The Diffusion of Market Orientation Throughout the Organization: A Social Learning Theory Perspective

This study examines the diffusion of market orientation (MO) as a social learning process to acquire and transfer individual-level MO. Central to the diffusion are important work-group members, or envoys. Through their market-oriented action, top managers serve as market-oriented role models to two important types of observers in work groups—formal middle managers and work-group expert peers. In turn, these observers become top managers’ envoys and role models of market-oriented behavior to frontline employees. Empirical results from a three-level data set from a Fortune 500 company support this perspective. While envoys who are neither market oriented nor identified with the firm are the least effective, envoys who are not market oriented but are strongly identified with the firm are also detrimental. Network size hinders the informal route of learning through expert peers but not the formal route through middle managers. By identifying who the important work-group envoys are and under what conditions certain envoys are likely to be most effective, this study helps managers select the best envoys to implement MO.

Keywords: market orientation, customer orientation, internal marketing, organizational identification, middle management, multilevel modeling

Market orientation (MO), the organizational culture that provides strong norms for learning from customers and competitors, is instrumental in creating superior value for buyers, innovating successfully, and generating superior firm performance (Day 1994; Gatignon and Xuereb 1997; Kirca, Jayachandran, and Bearden 2005; Narver and Slater 1990; Noble, Sinha, and Kumar 2002; Slater and Narver 1995). Therefore, it is not surprising that a large body of literature on the antecedents of MO has accumulated. Although research on MO antecedents and consequences has greatly advanced in the past two decades and provides useful insights, three limitations warrant further investigation.

First, the prevalent research design has been a between-firm analysis, with an emphasis on organizational-level determinants of how market oriented a firm should be. Although Slater and Narver (1995) called for a more fine-grained perspective of MO implementation more than a decade ago, there has been little individual-level research exploring how top management can diffuse MO to each organizational member and across organizational levels (e.g., Hartline, Maxham, and McKee 2000).

Second, previous research has reported that top management commitment is the strongest predictor of MO (Kirca, Jayachandran, and Bearden 2005) and that work-group socialization is critical in the dissemination of customer-oriented strategy to customer-contact employees (Hartline, Maxham, and McKee 2000). However, the literature has not identified who in the work groups are the important people top management can rely on to diffuse MO to lower-level organizational members, such as frontline employees. We refer to these people as “envoys” in the diffusion of MO.

Third, the literature suggests that there can be more than one type of envoy in work groups to diffuse MO. For example, in addition to middle managers with formal power, coworkers with informal power may also influence frontline employees’ behavior (e.g., Chiaburu and Harrison 2008; Kohli and Jaworski 1994). The question, then, is under which condition an envoy’s role may become more or less important. Such an understanding is important because it enables top managers to (1) channel their message to frontline employees effectively and (2) select alternative envoys (e.g., expert peers in lieu of middle managers) to implement, increase, and sustain MO even if one type of envoy fails.

Social learning theory (Bandura 1977) suggests that individual behavior is determined by both the environment and a person’s motivation to learn proactively from important social referents. We integrate Slater and Narver’s (1995) conceptualization of MO as market-driven learning and social learning theory to propose a mesocontingency
model (House, Rousseau, and Thomas-Hunt 1995) of MO diffusion. First, we propose an individual-level MO (IMO) concept that captures an organizational member’s three market-driven orientations—namely, customer, competitor, and product orientations. Second, we identify two alternative envoys—middle managers and experts within work groups—who play a key role in helping top managers diffuse MO to frontline employees. Unlike middle managers, who possess formal power, work-group experts possess informal power and therefore can exert strong influence on frontline employees (Morrison 1993; Yukl and Falbe 1991). We view MO diffusion as a social learning process in which these envoys develop their IMO by learning from top managers and then serve as formal and informal role models of MO behavior to frontline employees. Finally, we investigate the moderating effects of two important characteristics of the MO envoys. The first factor is the envoy’s orientation toward the organization, or organizational identification (OI), because an envoy can be market oriented but not organizationally oriented. The second factor is the size of the network in which these envoys are embedded because network size may dilute or facilitate the social interaction underlying the learning-based MO diffusion process.

We test our conceptual framework using a multisource data set that includes 43 top managers, 285 middle-level sales managers, and 1528 sales representatives of a large U.S. company. We find that the diffusion of MO flows indirectly from top management to frontline employees through middle managers and expert peers rather than directly. Moreover, the envoys’ identification with the firm consistently enhances the transfer processes from both middle managers and expert peers. Finally, network size hinders the informal route of learning through expert peers but not the formal route through middle managers.

This study contributes to the literature on MO in several ways. First, this study extends the current understanding of MO implementation by identifying important envoys in the diffusion of MO and the conditions under which their importance may be compromised or enhanced. In doing so, we depart from previous research that views MO diffusion as a top-down process and take a more interactive approach that accounts for the characteristics of middle and lower echelons and the work group. Second, the findings reveal a disturbing reality that organizational members can be highly market oriented without being highly organizationally oriented. Finally, we demonstrate that the two routes of MO diffusion do not operate exactly in the same way. This study also informs top managers how to select an effective envoy to implement MO. Specifically, we demonstrate that middle managers who do not identify with the organization become roadblocks to MO diffusion. When this happens, expert peers in work groups may be an alternative if top managers are aware of the contingencies of these experts’ influence on others.

We organize the rest of this article as follows: We begin by briefly reviewing social learning theory and introducing the IMO construct. Then, we present the conceptual framework, research hypotheses, and the empirical study. Finally, we conclude with a discussion of the findings, theoretical and managerial implications, and future research avenues.

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**MO Diffusion: A Social Learning Theory Perspective**

Slater and Narver (1995) underscore the importance of fine-grained research that examines individual and group market-driven learning processes. In this regard, social learning theory (Bandura 1977) proposes two types of individual learning: reinforcement learning and vicarious learning. On the one hand, people learn from the consequences of their behavior (i.e., reinforcement); thus, they are likely to increase (decrease) the frequency of behavior that has resulted in positive (negative) consequences. This is also referred to as experiential learning (Huber 1996). On the other hand, people can engage in vicarious learning by observing others before engaging in a particular behavior because doing so enables them to avoid needless and costly errors (Bandura 1977; Manz and Sims 1981). Drawing from these insights, we conceptualize MO as an individual-level construct and propose an MO diffusion framework from a social learning theory perspective. In doing so, we recognize that organizational-level learning theories offer a more comprehensive discussion of learning processes (e.g., Huber 1996; Sinkula 1994), but we rely mainly on Bandura’s (1977) individual-level learning theory because of its relevance to the context and the level of analysis in this study.

**MO as an Individual-Level Construct**

In this study, we conceptualize MO as an individual-level construct. Following recent developments in the MO literature (Gatignon and Xuereb 1997; Noble, Sinha, and Kumar 2002; Voss and Voss 2000) and research on customer orientation (Brown et al. 2002; Hartline, Maxham, and McKee 2000; Saxe and Weitz 1982), we define IMO as an organizational member’s practice of integrating customer preferences, competitor intelligence, and product knowledge into the process of creating and delivering superior value to customers. This practice corresponds to three types of market-driven learning: customer orientation, competitor orientation, and product orientation.¹ This individual-level conceptualization of MO is consistent with the level of analysis that is prevalent in the literature on customer orientation, competitive intelligence, and salesperson knowledge (e.g., Brown et al. 2002; Saxe and Weitz 1982). This body of research suggests that there are significant variations across organizational members in terms of their market-driven learning. In this study, we attribute these differences to social learning processes that take place across different levels in an organization.

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¹Early work on organizational-level MO (Narver and Slater 1990) has also considered interfunctional coordination as part of the MO concept. However, recent research on MO (Gatignon and Xuereb 1997; Voss and Voss 2000) has treated it as an organizational structure variable that is conceptually distinct from the three strategic orientations and is part of the formal organizational arrangements. For within-firm analyses, such as the current study, this organization-level variable should be the same across individuals and should be included in the IMO conceptualization. In addition, product orientation refers to knowledge about both the product itself and services.
**MO Diffusion as Social Learning to Transfer IMO**

Social learning theory (Bandura 1977) suggests that MO does not evolve in a social vacuum. Rather, frontline employees undergo experiential and vicarious learning from role models or social referents in their organization, who we refer to as envoys (Manz and Sims 1981; Weiss 1977). In this vein, recent research by Hartline, Maxham, and McKee (2000) suggests that work-group socialization is the major corridor of influence in the dissemination of customer orientation from top management to frontline employees.

Among multiple information sources in work groups, middle managers and work-group expert peers are the most important.

Middle managers are extremely important in marketing strategy implementation because they serve as linking pins between the top managers to whom they report and the frontline employees who they directly supervise: (Floyd and Wooldridge 1992; Likert 1961; Noble and Mokwa 1999). Recent research suggests that work-group peers, especially expert peers, also exert a strong, informal influence on coworkers’ attitude and behavior even when leaders’ influences are taken into account (Chiaburu and Harrison 2008; Kohli and Jaworski 1994; Morrison 1993). While middle managers possess positional power over frontline employees (that expert peers lack), expert peers possess personal power over frontline employees, stemming from their expertise and proximity, which middle managers might not necessarily have. In other words, it is possible that both middle managers and expert peers serve as role models who frontline employees observe and from whom frontline employees learn to develop IMO. In turn, these role models, both formal and informal, also develop their IMO by way of learning from their superiors.

While social learning occurring through formal middle managers is a proximal learning process (top managers → middle managers → sales representatives), social learning through expert peers reflects a distant learning process (top managers → expert peers → sales representatives) because expert peers do not directly report to top managers. Although this distant learning process is theoretically viable (Waldman and Yammarino 1999), it has not received much academic attention. We collectively refer to these learning processes as the diffusion of MO.

**Research Hypotheses**

In this section, we formally derive testable hypotheses. For the purpose of this research, we consider frontline sales representatives the focal employees. We use the terms “leaders” and “supervisors” and the terms “followers” and “subordinates” interchangeably. Figure 1 describes the theorization of MO diffusion as a social learning phenomenon, such that top management’s IMO (Level 3 role models) indirectly influences sales representatives’ IMO (Level 1 observers) through two routes or two types of envoys: middle managers and expert sales representatives as expert coworkers (Level 2 observers and role models to Level 1 observers).

**Different Routes of MO Diffusion**

**Formal envoy of the diffusion of MO: middle managers.** From the top down, leaders who are highly market oriented use their positional power to create measurements, rewards, and punishments to exert normative influence on their immediate followers. As a result, followers become more market oriented. This social learning is consistent with operant theory in that followers develop IMO behavior because of directly experienced consequences (e.g., Skinner 1953). In support, previous research has found that a market-based evaluation and reward system is the strongest driver of MO (Jaworski and Kohli 1993, p. 61).

Followers’ learning can also take place vicariously. Social learning theorists have argued that “vicarious, imitative learning seems to better explain the rapid transference of behavior than does the tedious selective reinforcement of each discriminable response” (Davis and Luthans 1980, p. 283). Such vicarious learning occurs by observing role models in work groups. By observing the outcomes of their role models’ behavior, observers form outcome expectations of similar behavior and thus develop a propensity to engage in or avoid certain behavior. Leaders play an important role in followers’ role set and are likely to serve as role models for followers to emulate (Waldman and Yammarino 1999). Leaders who are high in IMO are likely to exhibit behaviors that are consistent with this market-driven orientation and therefore will facilitate followers’ market-driven learning (e.g., Manz and Sims 1981; Weiss 1977). Applying this social learning theory approach to MO to the relationship between leaders and followers—namely, the top manager–middle manager and middle manager–sales representative interfaces—we hypothesize the following cascading effect:

\[ H_1: \text{Top managers’ IMO positively influences middle managers’ IMO, which in turn positively influences the IMO of sales representatives, including the expert peer.} \]

**Informal envoy of the diffusion of MO: expert peers.** In explaining the implications of vicarious learning for organizational behavior, Davis and Luthans (1980, p. 284) posit that “job descriptions, rules, and policies are more likely to be interpreted from watching what others do than following written directives.” This viewpoint, which is consistent with the social information theory perspective (Salancik and Pfeffer 1978), suggests that frontline employees vicariously learn not only from leaders but also from work-group peers. In a recent review of the literature on peer influence in work groups, Chiaburu and Harrison (2008) argue that because employees are likely to interact more frequently with their coworkers than with their leader, coworkers can exert unique influences on their peers even when leader influences are controlled. As we mentioned previously, we focus on expert peers in the group. Following previous work on social bases of power (French and Raven 1959), we define expert peers in work groups as those who possess the knowledge to carry out the focal task most efficiently.

In a boundary-spanning environment, expert peers are valuable sources of information from whom other peers in the work group can learn. By observing the successes and
failures of these experts, sales representatives can adjust their behavior accordingly without being imposed on by an organization-level normative influence. Consequently, expert peers who are high in IMO influence their coworkers to learn more about customers, competition, and company products. In other words, because high-IMO expert peers are more likely to be successful, they possess referent and expert power that other workers learn from and try to imitate.

However, as frontline employees, expert peers are also subject to their leaders’ influence. Previous research has suggested that top management can directly influence followers at lower echelons of the organization, bypassing the middle echelons (Shamir 1995; Waldman and Yammarino 1999). We further argue that top management exerts direct influence on some, but not all, frontline employees. Specifically, top management exerts direct influence on the frontline experts. The reasons for this are twofold. First, leader-member exchange theory (Dansereau, Graen, and Haga 1975) suggests that top managers are constrained by limited resources and are unable to engage in equally strong relationships with all followers. To achieve high efficiency, top managers will selectively interact more with influential members at lower echelons, such as expert peers. Second, expert peers should be more capable of correctly attributing top managers’ successes and failures to specific market-driven behaviors. These two conditions put expert peers in a better position than other frontline employees to engage in both forms of social learning from top managers. Combining the argument related to the expert peer–sales representative interface and the rationale for H1, we hypothesize the following:

\[ H_2: \text{Top managers’ IMO positively influences expert peers’ IMO, which in turn positively influences sales representatives’ IMO.} \]

Slater and Narver (1995, p. 63) posit that “the cultural values of [MO] are necessary, but not sufficient, for the creation of a learning organization.” They propose that sit-
utational factors may contribute to the learning process. In the same vein, social learning theory suggests that learning is not independent of context and that people are both selective and proactive in what they observe and from whom they learn (Bandura 1977; Davis and Luthans 1980). Next, we focus on two boundary conditions that are critical in MO diffusion: envos’ OI and network size.

**Synergistic Effects of Outside-In and Inside-Out Marketing: The Moderating Role of OI**

Market orientation has been conceptualized as outside-in marketing to identify and satisfy customer needs more effectively than competitors (Day 1994; Jaworski and Kohli 1993; Narver and Slater 1990). There are several reasons to believe that MO (as market-driven learning) and orientation toward the organization might not be aligned. First, customers represent only one type of external stakeholder (Deshpande, Farley, and Webster 1993; Narver and Slater 1990). In the pursuit of customer loyalty, many firms neglect building relationships with the internal customers even though internal customers’ bonding with the organization is related to external customers’ loyalty (Berry, Hensel, and Burke 1976; Maxham, Netemeyer, and Lichtenstein 2008). Second, research on middle managers suggests that a manager’s self-interest is not always aligned with the firm’s interests (Guth and MacMillan 1986). For example, some managers who are sensitive to external publics (i.e., are market oriented) may be egocentric and insensitive to internal publics (i.e., have poor human resource practices). Finally, sales representatives may engage in market-driven learning, such as collecting market intelligence, because they are motivated by self-interest. In support, Le Bon and Merunka (2006) report that salespeople’s organizational commitment is not related to market intelligence activities, after controlling for sales representatives’ need for recognition and promotion opportunities.

Research on internal marketing argues that “internal marketing paves the way for external marketing” (Berry and Parasuraman 1992, p. 33). Internal marketing was originally defined as the activities pertaining to “making available internal products (jobs) that satisfy the needs of a vital marketing pavesthe way for external marketing” (Berry and Par- asuraman 1992, p. 33). Internal marketing was originally defined as the activities pertaining to “making available internal products (jobs) that satisfy the needs of a vital marketing pavesthe way for external marketing” (Berry and Parasuraman 1992, p. 11). Subsequent developments in the internal marketing literature further emphasized the criticality of organizational values and a clear vision that organizational members consider worth pursuing (Berry and Parasuraman 1992). Recent research (e.g., Wieseke et al. 2009) suggests that internal marketing can be viewed as a process of building OI, defined as the extent to which organizational members perceive oneness with the organization (Ashforth and Mael 1989).

On the envoy-as-learner side, research on OI suggests that the transfer of IMO from leaders (i.e., role models) to followers (i.e., learners) is greatly enhanced if the learners are high in OI. This synergistic effect occurs for at least two reasons. First, followers who identify strongly with the organization consider the successes and failures of the organization their own (Mael and Ashforth 1992). Therefore, they tend to pay close attention to the consequences of the activities in which the organization, including its top management, engages. This facilitates vicarious learning. Second, followers who identify with the organization are more likely to engage in activities beneficial to the organization and to conform to group norms and values (Ashforth and Mael 1989; Riketta 2005). They believe that organizational rewards and punishments are instrumental in maintaining and promoting a strong organizational identity. This facilitates their receptivity to reinforcement learning.

On the envoy-as-role-model side, if the envoy strongly identifies with the organization, he or she will become more prototypical of the organization. Previous research has suggested that people are more likely to conform to and learn from prototypical organizational members (Van Knippenberg, Lossie, and Wilke 1994). Therefore, followers who work under or with high-OI envos should be more receptive to the envos’ influences, including learning to be market oriented. Thus, we hypothesize the following:

H3: The higher a middle manager’s OI, the stronger is the transfer of IMO (a) from the top manager to the middle manager and (b) from the middle manager to the sales representatives, including the expert peer.

H4: The higher an expert peer’s OI, the stronger is the transfer of IMO (a) from the top manager to the expert peer and (b) from the expert peer to the other sales representatives.

We mentioned that top managers can implement MO through both the formal route of middle managers and the informal route of expert peers. However, when middle managers identify strongly with the organization, they will exhibit organizational behaviors that set good examples for their followers, including the expert peers. Their OI-induced prototypicality coupled with their positional power over the frontline employees should make them a better and more natural choice for top managers to instill IMO behavior in frontline employees than the expert peers, who lack positional power to be appealing to other peers as role models.

When middle managers do not identify strongly with the organization, they become less prototypical of the organization and do not actively engage in behavior to ensure the organization is on track. When this happens, expert peers will likely use the next level of management, top managers, as better role models to learn from than middle managers. Top managers who try to transfer IMO behavior downward to frontline employees will also likely engage in more interaction with expert peers to make up for the middle manager’s lack of effort. This will enhance the informal route of MO diffusion through which experts learn directly from top managers. Thus, we predict the following:

H5: The weaker a middle manager’s OI, the stronger is the transfer of IMO from the top manager to the expert peer.

**Moderating Effect of Network Size**

The envos’ OI captures his or her motivation to learn from superiors and transfer that knowledge to subordinates and peers. Reinforcement and vicarious social learning is also contingent on the size of the envos’ network because of its influence on the social interaction between observers and role models. For the purpose of this research, we define network
size as the maximum number of organizational members who have a structural link, of either a superior–subordinate or a peer-to-peer nature, to a focal person. This focal person can be a top manager, a middle manager, or an expert peer. For each top manager, we examine two types of networks: a network of middle managers who directly report to the top manager (direct-report network) and a network of sales representatives who work in the territories for which the top manager is responsible (indirect-report network). For each middle manager and expert peer, the network size is the size of the work group (a sales district) under a specific middle manager’s control.

As a top manager’s direct-report network size increases, the social interaction between the top manager as a role model and the middle managers as observers will be less frequent. Social learning through vicarious observation is crippled if the opportunity to directly observe role models is less frequent. In contrast, when the network size is small, interpersonal interaction will be more frequent, making vicarious learning less costly, in terms of both time and effort (Erickson 1988). In support of this, previous research has found that supervisors working with smaller groups have more time and opportunity for coaching, feedback, and interacting with subordinates (Ford 1981; Porter and Lawler 1964). In other words, a large direct-report network may weaken the transfer of IMO from top managers to middle managers. A similar argument is applicable for the top managers’ indirect-report network size for the top manager–expert peer interface.

However, as the size of the direct- and indirect-report network increases, managers might be more likely to enforce more formalization of rewards and punishments (Kipnis and Lane 1962). This strengthens reinforcement learning, countervailing its negative effect on vicarious learning. Nevertheless, because the development of IMO is a complex learning process and “vicarious observational learning accounts for the acquisition of complex patterns of social behavior more readily than does the isolated reinforcement of discrete behavioral responses” (Davis and Luthans 1980, p. 283; see also Bandura 1977), a larger network size is likely to dampen the IMO diffusion from top managers to middle managers and to expert peers. Therefore, we hypothesize the following:

H5: The larger the top manager’s direct-report network, the weaker is the transfer of IMO from the top manager to the middle manager.

H6: The larger the top manager’s indirect-report network, the weaker is the transfer of IMO from the top manager to the expert peer.

The same argument is applicable to the transfer of IMO from middle managers to frontline employees. If the number of frontline employees who work under a manager is too large (i.e., large span of control), the social interaction between the middle manager as a role model and frontline employees as learners/observers will become less personal and less frequent (e.g., Urwick 1956). This results in fewer opportunities for frontline employees to engage in observational vicarious learning.

Similarly, when the work-group network is too large, frontline employees will have less of a chance to interact with expert peers. Furthermore, as the size of the work group increases, differentiation of responsibilities in the work group will be more likely (Blau 1970); expertise may be distributed across multiple group members rather than residing with a particular person. Informal cliques are more likely to form in larger networks (Tichy 1973), which is inductive to conflicts and tensions among group members. As a result, frontline employees working in larger work groups will have fewer opportunities or will be too occupied with conflict resolution to engage in vicarious learning from expert peers. Thus, we hypothesize the following:

H7: The larger the sales district’s network, the weaker is the transfer of IMO (a) from the middle manager to the sales representatives, including the expert peer, and (b) from the expert peer to the other sales representatives.

Consequences of the Transfer of IMO

At the individual level, customer-oriented salespeople do not always perform better even when the selling situations do not call for it (Saxe and Weitz 1982). Franke and Park’s (2006) meta-analysis shows that the relationship between customer orientation and objective performance is nonsignificant. In addition, Armstrong and Collopy (1996) demonstrate that the sole reliance on competitor orientation is detrimental to performance because competitor orientation leads to suboptimal strategies to beat competition while losing sight of profit maximization.

However, market-oriented sales representatives practice not only customer orientation but also competitor and product orientations. Market-oriented salespeople engage in customer-oriented behaviors aimed at increasing long-term customer satisfaction and avoid behaviors that might result in customer dissatisfaction (Saxe and Weitz 1982). However, satisfied customers still defect (Jones and Sasser 1995). Some empirical evidence suggests that though frontline employees’ customer orientation is indirectly related to customer behavioral outcomes through both customer satisfaction and value, value is a much stronger driver of customer outcomes (Brady and Cronin 2001). Market-oriented salespeople create value for customers because, with their mastery of product knowledge, they are able to identify which products and services will better solve customers’ problems. Because they are competitor oriented, they will be aware of the strengths and weaknesses of current and potential competitors in their assigned territory (e.g., Narver and Slater 1990). This competitive intelligence will help them communicate the value proposition to their customers in a more balanced and persuasive manner. In other words, market-oriented salespeople are able to achieve higher performance because they practice the marketing concept: to satisfy customers’ needs more effectively and efficiently than competitors by means of their profound knowledge about the product and the competitive landscape. Therefore, we hypothesize the following:

H8: A sales representative’s IMO is positively related to his or her performance.
Method

Data Collection

Research context. We collected data from the sales force of a U.S.-based Fortune 500 company in the cleaning and sanitizing industry. The study context is a typical sales organizational structure, exhibiting a close sales manager–salesperson and sales director–sales manager relationship as well as frequent fellow salesperson interactions in a sales district. In the context of this study, we use the term “sales directors” to refer to top managers and the term “sales managers” to refer to middle managers. Furthermore, as is typical in a sales setting, top performers are widely recognized in the firm. Intensive field interviews with middle managers and top managers of the firm confirmed that outstanding salespeople were well known to sales directors. These top performers and sales directors interacted frequently to exchange ideas and experiences, even though there was no formal, direct reporting. The research setting also exhibits features of a decentralized firm with geographically dispersed sales districts, each led by a sales manager. These sales managers have a certain degree of freedom with respect to decisions and guiding selling approaches in their district. Other industries, such as insurance companies, banks and financial service providers, pharmaceutical firms, tourism companies, and retailers (e.g., clothing, computer hardware), also have these features.

Data source. This study is based on a four-source data set. We obtained data from sales representatives, sales managers, and sales directors, as well as objective firm data on the individual salesperson’s sales performance. We distributed questionnaires to 43 sales directors, 302 sales managers, and 2290 sales representatives. To test the expert peers’ influence hypothesis as well as the cross-level hypotheses regarding the top manager–sales manager–sales representatives interface, we matched responses from these three sources using individual code numbers. The final data include 43 sales directors (100% response rate), 285 sales managers (94% response rate), and 1528 sales representatives (67% response rate). Additional tests showed no significant differences between the responses from early and late respondents on all the major constructs and on the key demographic variables, suggesting that nonresponse bias is not a problem in the data (Armstrong and Overton 1977).

Measures

We measured IMO by adapting the MO measurement from Voss and Voss (2000) because their conceptualization is applicable to sales and services environments and captures the nuances initially included in the MO conceptualization (see Kohli, Jaworski, and Kumar 1993; Narver and Slater 1990). Specific to the sales context, we added four additional items, drawn from Thomas, Soutar, and Ryan’s (2001) short form of Saxe and Weitz’s (1982) selling orientation—customer orientation scale, to the customer orientation dimension at the sales representative level (see Appendix A). We used slightly different customer orientation scales for sales representatives and managers because customer orientation has a broader scope for management, whereas sales representatives’ customer orientation mainly pertains to the direct interaction with the customer. To calculate an IMO composite score, we used the mean score of all dimensions. This was justified by high convergent validity in confirmatory factor analysis.

To identify the expert peer in each sales district, we first calculated a formative composite by averaging the z-scores of each sales representative’s experience, product knowledge, and sales numbers as a percentage of his or her budget. This measure captured not only the knowledgetailability of a peer but also his or her efficiency in using the resources at hand. We selected the sales representative that scored the highest on this composite in each sales district as the expert peer.

We measured the OI of sales directors, sales managers, and sales representatives using Mael and Ashforth’s (1992) well-established six-item scale. To control for common method bias and social desirability in self-report studies (Podsakoff et al. 2003), we measured sales representatives’ performance using the company’s year-on-year growth percentage of total sales per salesperson achieved in the month we conducted the survey. We measured network size using data from the company’s organization chart. For sales directors, indirect-report network size includes all sales representatives working in the regions under each director’s management, and direct-report network size is the number of sales managers in all the regions under the sales director’s management. For sales managers and expert peers, network size reflects the number of sales representatives working in each sales manager’s sales district.

In addition to the predictors in our multilevel framework, the influence of other factors on a person’s IMO is possible. Thus, we included several within-level and cross-level control variables in the empirical analyses to test the robustness of the proposed relationships while controlling for important extraneous influences. We controlled for the direct within-level influence of OI and perceived competitive intensity on sales managers’, expert peers’, and other sales representatives’ IMO. Furthermore, we added the mean level of sales representatives’ IMO in each sales district and the mean level of sales managers’ IMO in each sales region as controls for the MO climate because it might also influence social learning.

Appendix A provides a complete list of measurement items used in the study. Table 1 displays the descriptive statistics, internal consistency reliabilities, and intercorrelations of all study variables. The reliability indexes indicated that the construct measures were psychometrically sound. More specifically, for all constructs, no coefficient alpha values were lower than .70, and average variance extracted was greater than .50. All constructs also had discriminant validity because the average variance extracted exceeds the squared correlations between all pairs of constructs (Fornell and Larcker 1981).

Analytical Approach

Because several sales managers were nested in a particular sales region led by a sales director and because those sales managers, in turn, supervised several sales representatives grouped in sales districts, the responses from employees
### Table 1: Means, Standard Deviations, and Intercorrelation Matrix

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<td>.75</td>
<td>.70</td>
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</tr>
</tbody>
</table>

* p < .05 (two-tailed).
** p < .01 (two-tailed).

Constructs are measured by a single item.

Notes: AVE = average variance extracted, D.IMO = sales directors’ IMO, TDR = total number of direct reports/sales managers per sales director, TSR = total number of sales representatives, A.IMO = mean of IMO per region managed by a sales director, SM.IMO = sales managers’ IMO, EX.IMO = expert peers’ IMO, SM.OI = sales managers’ OI, EX.OI = sales representatives’ OI, SM.CI = sales managers’ perceived competitive intensity, EX.CI = expert peers’ perceived competitive intensity, SDS = sales district size, SD.IMO = mean of IMO per sales district, SR.IMO = sales representatives’ IMO, SR.OI = sales representatives’ OI, and SR.CI = sales representatives’ perceived competitive intensity. Correlations based on scores disaggregated per employee are below the diagonal (n = 1528), and Cronbach’s (1951) internal consistency reliability coefficients appear on the diagonal. Objective performance is measured by current year-to-date sales divided by previous years’ year-to-date sales, in percentage.
working in the same region and/or district might be interdependent. To account for these dependencies and cross-level effects, we applied hierarchical linear modeling (HLM; Raudenbush and Bryk 2002). We chose full maximum likelihood as the estimation method to compare the model fits across nested models (Raudenbush and Bryk 2002). Finally, to analyze the single-level effects of sales representatives’ IMO on their sales performance, we used ordinary least squares regression.

To justify the use of higher-level predictors, we ran four null models to determine whether there was significant between-group variation. These null models are intercept-only models in which no predictors were specified for higher levels of analysis. First, we estimated a null model for Level 1 (sales representatives) to investigate whether systematic between-group variance exists in the criterion variable (sales representatives’ IMO) for sales representatives who worked under different sales managers. The results indicate that working under different sales managers indeed made a difference in sales representatives’ IMO ($\chi^2(284, N = 1528) = 298.4, p < .00$). Therefore, the variance to be explained in the criterion variable at Level 1 required another predictor at Level 2.

In the second null model for the sales director–sales manager interface, sales managers who worked under different sales directors also showed significant between-group variance in IMO ($\chi^2(42, N = 285) = 93.0, p < .00$). The results of the third null model for the sales director–expert peers data indicate that expert peers working in different sales regions and managed by different sales directors exhibited significant between-group variance in IMO ($\chi^2(42, N = 285) = 76.1, p < .00$). The fourth null model integrated all three levels to test whether a Level 3 variable (i.e., sales directors’ IMO) exerts a direct influence on sales representatives’ IMO by bypassing the middle managers. We found that sales representatives who worked in different sales regions (i.e., under different sales directors) showed significant between-group variance in IMO ($\chi^2(42, N = 1528) = 118.63, p < .00$), which suggests that a direct influence of a sales director on sales representatives’ IMO in a bypassing manner is possible. However, to prove direct or indirect influence, further mediation tests are required, which we report next.

Results
We present the estimation results in two tables. Table 2 reports the estimation of three models. The first two models are two-level models, with sales managers’ IMO (Model 1) and expert peers’ IMO (Model 2) as dependent variables. Model 3 is a three-level model, with sales representatives’ IMO as the dependent variable. We list the hypothesis being tested in the last column of Table 2. The equations of each of these HLM models appear in Appendix B. Some of the hypotheses involve the estimation of a sequence of models, and thus some of the hypotheses appear in more than one row in Table 2. Finally, Table 3 reports the regression model with sales representatives’ performance as the dependent variable.

Simple Effects: Formal and Informal Envosys of IMO Transfer
The model features a proximal learning effect, in which sales directors’ IMO indirectly influences sales representatives’ IMO through sales managers’ IMO (H1, solid bold arrow on the left in Figure 1), and a distant learning effect, in which sales directors’ IMO indirectly influences all other sales representatives’ IMO in the sales district through expert peers’ IMO (H2, dotted arrow on the right in Figure 1). To test whether sales managers’ IMO or expert peers’ IMO fully mediates the influence of a Level 3 predictor (i.e., sales directors’ IMO) on sales representatives’ IMO at Level 1, we conducted a series of tests that Baron and Kenny (1986) and Mathieu and Taylor (2007) recommend, using a three-level model in HLM. First, we tested the direct effect by regressing sales representatives’ IMO (Level 1) on sales directors’ IMO (Level 3), without controlling for sales managers’ or expert peers’ IMO (Level 2). The results showed that sales directors’ IMO did not exert influence on sales representatives’ IMO directly ($\gamma = .03$, not significant [n.s.]). Second, when we controlled for sales managers’ and expert peers’ IMO at Level 2, sales directors’ IMO (Level 3) did not have a significant direct effect on sales representatives’ IMO at Level 1. Consequently, we can rule out the model that goes directly from top managers at Level 3 to nonexpert sales representatives at Level 1, bypassing middle managers at Level 2.

Because sales directors’ IMO has a significant effect on sales managers’ IMO ($\gamma = .16, p < .01$; Model 1) and sales managers’ IMO significantly influences sales representatives’ IMO ($\gamma = .17, p < .01$; Model 3) and expert peers’ IMO ($\gamma = .13, p < .05$; Model 2), we found support for H1. Similarly, the results support H2 because sales directors’ IMO significantly influences expert peers’ IMO ($\gamma = .11, p < .05$; Model 2), and in turn, expert peers’ IMO significantly influences other sales representatives in the sales district ($\gamma = .35, p < .01$; Model 3). Thus, we can conclude that sales directors’ IMO influences sales representatives’ IMO indirectly through sales managers and expert peers rather than directly.

Moderating Effect of Sales Managers’ OI
In H3 and H5, we predicted various interaction effects between sales managers’ OI and the transfer of IMO. We illustrate the patterns of the moderating effects of sales managers’ OI in Figure 2. First, to test the cross-level interaction effect between sales managers’ OI and sales directors’ IMO, we ran a two-level model in which, at Level 1, sales managers’ IMO was a function of sales managers’ OI. The slope of the variable sales managers’ OI at Level 1 was a function of the sales directors’ IMO at Level 2 (see model specification in Appendix B, Model 1). As we predicted in H3a, sales managers’ OI strengthens the transfer of IMO from sales directors to sales managers ($H3a: \gamma = .15$, $p < .05$; Model 1 and Figure 2, Panel A).

Second, the results show that sales managers’ OI positively moderates the within-level effect of sales managers’ IMO on expert peers’ IMO ($H3b: \gamma = .10, p < .05$; Model 2). Figure 2, Panel B, depicts the nature of this two-way

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**TABLE 2**  
**HLM Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1: $\gamma$ (SE)</th>
<th>Model 2: $\gamma$ (SE)</th>
<th>Model 3: $\gamma$ (SE)</th>
<th>Hypothesis</th>
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<tr>
<td><strong>Model 1: Top Managers’ IMO → Sales Managers’ IMO</strong></td>
<td></td>
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<tr>
<td>Intercept</td>
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<td></td>
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<tr>
<td><strong>Controls</strong></td>
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<tr>
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<td>.36** (.11)</td>
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<td>$SM_{OI}$</td>
<td>.22** (.08)</td>
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<tr>
<td>$SM_{CI}$</td>
<td>.10* (.05)</td>
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<tr>
<td><strong>Simple Effects</strong></td>
<td></td>
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<tr>
<td>$D_{IMO}$</td>
<td>.16** (.03)</td>
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<td>$H_1$</td>
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<tr>
<td>TDR</td>
<td>$-14^* (.07)$</td>
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<tr>
<td><strong>Interaction Effects</strong></td>
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<tr>
<td>$D_{IMO} \times SM_{OI}$</td>
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<td>$H_{3a}$</td>
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<tr>
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<td>TDR</td>
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<td>$H_{4b}$</td>
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<td></td>
<td>$H_{8a}$</td>
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<td>21.88** (d.f. = 2)</td>
<td>25.34** (d.f. = 5)</td>
<td>188.73** (d.f. = 4)</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05.

**p < .01.

Notes: $D_{IMO} =$ sales directors’ IMO, TDR = total number of direct reports/sales managers per sales director, TSR = total number of sales representatives, $A_{IMO} =$ mean of IMO per region managed by a sales director, $SM_{IMO} =$ sales managers’ IMO, $EX_{IMO} =$ expert peers’ IMO, $SM_{OI} =$ sales managers’ OI, $EX_{OI} =$ sales representatives’ OI, $SM_{CI} =$ sales managers’ perceived competitive intensity, $EX_{CI} =$ expert peers’ perceived competitive intensity, SDS = sales district size, $SD_{IMO} =$ mean of IMO per sales district, $SR_{IMO} =$ sales representatives’ IMO, $SR_{OI} =$ sales representatives’ OI, and $SR_{CI} =$ sales representatives’ perceived competitive intensity. $N = 285$ (expert peers), 285 (sales managers), and 43 (sales directors). We treated all slope coefficients at Level 1 (Level 2 for Model 3) as fixed because of insignificant between-group variance after including the interaction terms. We removed the expert peers’ IMO scores from the dependent variable’s sample (Model 3) for each sales district when running the HLM regressions.
TABLE 3
Regression Results for Sales Representatives’ Performance

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standardized β (t-Value)</td>
<td>Standardized β (t-Value)</td>
<td>Standardized β (t-Value)</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales representatives’ organizational commitment</td>
<td>.16** (4.38)</td>
<td>.15* (2.34)</td>
<td>.15* (2.33)</td>
</tr>
<tr>
<td>Sales representatives’ job satisfaction</td>
<td>.02 (.23)</td>
<td>.02 (.20)</td>
<td>.03 (.21)</td>
</tr>
<tr>
<td>Sales representatives’ sales experience</td>
<td>.08 (.91)</td>
<td>.06 (.71)</td>
<td>.06 (.94)</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales representatives’ OI</td>
<td>.11* (2.12)</td>
<td>.11* (2.16)</td>
<td></td>
</tr>
<tr>
<td>Sales representatives’ perceived competitive intensity</td>
<td></td>
<td>.07** (2.66)</td>
<td>.07** (2.70)</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales representatives’ IMO</td>
<td></td>
<td></td>
<td>.16** (3.78)</td>
</tr>
</tbody>
</table>

F-value | 6.73** | 5.46** | 4.56**
R² | .040 | .058 | .070
ΔR² | .018** | .012** |

*p < .05.
**p < .01.

Notes: Objective sales representatives’ performance is current year-to-date sales divided by previous year’s year-to-date sales.

interaction. Sales managers’ OI also amplifies the IMO transfer process from sales managers to regular sales representatives, as is evident from its positive coefficient (H3b: γ = .16, p < .01; Model 3). As Figure 2, Panel C, shows, the positive relationship between sales managers’ IMO and sales representatives’ IMO is stronger when the sales managers identify strongly with the organization.

Finally, we found support for the diverging effect of sales managers’ OI, implying that it mitigates the transfer of IMO from sales directors to expert peers (H3c: γ = -.10, p < .01; Model 2). In accordance with H3c, the weaker the sales managers’ OI, the stronger is the impact of the sales directors’ IMO on expert peers’ IMO (see Figure 2, Panel D).

**Moderating Effect of Expert Peers’ OI**

Table 2 also provides the estimation results for various moderating effects of the expert peers’ OI. First, to test the cross-level interaction effect with sales directors’ IMO, we regressed expert peers’ IMO on their OI at Level 1. Then, we modeled the slope of this predictor at Level 1 as a function of the sales directors’ IMO at Level 2 (H4a: γ = .19, p < .01; Model 2). In line with H4a, which posits that expert peers’ OI moderates the transfer of IMO from sales directors to expert peers (H3c: γ = -.10, p < .01; Model 2). In accordance with H4a, the pattern of this interactive effect is in line with the theoretical reasoning for H7. As Figure 4, Panel A, shows, when the sales directors manage a small number of sales representatives, expert peers who work under high-IMO sales directors exhibit a higher level of IMO.

**Moderating Effect of Top Managers’ Direct- and Indirect-Report Network Size**

We found partial support for the hypotheses regarding the moderating role of direct- and indirect-report network size on the sales directors’ IMO transfer. More specifically, we found no significant interaction effect between the number of direct reports (i.e., sales managers) and sales directors’ IMO (H6c: γ = -.02, n.s.; Model 1). Therefore, H6c is not supported.

However, there was a negative interaction effect between sales directors’ IMO and the number of indirect reports (i.e., total number of subordinate sales representatives) in predicting the expert peers’ IMO (H6b: γ = -.09, p < .01; Model 2). The pattern of this interactive effect is in line with the theoretical reasoning for H7. As Figure 4, Panel A, shows, when the sales directors manage a small number of sales representatives, expert peers who work under high-IMO sales directors exhibit a higher level of IMO.

**Moderating Effect of the Size of the Sales District Network**

We found partial support for our theorization that the number of salespeople in a sales district moderates the transfer of MO. Specifically, we did not find support for H8a, which predicted an interaction effect between district size and sales managers’ IMO in predicting sales representatives’ IMO (H8a: γ = .09, n.s.; Model 3) and in predicting expert peers’ IMO (H8b: γ = .01, n.s.; Model 2). However, we found a significant interaction effect between the expert peers’ IMO and the size of the sales district network on the IMO of the other sales representatives in a sales district (H8b: γ = -.15, p < .01; Model 3). Thus, the result support H8b. The interaction plot in Figure 4, Panel B, shows that the effect of expert peers’ IMO on the other sales representatives’ IMO is weakened if the size of the sales
district network is large, whereas a smaller number of salespeople in a district strengthens the IMO transfer from expert peers to the other sales representatives. The pseudo-R-squares (Snijder and Bosker 1999) in Table 2 show that the variances explained by these predictors were equal to or greater than 20%.

Impact on Sales Representatives’ Performance

To show that sales representatives’ IMO is positively related to their individual sales performance even when we control for other performance predictors that have been mentioned in the literature, we used hierarchical ordinary least squares regressions. We report the results in Table 3. We first entered the control variables (sales representatives’ organizational commitment, job satisfaction, sales experience, OI, and perceived competitive intensity) as potential predictors of their objective performance; then, we added the focal predictor, sales representatives’ IMO. The results show that when we control for the effects of organizational commitment ($\beta = .15, p < .05$), sales representatives’ OI ($\beta = .11, p < .05$), and perceived competitive intensity ($\beta = .07, p < .01$), sales representatives’ IMO remain a potent predictor of their performance ($\beta = .16, p < .01$). Thus, $H_9$ is supported.

Additional Analysis

To rule out the alternative explanation that the length of the working relationship between the different dyads (i.e., dyadic tenure) creates the observed effects, we tested whether dyadic tenure interacts with the moderating effect of OI on MO diffusion. We also controlled for all lower-order two-way interactions. None of these additional interaction terms were significant. This suggests that regardless of the dyadic tenure, OI exerts a strong influence on the MO dissemination process. In other words, OI affects MO dissemination immediately regardless of how long people have worked together. We also tested the various three-way interactions among superiors’ IMO, subordinates’ OI, and the size of the direct- and indirect-report sales district network. Again, none of the three-way interaction terms were significant. This suggests that the interactions between IMO and OI are independent of the size of the corresponding networks.

General Discussion

Drawing from the theories of MO as organizational learning (Gebhardt, Carpenter, and Sherry 2006; Slater and Narver 1995) and social learning (Bandura 1977), we proposed and empirically tested a meso framework of MO diffusion from...
a social learning theory perspective. This meso level of analysis, which captures the interaction between individuals and the environment (e.g., network size) at multiple levels within a firm, complements with previous macro (between-firm) research. The empirical analysis of a multilevel data set that spans top management, middle managers, and a large number of frontline employees provides strong support for our theorization. Table 4 summarizes the empirical results.

**Theoretical Implications**

This study builds on and extends the MO literature in several ways. First, consistent with previous research, we found that MO implementation depends on top management. However, we extend this understanding by demonstrating that middle layers in the organization (e.g., middle managers, expert peers) serve as important envoys in diffusing this market-driven learning to frontline employees. As is evident in the empirical results and as we illustrate in Figure 1, the findings go beyond the one-way trickle-down effect (Jones, Busch, and Dacin 2003) to show that (1) the influence of top management on frontline employees is realized indirectly through the two types of envoys rather than directly; (2) in addition to middle managers, top managers may need to rely on distant expert peers to implement MO; and (3) envoys’ characteristics and network size may block the trickle-down effect. Notably, the important role of expert peers in the MO diffusion process has not received much academic attention. In the customer orientation literature, the influence of expert peers on other frontline employees is also largely neglected. This negligence may be due to expert peers’ lack of formal power and limited visibility in the organization as well as the focus of previous research on the formal rather than informal sources of influence in MO implementation. Thus, although this study focuses on MO, we believe that the findings can be generalized to research on individual-level customer orientation. Together, these extensions enhance the understanding of how MO as market-driven learning is built and diffused in organizations. In this vein, Hartline, Maxham, and McKee (2000) claim that work-group socialization plays a pivotal role in the dissemination of a firm’s strategy from top man-

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2We thank an anonymous reviewer for suggesting this.
agement to frontline employees. Our findings not only confirm their claim but also identify the key types of people in the work group and the conditions under which each type is best suited to disseminate firm strategy.

Second, we find that the correlation between IMO and OI is only .20, suggesting that these constructs are distinct from each other. This study was among the first to document this disturbingly low correlation. Thus, this finding supports the conjecture that as boundary spanners who are in frequent contact with customers, sales representatives who identify with the customer more than with the company can engage in excessive customer-oriented behavior that is beneficial for the customers but detrimental to the firm (Lam 2007). The interaction patterns between IMO and OI also underscore another surprising phenomenon: While low-OI envoys are definitely undesirable, high-OI envoys who do not engage in IMO can be equally detrimental to the MO diffusion process. More important, the enhancing role of the envoys’ OI on their motivation to learn from superiors and to transfer down to lower levels of the organization is consistent for both the top manager–middle manager and the middle manager–sales representatives interfaces. This finding strongly supports Slater and Narver’s (1995) projection that outside-in learning, such as MO, should not ignore the internal publics’ perception.

Third, the findings also contribute to the understanding of network size in MO diffusion throughout the organization. More specifically, we found that network size matters more for the informal route of MO diffusion (expert peers–frontline employees interface) than for the formal route of MO diffusion (top managers–middle managers–frontline employees interfaces). This seems to suggest that, all else being equal, vicarious learning is more important in the informal route because larger network sizes deprive frontline employees of the opportunities to observe and learn from expert peers. In contrast, reinforcement learning may be more important in the formal route because the IMO transfer along this route is not contingent on the size of the direct-report network. This finding also suggests that the moderating effect of network size is much more complex and deserves further research.

Managerial Implications

Firms always try to be leaner and more economical. The findings suggest that in doing so, top managers must be cognizant of several important factors so as not to destroy their firms’ MO. In this regard, this study has several managerial implications. Again, we believe that these implications are applicable to the dissemination of customer-oriented behavior as well.

**Selecting an envoy for MO implementation.** We demonstrate that the envoys’ characteristics are important in diffusing the MO culture from top management to frontline employees. The moderating effects show that top managers who want to accelerate the implementation of MO must first sell the organization itself to the internal public, especially to middle managers and expert peers. In this regard, the role of peers in work groups has been largely ignored in practice, and in the academic literature, peers or same-level coworkers have not received much attention (Chiaburu and Harrison 2008; Kohli and Jaworski 1994). With respect to MO implementation, the results suggest that expert peers

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Top managers’ IMO positively influences middle managers’ IMO, which in turn positively influences the IMO of sales representatives, including the expert peer.</td>
<td>✓</td>
</tr>
<tr>
<td>H2: Top managers’ IMO positively influences expert peers’ IMO, which in turn positively influences sales representatives’ IMO.</td>
<td>✓</td>
</tr>
<tr>
<td>H3a: The higher a middle manager’s OI, the stronger is the transfer of IMO from the top manager to the middle manager.</td>
<td>✓</td>
</tr>
<tr>
<td>H3b: The higher a middle manager’s OI, the stronger is the transfer of IMO from the middle manager to the sales representatives, including the expert peer.</td>
<td>✓</td>
</tr>
<tr>
<td>H4a: The higher an expert peer’s OI, the stronger is the transfer of IMO from the top manager to the expert peer.</td>
<td>✓</td>
</tr>
<tr>
<td>H4b: The higher an expert peer’s OI, the stronger is the transfer of IMO from the expert peer to the other sales representatives.</td>
<td>✓</td>
</tr>
<tr>
<td>H5: The weaker a middle manager’s OI, the stronger is the transfer of IMO from the top manager to the expert peer.</td>
<td>✓</td>
</tr>
<tr>
<td>H6: The larger the top manager’s direct-report network, the weaker is the transfer of IMO from the top manager to the middle manager.</td>
<td>n.s.</td>
</tr>
<tr>
<td>H7: The larger the top manager’s indirect-report network, the weaker is the transfer of IMO from the top manager to the expert peer.</td>
<td>✓</td>
</tr>
<tr>
<td>H8a: The larger the sales district’s network, the weaker is the transfer of IMO from the middle manager to the sales representatives, including the expert peer.</td>
<td>n.s.</td>
</tr>
<tr>
<td>H8b: The larger the sales district’s network is, the weaker is the transfer of IMO from the expert peer to the other sales representatives.</td>
<td>✓</td>
</tr>
<tr>
<td>H9: A sales representative’s IMO is positively related to his or her performance.</td>
<td>✓</td>
</tr>
</tbody>
</table>

Notes: ✓ = supported; n.s. = not significant.
can serve as an important type of envoy. The results also suggest that top managers need to understand that the contingencies of this informal route of learning operate differently from those in the formal route. More important, we show that what middle managers think and do might affect not only the formal route but also the informal route of MO diffusion from top managers to frontline employees through expert peers. Specifically, the results indicate that when middle managers do not strongly identify with the organization, top managers might need to resort to expert peers.

This raises an intriguing question: Should top managers directly influence expert peers? At face value, this violates the golden rule of unity of command in management. Given their centrality in diffusing MO not only to frontline employees but also to expert peers, middle managers are an important type of envoy in MO implementation. Implementation through middle managers might be less costly because these managers are already formally charged with such responsibility. However, the findings suggest that top managers have much to gain by influencing expert peers directly rather than relying solely on middle managers. By establishing this informal route of influence, top managers will be able to leverage the strength of these experts beyond the middle managers. Previous research has suggested that learning from peers is more effective because this form of learning is less intimidating than learning from formal supervisors (Morrison 1993; Yukl and Falbe 1991). By relying on expert peers, top managers might also overcome some of the middle managers’ counterimplementation tactics.

The best solution is to nurture the identification with the organization for both types of envoys. The results show that compared with other contingencies to social learning, OI exerts a consistent enhancing effect on all the learning taking place in formal and informal routes. Top managers have a multitude of methods to do this (e.g., Wieseke et al. 2009).

Downsizing, span of control, and MO diffusion. The findings show that middle managers and expert peers play an indispensable role in diffusing MO and that highly market-oriented sales representatives drive sales performance. However, when firms downsize, managers at the middle level are often the first victims. The results show that this practice might be counterproductive. First, we show that top managers can only exert an indirect influence on frontline employees through middle managers and expert peers to foster IMO at the front line. Therefore, cutting these middle layers is equivalent to breaking critical linking pins in the formal route of MO diffusion. The consequence of such practice may become even more severe if the expert peers are not good role models to frontline employees. Second, the moderating effects of network size suggest that top managers who manage a broad base of frontline employees will not be able to influence expert peers to be more market oriented. In addition, smaller work groups will facilitate the remaining work-group members to learn from expert peers. Finally, the results suggest that the transfer of IMO from top managers to middle managers and from middle managers to frontline employees does not depend on the number of subordinates. Thus, the formal route of social learning to become market oriented does not seem to depend on the supervisors’ span of control, while the informal route of social learning is contingent on work-group size. The immediate implication is that to facilitate peer-to-peer learning, managers should create smaller work groups or more opportunities for expert peers to interact with other group members.

Limitations and Further Research

This study is not free from limitations. The trade-off we made between comprehensiveness and focus provides several opportunities for further research. First, given the cross-sectional nature of the data, we could not empirically demonstrate the causality of the relationships. Research using longitudinal data and cross-lagged analysis might shed additional light on the theory we propose. In this regard, Morrison (1993) finds that newcomers seek different types of information from different social referents in the organization, but the pattern does not change over time. Further research could explore whether this also holds true for the diffusion of MO.

Second, our conceptual framework features only two key moderators. In general, these moderators operate in more or less the same manner for both middle managers and expert peers. Moreover, the findings seem to suggest that there are different underlying processes through which MO diffuses through the formal route, which includes proximal leader–follower dyads, and the informal route, which has distal leader–follower dyads. Additional research could explore the variables that might create countervailing and dissimilar effects on the two envoys. Furthermore, middle layers might engage in behavior to block market-driven learning. This kind of strategic counterimplementation has not received much academic research.

Third, we answer the call for more research in marketing using the network perspective (Achrol and Kotler 1999). Here, we were able to capture only network size and the attributes of the envoys-as-nodes in the organizational structure. The inclusion of other social network variables might push the theoretical envelope even further (for a review of the relational basis of attitudes, see Erickson 1988). In addition, research could explore whether the similarity in MO across multiple levels in an organization is helpful. It might be that learning solely from envoys helps sales representatives perform in the short run but restricts them from being more innovative in the long run. Finally, we tested the conceptual framework using data from one firm. The multilevel nature of the data fits with the purpose of conducting a fine-grained investigation of MO implementation (Slater and Narver 1995); however, further research might explore whether the relationships we hypothesize also hold in other contexts.

Appendix A
Measurement Scales

IMO (All Levels).

Adapted from Saxe and Weitz 1982; Thomas, Soutar, and Ryan 2001; Voss and Voss 2000 (1 = “strongly disagree,” and 7 = “strongly agree”)

The Diffusion of Market Orientation / 75
Product Orientation
1. I am always looking for new products and services.
2. I always reconsider and develop the product and service offering of our company.
3. I consider innovative new products and services as a key component of success.

Competitor Orientation
4. I pay close attention to competitors’ activities.
5. I keep a close eye on our competitors’ customer retention tactics.
6. I monitor exactly what special actions our competitors are doing.

Customer Orientation
7. I think customer preferences are a key factor to the success of our company.
8. I frequently survey customers to find out the products and services they would like to see in the future.
9. The goals I set for my subordinates are mainly aiming at customer satisfaction.[only asked at managers’ level]
10. I try to figure out what a customer’s needs are.
11. I have the customer’s best interests in mind.
12. I try to help customers achieve their goals.[only asked at sales representatives’ level]
13. I take a problem-solving approach in selling products or services to customers.[only asked at sales representatives’ level]
14. I offer the product of mine that is best suited to the customer’s problem.[only asked at sales representatives’ level]
15. I try to find out which kinds of products or services would be most helpful to customers.[only asked at sales representatives’ level]

OI (All Levels)
Adapted from Mael and Ashforth 1992 (1 = “strongly disagree,” and 7 = “strongly agree”)
1. When someone criticizes our organization’s name, it feels like a personal insult.
2. I am very interested in what others think about our organization’s name.
3. When I talk about our organization’s name, I usually say “we” rather than “they.”
4. This organization’s successes are my successes.
5. When someone praises this organization, it feels like a personal compliment.
6. If a story in the media criticized our organization’s name, I would feel embarrassed.

Competitive Intensity (All Levels)
Adapted from Jaworski and Kohli 1993 (1 = “strongly disagree,” and 7 = “strongly agree”)
1. Competition in my district is cutthroat.
2. Competitors in my district are relatively strong.
3. In my district, the competition with suppliers offering products and services similar to our organization’s name is immense.

Expertness (to Identify the Expert Peer in Each Group)
Formative composite of sales experience (in years), product knowledge (see scale), and “sales-versus-budget” performance (sales as percentage of sales representative’s budget)

Product Knowledge (Sales Representative’s Level)
1. I know the design and specifications of company products very well.
2. I know the applications and functions of company products very well.
3. I am able to detect causes of operating failure of company products.
4. I keep abreast of our company’s production and technological developments.

Appendix B
Model Specification
In what follows, we report the equations of the multilevel models (we report the results in Table 2).

Model 1: Sales Managers’ IMO as Dependent Variable

Level 1
(B1.1) SM.IMOij = β0j + β1j(SM.OIij) + β2j(SM.OIij) + rij.

Level 2
(B1.2) β0j = γ00 + γ01(A.IMOj) + γ02(D.IMOj) + γ03(TDRj) + γ04(D.IMOj × TDRj) + u0j.

(B1.3) β1j = γ10 + γ11(D.IMOj), and

(B1.4) β2j = γ20,

where SM.IMO = sales managers’ IMO, A.IMO = mean of IMO per region managed by a sales director, SM.OI = sales managers’ OI, D.IMO = sales directors’ IMO, and TDR = total number of direct reports.

Model 2: Expert Peers’ IMO as Dependent Variable

Level 1
(B2.1) EX.IMOij = β0j + β1j(SD.IMOij) + β2j(EX.OIij) + β3j(EX.OIij) + β4j(SM.CIij) + β5j(SM.IMOij) + β6j(SM.OIij) + β7j(SD.SSij) + β8j(SM.IMOij × SM.OIij) + β9j(SM.IMOij × SD.SSij) + rij.

Level 2
(B2.2) β0j = γ00 + γ01(D.IMOj) + γ02(TSRj) + γ03(D.IMOj × TSRj) + u0j.
Model 3: Sales Representatives’ IMO as Dependent Variable

Level 1

\( B2.3 \) \[ \beta_{ij} = \gamma_{i0} \]

\( B2.4 \) \[ \beta_{j0} = \gamma_{j0} + \gamma_{j1}(D\_IMO_j) \]

\( B2.5 \) \[ \beta_{j1} = \gamma_{j2} \]

\( B2.6 \) \[ \beta_{j2} = \gamma_{j3} \]

\( B2.7 \) \[ \beta_{j3} = \gamma_{j4} \]

\( B2.8 \) \[ \beta_{j4} = \gamma_{j5} + \gamma_{j6}(D\_IMO_j) \]

\( B2.9 \) \[ \beta_{j5} = \gamma_{j6}, \] for each \( m \in N = \{7, 8, \ldots, 9\} \),

where \( E\_IMO = \) expert peers’ IMO, \( S\_IMO = \) mean of IMO per sales district, \( EX\_CI = \) expert peers’ perceived competitive intensity, \( SD\_IMO = \) sales managers’ IMO, \( SM\_OI = \) sales managers’ OI, and \( D\_IMO = \) sales directors’ IMO.

Level 2

\( B3.1 \) \[ \pi_{ij} = \beta_{ij} + \pi_{i1}(SD\_IMO_k) + \pi_{i2}(SM\_CI_k) + \pi_{i3}(EX\_CI_k) + \pi_{i4}(SM\_OI_k) \]

\( B3.2 \) \[ \pi_{ijk} = \beta_{00k} + \beta_{01k}(SD\_IMO_k) + \beta_{02k}(SM\_CI_k) + \beta_{03k}(EX\_CI_k) + \beta_{04k}(SM\_OI_k) \]

\( B3.3 \) \[ \pi_{ijk} = \beta_{m1k}, \] for each \( m \in N = \{1, 2\} \).

Level 3

\( B3.4 \) \[ \beta_{00k} = \gamma_{000} + \gamma_{001}(D\_IMO_k) + \gamma_{002} \]

\( B3.5 \) \[ \beta_{01k} = \gamma_{010} + \gamma_{011}(D\_IMO_k) + \gamma_{012} \]

\( B3.6 \) \[ \beta_{11k} = \gamma_{110} \]

\( B3.7 \) \[ \beta_{21k} = \gamma_{210} \]

where \( S\_IMO = \) sales representatives’ IMO, \( S\_OI = \) sales representatives’ OI, \( S\_CI = \) sales representatives’ perceived competitive intensity, \( SD\_IMO = \) mean of IMO per sales district, \( SM\_IMO = \) sales managers’ IMO, \( SM\_OI = \) sales managers’ OI, \( EX\_IMO = \) expert peers’ IMO, \( EX\_CI = \) expert peers’ perceived competitive intensity, \( EX\_CI = \) expert peers’ perceived competitive intensity, \( SD\_IMO = \) sales managers’ IMO, \( DDS = \) sales district size, and \( D\_IMO = \) sales directors’ IMO.

REFERENCES


