The Thought Worlds of Marketing and Sales: Which Differences Make a Difference?

The literature is divided on whether differences between the thought worlds of marketing and sales are deleterious or beneficial. This article empirically investigates various facets of thought-world differences and their effects on various outcomes. It confirms that, in general, differences hamper the cooperation between marketing and sales, which leads to a lower market performance of the business unit. However, some facets of thought-world differences enhance the market performance of the business unit through a direct effect that outweighs the negative effect mediated by the quality of cooperation between marketing and sales. Market performance is enhanced if one side plays the customers’ advocate while the other plays the products’ advocate. Market performance is also enhanced if one side plays the advocate of short-term considerations while the other plays the advocate of long-term considerations. In contrast, differences between marketing and sales in regard to product knowledge and interpersonal skills are deleterious to market performance. Thus, the kind of difference makes a difference.

Marketing’s interfaces with other business functions have attracted increasing research attention. Most studies have focused on marketing’s boundaries with research and development (R&D) (Gupta, Raj, and Wilemon 1986; Ruekert and Walker 1987a) and manufacturing (Griffin and Hauser 1992; Kahn and Mentzer 1998). Others have investigated its interfaces with quality management (Morgan and Piercy 1998), engineering (Fisher, Maltz, and Jaworski 1997), human resources (Chimhanzi 2004), information technology (Glazer 1997), and finance (De Ruyter and Wetzel 2000; Zinkhan and Verbrugge 2000). Finally, there has been integrative work that has compared several interfaces (Maltz and Kohli 1996, 2000; Ruekert and Walker 1987b).

Curiously, only little attention has been devoted to the interface between marketing units and sales units. Research by Panigyrakis and Veloutsou (1999), Piercy (1986), and Workman, Homburg, and Gruner (1998) indicates that marketing and sales are often separate departments in organizational reality. Pioneering qualitative work on the interface between marketing and sales has pointed out that it is highly conflict laden in managerial practice: “The marketing–sales relationship, whilst strongly interdependent, is reported as neither collaborative nor harmonious” (Dewsnap and Jobber 2000, p. 109). Montgomery and Webster (1997, p. 16) report from a Marketing Science Institute conference that “intrafunctional conflict within marketing was a more important topic … than we had expected. The most frequently discussed issue was the conflict between sales and marketing.”

The pioneering articles consistently attribute these frictions between marketing and sales to differing goals (Strahle, Spiro, and Acito 1996) and “windows on the world” (Cespedes 1996, p. 27). Marketing has been characterized as being more long-term and product oriented, and sales has been characterized as being more short-term and customer relationship oriented (Cespedes 1994). Lawrence and Lorsch’s (1969) work on differentiation introduced the concept of departmental orientations to the organizational literature. More recently, departmental orientations have been framed as part of a broader concept in the organizational literature: departmental “thought worlds.” The thought-world concept has found several applications in literature on strategy making and new product development (Doughtery 1992; Frankwick et al. 1994; Griffin and Hauser 1996; Maltz 1997; Workman 1993). Deshpandé and Webster (1989, p. 12, emphasis added) call for more research on “the thought worlds of managers.… Such an inquiry would center on understanding how differences in the world views of different groups or departments would help or hinder the enactment of marketing decisions. This approach can be applied usefully to several of the subfunctional divisions, including marketing versus sales.”

This statement by Deshpandé and Webster (1989) raises the question whether differences between departmental thought worlds are helpful or hindering. As we show in our hypotheses development, different research traditions have come to somewhat contradictory conclusions. However, to the best of our knowledge, no academic research has
empirically distinguished which kinds of thought-world differences are helpful and which are hindering.

Notably, contradictory perspectives on the nature of thought-world differences can also be found in the managerial literature. Some authors have called for similar thought worlds of marketing and sales (Donath 1999), and others have called for differentiated thought worlds. Cespedes (1996, p. 30) purports that “the solution is not to eliminate differences among these groups.” Cespedes (1995, p. xxii) also notes that, “paradoxically, there is virtue in separating and distinguishing functional roles in order to improve the cross-functional coordination needed.” Again, to the best of our knowledge, Cespedes’s paradox has never been followed up on by large-scale empirical research.

Against this background, our study focuses on the thought worlds of marketing and sales. Taking up the unsolved puzzle raised by both academic and managerial literature, we ask the key question, How do differences between the thought worlds of marketing and sales affect their organizational outcomes? We inquire specifically whether various facets of thought-world differences (e.g., product versus customer orientation, short-term versus long-term orientation) have positive or negative consequences. To wit, Does the kind of difference make a difference?

At this point, we clarify which understanding of marketing and sales we used in this study. The literature distinguishes an activity-based perspective and a functional group perspective (Workman, Homburg, and Gruner 1998). The activity-based perspective defines marketing on the basis of specific tasks, such as communication, market research, product management, and pricing, regardless of which organizational subunit carries them out. The functional group perspective focuses on the departmental subunits that are labeled marketing and sales, regardless of their activities. Because this article studies departmental thought worlds, our perspective follows a functional group perspective.

Developing the Thought-World Perspective on Marketing and Sales

This section translates the thought-world concept into the marketing and sales context. We develop the conceptualization of marketing and sales thought worlds from the top down, beginning with categories of thought-world dimensions and ending with definitions of specific dimensions. Figure 1 provides an overview of our conceptual framework.

Dougherty (1992) groups thought-world dimensions into two categories: funds of knowledge and systems of meaning. Dougherty explicates systems of meaning in terms of what is seen when looking into the future, what is considered critical, and how the task is understood. In her terminology, then, thought-world differences would be different funds of knowledge and different systems of meaning. This parallels Lawrence and Lorsch’s (1969, p. 11) differentiation concept, which they define as “the difference in cognitive and emotional orientation among managers in different functional departments,” explicitly subsuming (p. 9) “working styles and mental processes” and “differences in attitude and behavior, not just the simple fact of segmentation and specialized knowledge.” It is important to note that both concepts encompass knowledge and cognitive orientations. Building on these well-known concepts, our framework specifies two types of thought-world dimensions: competence dimensions and orientation dimensions. We refer to orientations as the goals, time horizons, and objects according to which marketing and sales array their activi-
ties. Orientations regulate which information is processed and how conflicting arguments are weighted. We define competence as the level of technical and social capabilities in marketing and sales.

**Orientation Dimensions**

On the one hand, our conceptualization of the orientation dimensions is grounded in the work of Lawrence and Lorsch (1969). Their conceptualization of differentiation winnows several types of departmental orientations. The two types that subsequent research has picked up the most frequently are goal orientation and time orientation (Dougherty 1992; Griffin and Hauser 1996). On the other hand, the orientation dimensions hark back to the managerial reports of differences between marketing and sales we referenced previously (e.g., Cespedes 1995; Lorge 1999); that is, sales is often viewed as short-term oriented, and marketing is often viewed as comparatively long-term oriented. Differing time orientations are important because they affect judgments on organizational resource investments. As an example, a short-term-oriented department may give investments into customer loyalty less priority than a long-term-oriented department. Therefore, we define short-term (versus long-term) orientation of marketing/sales as the extent to which the activities of marketing/sales are guided by immediate action rather than by extensive planning.

Another type of difference has been reported in regard to what marketing and sales attempt to optimize. Cespedes (1995) and Lorge (1999) argue that marketing often focuses on products, whereas sales focuses on customer accounts. A potential clash between a product-oriented and a customer-oriented department occurs when the product-oriented department suggests the elimination of an unprofitable product, but the customer-oriented department wants to preserve the product because it is the “anchor product” in one important customer relationship. Dougherty (1992, p. 188) uses a similar distinction to compare systems of meaning. Some view their task as one of building the product, whereas others view their task as one of developing relationships with buyers. Thus, we define customer (versus product) orientation of marketing (sales) as the extent to which the activities of marketing (sales) are guided by customer-related rather than product-related strategies, plans, and performance evaluations.

**Competence Dimensions**

A hallmark of interdepartmental division of labor is the development of specialized knowledge (McCann and Galbraith 1981). Given constraints on time and other resources, the depth of knowledge required to cope with a complex task can be accomplished only by forsaking proficiency in other fields of knowledge. Considering knowledge is important in the study of thought worlds because specialized knowledge hampers the ability of two departments to communicate. Indeed, “technology-market funds of knowledge” are a key dimension of Dougherty’s (1992) thought-world concept. Whereas market knowledge pertains to the external environment of the organization, technology per-
Control Variables

Finally, our framework comprises three context variables that have been shown to affect interfunctional relationships and for which we must control. First, research has pointed out the enormous variation in the structural and nonstructural design of the marketing organization (Homburg, Workman, and Jensen 2000; Workman, Homburg, and Gruner 1998). These design variations manifest in varying degrees of power that marketing and sales units have over marketing activities (Homburg, Workman, and Krohmer 1999; Piercy 1989). By controlling for varying degrees of power, we ensure that the results hold across different organizational configurations. Moreover, a power imbalance between two groups has been shown to affect their relationship negatively (Anderson and Weitz 1989; Bucklin and Sengupta 1993), which makes its consideration even more essential. We define power imbalance between marketing and sales as the extent to which power over market-related activities is biased toward either marketing or sales. Second, internal change has been demonstrated to encumber internal working relationships and attitudes (Reilly, Brett, and Stroh 1993; Worrall, Parkes, and Cooper 2004) as well as marketing’s interfunctional relationships (Maltz and Kohli 2000; Maltz, Souder, and Kumar 2001). We define internal dynamism as the extent to which organizational structures, processes, leadership, and strategy within the organization change frequently. Third, market turbulence and technological turbulence have been shown to affect the market performance of the firm (Kirca, Jayachandran, and Bearden 2005). We define environmental dynamism as the extent to which competitive activities, customer needs, and technology in the market change frequently.

Hypotheses Development

As we pointed out previously, it is contentious whether differences between marketing and sales are helpful or hindering. In this section, we first juxtapose two general perspectives on the differences between organizational subunits: the “thought-world-differences-are-bad” perspective and the “thought-world-differences-are-both-good-and-bad” perspective. We then argue that though these perspectives permit a clear hypothesis with respect to how thought-world differences affect interdepartmental cooperation quality, they do not permit a clear hypothesis with respect to how thought-world differences affect overall market performance. Therefore, we suggest two competing hypotheses pertaining to the impact of thought-world differences on overall market performance.

The Thought-World-Differences-Are-Bad Perspective

The first perspective on thought-world differences is grounded in the social psychology of groups. This research has a strong tradition of viewing thought-world differences as detrimental to intergroup cooperation. A simple type of argument that has been advanced against thought-world differences is a variation on the “similarity-leads-to-attraction” theme. As Brown (1996, p. 176) notes, “if there is one ‘law’ of social relations which is almost universally accepted in social psychology, it is that similarity leads to attraction.” Conversely, differences are conjectured to lead to intergroup aversion.

A more refined argument is proffered by the social identity and self-categorization perspective (Abrams and Hogg 1999; Tajfel and Turner 1986). Striving to distinguish their in-group positively, people tend to develop negative stereotypes of the out-group (Brown 1996; Hogg and Terry 2000). As Ashford and Mael (1989, p. 33) note, this “desire for favourable intergroup comparisons generates much conflict between differentiated and clearly bounded subunits.” The theory holds that even small thought-world differences are exacerbated by the desire for positive distinctiveness.

The Thought-World-Differences-Are-Both-Good-and-Bad Perspective

The second perspective on thought-world differences is grounded in literature on (strategic) team decision making. This perspective separates two levels of outcomes: the cooperation between organizational subunits and the overall performance of the business unit. Thought-world differences are believed not only to hamper the quality of interunit cooperation and to fuel interunit conflict but also to foster decision quality and organizational (or team) performance. Milliken and Martins (1996, p. 403) use the metaphor of a “double-edged sword.”

Much literature in the “both-good-and-bad” tradition revolves around the diversity of teams (Simons, Pelled, and Smith 1999; Williams and O’Reilly 1998). Some facets of diversity jeopardize team cohesion. For example, diversity in regard to race, tenure, and values tends to fuel dysfunctional relationship conflicts (Amason 1996; Jehn 1997; Menon, Bharadwaj, and Howell 1996). In contrast, other facets of diversity represent an opportunity for the quality of team decisions. Informationally and functionally diverse teams are better linked to external networks and have better access to information.

These arguments are related to prior work on lens models (Mason and Mitroff 1981; Mitroff 1974). Brunswik (1955) suggests that in an uncertain environment, decision makers cannot observe the “true state” of reality but must infer it from a set of available cues. The cues function as a lens between reality and judgment. Depending on how they weight the cues, different people arrive at different judgments. This means that by confronting and combining diverse views, more precise inferences to real states are possible (Kim and McLeod 1999; Licata, Mowen, and Chakraborty 1995).1

Impact of Thought-World Differences on Cooperation Quality: A Clear Hypothesis

Note that the two perspectives make consistent predictions on cooperation quality as an outcome variable. There is consensus in the literature that thought-world differences are deleterious to interdepartmental cooperation. Different

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1We thank an anonymous reviewer for pointing out the connection to lens models.
orientations imply different priorities in the allocation of resources. For example, compared with a product-oriented department, a customer-oriented department will be more critical of investments into additional product features that are technically advanced but for which the customer is not willing to pay. On the contrary, a product-oriented department will be more critical of creating additional product variants that please one important account but increase engineering costs.

Different competences mean that one side has greater market knowledge, product knowledge, or interpersonal skills than the other. As a consequence of this dissimilarity, marketing and sales will develop a stronger in-group identification and more stereotypes about the other group, which ultimately increases conflict (Hogg and Terry 2000). Knowledge differences and different interpersonal skills will also hinder communication between marketing and sales, which negatively affects their ability to reach agreement on debated issues. Thus:

H1: Thought-world differences between marketing and sales with respect to (a) customer (versus product) orientation, (b) short-term (versus long-term) orientation, (c) market knowledge, (d) product knowledge, and (e) interpersonal skills are negatively related to the quality of cooperation between marketing and sales.

Impact of Thought-World Differences on Market Performance: Two Competing Hypotheses

After our review of the two perspectives, the impact of thought-world differences on market performance is everything but unequivocal. The thought-world-differences-are-bad perspective conjectures a negative impact on cooperation quality, which imposes the question of why the same negative mechanisms should not also apply to market performance. In contrast, the thought-world-differences-are-both-good-and-bad perspective suggests that a positive impact of thought-world differences on market performance is possible. As Millikan and Martins (1996, p. 403) summarize, “diversity offers both a great opportunity for organizations as well as an enormous challenge.” In addition, it is not clear whether all differences are good for market performance or only some. Because the current state of theory is ambiguous and permits two equally plausible lines of reasoning, we submit two competing sets of hypotheses to empirical exploration.

On the one hand, it can be argued that different orientations and different competences undermine market performance just as they undermine the quality of cooperation between marketing and sales. In terms of different orientations, frequent internal debates on alternative strategic directions can paralyze the organization. As a result of the paralysis, the organization may miss market opportunities. The positive effect of consensus on performance has also received some empirical support (Bourgeois 1980; Dess 1987; Homburg, Krohmer, and Workman 1999).

Different competences may create an interpretive barrier (Dougherty 1992). As a consequence, marketing and sales may interpret strategies differently, causing strategies to be poorly implemented. Interpretive barriers due to knowledge differences and different interpersonal skills may even preclude an informed discussion and decision making of the coalitions in the first place (Frankwick et al. 1994). Finally, it has been shown that market knowledge and market-oriented capabilities throughout the organization positively influence market performance (Day 1994; Marinova 2004). Thus:

H2b: Thought-world differences between marketing and sales with respect to (i) customer (versus product) orientation, (ii) short-term (versus long-term) orientation, (iii) market knowledge, (iv) product knowledge, and (v) interpersonal skills have a negative impact on the market performance of the business unit.

On the other hand, it can be argued that different orientations and different competences enhance market performance. Indeed, some studies find that strategic dissent rather than strategic consensus enhances performance (Bourgeois 1985; Dooley and Fryxell 1999). If diverse orientations enter the discussion, more arguments are processed, more alternatives are pondered, different skills are shared, and the quality of decisions increases (Eisenhardt and Schoonhoven 1990). Studies have repeatedly shown the advantages of such dialectical and “devil’s advocacy” approaches to decision making (Cosier 1978; Schweiger, Sandberg, and Ragan 1986). The synthesis emerging from task conflict over the diverse standpoints has been proved to be superior to the individual perspectives themselves (Jehn and Mannix 2001; Mason and Mitroff 1981; Schweiger and Sandberg 1989) and has been shown to lead to higher profits for the firm (Balasubramanian and Bhardwaj 2004). Different competences enable the integration of more information. Contrasting diverse ideas and competences has been shown to stimulate creativity and learning (Fiol 1994; Jehn, Northcraft, and Neale 1999). Thus, we propose an alternative hypothesis:

H2a: Thought-world differences between marketing and sales with respect to (i) customer (versus product) orientation, (ii) short-term (versus long-term) orientation, (iii) market knowledge, (iv) product knowledge, and (v) interpersonal skills have a positive influence on the market performance of the business unit.

Impact of Cooperation Quality on Market Performance

Our final hypothesis pertains to the relationship between the cooperation level and the business level of consequences. Numerous studies have demonstrated that the quality of cooperation between two departments affects the market-related outcomes the departments jointly achieve (see, e.g., Kirca, Jayachandran, and Bearden’s [2005] meta-analysis). Two conceptual arguments shed light on this observation. One line of reasoning emphasizes that high-quality cooperation leads to market performance because of better processing and usage of market-related information in the organization (Jaworski and Kohli 1993; Menon, Jaworski, and Kohli 1997). Another line of reasoning points out that high-quality cooperation means a commitment to implementing decisions (Amason 1996; Homburg, Krohmer, and Workman 1999). Thus:
Methodology

Data Collection Procedure

Given the need for empirical research on the marketing–sales interface, we conducted a large-scale mail survey in seven industry sectors in one European country: financial services, chemical and pharmaceutical, machinery, utilities, electronics, consumer packaged goods, and automotive. We selected these sectors on the basis of their macroeconomic importance. By including consumer goods, industrial goods, and services, we attempted to capture a variety of market settings. We obtained a random sample of strategic business units (SBUs) from a commercial list provider. The sample was stratified by company size to have enough variance with respect to this important organizational antecedent. Telephone calls were made to verify that the SBU had both a marketing and a sales subunit and to identify informants with an overview of both subunits. We obtained the names of 1700 executives through these procedures.

Respondents were asked to refer to their SBU or, if their company had only one SBU, to their company. Given our prior identification of SBUs with separate marketing and sales units, respondents were familiar with both terms and were asked to refer to the units labeled marketing and sales.

All respondents were addressed by a personalized letter. As an incentive to participate, we offered a benchmarking report and free papers from our university’s working-paper series. Four weeks after mailing the questionnaires, follow-up telephone calls were made. As a further step to ensure the appropriateness of the respondents, we included two items at the end of the questionnaire that asked how competent the respondents believed they were to answer the questions and how strongly they were involved in the cooperation between marketing and sales. We discarded returned questionnaires if one of these items was rated lower than four on a five-point scale (5 = “high competence”). As a result, we obtained 337 completed and usable questionnaires, for a response rate of 20%. We controlled for a possible nonresponse bias by comparing construct means for early and late respondents (Armstrong and Overton 1977). Their average job experience in marketing and sales was 16.6 years, with a median of 14 years.

Given that our independent and dependent measures stem from the same person, we collected additional performance data from independent sources to validate our market performance measure. Using two financial databases and annual reports from the firms’ Web sites, we obtained operating profits and operating revenues. We used segment reports when available. We did not use the objective performance data if the revenue figures obtained from the financial reports were substantially larger than the self-reported revenues stated in the questionnaire. Because publicity requirements are less comprehensive in Europe than in the United States, we could not obtain the required figures for many family-owned, foundation-owned, and state-owned companies. Overall, these procedures yielded financial performance data for 185 of the 337 data sets. Matching the time horizon of the market performance measure, we computed a three-year average for the return on sales. We standardized return on sales by industry.

Measurement Procedure

General measurement approach. We used two types of measures in the survey: reflective multi-item measures and formative multi-item measures. If observed variables (and their variances and covariances) were manifestations of underlying constructs, we used a reflective measurement model (Bagozzi and Baumgartner 1994). In such cases, we assessed the scales’ psychometric properties using confirmatory factor analysis (Anderson and Gerbing 1988; Fornell and Larcker 1981). We applied reflective measures if not otherwise indicated.

If a construct is a summary index of observed variables, a formative measurement model is more appropriate (Diamantopoulos and Winklhofer 2001; Jarvis, MacKenzie, and Podsakoff 2003). In such cases, observed variables cover different facets of the construct and cannot be expected to have significant intercorrelations. We used a formative scale to measure market knowledge and product knowledge

<table>
<thead>
<tr>
<th>Industry</th>
<th>Position of Respondent</th>
<th>Number of Employees</th>
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<tbody>
<tr>
<td>Financial services</td>
<td>Head of marketing</td>
<td>46%</td>
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<tr>
<td>Consumer packaged goods</td>
<td>Head of sales</td>
<td>36%</td>
</tr>
<tr>
<td>Utilities</td>
<td>General manager/director</td>
<td>4%</td>
</tr>
<tr>
<td>Chemical/pharmaceutical</td>
<td>Head of marketing communication</td>
<td>4%</td>
</tr>
<tr>
<td>Automotive</td>
<td>Head of product management</td>
<td>4%</td>
</tr>
<tr>
<td>Machinery</td>
<td>Other</td>
<td>6%</td>
</tr>
<tr>
<td>Electronics</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>5%</td>
</tr>
</tbody>
</table>

TABLE 1
Sample Composition
because, for example, being knowledgeable about customers does not necessarily go along with being knowledgeable about competitors. Thus, the knowledge constructs represent a knowledge index across the partial facets of knowledge. We applied the same formative measurement logic to the power imbalance construct; for example, if sales dominates price-related tasks, this does not inevitably mean that sales dominates market research tasks as well.

**Scale development.** Because our study is the first to explore the thought worlds of marketing and sales quantitatively, we could not draw on many well-established scales in the literature. Most scales needed to be modified from existing scales or to be newly created. The modification and creation of scales was based on an extensive literature review and semistructured qualitative interviews with at least one manager from each of the industries sampled. We pretested a draft of the questionnaire and refined it with 20 additional managers. Through these procedures, we ensured the content validity of our items. Appendix A lists our scale items and the literature on which we built them. Because our thought-world domains are rather broad and unexplored, we used heterogeneous items (Little, Lindenerberger, and Nesselroade 1999). We did not eliminate any questionnaire items of the thought-world constructs. As Appendix A indicates, we purified the item pool for only one of the control variables (environmental dynamism) because of extremely low item-to-total correlations.

**Scale assessment.** Appendix A provides our scale properties. Appendix B provides summary statistics and correlations. We assessed measure reliability and validity of the reflective measurements using confirmatory factor analysis, which is considered superior to more traditional criteria (e.g., Cronbach’s α) because of its less restrictive assumptions (Bagozzi, Yi, and Phillips 1991; Gerbing and Anderson 1988). We included all independent and dependent latent variables in one multifactorial confirmatory factor analysis model. This model showed a satisfactory fit to the data (adjusted goodness-of-fit index [AGFI] = .9, root mean square error of approximation [RMSEA] = .08, and standardized root mean square residual = .08). On the basis of the estimates from this model, we scrutinized composite reliability and discriminant validity. Composite reliability represents the shared variance among a set of observed variables measuring an underlying construct (Fornell and Larcker 1981). All constructs exceed the threshold value of .6 that is recommended in the literature (Bagozzi and Yi 1988, p. 82); the lowest reliability is .63. We assessed discriminant validity on the basis of criteria that Fornell and Larcker (1981) suggest; the results did not show any violation: The highest extent of shared variance between two latent variables in the phi matrix is .18, which is much lower than the average variance extracted of any construct.

**Measurement of differences.** For each orientation and competence variable, we used a twin scale: one for marketing and one for sales. We computed the items for the differences between orientations and competences by subtracting the item scores of marketing from the item scores of sales and by squaring that difference (Tsui and O’Reilly 1989). Thus, the larger the discrepancy between marketing and sales, the larger is the difference score, regardless of which has the higher and which has the lower score. Our approach is consistent with diversity research that uses measurements of dissimilarity built on squared differences (Jehn, Chadwick, and Thatcher 1997; Tsui, Egan, and O’Reilly 1992). An alternative approach, polynomial regression, cannot be applied in our case because it assumes measurement without error (Edwards 1994, 2001; Smith and Tisak 1993; Tisak and Smith 1994). An important caveat is that depending on the correlation between the constituents, the reliability of algebraic difference scores may be poor (Peter, Churchill, and Brown 1993). However, given composite reliabilities of .88, .63, and .69 for our reflective measures, this is not a serious problem in our case.

### Hypotheses-Testing Procedure

Our hypotheses propose both direct and indirect effects of thought-world differences on market performance. The indirect effects, mediated by the quality of cooperation, are all hypothesized to be negative, whereas the direct effects may be positive. Because we attempt to test the direct and indirect path hypotheses simultaneously and to explore whether the direct or indirect effects are stronger, we use structural equation modeling. We used the LISREL 8.72 software package. Polynomial regression, which has been suggested as an alternative to difference scores (Edwards 1994, 2001), cannot model the direct and indirect paths that are essential to testing our hypotheses.

Given our sample size of 337, it is impossible to include all constructs into a single structural equation model: The ratio between the number of observations and the number of parameters to be estimated (N:t) would be only 1.5:1 for this complex model. However, a ratio of 5:1 is typically viewed as a minimum requirement to achieve stable inference, given that methods for the estimation and testing of structural equation models are based on asymptotic theory (Baumgartner and Homburg 1996; Bentler and Chou 1987). Complex covariance structure models with small sample sizes are receiving increasing attention in methodological research (Hoogland and Boomsma 1998). Recent simulation studies have hypothesized that even higher ratios than 5:1 may be necessary for stable inferences on the total model (Herzog, Boomsma, and Reinecke 2007). Against this background, we analyze five separate models, one for each thought-world facet (e.g., product knowledge, interpersonal skills). Each model contains the difference construct, the two outcome variables, and the three control variables. Our N:t ratios are 6:1 for two of the five models and 5:1 for the other three.

Measures of overall fit evaluate how well the model reproduces the observed variables’ covariance matrix. The goodness-of-fit index (GFI) and the AGFI are two descriptive overall fit measures for which a minimum value of .9 is usually considered acceptable (Bagozzi and Yi 1988; Baumgartner and Homburg 1996). The RMSEA is a fit measure based on the concept of noncentrality. Usually, values up to .08 are considered indicative of reasonable model fit (Browne and Cudeck 1993). As Table 2 shows, three models miss the RMSEA criterion very closely (.09 after...
### TABLE 2
Results of Hypotheses Tests

<table>
<thead>
<tr>
<th>Domain</th>
<th>Independent Variable</th>
<th>Model</th>
<th>Hypothesis</th>
<th>Result</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Quality of cooperation between marketing and sales</td>
<td>1</td>
<td>H₃: + ✓</td>
<td>.24**</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>2</td>
<td></td>
<td>.25**</td>
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<td>.25**</td>
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<td>.24**</td>
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<td></td>
<td></td>
<td>5</td>
<td></td>
<td>.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td>Differences between marketing and sales in regard to customer (versus product) orientation</td>
<td>1</td>
<td>H₁a: - ✓</td>
<td>-.11**</td>
<td>H₂a(i): + ✓</td>
<td>.14**</td>
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<tr>
<td></td>
<td>Differences between marketing and sales in regard to short-term (versus long-term) orientation</td>
<td>2</td>
<td>H₁b: - ✓</td>
<td>-.23**</td>
<td>H₂b(ii): + ✓</td>
<td>.10*</td>
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<tr>
<td>Competence</td>
<td>Differences between marketing and sales in regard to market knowledge</td>
<td>3</td>
<td>H₁c: - ✓</td>
<td>-.07*</td>
<td>H₂c(iii): + ✓</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Differences between marketing and sales in regard to product knowledge</td>
<td>4</td>
<td>H₁d: - ✓</td>
<td>-.08**</td>
<td>H₂d(iv): + ✓</td>
<td>-.09*</td>
</tr>
<tr>
<td></td>
<td>Differences between marketing and sales in regard to interpersonal skills</td>
<td>5</td>
<td>H₁e: - ✓</td>
<td>-.28**</td>
<td>H₂e(v): + ✓</td>
<td>-.13**</td>
</tr>
</tbody>
</table>

*χ²/d.f., RMSEA, GFI, AGFI

<table>
<thead>
<tr>
<th>Model</th>
<th>Global fit statistics</th>
<th>χ²/d.f.</th>
<th>RMSEA</th>
<th>GFI</th>
<th>AGFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>3.0</td>
<td>.08</td>
<td>.95</td>
<td>.94</td>
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<tr>
<td>2</td>
<td></td>
<td>3.2</td>
<td>.08</td>
<td>.95</td>
<td>.94</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>3.3</td>
<td>.09</td>
<td>.95</td>
<td>.94</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>3.2</td>
<td>.09</td>
<td>.96</td>
<td>.94</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>2.7</td>
<td>.08</td>
<td>.95</td>
<td>.94</td>
</tr>
</tbody>
</table>

*t ≥ 1.645, p < .05.

Notes: Values shown are completely standardized path coefficients; ✓ = hypothesis confirmed.

Results

**Descriptive Results**

Figure 2 shows the overall means for the five thought-world dimensions. Mean differences are highly significant (p < .001) for customer (versus product) orientation, short-term (versus long-term) orientation, and market knowledge. The average thought-world profile of marketing and sales is fairly balanced between customers and products and between the short run and the long run. However, sales is inclined toward a customer orientation and a short-term orientation, whereas marketing is inclined toward a product orientation and a long-term orientation. Sales has a higher market knowledge than marketing. With respect to customer (versus product) orientation, Cespedes (1996, p. 27) claims that “each group has a different window on the world: Product management tends to view developments in terms of assigned products ... [and] sales in terms of its specific accounts.” Carpenter (1992, p. 29) points out the superior market knowledge of sales: “Salespeople are in constant contact with prospects and customers. They’re a fantastic informational conduit.”

Results of the Hypotheses Tests

Table 2 summarizes the results of our five structural equation models. To begin with the least complex hypothesis, H₃ is corroborated: All five models consistently show a positive, highly significant impact of the quality of cooperation between marketing and sales on the market performance of the business unit. H₃ - H₅ are also confirmed: Different orientations as well as different competences of marketing and sales adversely affect the quality of cooperation. The effects are highly significant. To summarize, thought-world differences are bad for the quality of cooperation between marketing and sales.

We now evaluate which of the competing hypotheses pertaining to the effect of thought-world differences on
market performance are empirically supported. The results are intriguing. Differences in regard to customer (versus product) orientation have a positive, direct effect on the market performance of the business unit, in support of H2b(i). Thus, it is beneficial if one side champions a product orientation and the other side champions a customer orientation. In the same way, differences in regard to short-term (versus long-term) orientation have a positive, direct effect on the market performance of the business unit, in support of H2b(ii). It is beneficial if one side plays the advocate of short-term considerations and the other side plays the advocate of long-term considerations.

Because different orientations have a negative effect on cooperation quality but a positive effect on market performance, it is insightful to compare its positive, direct effect on market performance with the negative, indirect effect that cooperation quality mediates. For differences in regard to customer (versus product) orientation, the direct effect is .14, and the indirect effect is −.03, yielding a positive total effect on market performance of .11. In the case of differences in regard to short-term (versus long-term) orientation, the direct effect is .10, and the indirect effect is −.06, yielding a positive total effect on market performance of .04. A key finding is that the beneficial effect of different orientations on market performance in regard to both customer (versus product) orientation and short-term (versus long-term) orientation outweighs the detrimental effect on cooperation quality.

To continue the tests of the competing hypotheses, we found no significant effect for differences in regard to market knowledge; thus, neither hypothesis is supported. However, there are significant effects for differences in regard to both product knowledge and interpersonal skills. Differences in regard to product knowledge have a negative impact on market performance; this confirms H2a(iv). Likewise, differences in regard to interpersonal skills have a negative, direct impact on the market performance of the business unit; this confirms H2a(v). Thus, another key finding of our study is that the signs for different competences between marketing and sales are opposite to the signs for different orientations; that is, different orientations between marketing and sales are good for market performance, whereas different competences are bad for market performance.

**Assessing the Effects of the Respondents’ Functional Background**

As Table 1 shows, our sample cumulates respondents from marketing and respondents from sales. Thus, it is necessary to probe whether the results of our hypotheses tests differ between marketing respondents and sales respondents. Using the two largest groups in the data set—the head of sales (n = 120) and the head of marketing (n = 155)—we conducted two tests to assess whether the effects of thought-world differences differ between the marketing respondents and the sales respondents. First, we tested whether the correlations between the difference variables and the dependent variables are significantly different. To this end, we transformed correlations into Fisher z values. The correlations are significantly different at a 5% (two-tailed) level if the normal curve deviate of the z difference exceeds 1.96 (Cohen et al. 2003, p. 49). As Table 3 shows, none of the ten correlations differ significantly between marketing and sales respondents; the highest value we found was 1.64, and the lowest was 0. Thus, comparing the key correlations does not indicate a single violation that would speak against cumulating marketing respondents and sales respondents.
TABLE 3
Comparing Respondents from Marketing with Respondents from Sales

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Dependent Variable</th>
<th>Correlation</th>
<th>Multigroup Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences in regard to customer (versus product)</td>
<td>Quality of cooperation</td>
<td>.33</td>
<td>.88</td>
</tr>
<tr>
<td>orientation</td>
<td>Market performance</td>
<td>-.83</td>
<td>2.06</td>
</tr>
<tr>
<td>Differences in regard to short-term (versus long-term)</td>
<td>Quality of cooperation</td>
<td>-.60</td>
<td>1.94</td>
</tr>
<tr>
<td>orientation</td>
<td>Market performance</td>
<td>.08</td>
<td>.03</td>
</tr>
<tr>
<td>Differences in regard to market knowledge</td>
<td>Quality of cooperation</td>
<td>1.64</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Market performance</td>
<td>-.65</td>
<td>1.07</td>
</tr>
<tr>
<td>Differences in regard to product knowledge</td>
<td>Quality of cooperation</td>
<td>.82</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Market performance</td>
<td>-.08</td>
<td>.09</td>
</tr>
<tr>
<td>Differences in regard to interpersonal skills</td>
<td>Quality of cooperation</td>
<td>-.95</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Market performance</td>
<td>0</td>
<td>.04</td>
</tr>
</tbody>
</table>

*Values <1.96 and values >-1.96 indicate p > .05.
**Values <3.841 indicate p > .05.

As a second test, we analyzed two-group LISREL models for the marketing respondents and the sales respondents. We compared a constrained case in which the effects of thought-world differences on the dependent variables are set equal across the marketing and sales groups with an unconstrained case. If the introduction of the equality constraint increases the chi-square statistic by more than 3.841, the equality model fits the data significantly (5%) worse. As Table 3 shows, none of the chi-square differences are close to the critical value of 3.841. To conclude, there is strong evidence that the results of the hypotheses tests do not differ between marketing respondents and sales respondents and that pooling them is justified.

**Assessing the Validity of the Performance Measure**

To scrutinize whether the results of our hypotheses tests are merely statistical artifacts of a same-source bias (Podsakoff et al. 2003), we used the objective performance data obtained from independent sources. We reanalyzed the structural equation models for the five difference constructs, substituting the objective performance measure for the perceptual market performance measure.

Table 4 shows the parameter estimates for the validation analyses. The results are largely consistent with those for the market performance measure (Table 2). To begin with, all positive and negative effect signs are the same as in the main analyses. Orientation differences positively affect overall business performance, and competence differences negatively affect overall business performance. The performance effects of customer (versus product) orientation, short-term (versus long-term) orientation, product knowledge, interpersonal skills, and cooperation quality are significant, which is consistent with the main analyses. The effect of market knowledge differences on overall business performance is significant in the validation analysis, but it is not significant in the main analysis. However, we do not consider this a major concern for the validity of our performance measure, because the sign of the market knowledge effect is consistent with the emergent hypotheses on thought-world differences (orientation differences are good, and competence differences are bad). To conclude, our validation analyses suggest that our subjective performance measure has external validity.

**Discussion**

**The Kind of Difference Makes a Difference**

In terms of the seeming paradox we discussed previously, we are now in a better position to answer the question whether differences between marketing and sales are beneficial or deleterious. Our empirical results reject the thought-world-differences-are-bad perspective and support the more differentiated thought-world-differences-are-both-good-and-bad perspective. The results for our exploratory hypotheses suggest that different orientations between marketing and sales have a positive effect on overall market performance, whereas different competences have a negative effect on overall market performance. The kind of difference does make a difference.

What does it mean that different orientations are good? One typical situation that illustrates how market performance is enhanced by different time orientations arises in the context of pricing. Faced with price pressure from customers, sales may be tempted to myopic price cuts (and, thus, revenue and profit sacrifices) if marketing did not act as the devil’s advocate (Schweiger, Sandberg, and Ragan 1986), arguing for a long-term perspective. Kotler (1977, p. 68) notes that in the sales organization, “people are not counterbalanced often enough with ‘brand management’ personnel, who think in terms of long-run product strategy and its financial implications.” A typical situation that exemplifies how different customer (versus product) orientations foster market performance occurs in the context of new product development; the product-oriented department may be tempted to equip a new product version with too
TABLE 4
Replication of Hypotheses Tests with Objective Performance as the Dependent Variable

<table>
<thead>
<tr>
<th>Domain</th>
<th>Construct</th>
<th>Dependent Variable</th>
<th>Quality of Cooperation Between Marketing and Sales</th>
<th>Standardized Financial Performance</th>
</tr>
</thead>
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<tr>
<td>Performance</td>
<td>Quality of cooperation between marketing and sales</td>
<td>1</td>
<td>.30***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>.27***</td>
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<td>.18***</td>
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<td>.19***</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>.18***</td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td>Differences between marketing and sales in regard to customer (versus product) orientation</td>
<td>1</td>
<td>−.47***</td>
<td>.23**</td>
</tr>
<tr>
<td></td>
<td>Differences between marketing and sales in regard to short-term (versus long-term) orientation</td>
<td>2</td>
<td>−.26***</td>
<td>.29**</td>
</tr>
<tr>
<td>Competence</td>
<td>Differences between marketing and sales in regard to market knowledge</td>
<td>3</td>
<td>−.07*</td>
<td>−.33***</td>
</tr>
<tr>
<td></td>
<td>Differences between marketing and sales in regard to product knowledge</td>
<td>4</td>
<td>−.12***</td>
<td>−.07*</td>
</tr>
<tr>
<td></td>
<td>Differences between marketing and sales in regard to interpersonal skills</td>
<td>5</td>
<td>−.20***</td>
<td>−.14**</td>
</tr>
</tbody>
</table>

* \( t \geq 1.282, p < .10 \).
** \( t \geq 1.645, p < .05 \).
*** \( t \geq 2.326, p < .01 \).

Notes: Values shown are completely standardized path coefficients.

Academic Contribution

This study extends academic marketing research in several ways. First, it is one of the first to consider the managerially important interface between marketing and sales. This interface has long been neglected in the literature, but recently, it was chosen as one of the topics of the American Marketing Association thought leadership forums (Rouziès et al. 2005). Previously, many organizational studies have treated marketing and sales as a functional unit, though they are often separate departments in practice. Moreover, many writers have assumed that the unification of marketing and sales is advantageous, if not mandatory, for the implementation of the marketing concept. Finally, it has been suggested that as organizations move toward process forms, functional differences become less relevant (Piercy 1986; Webster 1992; Workman, Homburg, and Gruner 1998). Our study challenges these assumptions by showing which benefits accrue from differences between separate marketing and sales units.

Second, to the best of our knowledge, our study uses the largest empirical database of the marketing–sales interface. The marketing–sales interface has long been empirically underresearched. We collected questionnaires from several industries and from more than 300 firms. In comparison, the pioneer studies of Strahle, Spiro, and Acito (1996) sampled 25 firms, and Workman, Homburg, and Gruner (1998) sampled 47 firms. Our large sample enables us to derive statements that can be generalized across industries.

Third, this article identifies dimensions of marketing and sales thought worlds. Our conceptualization of the thought-world dimensions unites the work of Lawrence and Lorsch (1969) on differentiation with new literature on thought-world differences (Dougherty 1992). This paves the way for many new features if it were not counterbalanced by the customer-oriented department, which warns against overcharging the customer.

How, then, can competence differences be bad? Why do diverse competences decrease market performance? The thought-world literature draws attention to one adverse effect of diverse competences. Dougherty (1992, p. 182) points out that “thought worlds with different funds of knowledge cannot easily share ideas.” Furthermore, “[t]hese differences can preclude the development of an optimal design” (p. 196). We conclude that there is a fundamental difference between orientation differences and competence differences. Different orientations do not inhibit mutual exchange and synthesis of positions. In contrast, differences among interpersonal skills and between the knowledge funds of marketing and sales pose an interpretive barrier that precludes the exchange, understanding, and synthesis of ideas and, ultimately, optimal decisions (Frankwick et al. 1994; Workman 1993).

2We owe this point to an anonymous reviewer.
way for more quantitative work on the thought worlds of marketing and sales and on thought worlds in general. We hold that a quantitative approach to thought worlds is a valuable complement to a qualitative (or interpretive) approach (Dougherty 1992; Frankwick et al. 1994; Workman 1993). Both approaches make specific contributions to knowledge and stimulate each other.

Fourth, our study conceptually and empirically distinguishes between beneficial and deleterious kinds of thought-world differences. It challenges the widespread notion that all thought-world differences are deleterious. For example, Dewsnip and Jobber’s (2002) conceptual work on the marketing–sales interface unilaterally focuses on the negative consequences of intergroup differentiation between marketing and sales. The finding that different orientations can be beneficial builds a bridge to the new theory of team diversity (Jehn, Northcraft, and Neale 1999; Simons, Pelled, and Smith 1999) and team conflict (Jehn and Mannix 2001; Pelled, Eisenhardt, and Xin 1999), which has pointed out the positive effects of diversity and task conflict.

Limitations and Avenues for Further Research

There are several limitations of our study. First, the response rate is fairly low. Therefore, despite the encouraging tests we reported herein, we cannot exclude the notion that the respondents to our survey are already concerned with the marketing–sales interface and that our perceptual measures are truncated. Second, the marketing-related questions and the sales-related questions were answered by the same informant. Thus, although the tests we report herein do not indicate larger problems, we cannot exclude a potential common method bias and a potential loss of information. Third, almost half of our observations stem from respondents who have been immersed in only either a marketing or a sales thought world throughout their careers. Therefore, the thought-world assessments these respondents provided are perceptions of an outsider. Further research should obtain all measures from paired thought-world insiders. Fourth, although we collected performance data from independent sources, we do not have these data for all firms in our sample. Fifth, although our conceptualization of marketing and sales thought worlds covers the most frequently mentioned differences between marketing and sales, we cannot claim to cover all dimensions that are relevant. Further research should explore cognitive orientations such as quantitative versus qualitative orientation, analytical versus intuitive orientation, ability to deal with structured versus unstructured problems, emotional orientations (high versus low arousal), positive versus negative outlook, and expressive versus nonexpressive attitude. Sixth, further research should investigate whether thought worlds are really shaped by functional membership or rather by educational background. For example, it should be explored whether the thought worlds of engineers in marketing are closer to engineers in sales or to their commercial colleagues in marketing. Seventh, because our study asked the respondents to refer to the units labeled marketing and sales in their organizations and because different organizations use the terms marketing and sales differently, the marketing units and the sales units in our study are not homogeneous. Although our power imbalance measure controls for different activity profiles of marketing and sales, our data do not enable us to discern the reporting relationships of marketing and sales, budgets, and access to top management. Further research should also investigate the relationship between interdepartmental differences and integration mechanisms (Martinez and Jarillo 1989; McCann and Galbraith 1981; Van den Ven, Delbecque, and Koenig 1976). Finally, there is a need for taxonomical work to identify empirical varieties of marketing and sales configurations.

Managerial Implications

The results send four messages to managerial practice. First, this study shows that identical thought worlds in marketing and sales are not desirable. It refutes the often-heard claim to level completely any differences between marketing and sales. Thought-world differences are both good and bad. It is the kind of difference that makes a difference.

Second, this study cautions managers not to maximize harmony between marketing and sales. What is good for the quality of cooperation between marketing and sales is not necessarily good for the market performance of the business unit. The results encourage firms to install an internal role structure that fosters devil’s advocacy. Devil’s advocacy ensures that more relevant information and more arguments enter into market-related decisions.

Third, this study demonstrates that different goal orientations and different time orientations of marketing and sales are bad for the cooperation quality between marketing and sales but are good for the market performance of the business unit. One side should champion the product dimension of the firm, and the other side should champion the customer dimension of the firm. Likewise, one side should champion the long-term dimension of the firm, and the other side should champion the short-term dimension of the firm. In this sense, our study confirms the introductory citation from Cespedes (1996, p. 30) “not to eliminate differences” and to distinguish the functional roles of marketing and sales.

Fourth, this study suggests that differences between marketing and sales in regard to interpersonal skills and product knowledge are detrimental to both cooperation quality and market performance. Thus, in terms of interpersonal skills, Donath’s (1999) call to get marketing and sales “on the same wavelength” is supported as well.

To summarize, the mode of symbiosis this study suggests is that marketing and sales should have similar competences and different orientations—in other words, similar people with different missions. People in the marketing and sales organization should be qualified to work in either a marketing or a sales environment. This can be achieved through training policies in the short run, job rotation in the midrun, and hiring policies in the long run. Tasks should be assigned such that one side, likely marketing, plays the long-term-oriented advocate of product profitability, whereas the other side, likely sales, plays the short-term-oriented critic of customer demands.

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3We thank an anonymous reviewer for these ideas.
oriented advocate of customer relationship profitability. The design of incentive systems helps to achieve the desired orientations.

**Conclusion**

We believe that just as conflict is being rehabilitated in recent organizational research (Pondy 1992), it is time to “undemonize” interdepartmental differences in research on marketing’s interfaces. This is underscored by the finding that market performance grows best in an environment that maintains a certain level of tension between marketing as a long-term product voice and sales as a short-term customer voice.

**APPENDIX A**

**Scale Items for Construct Measures**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Composite Reliability</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of cooperation between marketing and sales</td>
<td>To what extent do you agree with the following statements: In our business unit/company, marketing and sales •collaborate frictionless. •act in concert. •coordinate their market-related activities. •have few problems in their cooperation. •achieve their common goals. •trust each other.</td>
<td>.93</td>
<td>•Reflective measure •Based on Ellinger (2000) •Five-point scale anchored by “strongly disagree” (1) and “strongly agree” (5)</td>
</tr>
<tr>
<td>Market performance of business unit</td>
<td>To what extent has your business unit/your company achieved better results than the competition in the following areas over the last three years: •Achieving customer satisfaction and loyalty. •Achieving or maintaining the envisioned market share. •Gaining new customers. •Making profits. •Fast reaction to opportunities and threats in the market.</td>
<td>.78</td>
<td>•Reflective measure •Based on Homburg and Pflesser (2000) •Five-point scale anchored by “much worse” (1), “like” (3), and “much more than competition” (5)</td>
</tr>
<tr>
<td>Differences between marketing and sales in regard to customer (versus product) orientation</td>
<td>The sales (marketing) unit of our business unit/company •Aligns volume and revenue plans primarily by … (1 = “products,” and 5 = “customers”). •Aligns strategy definition primarily by … (1 = “products,” and 5 = “customers”). •Aligns performance evaluations primarily by … (1 = “products,” and 5 = “customers”).</td>
<td>.88</td>
<td>•Reflective measure •Based on Cespedes (1995), Lawrence and Lorsch (1969) •Five-point semantic differential •Squared difference between marketing and sales item scores</td>
</tr>
<tr>
<td>Differences between marketing and sales in regard to short-term (versus long-term) orientation</td>
<td>The sales (marketing) unit of our business unit/company •Is characterized by a … (1 = “systematic/analytical approach,” and 5 = “pragmatic/intuitive approach”). •Has a planning horizon that is rather … (1 = “long-term,” and 5 = “short-term”).</td>
<td>.63</td>
<td>•Reflective measure •Based on Cespedes (1995), Lawrence and Lorsch (1969) •Five-point semantic differential •Squared difference between marketing and sales item scores</td>
</tr>
<tr>
<td>Differences between marketing and sales in regard to market knowledge</td>
<td>Please think of a typical employee in marketing (sales) in your business unit/in your company. How do you assess this employee with respect to the following aspects: •Knowledge about customers. •Knowledge about competitors.</td>
<td>Formative scale</td>
<td>•Formative measure •Five-point scale anchored by “low” (1) and “high” (5) •Squared difference between marketing and sales item scores</td>
</tr>
<tr>
<td>Differences between marketing and sales in regard to product knowledge</td>
<td>Please think of a typical employee in marketing (sales) in your business unit/in your company. How do you assess this employee with respect to the following aspects: •Knowledge about products. •Knowledge about internal processes.</td>
<td>Formative scale</td>
<td>•Formative measure •Five-point scale anchored by “low” (1) and “high” (5) •Squared difference between marketing and sales item scores</td>
</tr>
<tr>
<td>Construct</td>
<td>Items</td>
<td>Composite Reliability</td>
<td>Additional Information</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Differences between marketing and sales in regard to interpersonal skills | Please think of a typical employee in marketing (sales) in your business unit/in your company. How do you assess this employee with respect to the following aspects:  
  • Ability to work in a team.  
  • Communication skills.  
  • Negotiation skills.  
  • Persuasiveness and assertiveness.  
  • Conflict tolerance.  
  • Empathy. | .69 | • Reflective measure  
  • Five-point scale anchored by “low” (1) and “high” (5)  
  • Squared difference between marketing and sales item scores |
| Power imbalance between marketing and sales | Please rate who in your business unit/in your company is primarily responsible for the following tasks:  
  • Communication tasks (e.g., definition of communication activities, design of trade fair appearances).  
  • Market research tasks (e.g., analysis of market potential, planning, and execution of a customer satisfaction analysis).  
  • Distribution tasks (e.g., customer relationship management, definition of sales channels).  
  • Service tasks (e.g., definition of product-related services and training offers).  
  • Strategic tasks (e.g., definition of a market strategy).  
  • Product-related tasks (e.g., design and introduction of new products).  
  • Price-related tasks (e.g., definition of price positioning, discounts, and price promotions). | Formative scale | • Formative measure  
  • Based on Homburg, Workman, and Krohmer (1999)  
  • Five-point scale anchored by “predominantly marketing’s responsibility” (1), “joint responsibility” (3), and “predominantly sales’ responsibility” (5)  
  • Computed as squared deviation from scale middle (i.e., 3) |
| Internal dynamism                          | Please indicate how frequently the following aspects change in your business unit/in your company:  
  • Work processes.  
  • Evaluation criteria for employees.  
  • Organizational structure.  
  • Superiors.  
  • Business strategy. | .78 | • Reflective measure  
  • Five-point scale anchored by “very seldom” (1) and “very frequently” (5) |
| Environmental dynamism                      | Please indicate how frequently the following aspects change in the market served by your business unit/by your company:  
  • Products of the competition.  
  • Customer needs.  
  • Product technology.  
  • Services of the competition, eliminated.  
  • Advertising campaigns of the competition, eliminated. | .66 | • Reflective measure  
  • Based on Maltz and Kohli (1996)  
  • Five-point scale anchored by “very seldom” (1) and “very frequently” (5) |
## APPENDIX B
### Correlations and Summary Statistics

#### Correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
<th>6</th>
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<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
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<tbody>
<tr>
<td>1. Market performance of business unit</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td>2. Quality of cooperation between marketing and sales</td>
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<td>0.27</td>
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<tr>
<td>3. Differences between marketing and sales in regard to customer (versus product) orientation</td>
<td>0.11</td>
<td></td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4. Customer (versus product) orientation of marketing</td>
<td></td>
<td>0.05</td>
<td></td>
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