is very low	0.636
Demand uncertainty is very low	0.621
The market growth of customers' business is very good	0.749
The buyer power is not hindering the management of supplier-customer account	0.608
<i>Competitive characteristic</i>	
There is little competitive hostility in the market of the customer	0.648
Competition is not intense in the customer's business environment	0.793
There is low competitive concentration	0.620
There is low availability of substitutes of the customer's business	0.637
Ease of entry to the customer's business is low	0.784
There is high barrier to the customer's business	0.713
The industry of the customer's business is growing	0.619
<i>Supply characteristic</i>	
There is low technological turbulence	0.626
We have good bargaining power over the customer's business in the marketplace	0.795
<i>Strategic position</i>	
We assess our competitive position based on the relative market share of customer's business <i>vis-à-vis</i> competition	0.752
We allocate our scarce organizational resources in terms of the of cost and margin of customer's business	0.781
We develop differentiation strategies for product lines and services based on customer's operating business environment	0.725
<i>Strategic importance of the account</i> (percentage of variance = 10.361; Eigenvalue = 2.492)	
The following scale items were measured on five-point Likert scales with 1 being anchored at "strongly disagree" and 7 being anchored at "strongly agree"	
The customer account has a very high potential	0.850
The customer's volume of business is very significant to us	0.793
The customer account has a very high prestige	0.613
The customer is the leader in the market	0.793
The customer has a diversified business that could create further opportunities for us	0.602
The customer business will open new markets for us	0.672

(continued)

Table II

Factors and items	Loadings
The customer will improve our technological strength	0.656
The customer will improve our relationships with other business relationships	0.648
<i>Resource-based capability</i> (percentage of variance = 12.876; Eigenvalue = 2.371)	
The following scale items were measured on five-point Likert scales with 1 being anchored at "strongly disagree" and 5 being anchored at "strongly agree"	
<i>Product attributes</i>	
Companies have sustainable competitive advantage when they consistently produce products and/or delivery systems with attributes which correspond to the key buying criteria for the majority of the customers in their targeted market	
We regard the prices of our products or services as very competitive for the customer	0.601
We consistently produce products of high quality for the customer	0.681
We consider our products or services playing important functions in the customer's business	0.643
We have good availability of products or services for the customer	0.612
We consider the image of our products or services as very good for the customer	0.630
We provide very good after sales service for the customer	0.725
We regard ourselves as innovative in terms of the range of our products or services for the customer	0.709
We are seen as providing very good customer convenience for the customer	0.682
<i>Regulatory capability</i> (this results from the possession of legal entities such as intellectual property rights, contracts, trade secrets, etc.)	
We have secured very good business contracts with the customer	0.701
We have exclusive licences for products or services we offer to the customer	0.619
We have highly regarded business patents for products or services we offer to the customer	0.635
We have copyright of products or services that our competitors cannot sell to the customer	0.605
We have trademarks that are regarded as competitive advantage to the customer's business	0.652
<i>Positional capability</i> (this is a consequence of past actions and decisions, e.g. have produced a certain reputation with customers, a certain configuration of the value chain, etc. In some cases the defendability of one's position may reside in the length of time it would take a competitor to achieve one's position)	
The distribution network for the products or services we offer to the customer is very established	0.703
The value chain configuration for delivering product or services to the customer is very superior compared to our competitors	0.742
The networks of relationships of our organization are very beneficial to the customer	0.795
The reputation for the products or services we offer to the customer is very good	0.683
<i>Functional capability</i> (this relates to the ability to do specific things; it results from the knowledge, skill and experience of employees, and others in the value chain such as suppliers, distributors, stockbrokers, lawyers, advertising agents etc.)	
We possess skill that the customer regards as key to its business operations	0.852
We have experience that the customer regards as key to its business operations	0.816
We possess knowledge that the customer regard as key to its business operations	0.781
<i>Cultural capability</i> (this applies to the organization as a whole. It incorporates the habits, attitudes, beliefs and values, which permeate the individuals and groups which comprise the organization)	
We have a culture of high quality standards for the services we offer to our customers	0.680
We are known for providing very good service to our customers	0.679
We regard our ability to manage change as key to the customer	0.641
We regard our ability to innovate as key to the customer	0.705
We regard our team working ability as key to the customer	0.711
We regard our participative management style as key to the customer	0.631

the potential to increase reliability of the analysis (see Calantone *et al.*, 2002), but also cost data of individual customers could be based on estimates and/or not be readily available (Eng, 1999). Sales and cost data over a period of 12 months were used in the profit calculation to include sales variation in one financial cycle. Indirect costs (e.g. overhead costs) not recorded at an individual level were estimated by apportioning them based on sales revenue generated by each customer (see Ward, 1993). The indicators used were:

- net profit, estimated by deducting both direct and indirect costs from sales revenue;
- return on investment, calculated by dividing gross profit against total assets employed; and
- growth rate, examined in terms of growth in operating profit from the customer's business.

Independent variables

IO perspective

This strategic perspective was analyzed by assessing the attractiveness of industry characteristics used in strategic positioning. The variables were drawn from Porter's (1980, 1985, 1991) work on strategy and firm performance. The relationship between IO perspective and customer performance was examined as a function of competitive positioning such as cost leadership, relative market share and differentiation.

Resource-based capability

This composite dimension captured four different resource differentials: positional, regulatory, functional and cultural (Hall, 1993). In addition, the attributes of products or services perceived as sources of competitive advantage were identified. They were first examined in the context of the resources producing competitive advantages in the overall corporate market and then more specifically the resources allocated to individual customer relationships of the customer portfolio.

Strategic approach

Following Fiocca (1982), strategic approach was assessed in terms of the account potential

of individual customers. This dimension attempts to examine the long-term value of a customer account based on its overall desirability. The strategic approach is concerned with factors that would enhance the future attractiveness of the customer account. For example, improvement of technological strengths between the supplier and customer could enhance cost position and provide direction for resource allocation. Thus, this approach seems to extend the IO perspective and RBV by considering the long run cost position and resource development of customer accounts.

Data analysis

First, exploratory factor analysis with principal component extraction and varimax rotation was applied to each category of exploratory variables (see Table III). Items in each factor were examined so that only the items with consistent means were retained for measuring the factor. They were summarized by building the scale mean of each first-order construct. First-order constructs comprised multiple items from the higher-order (second-order) constructs of the customer portfolio dimensions. Convergent validity of the second-order constructs was conventionally checked by performing exploratory factor analyses with the first-order constructs as input variables. Reliability of the first- and second-order constructs was checked by computing Cronbach's alpha coefficients and item-to-total correlations. Items were removed using the conventional criterion namely items loaded on multiple factors, and had a factor loading below 0.60 (see Table III). Reliabilities of at least 0.60 are considered sufficient for exploratory research (Peter, 1979).

As shown in Table IV, the results of the Cronbach's alphas for first- and second-order construct, and the explained variance of the exploratory factor analyses on second-order construct, provide sufficient reliability. On first-order level, all Cronbach's alphas are above 0.60, and second order level Cronbach's alphas are above 0.70. In all cases, explained variance by one factor is more than 50 per cent. Therefore, there is

Table III Multiple regression analysis

Customer performance (dependent variable)	<i>b</i>	Standard error	<i>T</i> -value	Significance	<i>B</i>
Independent variables					
IO-based perspective	0.28	0.06	2.51	0.01	0.241
Resource-based view	0.21	0.15	2.65	0.01	0.358
Strategic approach	0.13	0.05	3.31	0.05	0.253

Note: Overall $R^2 = 0.329$; $df = 4,261$; overall $F = 24.16$; Sig. = 0.00

Table IV Reliability and validity of measurement

First-order construct	No. of items/ dimensions	Cronbach's alpha	Second-order construct ^a	Cronbach's alpha	Explained variance by one factor (%)
Demand characteristics	5	0.815	IO perspective (14)	0.719	61.8
Competitive characteristics	7	0.714			
Supply characteristics	2	0.850			
Strategic importance of the account	8	0.727	Strategic approach (8)	0.702	74.8
Product attributes	8	0.681	RBV (26)	0.706	79.3
Regulatory capability	5	0.605			
Positional capability	4	0.716			
Functional capability	3	0.873			
Cultural capability	6	0.730			

Note: ^a Number of first-order constructs is in parentheses

reasonable reliability and convergent validity of the measures.

In order to investigate the relationship between the strategic dimensions and customer performance, the significant factors of independent variables were developed by averaging the respective individual items. Means of depended variables were computed and their impact on customer performance was analyzed by using multiple regression. This technique provided a simultaneous test of multiple independent variables against customer performance.

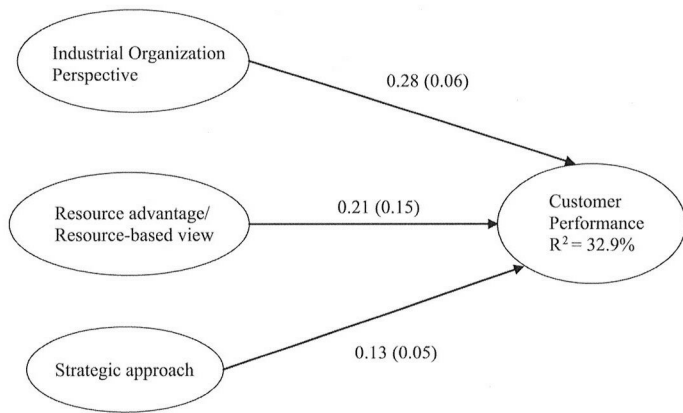
While the results do not indicate individual variables that contribute significantly to the customer performance, they form part of the perspective used for customer portfolio analysis and development. Furthermore, the perspective comprised composite variables that could be specific to individual organizations.

Results

As shown in Table III, the research hypotheses were tested by means of a regression model that links the three independent variables to the measure of customer performance. There is sufficient variance to justify examining the individual coefficients (adjusted $R^2 = 0.33$). The regression analysis is considered to be more appropriate for explorative instruments than causal modeling. The latter is more suitable for established constructs. For example, the analysis involved the use of managers' perceptions. This is supported by the argument that managers' perceptions shape behaviour and are more critical to strategy making and firm performance than some "mentally distant" objective indicators (Hambrick and Snow, 1977; Snow, 1976; Chattopadhyay *et al.*, 1999).

As shown in Figure 3, with respect to the influence of attractiveness of the customer's

Figure 3 Results of regression analysis



industry characteristics on customer performance, *H1* posits that the more attractive a customer's industry, the higher the degree of customer performance will be. This hypothesis was supported; $b = 0.28$ ($p < 0.01$). Industry characteristics are related positively to customer performance and provided support for strategic positioning. This seems to support the notion that industry structure influences strategy conduct and customer performance. In other words, the results suggest that industry effects related to competition, bargaining power and demand in the marketplace represent the customer's ability to influence structure in such a way that would affect customer performance. Thus, the selling company's ability to influence structural characteristics of the industry in which the customer operates can enhance performance.

Consistent with *H2*, it was found that resource advantage of a supplier-customer relationship has a positive significant effect on customer performance ($b = 0.21$, $p < 0.01$). The results support that resource-based capability seems to influence customer performance. In this regard, resource advantage seems to constitute a significant competitive advantage in the customer portfolio development-performance relationship. The results suggest that the resource-capability of the selling company has a positive relationship with the customer performance. The significant effects of firm's assets on customer performance, is in line with the contention of resource-based scholars that a firm should develop, nurture and build on its available stock of resources (e.g. Rumelt, 1991). In particular,

acquisition, development, and maintenance of differential bundles of tangible and intangible resources over time (e.g. Dierickx and Cool, 1989; Hall, 1993; Zander and Kogut, 1995) seem to directly influence customer performance. For example, conventional accounting methods do not account for intangible resources based on competencies such as skills and knowledge.

In contrast, there is low support for *H3*. The resultant long-term view of customer mix based on strategic approach does not have a significant effect on customer performance ($b = 0.13$, $p < 0.05$). Although this association is weak, it is consistent with the nature resource investment and development in business relationships. Also, strategic outlook of performance may give rise to high short run expenditure. This is because measures of customer performance mainly captured short-term performance (i.e. a one-year financial cycle) whereas success in a supplier-customer relationship may take many years. Importantly, the items used to examine the strategic approach are concerned with future account desirability rather than cost position. The positive relationship between strategic approach and customer performance seems to suggest that it is important to analyze the long run cost position and resource advantage of a customer portfolio.

Although strategic management literature has noted the importance of considering alternative strategic perspectives such as the resource-based theory than relying solely on the IO theory for strategic analysis, existing models for customer portfolio development and analysis have neglected other strategic perspectives. Furthermore, the majority of the customer portfolio models have never been empirically validated, especially against customer performance. The above results suggest that the analysis of industry structure would benefit from consideration of resource advantage and long run positioning of the customer portfolio.

Implications

Theoretical implications

The present study sets out to explore different strategic perspectives and explore the link to

customer performance. The framework for customer portfolio development, depicted in Figure 2, is not only based on the notion of IO perspective, but also extends existing customer portfolio theory by explicitly considering the role of resources and strategic value of supplier-customer relationships. While the results of this study have not shown a strong positive relationship between strategic approach and customer performance, this is supported by the need to invest resources and build customer relationships over time. Unlike a portfolio of stocks, supplier-customer relationships are not selected at a point in time (Hunt, 1997), and they need to be valued over time (Elliott and Glynn, 1998). In view of this, it is logical to argue that integrating the dimension of strategic approach to customer portfolio analysis is a crucial factor in determining long run profitability.

Regarding the influence of industry characteristics, the results of this study show that they have the most significant positive association with customer performance. This is in line with Porter's (1991) framework that states that firm performance is dependent on industry effects directly through defense against direct and indirect competition, and through firm's actions altering the balance of the same industry forces in its favour. Since the industry characteristics identified in this study are specific to the banking sector, it is important to recognize that different characteristics of the external environment present different degrees of control for firms in terms of their strategy (see Bain, 1951; Khandwalla, 1977). McGahan and Porter (1997) also found that industry:

- represents an important factor in affecting firm economic performance; and more specifically
- effects are more important in accounting for firm performance in service industry than in manufacturing industry.

Thus, the analysis of industry characteristics can be used to determine the attractiveness of a customer's business that captures the customer performance.

Consistent with the resource-based theory that a firm's performance stems from acquiring and deploying valuable idiosyncratic assets, there is positive significant association between

resource advantage and customer performance. This seems to support the notion that customer performance is the result of a superior differential competence. As suggested by Hall (1993), the differential capability includes tangible and intangible assets. The latter has, to date, received relatively little attention (Camelo-Ordaz *et al.*, 2003). Firms that recognize the differential resources required for the development of competitive advantage are able to perform activities with customers or suppliers in order to accumulate and nurture the resources. The analysis of the link between resource advantage and customer performance extends the concept of customer portfolio analysis. As Spanos and Lioukas (2001, p. 901) point out that "resources are *not* [emphasis added] valuable in and of themselves because they (and not vice versa) are attached to strategic activities". At the same time, resources represent the primary constraints on which a firm can successfully compete in the marketplace. Thus, resources play a significant role in the development of successful supplier-customer relationships.

The overall results seem to suggest that together with strategic approach both industry characteristics and resource-based capabilities contribute to customer performance. The proposed integrative approach of this study seems to provide insights into customer portfolio theory by explicitly addressing resource competence and long run positioning value of the customer portfolio. The literature generally supports the notion that IO perspective and RBV may complement each other (e.g. Amit and Schoemaker, 1993; Barney, 1991). Such contributions mainly suggest that RBV may add to the IO perspective:

- a more satisfactory understanding of the conditions for sustained competitive advantage;
- a longer-term perspective of addressing strategy issues; and
- an analysis of the conditions which prevent competitive imitation.

The environment perspective of IO theory, in turn, may add insights into the determinants of the industry structure on performance, particularly in the short run. The implication

for customer portfolio theory is that exclusive reliance on only one of these strategic perspectives could lead to misguided strategic choice (see McWilliams and Smart, 1993). Theoretically, competitive position depends on resource competencies (Spanos and Lioukas, 2001). Hansen and Wernerfelt (1989) note that firms that can demonstrate excellence in both arenas will do significantly better than those that strive for more uni-dimensional concepts of excellence. In this sense, the development of certain customer relationships demands maintenance and reinvestment of strategic assets through interaction which involves performing activities and exchanging resources.

Managerial implications

The results of this study have important implications for the management of customer portfolios. In analyzing customer portfolios, managers must consider the strategic dimensions on which customer relationships are developed, and scarce organizational resources are allocated. The present research shows that industry factors, as well as resource-based factors, are related to the influence of customer performance. The additional insight from the resource-based analysis is compatible with the strategic commitment and continuity of business relationships. The implication is that current portfolio decisions will not only affect the performance of future supplier-customer relationships, but also strategic composition of the customer portfolio. Each relationship requires different types and degrees of investment and produces different outcomes (Cannon and Perreault, 1999). Understanding the short-term industry factors and long run positioning value of the customer mix is important for the management of customer portfolios.

Contemporary managerial literature increasingly recognizes the importance of customizable strategic tools for individual organizations. Managers must understand the resource capabilities required to match customers' product/market requirements *vis-à-vis* competitors. Moreover, the sources of persistent success are likely to be fundamentally context specific (Collis, 1994). Although there may be differences in the type and significance of variables associated with the composite

dimensions, this research shows how different underlying strategic perspectives are linked to customer performance. Therefore, managers should view different customer portfolio variables as components of a holistic framework depicted in Figure 1.

The study points to the critical role managers play in selecting and developing key customer relationships. In today's business markets, firms form a multitude of relationships with market participants (e.g. distributors, government agencies) that have short- and long-term implications of resource allocation and strategy decisions. For instance, given the interdependence nature of business relationships, strategy development in business markets may require joint decisions of supplier and customer. In other words, managers must analyze individual customer relationships as part of a wider portfolio of relationships. While this study has not set out to examine the interaction of all types of a firm's business relationships, the study provides guidance in the selection of strategic perspectives for customer portfolio analysis and development.

Limitations and future research directions

As with any studies, this study has several limitations, which present opportunities for further research. The empirical part of the study focuses on customer portfolios of large commercial banks based in London only. Additional research could examine the framework in other contexts or industries such as small companies and outside the banking sector. It is unclear whether the same strategic dimensions and variables are associated with customer performance in other contexts.

Although the results of this study provide acceptable support for the theoretical reasoning, as in the case in most empirical studies in organization, a major proportion of the variance related to composite variables remains unexplained. Therefore, additional research might incorporate individual determinants of customer performance in addition to the theoretical constructs of industry characteristics, strategic approach and RBV. Also, further research might examine theoretically plausible moderating effects. For

example, the relationship between customer portfolio dimensions and performance may be moderated by the skill of the relevant managers in successfully managing supplier-customer relationships.

The present study can be viewed as an exploratory study attempting to examine the link between portfolio dimensions and customer performance. Inevitably, the theoretical reasoning of the customer portfolio dimensions is based on commonly used determinants of performance. Though this should apply across industry sectors, there are other strategy perspectives that could affect customer performance. For example, a firm's network of relationships has been noted to have influence on performance (e.g. Turnbull *et al.*, 1996). Further research could also refine the exploratory measures developed and used in this study.

Although the relative influence of portfolio dimensions on customer performance accounts for simultaneous effects, they are likely to be interdependent. This is mainly because business relationships are often characterized by high-level of interdependency. Future work on the relationship between portfolio dimensions and performance could be extended to include the analysis of the effect of individual-level constructs and the combined effect on performance. For example, the complementary view of the IO perspective and RBV could be examined in the context of customer portfolio development and analysis. Finally, another potential area for further research is the notion of cross-relational impacts of different interdependent portfolio relationships on customer performance.

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Further reading

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Executive summary and implications for managers and executives

This summary has been provided to allow managers and executives a rapid appreciation of the content of this article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present

Analysing the relationships between supplier and customer can help managers to allocate scarce resources and ensure that the company's links with its customers are profitable in the long term.

Industrial organization economic theory

Early customer portfolio models were based on the idea that such environmental forces as market growth, competition and technological factors could not be controlled, so strategic decision making was based on adapting the company to its environment. This line of reasoning is mainly influenced by so-called "industrial organization" economic theory - that a firm's position in the industry determines its competitive advantage.

The resource-based view

In contrast, a more modern "resource-based" view focuses on adapting the environment to the company. The resource-based view uses differential stocks of resources and capabilities as a basis for explaining the performance of the firm.

The strategic approach

A third approach - the "strategic" approach - deals with factors that would enhance the future attractiveness of the customer account. For example, improvement of technological strengths between the supplier and customer could enhance the cost position and provide direction for allocating resources. The strategic approach, therefore, seems to extend the industrial organization and resource-based view by considering the long-run cost position and resource development of customer accounts.

Research findings

Eng's research into 225 supplier-customer relationships at nine large commercial UK-based banks demonstrates that the industrial organization perspective may give only a short-term picture of customer performance. Resource based analysis, combined with a strategic approach to customer portfolio analysis, can help to provide a long-term view of the value of a customer portfolio.

The research shows that the more attractive a customer's industry, the higher the degree of customer performance will be. This, of course,

is entirely consistent with industrial organization theory.

The research also finds a significant positive link between resource advantage and customer performance. This is in line with the resource-based theory that a firm's performance stems from acquiring and deploying its own special set of assets. These could include tangible assets such as the latest piece of computer hardware, and intangible assets such as the skill and dedication of employees.

The overall results seem to suggest, therefore, that together with a strategic approach, both industry characteristics and resource-based capabilities contribute to customer performance.

Managerial implications

The study points to the critical role managers play in selecting and developing key customer relationships. Managers must consider the strategic dimensions on which customer relationships are developed and scarce organizational resources are allocated. Current portfolio decisions affect not only the performance of future supplier-customer relationships, but also the strategic composition of the customer portfolio. Each relationship requires different types and degrees of investment and produces different outcomes. Managers must understand not only the short-term industry factors, but also the long-run positioning value of the customer mix. Managers must also understand the resource capabilities needed to match customers' product and market requirements *vis-à-vis* competitors. The sources of consistent success are likely to be specific to a given context, and so cannot always be applied directly to other customers.

(A précis of the article "Does customer portfolio analysis relate to customer performance? An empirical analysis of alternative strategic perspective". Supplied by Marketing Consultants for Emerald.)