SUPERIORITY IN CUSTOMER RELATIONSHIP MANAGEMENT:

CONSEQUENCES FOR COMPETITIVE ADVANTAGE AND PERFORMANCE

by

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Abstract

The question of why some businesses are superior to their rivals in managing their relationships with customers is addressed within the sources → positions → performance framework of competitive advantage. In a study of 299 businesses, we find that the customer relating capability is an important source of relational advantages when it is combined with a strategy that makes nurturing these relationships a defining theme. This capability has three interrelated components that make different contributions. The *configuration* component which incorporates the organizational structure, incentives and accountabilities, is overall the most important element of the customer relating capability. The *orientation* component, comprising the mindset, values, and organizational priorities toward customer relationships, sets the leaders apart from the rest. The *information* component, including databases and customer information systems, contributes little to the overall capability once a minimum level of competency has been attained. We also find that a superior customer relating capability has a strong relationship with relative sales, profitability and customer retention performance.

Firms are continually seeking new ways to forge closer relationships with valuable customers in the belief that loyal customers are the source of most of their profits. With recent advances in customer relationship management (CRM) technologies, such firms have not only the motivation but also the means to forge closer relationships and deliver more value to their customers. Yet experience shows that CRM technologies are no panacea. More than half of all CRM projects have produced unsatisfactory results (Dignan 2002). In a survey of chief technology officers organized by *Infoworld* in 2001, thirty percent of the CTOs agreed that CRM was the biggest blunder and most hyped technology of 2001 (Sodhi 2002).

The shortcomings of CRM have been blamed both on software vendors for promising off-the-shelf solutions and on firms for underestimating the implementation problems and installing new information systems without having a well defined customer management strategy (Bartholomew 2002, Sodhi 2002). Several commentators now claim that installing CRM technology before aligning the strategy and restructuring organizational processes, performance measures, and incentives is the root cause of most failures (e.g., London 2002, Rigby et al 2002).

These explanations are not well validated, nor do they address the more fundamental question of why some firms are much better than their rivals at managing customer relationships. How do they achieve the alignment of their strategy and organization that enables them to better execute the core CRM process (cf. Srivastava et al. 1999)? Does this alignment enable these firms to better utilize CRM technology? Does their superior customer relating capability translate into superior value to customers and, ultimately, into superior performance? The objective of this paper is to investigate these issues.

Our approach draws on the resource-based view (RBV) that sustained differences in firm performance stem from heterogeneity in resources (Amit and Schoemaker 1993, Barney 1991,

Wernerfelt 1984). We apply this within the sources → positions → performance framework (Day and Wensley 1988) for assessing competitive advantages that is shown in Figure 1.

[Figure 1 about here]

The *sources* of advantage are the resources the firm deploys. The central construct for this study is the customer relating capability (CRC), which is a complex bundle of skills and accumulated knowledge, combined with systems and databases. We distinguish three interrelated components:

- *Orientation* – comprising the relevant values, behaviors, and mindsets;
- *Information* – reflecting the availability, quality, and depth of information about customer relationships and usage of CRM technology;
- *Configuration* – the supporting organization structures, incentives and controls.

A superior resource, such as a customer relating capability, is unlikely to be productive unless it supports the *competitive strategy*. Here we distinguish between two dimensions of strategy: the extent to which customer relationship management is the defining theme for the business (thrust), and the extent to which CRM initiatives are motivated to stay or get ahead of the competition rather than to simply keep up (motivation).

What one sees in the market, from the vantage point of a customer or competitor, is a *positional advantage* (Day and Wensley 1988). This positional advantage consists not only of customer perceptions that a firm provides value through superior functionality (product advantage), but also of perceptions that the firm is better at delivering service and handling its relations with customers (relational advantage). These positional advantages should translate into superior *performance* in customer retention, sales growth, and profitability.

Our empirical investigation supports this framework and validates some of the more recent "wisdom" about organizational issues surrounding effective CRM deployment. We find that the information component contributes little to the overall customer relating capability once a minimum competency level is reached. The configuration component is overall the most important enabler of a superior capability. However, what most distinguishes the relationship leaders, who have the very best capabilities, is their orientation. Further, we find that a superior customer relating capability, in combination with a strategic thrust that emphasizes offering customer value that competitors can't match, is associated with a relational advantage. The customer relating capability and relational advantage are in turn associated with lower rates of defection and greater sales growth than competitors. A superior customer relating capability also has a direct and pronounced relation to relative profitability.

The Domain of Customer Relationship Management

We define customer relationship management as a cross-functional process for achieving a continuing dialogue with customers, across all their contact and access points, with personalized treatment of the most valuable customers, to increase customer retention and the effectiveness of marketing initiatives.

The most salient feature of this definition is that customer relationship management is treated as an organizational process (Grönroos 1990; Parvatiyar and Sheth 2000). The ability to have a dialogue across all customer contact points is an essential ingredient of CRM (McKenzie 2001, Peppers and Rogers 1997, Imhoff et al. 2001, Sawhney and Zabin 2001). The intent is to integrate information from diverse sources such as direct sales, telesales, websites, customer service, resellers and channel partners, to arrive at a coherent picture of the customer and to be able to better serve that customer. The one-to-one or personalized marketing approach emphasizes that different

customers be treated differently (Peppers and Rogers 1997). The rationale is that customers vary in their future economic value and that superior returns are realized by allocating resources toward the retention and growth of the most valuable customers. Our definition also includes the objective of increasing the rate of retention and the efficiency of marketing programs in recognition of the profit rewards (cf. Kalwani and Narayandas 1995; Reichheld 1996; Reinartz and Kumar 2000; Schmittlein and Peterson 1994).

SOURCES AND POSITIONS OF RELATIONAL ADVANTAGES

The distinction between the sources and positions of competitive advantage that account for sustained differences in firm performance is derived from the resource-based view of the firm. The essence of this theory is that when a firm's resources are valuable, durable, superior to those of rivals and difficult to imitate or substitute, they are the basis for a sustainable competitive advantage (Amit and Schoemaker 1993, Barney 1991).[1]

A key premise of the resource-based view is that resource and capability development is a selective and path dependent process (Dierckx and Cool 1989, Lengnick-Hall and Wolff 1999). The premise is consistent with what is known about achieving superiority in customer relationship management. The development process is selective in that firms choose whether to make CRM the central thrust of their strategy or a subordinate element. The process exhibits path dependency in that firms build on what they know and on their past successes (cf. Cohen and Levinthal 1990; Dierckx and Cool 1989). Behind the immediate strategic choices are prior choices that sensitize them to certain possibilities and create a knowledge platform on which they can keep building. Thus, we expect that firms that are demonstrably superior in managing customer relationships will

have both a strategy thrust that emphasizes relational value and a superior customer relating capability.

The Anatomy of a Customer Relating Capability

The essential resource for gaining a relational advantage is a superior customer relating capability, which is exercised throughout the customer relationship management process (Parvatiyar and Sheth 2000). However, once a superior capability has been isolated there is a concern that the identification process is tautological (Priem and Butler 2001). As Williamson (1999, p. 1093) put it, "show me a success story and I will uncover a distinctive capability." It is not sufficient to say that because a firm has closer relationships with its customers than its rivals, it necessarily has a superior customer relating capability. This identification problem is common to many strategy and marketing constructs. For example, as Barney (2001) notes, the relationship between industry attractiveness and firm performance can be reduced to a tautology if it is based on the observation that firms in attractive industries outperform those in unattractive industries, and industry attractiveness is defined in terms of the ability of firms to do well. Porter (1980) dealt with this problem by specifying the conditions that determine whether an industry is attractive. His "five forces" were factors that could be parameterized so the theory could be tested. For this reason, a distinctive capability is best identified by decomposing it into distinct elements that can be parameterized.

We adopt Leonard-Barton's (1992, 1995) view of a capability as a knowledge acquisition, sharing, and application process, and decompose the customer relating capability (CRC) into three components: orientation, information and configuration.[2] Each component is defined relative to the competition to account for the possibility that a high level of absolute ability may only be at parity if the rivals are equally effective (Collis 1991). The interaction among the components may also

matter. For instance, the appropriate orientation without the requisite information might be of little value in achieving advantage.

Orientation toward relationships. A relationship orientation is integral to a firm's overall customer orientation to the market, i.e., the set of beliefs that puts the customer's interest first (Deshpandé et al. 1993). Specifically, it signals whether customers are viewed as valuable assets to be retained, rather than anonymous transactional targets, and thus influences all interactions with the customer – before, during and after the sale. The litmus test is whether customer retention is a high priority shared by the whole organization. The orientation also reflects relevant values, behavioral norms, the shared mental models used to make sense out of patterns of customer loyalty and deflection, and decision criteria (Day 1999). Decision criteria that have been suggested (Peppers and Rogers 1997, Wayland and Cole 1997, Wiersema 1996) include: (1) There is a greater willingness to treat different customers differently, based on differences in their life-time value to the firm, (2) Front-line employees are given broader freedom to take action to satisfy customers without having to take time to get approval, (3) There is a greater openness to sharing information about customers, rather than each function retaining and perhaps protecting their own information.

Information about relationships. Another ingredient of customer relationship management is trackable, timely and comprehensive information, obtained through an on-going dialogue with each customer (Pine et al. 1995). Successful CRM depends on how well the firm elicits and manages the sharing of this information, and then converts it into knowledge that can be used to change how the organization collectively behaves toward the customer. The capability to manage such information is, in principle, facilitated by the availability of data-base management tools, customer information systems, and sales automation software that have come to be identified with CRM in all too many

applications. The intent is to better organize customer-relevant data so sales staff can close deals faster, customer service can be streamlined, and communications can be personalized.

Configuration. The organizational configuration provides the context in which the customer information and knowledge flows are embedded, activated and used. Salient aspects include organizational structure, incentives and rewards, resource commitments, and the activities and processes that enable personalized solutions. The appropriate configuration is firstly a consequence of viewing the customer relating capability as implemented through an organizational process (Srivastava et al 1999). Effective management of this process requires multi-functional teams working together to meet the needs of distinct customer groups. This is more likely to be achieved when the organization is structured around customer groups, rather than vertical functional hierarchies that impede the sharing of information and alignment of purpose.

Alignments and Interactions. The configuration school of strategy places great weight on the alignment and coherence of a firm's processes and resources (e.g., Black and Boal 1994; Miller 1996; Siggelkow 2001). The configuration perspective has pushed capability analyses to incorporate interactions into the theory. The immediate implication is that a superior customer relating capability can be enhanced when all the components are superior to competition and reinforce each other. When the interactions are dysfunctional, due to poor alignment or conflicts among the elements, the capability is degraded and contributes to a competitive disadvantage.

Competitive Strategy

A strategy specifies how a business intends to compete in the markets it chooses to serve. This also provides a central theme for guiding and coordinating core processes and functional activities – and thus gives meaning and direction to the firm's use of its customer relating

capability. The choice of strategy carries through to the allocation of resources and the coordination of functional activities, dictates which capabilities must be distinctive versus merely on par, and prescribes performance metrics and goals.

Our primary interest is whether the management of customer relationships for long-run advantage is the main thrust of the strategy or only a subordinate priority. This, we expect, determines how engaged the key implementers are with CRM and how willing they are to carry it through. Such commitment is based on collective confidence that the strategy is sound and the organization is able to implement it. This confidence will be undermined by hesitant and intermittent support by the leadership.

A second dimension of interest is the motivation or rationale for pursuing a customer relating strategy. If the motivation is defensive, with the intent of imitating or catching up to competitors the objective is limited to avoiding a disadvantage. But if the motivation is primarily offensive, the objective is to offer customers a value proposition the competition can't equal, and the there is a much better chance that the organization will indeed enjoy a positional advantage.

Positional Advantages

The nature of the positional advantage one pursues is the defining feature of most classifications of competitive strategy including Porter's (1980) differentiation versus lowest delivered cost, Treacy and Wiersema's (1995) customer intimacy versus operational excellence versus performance superiority, Mittal and Sheth's (2001) performance, price and personalization components in the customer value space, and Mathur's (1984) distinction between the non-price dimensions of product versus support. The latter three classifications distinguish product advantages – reflecting superior value through the quality, performance and price of the core offering – from relational advantages. The latter imply that customers get

superior value through better service, responsiveness to their individual problems and needs, and ease of collaboration.

The distinction between product and relational advantages relates closely to what Coviello et al. (2002) call transactional versus relational marketing. They argue that most successful strategies are a hybrid of both types of marketing. Relationships cannot be developed and sustained if product quality is unacceptable, the underlying technology is out-of-date or the product is persistently unavailable. Similarly, we do not preclude the possibility that firms enjoy both product and relational advantages.

Although the positional advantage plays a mediating role in the relationship of a customer relating capability with performance (cf. Figure 1), it is usually ignored or treated as a higher-order intangible construct in most empirical studies (Hult and Ketchen 2001). We propose to identify and explicitly model the role of this construct.

Contextual Contingencies

There are several market characteristics with the potential to moderate the relations we are investigating:

- *Personalization potential.* The greatest returns to efforts at personalized relationship building are believed to come when there is diversity in customer needs and the distribution of customer life times values is highly skewed such that a small proportion of customers have high life time values while the rest are breakeven or loss making (e.g., Peppers and Rogers 1997; Wayland and Cole 1997).

- *Intensity of competition.* As direct rivalry increases, the incentives to match and neutralize another competitor's relationship advantage increases. Indicators of the intensity of competition are the 4-firm concentration ratio, the rate of market growth and the degree to which customers perceive differences among the competitive alternatives (Slater and Narver 1999).

- *Consumer versus business markets.* It has been long held that these markets differ in characteristics, influences, decision-processes and relationships (e.g., Lilien 1987; Webster 1978). Because business markets are more concentrated, with customers who have more

complex decision making units and are more likely to operate across multiple locations, it is expected that customer relating capabilities will matter more in gaining an advantage in these markets.

RESEARCH DESIGN AND METHOD

We use a survey design, but first conducted exploratory interviews with leading U.S. consultants and suppliers such as the Peppers & Rogers Group and Siebel Systems, and a convenience sample of senior managers with U.S. firms such as Fidelity Investments, Verizon Information Systems, Bayer Pharmaceuticals, American Skandia, and GE Capital. The purpose of these interviews was to clarify our thinking and gain some insights on how to measure CRM capability in a survey. From these interviews we formulated the following principles to guide the design of the study:

- The unit of analysis should be the business unit rather than the firm. What one business unit like GE Capital does to compete for customer relationships is very different from the actions of another unit like GE's Aircraft Engine Business Group.

- The focus should be on medium and larger businesses, having at least 500 employees. Smaller firms are more likely to operate from a single location, have a few key customers and have simpler channels to coordinate, all of which is likely to make CRM easier.

- The respondent to a survey should be the most senior person in the business who knows the competitive position and strategy of the business, and the status of the CRM initiative compared to the competitors.

We considered the use of multiple respondents in each business, but our interviewees indicated that only one or two members of the top management team had a complete picture.

Sample and data collection

A representative sample of 2000 senior marketing, sales and MIS executives in U.S. companies was drawn from a database combining information from Dun & Bradstreet and

Market Place. We selected SIC codes from the manufacturing, transportation, public utilities, wholesale and retail trade, finance, insurance, and real estate sectors. Companies located in all 50 states with more than 500 employees were included in the sample.

A 12 page self-administered questionnaire was mailed to the most senior person responsible for CRM initiatives who was judged to be most knowledgeable about the competitive strategy and performance of a specific business unit serving a distinct market. Within each business we created a hierarchy of titles and functions, and started with the most senior person in marketing. If that position did not exist or was not filled, we then went to sales, and finally to MIS/IT. The cover letter explained that the questionnaire was also available on the internet and provided instructions on how to access it there if the participant preferred. The internet survey was password protected and designed to look as similar as possible to the paper survey. 1100 surveys were sent in the first mailing, and a second wave was sent four weeks later to 900 new contacts. Two weeks after each mailing, follow-up phone calls were made to confirm that the respondent was qualified and to remind people to complete the survey. New survey forms were mailed if requested. As incentives for completing the survey the respondents were offered a report on the results of the study and a chance to win a Palm Pilot in a drawing. Eighty surveys were returned because the respondent had moved or left the company, for an effective sample population of 1920. The data collection was completed in March 2001.

We obtained 345 responses, for an overall response rate of 18 percent, with 83 of the respondents (24 percent) choosing to complete the survey via the internet. There were no significant differences between responding and non-responding firms in terms of sales volume, location, or industry. Similarly, there were no differences between the internet and the paper form respondents. We further tested for response bias by comparing early and late respondents

(Armstrong and Overton 1977). We divided the data set into three equal parts based on the time lapsed between mailing and receiving a returned questionnaire. There were no differences between early and late respondents in their title or in their company's demographics (i.e., private vs. publicly held corporation; headquarters vs. subsidiary; industry; location; sales volume) at the 10% significance level. Of the 27 items in the questionnaire used in the present analysis, only 2 were significantly different at the 10% significance level between late and early respondents, which is roughly what one would expect based on chance alone.

Measures

We asked respondents to take the perspective of a specific business unit or division. We measured the key constructs in our framework (resources, position, and performance) relative to competition (see Appendix A).

Performance. We measured three dimensions of performance in the past two years: sales growth, profitability, and customer retention. Each was measured using a 5-point single item scale, ranging from much better to much worse than competition.

Positional advantage. This construct was measured with a battery of eleven bipolar 5-point scale items. Each item explicitly asked about how the target customer group perceived the respondent's business compared to its direct competitors. An exploratory factor analysis identified two dimensions in the data, which we interpret as relational advantage and product advantage. Two items, information sharing and trust, loaded about equally on both factors.[3] To further assess the factor structure of our positional advantage measures, we conducted a confirmatory factor analysis. Because of the presence of significant multivariate kurtosis, we estimated the measurement model using weighted least squares rather than maximum likelihood (cf. Bollen 1989). While the model forcing information sharing and trust to load on the relational

advantage factor only fit adequately, removing the two items altogether led to a 9 item, 2 factor model that fit quite well ($\chi^2 = 44.45$, df = 26, $p > 0.01$; GFI = 0.999; CFI = 0.979; TLI = 0.970; NFI = 0.952; RMR = 0.076; RMSEA = 0.049). The two latent factors were rather highly correlated ($\phi = 0.83$), but clearly distinct ($t = 2.35$). We created two variables, relational advantage and product advantage, by averaging the item scores of each factor.

Customer Relating Capabilities. We measured the overall customer relating capability (CRC) and the three contributing components of orientation, information and configuration using single item scales. The overall CRC was measured with 5-point scale for how the business compared to its competitors in developing and managing relationships with valuable customers. The three components were measured using a 6-point scale for how each of the business unit's components compared to those of direct competitors.

We also constructed a set of 16 indicators for the three CRC components. The specific items were developed with guidance from the literature and interviews as previously discussed, and were refined during three separate pre-tests with 152 respondents representative of the sample. We learned from these pre-tests that the respondents were comfortable comparing each of the three components to competitors globally, but found it much harder to do this for each individual scale item. Given our desire to test our ideas with measures of all key constructs formulated relative to competition, we decided not to use multi-item scales for orientation, information, and configuration in the present analysis. However, the survey did include multi-item scales for orientation, information, and configuration that did not make direct comparisons to the competition. Each set of multi-item scales was placed before the corresponding global single-item scale measuring one of the three contributing components (orientation, information and configuration) vis-à-vis the competition, so that respondents had a good gasp of the conceptual

domain covered by each component.[4] Appendix A reports all scale items for performance, relational advantage, product advantage, and customer relating capabilities used in the present report.

Strategy. We measured the motivation for CRM initiatives using a bipolar five point scale, with the poles being "Mainly defensive—Make sure competitors don't gain an edge" versus "Primarily offensive—Offer customers value that competitors can't equal." We measured the extent to which the business strategy focused on delivering superior value through close customer relationships with a five point bipolar scale that ranged from "This is a low priority aspect of our strategy" to "It is well understood that customer relationship management is the defining theme of the strategy."

Control variables. We collected information on several firm and market characteristics that might moderate the relations we investigate, and hence affect the external validity of our findings. The diversity of customer needs and the diversity of customer profitability or life time value may enhance the benefit to a company of targeting and serving in a more focused manner, hence increasing the pay-offs from CRM. The extent to which customers perceive the competitive offerings to be substantially different (as opposed to homogenous commodities) and the extent of market concentration may soften competition, hence decreasing the need for or benefits from CRM. We measured each of these four constructs using a single item 5-point scale. Finally, we also asked whether the business unit or division sold primarily to other businesses (B2B), to end consumers (B2C), or to both (B2B/C).

Descriptive statistics

The great majority of our respondents (76%) held high-level marketing or sales positions. 9% held general management positions, 6% held positions in technology management, with the

remainder working in finance, operations, customer service, or other positions. Among our respondents, 53% described their business as selling primarily to other businesses, 24% as selling primarily to end consumers, and 23% as selling to both groups. 17% of the businesses employed less then 500 people, 68% had between 500 and 5,000 employees, and 15% had more than 5,000. The businesses operated in a variety of industries, with industrial product manufacturing (25%), health care (22%), consumer product manufacturing (11%), wholesaling, distribution and retailing (8%), and financial services, banking, insurance and real estate (7%) being the best represented.

Table 1 reports the distribution of market share rank and the key performance and capability measures. It is noteworthy that 43 percent of the respondents reported that their business had the top market share rank in the market (at least by their definition of the market). The distribution for market share rank is similar to that in the PIMS database reported by Buzzell and Gale (1987, p. 259): 37%, 24%, 15%, 10%, 5%, 9%. A similar pattern exists with the performance and capability measures. The preponderance of high values in these measures is unlikely to result from a self-selection bias by better performing companies to respond to our survey, since our check for non-response bias by comparing the first and last third of respondents in each mailing wave did not detect any significant difference in those variables ($p > 0.20$). We therefore believe that the preponderance of high values results from the well documented above-average or "Lake Wobegon" effect that people tend to believe that they are better than average on nearly any subjective and socially desirable dimension (e.g., Larwood 1978; Myers 1998; Weinstein 1980). While Table 1 raises concerns about interpreting the absolute levels of our measures, we see no reason to expect bias in the pattern of association among variables, except that the "bunching" at

the high end of the performance and capability scales may make it harder to obtain statistical significance.

[Insert Table 1 about here]

Table 2 reports the means, standard deviations, and correlation matrix for all variables used subsequently. As noted in Table 2, we reverse-coded some of the variables, such that all regression coefficients can be interpreted as "more is better." The subsequent regression analyses use effects rather than dummy coding for the binary indicators B2C and B2B/C, such that the intercept (and main effects in a model with interactions) can be interpreted as sample means rather than values for specific categories. We mean-centered all other variables before creating interaction terms. For consistency, all analyses use centered variables as regressors. Also for consistency across analyses, we deleted all observations with missing values on any of the variables of interest (excluding the moderators). This reduced the data set from 345 to 299 observations.

[Insert Table 2 about here]

Data analysis

The main mode of analysis is linear regression. To assess external validity, we added the control variables describing possibly salient characteristics of the market environment as product terms between the regressors of interest and these control variables. Testing for interaction effects allows us to assess whether the effect of a regressor varies across levels of the control variables. If they do not, one can conclude that the finding generalizes across market conditions (Lynch 1999).

To assess mediation, we followed the Baron and Kenny (1986) procedure. For instance, to assess whether a superior orientation effects relational advantage directly or only through the

global customer relating capability (CRC), we assess (1) whether orientation effects CRC, (2) whether CRC effects relational advantage, (3) whether orientation effects relational advantage without controlling for CRC, and (4) whether the last result remains even after controlling for CRC. To the extent that conditions 1 through 3 hold, but the effect of orientation on relational advantage weakens (or even vanishes), one can conclude that CRC partially (totally) mediates the effect of orientation on relational advantage.

Linear regression analysis assumes a linear relationship between the regressors and the dependent variable. This may not be a very safe assumption when the dependent variable is measured on a scale with only five levels, and even less so when the scores are bunched towards one end of the scale. In such cases, an ordered dependent variable model may be more adequate, since it does not require that the levels of the dependent variable be spaced equally. Hence, we use ordered response models as an additional check for our results. Traditional ordered logit or probit models assume that the covariates have the same effect across all levels of the dependent variable. For instance, this would require that the effect of orientation on CRC is the same at all levels of the scale. Clearly, this assumption may be overly restrictive (e.g., Franses and Paap 2001). We therefore do not use traditional ordered response models, but use continuation ratio logit models instead (e.g., Agresti 1990; Clogg and Shihadeh 1994). The procedure consists of estimating a series of binary logit models, each contrasting a set of levels to the next highest level, and doing so until one has covered all scale levels. For instance, we distinguish four levels in CRC: significant advantage, moderate advantage, parity and moderate disadvantage. We then estimate three models. The first analysis takes only observations at the lowest two levels, moderate disadvantage and parity, and fits a binary logit model to explain whether a business unit belongs to one or the other category. Next, we collapse both categories, and contrast them to

the next higher category, i.e. moderate advantage, by estimating a second binary logit model to explain what distinguishes units with a moderate advantage from those who fare worse. Continuing to migrate up the scale, we finally contrast units at the highest level, significant advantage, against those at lower levels. This procedure allows the effect of explanatory variables to vary freely across levels of the dependent variable.

RESULTS

Customer Relating Capability

Table 3 reports how the three components of orientation, information, and configuration contribute to the overall customer relating capability. The first column reports the results of a traditional linear regression. All three components are positively associated with the overall capability. Configuration has the largest effect, followed by orientation and, finally, information. The next three columns report the results of the continuation ratio analysis. Configuration has a very significant effect in all three models. This means that superior configuration separates firms with superior customer relating capability from those with inferior capability at all levels of capability. A superior information component never discriminates between firms at a specific level of capability and those at inferior levels. This finding, combined with the presence of a significant yet relatively small effect in the linear regression analysis, suggests that databases and customer information systems only distinguish between firms with very good and very poor customer relating capability.

The continuation ratio analysis also offers new insights into orientation. While the linear regression analysis documented a significant effect, the continuation ratio analysis indicates that this effect is concentrated at the highest levels of capability. In short, the results are that configuration is strongly associated with a superior customer relating capability at all levels, and

that orientation separates the 18 percent of firms with a significant capability advantage from those who have only a moderate advantage or none at all. The information component plays only a modest explanatory role once orientation and configuration are considered.

[Insert Table 3 about here]

We repeated the analyses allowing for interactions between the three components. The three-way interaction was never significant, so for ease of interpretation, Table 4 reports the results of models featuring simple interactions only. As before, all three components have a positive association with the overall capability in the linear regression analysis. Moreover, the main effects are of very similar size as before, and the relative size ordering is maintained, even though the effect of information is now fractionally larger. The effect, however, is moderated. There is a negative interaction effect between information and configuration, indicating that these two types of resources are partly substitutes for each other. The continuation ratio analysis indicates that this effect is concentrated at low levels of capability. Another difference between the continuation ratio analyses with and without interactions is that the effect of orientation at the highest level of capability reported in Table 3 disappears after including interaction terms. Since the interactions involving information were never significant, we re-estimated all models omitting these two interactions. The significant main effect for orientation at the highest level and that for configuration at the lowest level reported in Table 3 re-appear then. In short, we find evidence of a substitution effect between information and configuration, but only at low levels of capability. There is no evidence of interaction between orientation and the other two components.

[Insert Table 4 about here]

Relational Advantage

The next step examined the strategic and resource determinants of the relational advantage (RA). Equations including the thrust and motivation of the strategy, with and without either the customer relating capability (CRC), or the three capability components and their interactions were estimated as shown in Table 5. The main findings are:

1. The CRC has a significant direct effect on RA, providing criterion validity to this construct. Comparing the effects of the three components in columns 1 versus 3 and in columns 4 versus 5, however, shows that CRC has only a modest mediating effect on the orientation and configuration components.

2. The information component has no effect on RA in any equation, which affirms the earlier finding that it is not important once orientation and configuration are considered.

3. None of the interactions among the three components were significant, and their inclusion in the equations did not alter any of the above findings. The third order interaction, not shown here, was insignificant as well.

4. Strategy always matters, with motivation being highly significant in all equations and thrust being about equally important but losing some significance when CRC is added.

[Insert Table 5 about here]

Next, we investigated to what extent the effects of motivation and thrust, CRC, and its components varied across market conditions. We did so by entering customer need diversity, customer differentiation (i.e., the diversity in customer profitability or life time value), competitive commoditization, market concentration (measured as the C3 ratio), and two effects-coded variables indicating whether the business sells primarily not to other businesses but to end consumers (B2C) or to both end consumers and other business (B2B/C). We also created interaction terms between each of these variables and the six variables of interest: motivation, thrust, CRC, orientation, information, and configuration. Because the resulting model has 43 coefficients and because using a rather high type II error for unpredicted moderation is prudent,

we report significance at the 10% level, in contrast to other analyses where we use the traditional 5% cut off. Table 6 reports the results. The estimation did not suffer from troublesome collinearity: the condition number is only 6.31, well below the traditional cut-off value of 30.

[Insert Table 6 about here]

A few findings are noteworthy. The main effects of orientation, information and configuration are somewhat smaller after adding possible moderators (compare column 3 in Table 5). The effect of CRC changes more dramatically, from 0.139 to 0.201. Also, the effect of CRC is almost double in B2C markets than in B2B markets (.201 + .110 = .311 vs. .237 - .110 + .072 = .163). Yet, this difference is not statistically significant at 10%. Actually, the effect of CRC is quite robust: there is no indication of any significant moderation. This is not the case for the direct unmediated effect of the individual components on relational advantage. Configuration is especially affected. It has a larger effect in markets with more homogenous customer needs and more market concentration. Both interaction effects are large compared to the main effect evaluated at the sample mean. For instance, in a market that is 1 point higher on the C3 scale, i.e. has a C3 ratio that is 20 percent points higher, the effect of configuration is 0.067 larger. Since the size of the main effect is 0.071, this moderation effect must be considered quite considerable. We also find that the effect of configuration is markedly higher for businesses that serve both business and end customer (.071 + .124 = .195) compared to those who serve only final customers (.071 - .100 = -.029) and only business customers (.071 - .100 + .124 = .095). The effect of orientation also varies across market conditions, be it less dramatically: orientation has a larger effect in markets with little concentration on the supply side. Information, finally, never seems to matter much.

The effect of motivation for the strategy is quite robust across market conditions. The effect of strategy thrust, in contrast, is greater in markets that are concentrated at the supply side and varies across B2C, B2B and mixed markets.

A final result is worth drawing attention to: customer need diversity facilitates the development of a relational advantage. That is, demand heterogeneity makes it easier for firms to bind customers (assumedly because heterogeneity increases the benefits of focused targeting and consistent positioning). However, the effect is rather small.

Overall, the effects of orientation, configuration and customer relating capability documented in Table 5 generalize across market conditions, apart from an important qualification that the effect of configuration is considerably larger in markets that are homogenous at the demand side and concentrated the supply side, and a minor qualification regarding orientation.

Performance outcomes

Our final question was: how much of a contribution do strategy, resources and positional advantages make to the performance of a business relative to its competition? As shown in Table 7, these variables are collectively better at explaining differences in customer retention, than in either sales growth or profitability. This pattern was expected inasmuch as profitability and growth are also influenced by other factors such as the quality and scale of other resources, innovation capabilities, and the firms' structural position within the industry.

[Insert Table 7 about here]

CRC is the most consistent predictor of all the variables, and has a much stronger relationship to profitability than to customer retention. This is a bit surprising, and may reflect the efficiency benefits from customer retention as opposed to acquisition. The dominant effect of CRC on profitability may also stem from the way CRC was measured, i.e., referring explicitly to

valuable customers. Explicitly framing the CRC measure in terms of the ability to develop and manage relationships with *valuable* customers is consistent with the definition of CRM, but may also result in a high association between CRC and profitability.

The contribution of positional advantages to performance is more complex and interesting than expected. Whereas relational advantages (RA) has a very significant effect on customer retention, and a smaller yet still material effect on relative growth and profitability, there is no main effect from product advantage (PA) after controlling for all the other variables. This of course does not mean that PA does not matter. On the contrary, the negative interaction between PA and RA indicates that the two advantages act as substitutes. The positive effect of product advantage is greater among companies suffering from a relational disadvantage, and vice versa.

The motivation underlying the customer relationship strategy is an important determinant of profitability. Firms that motivate CRM as a means to gain an advantage, rather than as a reaction to competitors who launched CRM initiatives, obtain higher profits. Meanwhile the thrust of the strategy, which has a significant effect on relational advantage, is apparently mediated away by RA, and does not have a significant effect on any of the performance measures.

Table 8 reports to what extent those effects on performance vary across market conditions. The condition number gave no indication of harmful collinearity. Overall, the effect of CRC is quite stable. Yet, a few contingencies are worth noting. One is that in markets with widely varying levels of customer profitability, good customer relating capabilities help retain customers and are markedly more profitable, even though offering value to customers that competitors cannot match (motivation) negatively affects outcomes. This result may be interpreted as follows: in markets with a wide variance in customer profitability, being a valued partner to everyone is unlikely to be profitable, and being able to differentiate among customers' profit

potential and manage the relationship accordingly may be more important to the bottom line than in businesses with homogenous customers (cf. Kalwani and Narayandas 1995; Matthyssens and Van den Bulte 1994; Rangan et al. 1992; Shapiro et al. 1987). Also worth noting is that CRC capabilities are less effective in generating sales growth when customers perceive only minor differences among competitive offerings. In such markets, it is difficult to develop a product or relational advantage, but those who have a product advantage find it easier to retain customers. A product advantage also has a markedly larger effect on sales growth in very concentrated markets. This may reflect that a superior product is one of the few ways to gain market share in such markets, where sales growth is otherwise generated from existing customer ties, as mentioned before. The final qualification that Table 8 offers to the average effects presented in Table 7 is that product advantages are not entirely unrelated to profits. Rather, their profit impact is concentrated in market with a wide diversity of consumer needs, offering opportunities for tailoring solutions for specific niches and—we presume—allowing one to charge premium prices.

[Insert Table 8 about here]

SUMMARY AND CONCLUSIONS

Why do some businesses outperform their rivals in offering superior relational value to their target customers and convert these advantages into superior performance? Our study found that the customer relating capability is an important source of advantage that has three interrelated components: (1) *orientation* which reveals the organization's priorities toward customer relationships and decision-making criteria, (2) *information* which includes the databases and customer information systems, and (3) the *configuration* which reflects the alignment of organization structures, accountabilities and incentives for customer retention. Our study

assesses the contribution each component makes to relational advantage and relative performance, when combined with a competitive strategy that makes gaining a relational advantage an organization-wide priority. We found the following.

Information technology is merely a necessary condition. Our results support recent doubts about the relative importance of CRM technologies. One of our most robust findings is that the information component, comprising databases and customer information systems, is a necessary condition for CRM but otherwise contributes little to either relational advantage or performance.

Configuration best explains differences between firms in customer relating capability and relational value. The alignment of the organization toward building customer relationships, achieved through incentives, measures, organization structure and accountabilities, was consistently the most influential component of the capability. This was true in all market environments, but especially pronounced in intensely competitive conditions and when the firm served both B2B and B2C markets. As markets become more complex, there is a greater need for synchronization of customer contact points and for clear cut incentives and accountability in serving customers.

Orientation sets the leaders apart. This component had an effect only at the top end of the capability scale, by separating those firms with a significant capability advantage from the rest. While configuration is the main component of the customer relating capability, there needs to be a supportive orientation with top management support and organization-wide commitment to ensure superiority.

Winning strategies emphasize customer value that competitors can't match. To enable a superior customer relating capability to realize its potential, effective strategies make the nurturing of customer relationships a high priority for the entire organization and are explicitly

aimed at offering relational value that the competitors can't match. Conversely, defensive efforts whose motivation is to avoid a disadvantage, were likely to undercut performance. Not only does a reactive strategy ensure that the organization won't commit to the strategy, it also precludes any possibility of a relational advantage. This can be damaging to performance, in light of our finding that relational advantages have more influence than product advantages on relative customer retention and sales growth performance.

***A** superior customer relating capability is associated with superior performance.* CRC was the single most important predictor of relative performance. It had the strongest relationship to relative profitability but was also significantly related with relative sales growth and customer retention. This finding applied to all market environments, which is counter to the guidance and prescriptions of practitioners who emphasize differences between B2B and B2C markets and the need to consider diversity in customer needs and profitability. We do not believe the robustness of the association between customer relating capability and performance is an artifact of the contextual measures since we did find moderation in the association of relational and product value with performance.

Contributions beyond the realm of CRM

This study strengthens the empirical foundations of the resource-based view of the firm within the realm of marketing. We have shown that it is possible and beneficial to distinguish resources from the positional advantages that are realized in the market. Instead of there being a direct effect of a capability on relative performance, the effect is partially mediated through positional advantage (Day and Wensley 1988). This analysis also gave support to the often mentioned but little investigated distinction between relational and product advantages.

Whereas the relative unimportance of information technology stands in sharp contrast with much of the prevailing "wisdom" long espoused in the literature, it is fully consistent with the resource based theory of the firm. Since information technology and expertise is available in the market, it cannot form the basis of a sustained competitive advantage. Only imperfectly mobile and imperfectly replicable resources, such as organizational culture and the alignment of structure, strategy and systems, can do so (Barney 1991; Dierickx and Cool 1989; Mata et al. 1995).

We also demonstrate what can be gained from decomposing a specific capability into its underlying components, and then assessing their respective contributions. The three components of the customer relating capability were found to be reasonably independent, and serving different roles in forming a superior capability. Our results indicate that information technology investments are only the beginning of an organizational development process. This is quite consistent with recent lessons from knowledge management, where companies put an initial emphasis on information technology but then learned that much deeper cultural and organizational changes were necessary to reap benefits from these investments (e.g., Cohen 1998; Ruggles 1998).

Future Research

Our study has several limitations in method and scope that future research may overcome.

Measures and design. We used self-reports of the best informed senior manager. This may be problematic if there is diversity of perceptions within an organization – depending on the background of each manager, their exposure to competitive actions and familiarity with CRM . This could be addressed with multiple informant studies within a single organization. More importantly, the performance measures are subjective and our design is non-experimental which

does not allow us to draw strong conclusions as to causality. Research with (quasi-) experimental designs and objective performance metrics, such as Gopalakrishna et al. (1995) did in the area of trade shows and Lilien et al. (2002) in the area of new product development, would therefore be particularly valuable in complementing the present investigation.

Sub-activities. We considered CRM broadly and did not investigate sub-activities. These include processes like analyzing customers, developing and delivering tailored offerings, providing customer service, orchestrating linkages, assigning accountability, evaluating performance (cf. Gilbert 2002). To what extent do orientation, information, and configuration play different roles in each of these areas? To what extent do these areas affect marketing performance differently? Does the relative importance of these areas differ among markets?

Our definition of CRM emphasizes that it is a process. There are several process issues of great theoretical interest that we did not address in the present study. We focused on identifying components of the customer relating capability and on assessing consequences of CRM capabilities on positional advantage and performance. We did not investigate how such capabilities develop and interact with other organizational characteristics. We see two important issues that future research might address.

Dynamic versus static resources. Some authors question whether resource factors that explain superior performance at one point in time can account for the achievement of consistently superior performance over time (e.g., Grant 1996). The argument is that superior performance requires the continuous creation of temporary advantages, which puts a premium on learning quickly to alter the resource configuration in anticipation of market changes. Investigating such dynamics requires a longitudinal design and is feasible only within a specific industry context.

Organizational linkages and processes. While the customer relating capability is separable and identifiable, it is also deeply nested within the other resources of the firm (cf. Black & Boal 1994), and probably best nurtured with a market orientation that puts a premium on superior market sensing and a conducive cultural context (Day 1994). The ability to achieve a relationship advantage requires all the processes and systems to work together to deliver the customer value proposition completely and consistently. These linkages and interactions are best traced with in-depth clinical studies rather than survey-based studies (e.g., Siggelkow 2001).

Academic marketing research has long emphasized the role of formal systems to collect, interpret and disseminate information on markets and customers. Little research exists on informal information flows and on the cultural and organizational processes that companies engage in to manage and use customer and market information. Our results suggest that research taking into account not only formal information systems but also informal communication and organizational orientation and configuration is needed to improve the management of customer relationships.

FOOTNOTES

[1] Consistent with the resource-based view, we view a firm's ability to relate effectively with customers as a firm-specific capability. This study does not adopt the relational view, which considers the dyad or network as the source of advantage (Dyer and Singh 1998).

[2] Leonard-Barton (1995) decomposed the core technological capability into: (1) Accumulated employee skills, (2) Technical systems, comprising data-bases, computer systems and software, (3) Managerial systems, including rewards and incentives, and (4) Values and norms that dictate what information is to be collected and how it is to be used.

[3] This bi-dimensionality is consistent with some work in social psychology and marketing that distinguishes among trust as an attribution of competence, of honesty, and of benevolence (e.g., Ganesan 1994; Kumar et al. 1995; Rempel et al. 1985). Competence is related to the ability to solve customer problems and provide value, whereas honesty and benevolence are relational constructs.

[4] For orientation, these questions included such items as emphasizing one-time transactions versus viewing customers as assets, being willing to treat customers differently, giving front-line employees the freedom to take actions to satisfy individual customers, and sharing customer information across the organization (cf. Peppers and Rogers 1997; Wayland and Cole 1997). Information items included completeness, currency and accuracy of databases, the extent to which databases provide a complete and up-to-date picture of the full history of the customer, and the extent to which information systems enable the company to use a differentiated approach across its customers. For configuration, items included the availability of resources to support CRM and the emphasis of employee and management incentives on customer retention.

Appendix A. Scale items

Performance (single-item)

How has your performance in the past two years compared to competition?

	Much better	Better	Equal	Worse	Much worse
Sales growth	□	□	□	□	□
Profitability	□	□	□	□	□
Customer retention	□	□	□	□	□

Relational advantage (Cronbach α = .86)

How does your target customer segment perceive your business compared to your direct competitors?

Least responsive	□ □ □ □ □	Most responsive to their individual needs
Most difficult to do business with	□ □ □ □ □	Easiest to do business with
Least understanding of their needs	□ □ □ □ □	Most understanding of their needs
* Worst at sharing information	□ □ □ □ □	Best at sharing information
Most difficult to collaborate with	□ □ □ □ □	Easiest to collaborate with
Worst customer service	□ □ □ □ □	Best customer service
Worst at dealing with problems and queries	□ □ □ □ □	Best at dealing with problems and queries
* Least trusted	□ □ □ □ □	Most trusted

Product advantage (Cronbach α = .68)

How does your target customer segment perceive your business compared to your direct competitors?

Worst product quality	□ □ □ □ □	Best product quality
Offer the worst total solution	□ □ □ □ □	Offer the best total solution
Worst customer value for the money	□ □ □ □ □	Best customer value for the money

Customer relating capability (single-item)

Overall, how does your business compare to your competitors in developing and managing relationships with valuable customers?

Significant Advantage	*Moderate Advantage*	*Parity*	*Moderate Disadvantage*	*Significant Disadvantage*
☐	☐	☐	☐	☐

Customer relating capability components (single-item)

How does your overall **orientation** compare to your direct competitors?

	The Worst	*Below Average*	*Average*	*Above Average*	*Among the Better Firms*	*The Leader*
We are:	☐	☐	☐	☐	☐	☐

Overall, how do your **databases and customer information systems** compare to your direct competitors?

	The Worst	*Below Average*	*Average*	*Above Average*	*Among the Better Firms*	*The Leader*
We are:	☐	☐	☐	☐	☐	☐

Overall, how does the **alignment of your organization** toward building customer relationships compare to your direct competitors?

	The Worst	*Below Average*	*Average*	*Above Average*	*Among the Better Firms*	*The Leader*
We are:	☐	☐	☐	☐	☐	☐

* Deleted item

Table 1. Distribution of performance and capabilities

Market share rank

#1	#2	#3	#4	#5	#6 or lower
43%	19%	18%	7%	3%	10%

Performance over the past two years compared to competition

	Much better	Better	Equal	Worse	Much worse
Sales growth	25%	42%	25%	7%	1%
Profitability	23%	43%	21%	12%	1%
Customer retention	16%	46%	31%	5%	1%

Customer relating capability

Significant Advantage	Moderate Advantage	Parity	Moderate Disadvantage	Significant Disadvantage
18%	49%	23%	9%	0%

Customer relating capability components

	The Worst	Below Average	Average	Above Average	Among the Better Firms	The Leader
Orientation	0%	5%	17%	24%	39%	14%
Information	0%	14%	38%	21%	21%	5%
Configuration	0%	11%	31%	26%	26%	6%

Table 2. Descriptive statistics and correlation matrix

Variable	Mean	SD	Min	Max																
Growth *	2.83	0.92	1	5																
Customer retention *	2.71	0.84	1	5	0.55															
Profitability *	2.75	0.98	1	5	0.49	0.46														
Relational advantage	3.80	0.62	1.83	5	0.35	0.49	0.25													
Product advantage	4.01	0.56	2.33	5	0.31	0.42	0.27	0.58												
CRC *	2.76	0.86	1	5	0.38	0.40	0.37	0.47	0.48											
Orientation	4.38	1.10	1	6	0.32	0.45	0.27	0.51	0.50	0.48										
Information	3.63	1.12	1	6	0.25	0.27	0.20	0.32	0.36	0.43	0.49									
Configuration	3.85	1.11	2	6	0.31	0.39	0.26	0.51	0.42	0.56	0.63	0.58								
Motivation	3.54	1.04	1	5	0.24	0.34	0.29	0.39	0.28	0.26	0.37	0.22	0.34							
Thrust	3.78	0.98	1	5	0.27	0.30	0.23	0.44	0.30	0.41	0.49	0.33	0.51	0.30						
Need diversity	3.26	1.21	1	5	-0.02	-0.03	0.02	0.04	-0.05	-0.06	-0.07	-0.15	-0.07	0.07	0.01					
Customer differentiation	3.45	0.99	1	5	-0.07	-0.10	-0.06	-0.07	-0.07	-0.02	-0.03	-0.01	-0.03	0.00	-0.01	0.24				
Competitive differentiation	2.88	1.13	1	5	-0.15	-0.10	-0.12	-0.10	-0.17	-0.17	-0.10	-0.07	-0.21	-0.03	-0.14	-0.14	0.02			
C3 ratio	3.48	1.31	1	5	0.00	0.01	0.08	0.00	0.04	-0.01	0.03	0.04	0.07	0.12	-0.02	0.04	0.01	-0.06		
B2C	0.24	0.43	0	1	0.05	0.01	0.03	-0.02	-0.03	-0.05	-0.13	-0.10	-0.10	0.00	-0.10	0.10	-0.19	-0.04	0.06	
B2B/C	0.23	0.42	0	1	0.03	0.05	0.03	0.04	0.02	0.05	0.04	0.08	0.09	0.06	0.03	0.09	0.08	-0.04	0.13	-0.31

The asterisk (*) denotes reverse-coded variables. All correlations with absolute value greater than 0.11 are different from zero at 5% significance. The correlation between relational and product advantage reported here (0.58) is lower than the correlation of the factors in the confirmatory factor analysis (0.83) because the former value is depressed by the lack of perfect reliability, whereas the latter controls for it.

Table 3. Effect of orientation, information, and configuration on overall customer relating capability: main effects only

	OLS model	Continuation ratio logit models		
		Significant advantage vs. worse	Moderate advantage vs. worse	Parity vs. worse
Intercept	2.759***	-2.150***	0.724***	2.337***
	(0.041)	(0.241)	(0.159)	(0.511)
Orientation	0.157**	0.658**	0.291	0.176
	(0.048)	(0.253)	(0.163)	(0.260)
Information	0.102*	0.202	0.306	0.342
	(0.045)	(0.174)	(0.172)	(0.340)
Configuration	0.281***	0.811***	0.560**	1.072**
	(0.051)	(0.231)	(0.182)	(0.413)
N	299	299	244	98
R^2	0.355			
-2LL		215.922	282.772	96.078
ρ^2		0.244	0.140	0.181

The values between brackets are standard errors. The pseudo-R^2 measure ρ^2 is a log likelihood ratio indicating how much smaller the log likelihood value of the fitted model is compared to that of a null model featuring only an intercept (Agresti 1990). I.e., $\rho^2 = 1\text{-}[LL_{fitted} / LL_{null}]$.

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

Table 4. Effect of orientation, information, and configuration on overall customer relating capability: including interactions

	OLS model	Continuation ratio logit models		
		Significant advantage vs. worse	Moderate advantage vs. worse	Parity vs. worse
Intercept	2.812***	-2.176***	0.841***	2.345***
	(0.049)	(0.242)	(0.173)	(0.447)
Orientation (O)	0.153**	0.499	0.148	0.319
	(0.051)	(0.270)	(0.200)	(0.547)
Information (I)	0.129**	0.419	0.318	-0.419
	(0.047)	(0.257)	(0.174)	(0.586)
Configuration (C)	0.275***	0.760**	0.529**	0.654
	(0.051)	(0.257)	(0.192)	(0.523)
O x I	0.030	0.045	0.043	0.178
	(0.053)	(0.251)	(0.201)	(0.443)
O x C	-0.006	0.307	-0.256	-0.050
	(0.044)	(0.231)	(0.182)	(0.381)
I x C	-0.093*	-0.280	-0.089	-0.903*
	(0.042)	(0.207)	(0.172)	(0.403)
N	299	299	244	98
R^2	0.369			
-2LL		212.929	279.390	88.635
ρ^2		0.254	0.150	0.244

The values between brackets are standard errors. The pseudo-R^2 measure ρ^2 is a log likelihood ratio indicating how much smaller the log likelihood value of the fitted model is compared to that of a null model featuring only an intercept (Agresti 1990). I.e., $\rho^2 = 1\text{-}[LL_{fitted} / LL_{null}]$.

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

Table 5. Effect of customer relating capabilities and strategy on relational advantage (OLS regression)

	Main effects only			With interactions	
Intercept	3.818*** (0.029)	3.818*** (0.029)	3.818*** (0.029)	3.840*** (0.035)	3.835*** (0.035)
Motivation	0.113*** (0.031)	0.147*** (0.030)	0.109*** (0.031)	0.108*** (0.031)	0.104*** (0.031)
Thrust	0.111** (0.036)	0.156*** (0.034)	0.093* (0.036)	0.104** (0.037)	0.087* (0.036)
Orientation (O)	0.122*** (0.037)		0.105** (0.036)	0.104*** (0.038)	0.087* (0.038)
Information (I)	-0.002 (0.032)		-0.017 (0.032)	-0.002 (0.034)	-0.020 (0.034)
Configuration (C)	0.122** (0.038)		0.089* (0.039)	0.134*** (0.039)	0.101* (0.040)
O x I				-0.005 (0.039)	-0.011 (0.038)
O x C				-0.043 (0.032)	-0.043 (0.031)
I x C				0.018 (0.030)	0.031 (0.030)
CRC		0.214*** (0.038)	0.139*** (0.042)		0.142*** (0.042)
N	299	299	299	299	299
R^2	0.367	0.347	0.391	0.373	0.397

The values between brackets are standard errors.

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

Table 6. How the effect of customer relating capabilities on relational advantage varies across markets (OLS regression coefficients)

Intercept	3.812****
Motivation	0.081**
Thrust	0.066
Orientation	0.122***
Information	-0.008
Configuration	0.071
CRC	0.201****
Customer need diversity	0.051*
x Motivation	-0.028
x Thrust	-0.005
x Orientation	0.046
x Information	-0.016
x Configuration	-0.064*
x CRC	0.051
Customer differentiation	-0.036
x Motivation	0.041
x Thrust	0.047
x Orientation	-0.037
x Information	-0.048
x Configuration	0.035
x CRC	-0.060
Commoditization	0.015
x Motivation	-0.013
x Thrust	0.024
x Orientation	0.044
x Information	0.016
x Configuration	-0.032
x CRC	0.005
Market concentration	-0.018
x Motivation	0.002
x Thrust	0.061*
x Orientation	-0.080**
x Information	-0.040
x Configuration	0.067*
x CRC	-0.052
B2C	0.077
x Motivation	0.074
x Thrust	-0.143**
x Orientation	-0.014
x Information	0.030
x Configuration	-0.100
x CRC	0.110
B2C and B2B	-0.057
x Motivation	-0.058
x Thrust	0.131**
x Orientation	-0.002
x Information	-0.053

x Configuration	0.124*
x CRC	-0.072
N	296
R^2	0.494

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$, **** $p \leq .001$

Table 7. Performance outcomes (OLS regression)

	Customer Retention	Sales Growth	Profit
Intercept	2.724***	2.888***	2.807***
	(0.046)	(0.053)	(0.056)
Motivation	0.106*	0.062*	0.180***
	(0.044)	(0.051)	(0.054)
Thrust	0.010	0.031	-0.018
	(0.050)	(0.057)	(0.061)
Relational advantage (RA)	0.378***	0.224*	0.044
	(0.090)	(0.103)	(0.104)
Product advantage (PA)	0.191	0.056	0.107
	(0.097)	(0.111)	(0.118)
RA x PA	-0.143*	-0.258*	-0.223
	(0.103)	(0.119)	(0.126)
CRC	0.160**	0.262***	0.363***
	(0.059)	(0.067)	(0.071)
N	299	299	299
R^2	0.319	0.216	0.204

The values between brackets are standard errors.

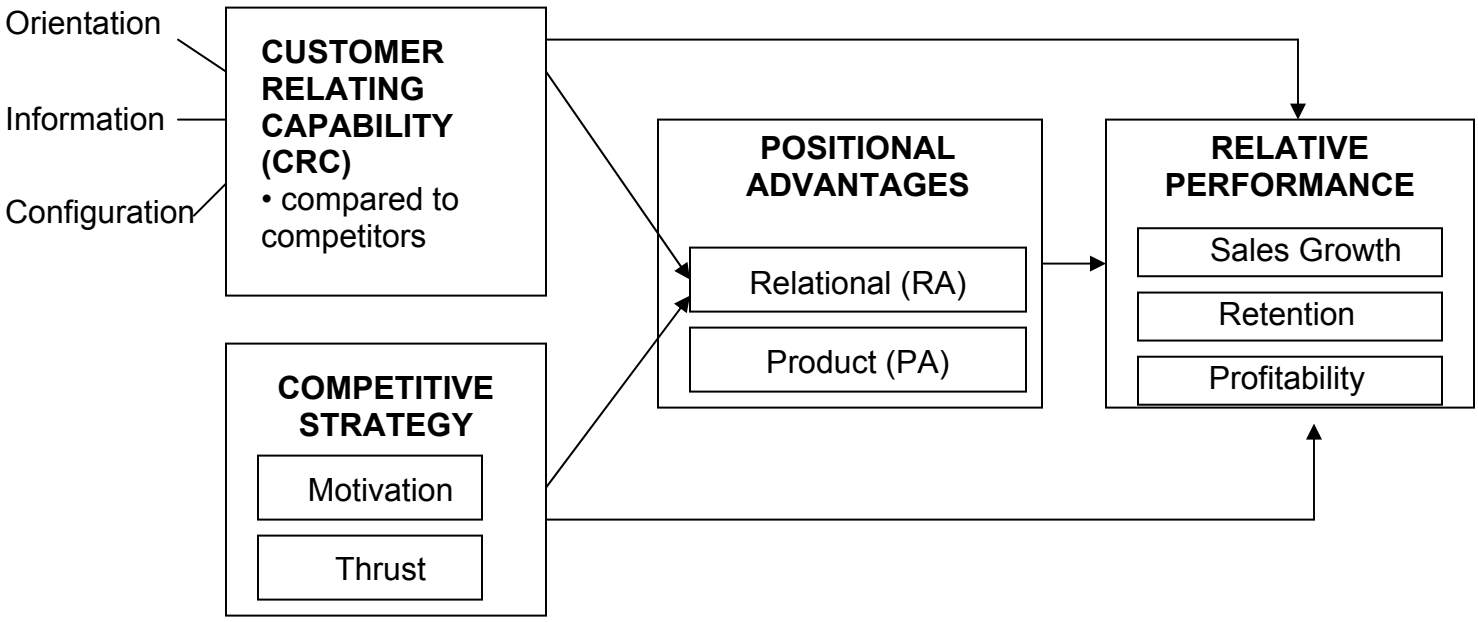
* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

Table 8. How the effects of customer relating capabilities, relational advantage, and product advantage on performance vary across markets (OLS regression coefficients)

	Customer Retention	Sales Growth	Profit
Intercept	2.765****	2.904****	2.845****
Motivation	0.154***	0.093	0.201***
Thrust		-0.023	0.023 -0.008
Relational advantage (RA)	0.401****	0.168	-0.101
Product advantage (PA)	0.134	-0.070	-0.060
RA x PA	-0.159	-0.152	-0.211
CRC	0.195***	0.339****	0.442****
Customer need diversity	-0.003	-0.024	-0.011
x Motivation	0.022	0.018	0.134***
x Thrust	0.002	-0.081	0.018
x Relational advantage	-0.008	0.061	-0.156
x Product advantage	0.113	-0.036	0.258**
x CRC	-0.033	0.048	-0.079
Customer differentiation	-0.055	-0.037	0.001
x Motivation	-0.120**	-0.128**	-0.171**
x Thrust	-0.082	0.019	-0.027
x Relational advantage	-0.002	-0.063	-0.185
x Product advantage	0.014	0.018	0.121
x CRC	0.154**	0.081	0.218***
Commoditization	0.016	-0.047	-0.006
x Motivation	-0.052	-0.013	-0.025
x Thrust	0.020	0.049	-0.005
x Relational advantage	-0.037	0.048	-0.023
x Product advantage	0.247***	0.157	0.025
x CRC	0.019	-0.119*	0.143**
Market concentration	-0.028	-0.032	-0.017
x Motivation	0.028	0.071	-0.001
x Thrust	-0.083*	-0.063	-0.016
x Relational advantage	-0.059	-0.069	-0.006
x Product advantage	0.113	0.264***	0.090
x CRC	-0.013	-0.065	-0.029
B2C	0.015	0.148*	0.219**
x Motivation	-0.149*	-0.123	-0.141
x Thrust	0.107	0.172	0.173
x Relational advantage	-0.007	-0.445**	-0.318
x Product advantage	-0.183	-0.049	-0.355
x CRC	0.168	0.138	0.123
B2C and B2B	0.030	-0.039	-0.132
x Motivation	0.173**	0.055	0.135
x Thrust	-0.153	-0.138	-0.150
x Relational advantage	0.080	0.316	0.068
x Product advantage	-0.079	-0.450**	0.015
x CRC	-0.103	0.104	0.157
N	294	297	297
R^2	0.415	0.359	0.342

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$, **** $p \leq .001$

Figure 1
ACHIEVING A RELATIONSHIP ADVANTAGE



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