Supplier-Selected Referrals

In business-to-business markets, suppliers often ask an existing customer to provide a referral for them (i.e., a supplier-selected referral), in which the supplier selects a referrer to influence a specific potential customer favorably. The selection of the referrer is important because the right referrer providing the right message can generate business for the supplier. To study supplier-selected referrals, the authors extend the dyadic source-message-recipient communication framework to propose a framework that incorporates the supplier and the supplier's management of the communication between the referrer and the potential customer. They label this framework the Managed Triadic Communication (MaTriC) framework. The authors conduct three experimental studies in which they apply the MaTriC framework to the domain of supplier-selected referrals and focus on the contingent role of supplier uncertainty. The authors find that the benefits of a supplier-selected referral are contingent on supplier uncertainty. For example, their findings imply that an outsupplier should focus on selecting a referrer that would give an all-positive evaluation (vs. a balanced evaluation), whereas an insupplier should focus on selecting a highly credible referrer, even if that referral does not provide an all-positive evaluation of the supplier.

Keywords: referrals, business-to-business marketing, customer references, triadic communication, referral management

Online Supplement: http://dx.doi.org/10.1509/jm.11.0173

A referenceable customer is one of a company's most valuable assets. Yet, too often, these assets are poorly managed and underutilized.... Are you certain that you always match the right reference to the right request?

-Boulder Logic (2006, p. 2)

o acquire customers, suppliers in business-to-business (B2B) markets often rely on reference customers (or referrers) to give positive referrals to potential customers. Consider SAS Inc., which supplies complex, often customized business analytics solutions to a range of B2B customers, such as the U.S. government and Citigroup. The complexity of the solutions creates uncertainty for SAS's potential customers; to help reduce this uncertainty, SAS asks existing customers to give referrals to potential customers. In this case, the supplier selects the referrer to influence the potential customer in its favor, which we refer to as a "supplier-selected referral." However, as Boulder Logic's (2006) white paper emphasizes, referrer selection is an important, nontrivial concern that neither practitioners nor academics understand well.

Suppliers seek referrers that can provide the right referral message and exert maximal positive influence on potential customers; however, it is not evident which referrer and referral message will have maximal impact. For example, to reduce potential customers' perceived bias in the referral (arising from the potential customer's knowledge that the supplier has selected the referrer), SAS encourages "endorsement-free referencing" by asking its referrers to talk to its potential customers about everything related to SAS, including "the good, the bad, and the ugly" (Lee 2008, p. 1). However, because negative information in the referral message could harm the supplier's chances for a sale, some advocates recommend that suppliers focus on "getting great referrals from delighted, influential reference accounts" (Lodish, Morgan, and Archambeau 2007, p. 131).

Furthermore, because the purpose of a supplier-selected referral is to reduce the potential customer's uncertainty about the supplier's capabilities (i.e., supplier uncertainty), the benefit of the referral depends on the supplier's characteristics that influence supplier uncertainty. For example, is a credible referrer as important for a supplier that has never worked with the potential customer (i.e., an outsupplier) as it is for a supplier that has worked with the potential customer before, but on an unrelated solution (i.e., an insupplier)? Or can the supplier trade off referrer credibility for the referral message by selecting a less credible referrer who is likely to give a great referral? In this article, we answer these questions by studying how suppliers can reduce their potential customers' supplier uncertainty by selecting a referrer.

To examine these issues, we extend the dyadic sourcemessage-recipient communication framework (e.g., Wilson

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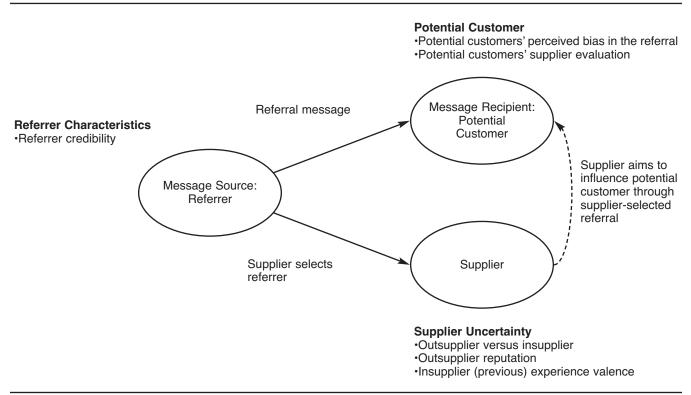
and Sherrell 1993) to account for the supplier managing the communication between the referrer and the potential customer; we refer to this extended framework as the Managed Triadic Communication (MaTriC) framework (Figure 1). As Figure 1 shows, the MaTriC framework views the supplier as an integral part of the communication process (which has traditionally been viewed as exclusively between the source and the recipient) and thus provides the capability to include constructs that reflect the supplier's perspective as well. For supplier-selected referrals, we include potential customers' perceived bias in the referral (to reflect the supplier's management by referrer selection) and supplier uncertainty (because the supplier selects the referrer to reduce potential customers' supplier uncertainty). In three experimental studies (Studies 1, 2a, and 2b), we study the supplier-selected referral with the constructs of "referral valence" and "referral credibility" and examine (1) how perceived bias in the referral mediates the effect of referral valence on potential customers' evaluation of the supplier and (2) how supplier uncertainty moderates the effect of the referral on potential customers' supplier evaluation.

In Study 1, we establish the mediating effect of potential customers' perceived bias in the referral. Our results show, first, that although a referral with some negative information (a "balanced" referral) does reduce potential customers' perceived bias in the referral, the net effect of a balanced referral on potential customers' supplier evaluation is nega-

tive compared with the effect of an all-positive referral. Therefore, even though potential customers discount an allpositive referral to some extent because of the supplier's referrer selection, it is still more influential than a balanced referral. Second, we show how the role of supplier uncertainty depends on the supplier's status as an insupplier (currently selling the firm other, unrelated products) or outsupplier. We find that for an outsupplier, an all-positive referral significantly improves potential customers' supplier evaluation even when referrer credibility is low. In contrast, for an insupplier, referral valence (all-positive or balanced referral) does not significantly change potential customers' supplier evaluations when referrer credibility is high.

In Study 2, we focus on supplier characteristics that are likely to be critical for outsuppliers and insuppliers in supplier-selected referrals. In Study 2a, we examine how the effect of referrer credibility on potential customers depends on outsupplier reputation. We find that for a highly reputable outsupplier, referrer credibility does not offer much benefit. In Study 2b, we examine how the effect of referrer valence on potential customer depends on the insupplier's previous experience with that customer. We find that if an insupplier's experience was mixed (i.e., not entirely positive), an all-positive referral would significantly increase potential customers' perceived bias in the referral and would not benefit an insupplier with mixed experience as much as it would an insupplier with positive experience. These findings reveal that the benefit of a refer-





Notes: The MaTriC framework extends the dyadic source-message-recipient framework by including a third entity: the supplier. In supplier selected referrals, the supplier selects a specific referrer to influence the potential customer in its favor, thus managing the communication between the referrer (source) and the potential customer (recipient).

ral depends on the supplier's own characteristics—a key aspect of the MaTriC framework.

We intend to make three contributions. First, we introduce the MaTriC framework to include an often-neglected third actor in referrals-the entity about which the information is being given, the supplier. Recent research has acknowledged that firms now actively manage social interactions (e.g., Mayzlin 2006); with the MaTriC framework, we provide a theoretical foundation to study firm-managed communications involving interactions between current and potential customers. Our empirical studies support the framework by showing that the influence of the supplierselected referral on potential customers depends on supplier uncertainty. Second, we focus on the construct of perceived bias in referrals, a key element in referrer selection, and show that perceived bias significantly reduces potential customers' supplier evaluation. This finding is relevant not only to supplier-selected referrals in B2B markets but also to referrals in consumer markets, in which firms often use referral rewards to acquire new customers. Third, we contribute to the domain of B2B marketing knowledge. Supplier-selected referrals are a critical sales tool in B2B markets, and theoretical research on this phenomenon is limited. We add to theoretical research by Hada, Grewal, and Lilien (2010) and Godes (2012) by introducing a framework to empirically study the supplier firm's perspective of referrals. In addition, we contribute to empirical research by Kumar, Petersen, and Leone (2013) by studying potential customers' perspectives of the benefit of the supplier-selected referral rather than only the supplier's perspective.

Our findings also have implications for suppliers such as SAS, who suggest that their referrers give balanced referrals to potential customers. We show that although the practice of balanced referrals reduces potential customers' perceived bias in the referral (as SAS expects), the net effect of a balanced referral message is actually detrimental for the supplier. We also provide guidelines to suppliers in selecting referrers; for an example, it is better for an outsupplier to select a referrer who would give an all-positive referral than a balanced referral, even if that referrer is not highly credible.

Next, we develop the MaTriC conceptual framework for supplier-selected referral characteristics and then present Study 1. Then, we build on the findings from Study 1 and present the underlying theory for Studies 2a and 2b as well as the findings we obtain from these investigations. We close with a general discussion and the implications for research and practice.

The MaTriC Framework

In the past four decades or so in the marketing literature, referrals have largely been studied as word of mouth between two consumers, in which the current consumer gives a referral to a potential consumer (e.g., Arndt 1967; Wangenheim and Bayón 2007). Within this dyad, researchers have focused on studying how one actor, the message source, influences the second actor, the message recipient (e.g., Gilly et al. 1998). Thus, the dyadic source–message–recipient framework has served this stream of

research well (e.g., Darke, Ashworth, and Ritchie 2008; Wilson and Sherrell 1993).

In supplier-selected referrals, the supplier manages the communication by requesting the referrer (an existing customer) to give a referral to the potential customer. Thus, there are three actors in supplier-selected referrals: the referrer, the potential customer, and the supplier (the third actor) (see Figure 1). Therefore, we extend the source-message-recipient communication framework to include (1) the third actor, about whom the message is being given (i.e., the supplier) and (2) this actor's management of the communication between the source and the recipient. We call this framework the Managed Triadic Communication (MaTriC) framework.

We study the MaTriC framework in two steps: First, we study the influence of the referrer's (the source's) referral (message) on the potential customer (the recipient) and the role of potential customers' perceived bias in the referral. Second, we introduce the contingent role of supplier uncertainty (see Figure 2) with three variables: suppliers' outsupplier/ insupplier status, outsupplier reputation, and insupplier previous experience.

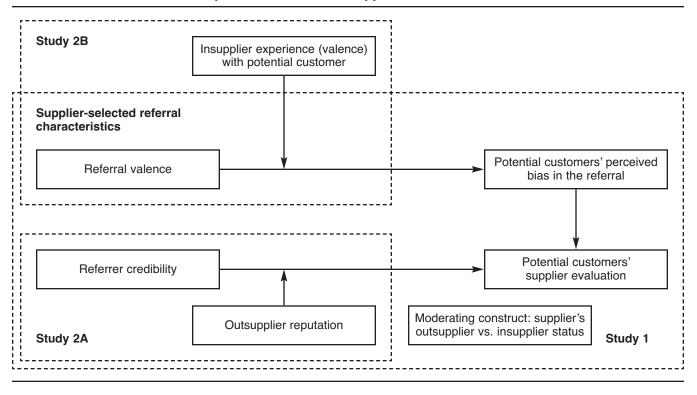
Because there has been little academic research to date on referrals for B2B firms, in addition to extant literature, we relied on interviews with managers to ground our conceptual framework in practice. We conducted 18 interviews (8 with suppliers, 10 with potential customers) with managers in B2B firms. With suppliers, we focused on the criteria they use to select referrers and the benefits they receive. With potential customers, we focused on how supplierselected referrals influence them. The interviews highlighted the difficulty that suppliers face in selecting the right referrer for supplier-selected referrals. For example, one supplier stressed that a highly reputed referrer in the same industry would always be a direct competitor for some potential customers and would thus be inaccessible. The interviews also revealed the role of perceived bias in the influence of referral valence. One potential customer considered the presence of only positive information in the referral "suspicious," whereas another believed any negative information would be "unacceptable." In summary, we found considerable variance in beliefs among practitioners with regard to the selection and impact of different types of referrers.

Next, we detail the MaTriC conceptual framework. We first present the supplier-selected referral characteristics and then discuss the construct, potential customers' perceived bias in the referral, and the contingent role of supplier uncertainty.

Source–Message–Recipient Characteristics

Because the dyadic communication framework pertains to the source, message, and recipient in communications, we rely on the communication framework to model the referrer (source), the referral message, and the potential customer (recipient) for supplier-selected referrals. Previous marketing research has typically studied the message source using the construct of credibility (Kang and Herr 2006; Wilson and Sherell 1993). Source credibility consists of three

FIGURE 2 Conceptual Framework for Supplier-Selected Referrals



dimensions: expertise, trustworthiness, and attractiveness (see, e.g., Pornpitakpan 2004). Because physical attractiveness is not applicable for firms, researchers have modeled firms' credibility with two dimensions—expertise and trustworthiness—referred to jointly as the reputation, or corporate reputation, of the firm (e.g., Goldberg and Hartwick 1990; Goldsmith, Lafferty, and Newell 2000; Keller and Aaker 1998). Therefore, we capture source credibility with the referrer's corporate reputation and conceptualize referrer credibility as the referrer's expertise in the product domain and image in the industry (e.g., Gürhan-Canli and Batra 2004; Newell and Goldsmith 2001).

We model the message with referral valence, which could be positive or negative (Hada, Grewal, and Lilien 2010). However, in supplier-selected referrals, it is unlikely that the supplier would select a referrer who might give an overall negative referral, so we study referral valence with an all-positive referral, in which the referral message contains only positive information about the supplier (e.g., "We are delighted with the supplier") and a balanced referral, in which the referral message contains some negative information in an overall positive referral (e.g., "We are highly satisfied with the supplier, but their support was slow").

In the communication framework, the key recipientrelated construct studied is the influence of the communication on the recipient (e.g., Duncan and Moriarty 1998), that is, on the potential customer. From the supplier's perspective, a supplier-selected referral is beneficial if it influences the potential customer in favor of the supplier and thus improves the potential customer's evaluation of that supplier. Therefore, we consider potential customers' supplier evaluation our key dependent variable (Figure 2). In the following subsection, we elaborate on the two constructs that we introduce in the MaTriC framework: potential customers' perceived bias in the referral and supplier uncertainty.

Mediating Role of Potential Customers' Perceived Bias in the Referral

Supplier-selected referrals differ from other information sources that the potential customer might access in one key aspect: the referrer is selected by the supplier, and the potential customer knows this. Because potential customers expect the supplier to select a satisfied customer as a referrer, they should perceive the referral as positively biased.¹ We capture this phenomenon in our MaTriC framework with potential customers' perceived bias in the referral, which we define as the potential customer's perception that the information presented in the referral is partial toward the supplier (Hada, Grewal, and Lilien 2013).

Research on the influence of marketing communications on consumers has also indicated that consumers perceive a bias in some communications. For example, con-

¹In our interviews, managers responsible for evaluating suppliers stressed that they are aware of suppliers' bias toward selecting a highly satisfied customer as the reference customer and that they take this knowledge into account when they evaluate the supplierselected referral. As one purchasing manager stated, "I *know* [the reference customer] will be their best customer." Relatedly, another purchasing manager expressed his view that he would likely trust a source he knew personally more than the reference customer. Thus, our interviews indicate that purchasing managers view the information from supplier-selected referrals as biased because they expect suppliers to select a highly satisfied customer as a reference customer.

sumers are often skeptical about firms' positive advertising messages because they perceive that information as biased toward the firm (e.g., Pechmann 1992). Similarly, building on research on biased communication (e.g., D'Alessio and Allen 2000) and negative information (e.g., Laczniak, DeCarlo, and Ramaswami 2001), we expect that referral valence will influence potential customers' perceived bias in the referral and, thus, indirectly affect potential customers' supplier evaluation (Figure 2).

Contingent Role of Supplier Uncertainty

Because the supplier selects the referrer, the role of the supplier in the effectiveness of supplier-selected referrals must be accounted for; therefore, we include the supplier in the MaTriC framework. Supplier-selected referrals are used in B2B markets, so we rely on research on organizational buying behavior to study the supplier (e.g., Brown 1995).

This research shows that potential customers experience purchase uncertainty as a result of factors specific to the purchase situation (purchase novelty, complexity, and importance; McQuiston 1989) and related to the supplier (Brown 1995). Uncertainty specific to the purchase situation applies to all suppliers, whereas a supplier-selected referral is meant to influence the potential customer in favor of a specific supplier. Therefore, we study how the influence of supplier-selected referrals on potential customers' supplier evaluation depends on supplier uncertainty.

A major source of potential customers' supplier uncertainty is their (lack of) familiarity with the supplier (e.g., Puto, Patton, and King 1985). A key determinant of familiarity (or lack thereof) is the potential customer's previous experience with the supplier (e.g., Heide and Weiss 1995). We define a supplier with which the potential customer has had no previous experience as an "outsupplier" and one with previous experience for an unrelated solution as an "insupplier" (see Figure 2). Potential customers should perceive varying levels of uncertainty related to the supplier's capabilities according to its outsupplier versus insupplier status. Thus, we address how the influence of the supplierselected referral depends on the supplier's outsupplier/ insupplier status (Study 1; see Figure 2).

Because the potential customer has no experience with an outsupplier, its familiarity, and thus supplier uncertainty, depends on the supplier's reputation (Brown 1995). Reputation summarizes an organization's ability to deliver highquality products or solutions (Washington and Zajac 2005). Thus, the outsupplier's reputation provides a way for potential customers to evaluate the outsupplier's capabilities. To assess the effect of outsupplier reputation in supplierselected referrals, in Study 2a we investigate the effect of referrer credibility on potential customers' supplier evaluation contingent on outsupplier reputation.

For insuppliers, after potential customers gain experience with the supplier, this experience should be a key factor in determining their perception of insuppliers' capabilities, and thus of supplier uncertainty. To assess the effect of insupplier experience in supplier-selected referrals, in Study 2b we investigate the effect of referral valence on potential customers' supplier evaluation contingent on the valence of the insupplier experience (Figure 2).

Study 1

In Study 1, we assess the MaTriC communication framework for supplier-selected referrals (Figure 2). We study the effect of referral valence and the mediating effect of potential customers' perceived bias in the referral (H_1 and H_2), the effect of the interaction of referrer credibility and referral valence (H_3), and the contingent role of supplier's outsupplier/insupplier status (H_4) on potential customers' supplier evaluation.

Referral Valence

In supplier-selected referrals, the valence of the referral message (all-positive or balanced) communicates the referrer's evaluation of the supplier to the potential customer. We posit that referral valence has an indirect effect on potential customers' supplier evaluation through their perceived bias in the referral as well as a direct effect. The role of perceived bias in the referral is important in supplierselected referrals because the potential customer is likely to perceive that the referrer's information favors the supplier.

The influence of a supplier-selected referral depends on the potential customer's perception of its objectivity (e.g., Price and Feick 1984). If the potential customer perceives that the referral is biased in favor of the supplier, the potential customer likely discounts the information, in line with attribution theory (e.g., Mayzlin 2006). Therefore, potential customers' perceived bias in the referral should exert a negative effect on their supplier evaluation.

Referral valence also likely influences these perceptions of bias in supplier-selected referrals. For example, the presentation of both pros and cons of an issue, rather than only one side, reduces perceptions of bias in news reporting (e.g., D'Alessio and Allen 2000). Pechmann (1992) also finds that advertising messages that include negative information increase customers' perceptions of the honesty of the source. Similarly, by addressing both positive and negative aspects of the supplier's solution, a balanced referral should reduce potential customers' perceived bias more than an all-positive referral. Therefore, we hypothesize the following:

H₁: Potential customers' perceived bias is greater for an allpositive referral than for a balanced referral.

A balanced referral, compared with an all-positive referral, should also positively influence potential customers' supplier evaluation. In a political decision-making context, Calvert (1985) finds that when a biased advisor gives a recommendation contrary to the advisor's known bias, that recommendation exerts more influence on the decision maker than does an expected recommendation. Research on two-sided advertising messages also suggests that because the negative information in supplier-selected referrals is unexpected, potential customers pay more attention to the message in balanced referrals than in all-positive referrals (e.g., Eisend 2006). Because a balanced referral includes positive information, this increased attention should exert a stronger positive effect on potential customers' supplier evaluation than would an all-positive referral. Thus, the cited research suggests that suppliers benefit more from a balanced referral than from an all-positive referral.

However, an alternate stream of research argues that potential customers weight negative information more heavily than positive information (e.g., Fiske and Taylor 1991). Negative information enables potential customers to categorize a supplier as low quality more readily than positive information enables them to categorize a supplier as high quality (e.g., Herr, Kardes, and Kim 1991). An allpositive referral also communicates that the referrer's evaluation of the supplier is unequivocally positive, which should reduce potential customers' uncertainty about the supplier's capabilities. Thus, this stream of research suggests that suppliers would benefit more from an all-positive referral than from a balanced referral.

However, in supplier-selected referrals, the effect of referral valence likely depends on the potential customer's attribution of the negative information. In two-sided advertising, the supplier is also the message source, so the supplier benefits from customer perceptions of source honesty (see, e.g., Pechmann 1992). However, in supplier-selected referrals, the supplier and the message source (referrer) are distinct entities. Therefore, on receiving a balanced referral, the potential customer may attribute honesty to the referrer (which may reduce perceived bias in the referral) but evaluate the supplier negatively (e.g., Sen and Lerman 2007), reducing potential customers' supplier evaluations. Therefore, we hypothesize the following:

 H_2 : The effect of referral valence, through potential customers' perceived bias in the referral, will be greater for an all-positive referral than for a balanced referral on potential customers' supplier evaluation.

Referrer Credibility

Potential customers enter into relationships with suppliers when they believe those suppliers can deliver a solution effectively and reliably. Prior research has suggested that potential customers trust a reputed firm to discern the quality of the supplier (e.g., Stuart 2000). Because referrer credibility encapsulates the referrer's reputation, we expect it to have a positive effect on potential customers' supplier evaluation.

In H_1 , we hypothesized that an all-positive referral would increase potential customers' perceived bias more than a balanced referral would. Here, we consider the moderating influence of referrer credibility on the effect of referral valence.

Marketing researchers have found that people are more likely to believe information when it comes from a credible source (e.g., Gürhan-Canli and Batra 2004; Jacoby and Hoyer 1981). Similarly, Goldberg and Hartwick (1990) show that as firm reputation increases, consumers are more likely to believe the firm's advertising claims. Extending this finding to supplier-selected referrals, the higher the referrer credibility, the more potential customers should perceive that the referrer is giving objective information about the supplier. Thus, even when the referrer gives an all-positive referral, as referrer credibility increases, potential customers' perception of the accuracy of the information provided by the referrer should also increase, thereby reducing perceived bias in the referral. H₃: The greater the referrer's credibility, the lesser the positive effect of an all-positive referral compared with a balanced referral on potential customers' perceived bias in the referral.

Contingent Role of Supplier's Outsupplier/ Insupplier Status

The purpose of supplier-selected referrals is to lower potential customers' supplier uncertainty; thus, we expect that the influence of referrer credibility and referral valence on potential customers' supplier evaluation will depend on the supplier's outsupplier/insupplier status. Because potential customers do not have previous experience with outsuppliers, they have less information with which to assess an outsupplier's capabilities than they do for those of an insupplier. Thus, potential customers are more likely to rely on the information in the referral message (i.e., referral valence) to assess capabilities for an outsupplier than for an insupplier. Furthermore, marketing literature on source credibility has suggested that the greater the referrer credibility, the greater the influence of the message on the recipient (e.g., Wilson and Sherrell 1993). For example, Grewal, Gotlieb, and Marmostein (1994) find that product attribute claims made by a source with low credibility are perceived as less useful than those of a highly credible source in judging the performance of the product. Thus, for evaluating an outsupplier, potential customers should consider an all-positive referral from a highly credible referrer most useful in assessing an outsupplier's capabilities. In contrast, potential customers have previous experience with an insupplier, and thus, the effect of referral valence and referrer credibility on potential customers' supplier evaluation should be lesser for an insupplier than for an outsupplier. Therefore, we hypothesize the following:

H₄: The influence of the interaction between referrer credibility and referral valence on potential customers' supplier evaluation will be greater for an outsupplier than for an insupplier.

Method

We test H_1-H_4 with a 2 (referrer credibility: low vs. high) × 2 (referral valence: balanced vs. all-positive) × 2 (supplier status: outsupplier vs. insupplier) between-subjects experiment (for methodological details, see Appendix A). The empirical context is potential customers' selection of enterprise resource planning (ERP) solutions. Referral valence includes two levels: an all-positive referral and a balanced referral (i.e., an overall positive referral with some negative information). We modeled referrer credibility at two levels (medium and high), because suppliers are unlikely to select a referrer with a poor reputation (for manipulations, see Table 1).

Dependent variable. We assessed potential customers' perceived bias with a three-item measure (Gunther and Schmitt 2006) (see Table 1). For potential customers' supplier evaluation, we measured the likelihood that the potential customer would allow the supplier to advance to the next stage in the purchase process with a two-item measure; we also measured potential customers' confidence in their supplier evaluation (Table 1). We assessed supplier evaluation twice: before

TABLE 1			
Construct Definitions and Manipulations/Measurements			

Construct Definition	ruct Definition Manipulation/Measurement		
Referral valence: The extent of positive or negative information in the referral message	Balanced referral: "We're more than satisfied with [Supplier's] ERP solution. Their solution fit our needs; but customizing the application was time-consuming and difficult. We had to have a dedicated in-house team, which increased our expense. But, we have a successful implementation. We achieved our 7% cost reduction target thanks to [Supplier's] ERP solution."	<i>All-positive referral:</i> "We are more than satisfied with [Supplier's] ERP solution. They were really invested in understanding our requirements and integrating the ERP system seamlessly into our setup. We've cut our operation costs by at least 8% and have even saved time in several management tasks such as reports and documentation for quality certification. It's because of [Supplier's] ERP solution."	Eisend 2006; Pechmann 1992; Smith, Bolton, and Wagner 1999
Referrer credibility: The referrer's expertise in the product domain and image in the industry	High credibility: Each year, Fortune publishes the world's "Most Admired Companies" rankings. These rankings are based on a survey that polls more than 10,000 financial analysts, senior executives, and Wall Street investors from more than 580 large companies. This ranking is an average score of ratings on criteria such as community and environmental responsibility, innovativeness, financial soundness, quality of management, and quality of products and services. In the instruments and related products industry, <i>Fortune</i> ranked only eight firms. [Referrer's] score was 6.86/10 (the highest score was 7.95/10). [Referrer] was ranked #3 in Fortune's "Most Admired Companies" survey in 2010 and has been ranked in the top three firms since 2008.	Medium credibility: Each year, Fortune publishes the world's "Most Admired Companies" rankings. These rankings are based on a survey that polls more than 10,000 financial analysts, senior executives, and Wall Street investors from more than 580 large companies. This ranking is an average score of ratings on criteria such as community and environmental responsibility, innovativeness, financial soundness, quality of management, and quality of products and services. In the instruments and related products industry, Fortune ranked only eight firms. [Referrer's] score was 1.86/10 (the highest score was 7.95/10). [Referrer's] score was not high enough for it to be ranked by Fortune. [Referrer] has never been ranked in Fortune's "Most Admired Companies" list.	Goldberg and Hartwick 1990; Gürhan-Canli and Batra 2004
Supplier status: Whether the supplier has previously worked with potential customer for the current solution	<i>Outsupplier</i> : [Potential customer] has never done business with [Supplier].	<i>Insupplier</i> : [Potential customer] has previously done business with [Supplier], but only regarding a simple accounting product that is not related to the ERP solution.	Puto, Patton, and King 1985

TABLE 1 Continued

Construct Definition	Manipulation/Measurement		
Outsupplier reputation: The outsupplier's ability to deliver quality products or solutions	<i>Start-up</i> : Founded in 2008, BlueStripe is a start-up that develops and provides ERP solutions to organizations in multiple industries. BlueStripe was founded by entrepreneurs who have led some of the industry's leading ERP software companies. Today, BlueStripe has around 40 employees and 20 customers. BlueStripe is headquartered in North Carolina, US.	<i>Reputed supplier</i> . Founded in 1977, Oracle is one of the leading international providers of business software and the world's third-largest independent software manufacturer. Oracle has more than 370,000 customers including all <i>Fortune</i> 100 companies, in over 145 countries and employs 105,000 people. Oracle is headquartered in California, US.	Purohit and Srivastava 2001; Washington and Zajac 2005
Insupplier experience: The valence of the insupplier's previous experience with the potential customer	<i>Mixed experience</i> : [Potential customer's] previous experience with [Supplier] has been good, with some negative aspects; [Potential customer] had some problems with [Supplier's] accounting product (which were resolved).	<i>Positive experience</i> : [Potential customer's] previous experience with [Supplier] was excellent; [Potential customer] did not have any problems with [Supplier's] accounting product.	
Perceived bias in supplier- selected referral ^c (factor loading): Potential customers' perception that the information presented in the referral is partial toward the supplier	[Referrer] withheld negative information about [Supplier] (.56). [Referrer] gave only favorable information about [Supplier] (.62). [Referrer] was not truthful about [Supplier] (.79).		Gunther and Schmitt 2006
Potential customers' supplier evaluation ^b	How likely would you be to include [Supplier] for the short list? ^d How likely would you be to consider [Supplier] for purchase of your ERP solution? ^d		Bearden and Netemeyer 1999; Verville and Halingten 2003a
Confidence in supplier evaluation	How confident are you about your evaluation about the supplier? ^e		Bearden and Netemeyer 1999

^aBecause the phenomenon studied (supplier-selected referrals) is new, our experimental setup and context were not similar to existing studies; therefore, we adapted all the constructs to the experimental context to varying degrees.

^bWe assessed potential customers' supplier evaluation with the average of the first two items assessing evaluation (their correlation was close to one) before and after the potential customer received the supplier-selected referral. We used the potential customers' confidence in supplier evaluation measure in robustness tests.

^cMeasured on a scale of 1 ("disagree") to 7 ("agree"). ^dMeasured on a scale of 1 ("not at all") to 7 ("very likely"). ^eMeasured on a scale of 1 ("not at all") to 7 ("very confident").

the referral (when the respondent has seen only supplierrelated information) and after the referral (when the respondent has seen the supplier-selected referral information).

Pretests and data collection. We conducted two pretests. In the first pretest, we assessed the manipulations with students in masters of business administration (MBA) and executive MBA programs; the manipulations proved successful. In the second pretest (which also used students in MBA and executive MBA programs), we found that potential customers perceive higher supplier uncertainty and failure risk for outsuppliers than for insuppliers. Before our final data collection, we interviewed two purchasing managers from the technology industry who appraised the content and realism of the stimuli, and we incorporated their comments into the stimuli. We conducted the final data collection with 154 students enrolled in an executive or evening MBA program (80% of the respondents had work experience).

Results

In support of H₁, an all-positive referral significantly increases potential customers' perceived bias compared with a balanced referral ($\beta_{\text{bias}} = 1.39, p < .05$; see Table 2). To test H₂, we calculated the effect of referral valence on potential customers' supplier evaluation including the mediating effect of perceived bias (for an estimation approach, see Zhao, Lynch, and Chen 2010). Compared with a balanced referral, an allpositive referral exerted a net positive effect on potential customers' supplier evaluation (H₂; $\beta_{\text{total}} = 1.37, p < .05$).

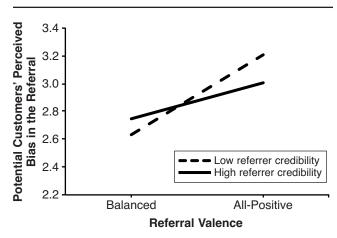
We also find support for H₃: the positive effect of an allpositive referral on potential customers' perceived bias in the referral was lower for a referrer with high (vs. low) credibility ($\beta_{\text{bias}} = -.31, p < .05$), as Figure 3 shows. We also find that referral valence, moderated by referrer credibility, has a positive significant indirect effect on potential customers' supplier evaluation ($\theta = 1.10, p < .05$ for the moderated mediation; Preacher, Rucker, and Hayes 2007) (see Appendix A).²

²The 95% confidence interval of the indirect effect of referral valence on potential customers' supplier evaluation was (.28, 1.90). The results show that potential customers' perceived bias in the referral has a complementary mediating effect (Zhao, Lynch, and Chen 2010).high) and supplier status (outsupplier and insupplier) (Jaccard 1998).

To show statistical support for H₄, two conditions must be fulfilled. First, the three-way interaction term should be statistically significant (supported; $\beta = .67$, p < .05). Second, the interaction effect of referral valence and referrer credibility on potential customers' supplier evaluation should differ between insuppliers and outsuppliers. We find that this simple interaction effect is negative for an outsupplier ($\gamma = -1.46$, p < .05) and positive for an insupplier ($\gamma = .69$, p < .05).³ Specifically, we hypothesized that (1) referrer credibility (high vs. low) increases potential customers'

³Because this is a three-way interaction, we calculate and report the simple interaction effect (a simple effect of an independent variable is the effect at a single level of another variable) of referral valence and referrer credibility at the two values of supplier status (outsupplier and insupplier). For the main effect, we calculate the simple-simple main effect of referral valence assessed at the level of the other two variables, referrer credibility (low and high) and supplier status (outsupplier and insupplier) (Jaccard 1998).

FIGURE 3 Study 1: Effect of Referral Valence and Referrer Credibility on Potential Customers' Perceived Bias in the Referral



Notes: This figure indicates support for H₃ because the positive effect of an all-positive referral on potential customers' perceived bias in the referral was lower for a referrer with high (vs. low) credibility.

TABLE 2 Study 1 Results

	Supplier Evaluation Pre-Referral	Perceived Bias in Referral	Supplier Evaluation Post-Referral
Intercept	3.8*	2.63*	1.50*
Supplier status: insupplier (vs. outsupplier)	.01	N.A.	.49
Referral valence: all-positive referral (vs. balanced)	N.A.	1.39*	1.22*
Referrer credibility	N.A.	.27	.29
Referral valence × referrer credibility	N.A.	81*	-1.46*
Referral valence × supplier status	N.A.	N.A.	-1.97*
Referrer credibility × supplier status	N.A.	N.A.	63
Referrer credibility × referral valence × supplier status	N.A.	N.A.	2.14*
Perceived bias in referral	N.A.	N.A.	09
Potential customers' supplier evaluation (pre-referral)	N.A.	N.A.	.02

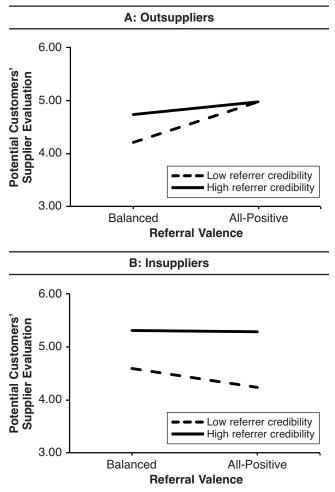
*p < .05 (one-tailed tests)

Notes: N.A. = not applicable. Estimates in boldface indicate hypothesized effects.

supplier evaluations for an all-positive (vs. balanced) referral and (2) this interaction effect would be greater for an outsupplier than for an insupplier. We illustrate this effect with plotted sample cell means in Figure 4, Panels A and B.

To investigate this result, we calculate the main effect of referral valence (Jaccard 1998). We find that, for an outsupplier, the main effect of referral valence is positive for a referrer with low credibility ($\gamma = 1.22, p < .05$) and statistically nonsignificant for a referrer with high credibility ($\gamma = .06, p > .1$). In Figure 4, Panel A, we observe that when referrer credibility is low, an all-positive referral significantly improves potential customers' supplier evaluation. The plot also shows that with an all-positive referral there is no significant difference between a referrer with low versus high credibility. This finding may be because the potential customer is seeking diagnostic information for an outsupplier (provided by the referral message), and signals such as referrer credibility (Stuart, Hoang, and Hybels 1999) have

FIGURE 4 Study 1: Effect of Referral Valence and Referrer Credibility, Contingent on Supplier Status, on Potential Customers' Supplier Evaluation



Notes: Panels A and B show support for H₄ because the interaction of referral valence and referrer credibility is significantly different for an outsupplier (Panel A) compared with an insupplier (Panel B).

relatively less value than the message.⁴ For an insupplier, the main effect of referral valence is negative for a referrer with low credibility ($\gamma = -.76$, p < .05; see Table 2 and Figure 4, Panel B); thus, for an insupplier, a referrer with low credibility reduces the positive effect of an all-positive referral versus a balanced referral on potential customers' supplier evaluation. Note also that for an insupplier, when referrer credibility is high, there is no significant difference in potential customers' supplier evaluation between a balanced and an all-positive referral.

We had argued that the referral message provides diagnostic information for an outsupplier but not for an insupplier. Our finding that referral valence significantly improves potential customers' supplier evaluation for an outsupplier (even with reduced referrer credibility) but does not do so for an insupplier provides support for our hypothesis.

Discussion

We find that an all-positive referral improves potential customers' supplier evaluation more than a balanced referral even after taking into account potential customers' perceived bias in the referral. Furthermore, supplier uncertainty plays an important role in the influence of the referral on the potential customer; we find that for an outsupplier, when referrer credibility is low, an all-positive referral is required to improve potential customers' supplier evaluation. Conversely, for an insupplier, when referrer credibility is low, a balanced referral is better than an all-positive referral. We build on these findings in Studies 2a and 2b, in which we focus on the contingent role of supplier uncertainty in the MaTriC communication framework.

Studies 2a and 2b

In Study 1, we show that the extension of the source– message–recipient communication framework to include the supplier is appropriate for studying supplier-selected referrals because supplier uncertainty (conceptualized with suppliers' outsupplier/insupplier status) significantly moderates the influence of the referral on the potential customer. In Studies 2a and 2b, we focus on key supplier characteristics that influence supplier uncertainty for outsuppliers and insuppliers.

For outsuppliers, a key characteristic that influences potential customers' supplier uncertainty is supplier reputation, because potential customers gauge the outsupplier's capabilities through supplier reputation (Brown 1995). Furthermore, alliance formation research (e.g., Stuart, Hoang, and Hybels 1999) has suggested that potential customers consider an outsupplier's existing customers' reputations, or their credibility, as indicators of the outsupplier's capabilities. Therefore, we study the effect of referrer credibility, contingent on outsupplier reputation, on potential customers' supplier evaluation (Figure 2; Study 2a).

For insuppliers, the valence of their previous experience with the potential customer should affect that customer's supplier uncertainty. As in Study 1, potential customers

⁴We provide this implication with the caveat that Study 1 examines outsuppliers versus insuppliers. We do not imply the same for purchase uncertainty specific only to outsuppliers.

Study 2a: Outsupplier Reputation

An outsupplier's positive reputation indicates that it is reliable and has the capabilities to deliver a specific solution. Because a potential customer is unlikely to want to purchase from a supplier with a negative reputation, we consider two cases for outsupplier reputation: a reputationless supplier (e.g., a start-up, a supplier entering a new domain) and a reputed supplier (a supplier with a high reputation). Because reputationless outsuppliers have not established that they are capable of delivering reliable, effective solutions, the lower the outsupplier's reputation, the more uncertainty potential customers should have about its capabilities.

Referrer credibility. Potential customers likely trust the discerning abilities of reputed referrers to evaluate their suppliers (Stuart, Hoang, and Hybels 1999). Furthermore, in supplier-selected referrals, because the supplier selects the referrer and the referrer communicates with the potential customer at the supplier's request, a supplier-selected referral also signals that the outsupplier can build quality relationships with its customers, which is critical in B2B markets (DeKinder and Kohli 2008). It is also more important for reputationless outsuppliers than for reputed outsuppliers because the former lack historical evidence to show that they can build strong customer relationships. A reputed outsupplier's positive reputation already provides this information to the potential customer. Therefore, a potential customer should rely more on referrer credibility as an indicator of the outsupplier's capabilities if that outsupplier is reputationless than if it is reputed. Thus,

H₅: The lower the outsupplier reputation, the greater the positive effect of referrer credibility on potential customers' supplier evaluation.

Method. We test H_5 with a 2 (referrer credibility: medium vs. high) × 2 (outsupplier reputation: reputationless vs. high) between-subjects experiment (for the methodology details, see Appendix B). We relied on the same empirical context as Study 1—that is, the selection of an ERP software supplier. As respondents, we included purchasing vice presidents and managers in the instruments and related products industry (Standard Industrial Classification code 380) who are members of or have interacted with the Institute for Supply Management. Appendix B provides the data collection procedure; the final sample consists of 40 responses.

Because fictional firms cannot provoke respondents' evaluations of supplier capabilities, we selected real supplier firms to assess the effects of supplier reputation: for the reputationless supplier, we selected an ERP start-up, BlueStripe Software, and for the reputed ERP supplier, we selected Oracle Inc. We measure potential customers' supplier evaluation as we did in Study 1, both before and after the respondent saw the supplier-selected referral (Table 1). Because we did not manipulate referral valence in this study, and because referrer credibility did not have a significant main effect on potential customers' perceived bias in the referral in Study 1, we did not measure perceived bias.

Results. In support of H₅, we find that the positive effect of referrer credibility on potential customers' supplier evaluation was greater for a start-up than for a reputed out-supplier ($\eta = -.75$, p < .05; see Table 3 and Figure 5). Replicating the results from Study 1, referrer credibility had a significant, positive effect on potential customers' supplier evaluation ($\eta = .92$, p < .01).

Discussion. Study 2a shows that the effect of referrer credibility in supplier-selected referrals depends on the out-supplier's reputation. We replicate Study 1's results by showing that referrer credibility has a positive effect on potential customers' supplier evaluation. We also add to our previous study's findings by showing that referrer credibility improves potential customers' supplier evaluation more for a reputationless outsupplier than for a reputed outsupplier. This finding highlights how a particular referrer characteristic—credibility—differentially influences potential customers, depending on their supplier uncertainty. Next, we consider the insupplier.

Study 2b: Insuppliers' Previous Experience

Potential customers' previous experience with a supplier, even regarding an unrelated solution, leads them to perceive that they can predict the insupplier's future capabilities (e.g., Doney and Cannon 1997; Liu et al. 2008). We consider two categories of potential customers' insupplier experience, depending on the valence: a potential customer's experience with the insupplier may be positive overall but with some negative aspects (mixed experience), or it could be positive with no negative aspects (positive experience). A positive experience indicates that the potential customer's previous experience was more favorable than a mixed experience; therefore, potential customers'

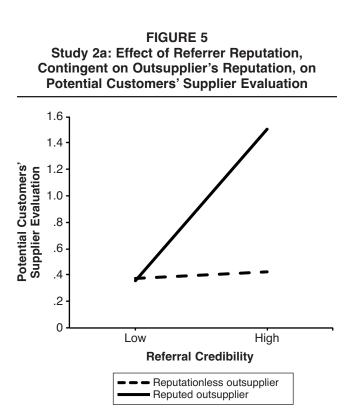
TABLE 3 Study 2a Results

	Supplier Evaluation (Pre-Referral)	Supplier Evaluation (Post-Referral)ª
Intercept	3.01	3.04
Outsupplier reputation ^a	.54*	.53
Referrer credibility	N.A.	.35
Referrer credibility × outsupplier reputation	N.A.	26*
Potential customers' supplier evaluation prior to receiving the supplier-selected referral	N.A.	.07

*p < .05 (one-tailed tests).

^aUnknown = 0.

Notes: N.A. = not applicable. Estimates in boldface indicate hypothesized effects.



Notes: In support of H₅, the chart shows that the effect of referrer credibility is stronger on potential customers' supplier evaluation for a reputationless outsupplier than for a reputed outsupplier.

supplier uncertainty is likely lower when their insupplier experience was positive than when it was mixed.

Referral valence. In Study 1, we found that an all-positive referral increases potential customers' perceived bias in the referral more than does a balanced referral. Next, we discuss the interplay between referral valence and insupplier experience.

Consider the case of a mixed experience. If potential customers receive an all-positive referral message, it will conflict with their own mixed experience, which should increase their perceived bias in the supplier-selected referral. In contrast, the perception of bias in the referral should be lower if potential customers receive a balanced referral message consistent with their own mixed experience (Smith 1993). Similarly, if they had a positive insupplier experience, an all-positive referral message would reduce perceived bias in the referral because it would be consistent with their own experience. Therefore,

H₆: The less positive the insupplier experience, the more an allpositive referral message will increase potential customers' perceived bias compared with a balanced referral message.

In addition, Study 1 indicates that an all-positive referral improves potential customers' supplier evaluation more than does a balanced referral, even after accounting for the effect of perceived bias. Next, we hypothesize that this effect of referral valence on potential customers' supplier evaluation is moderated by insupplier experience.

On the one hand, potential customers' supplier uncertainty is greater if insupplier experience is mixed than if it is positive. For mixed insupplier experience, an all-positive referral likely reduces potential customers' supplier uncertainty more than a balanced referral by assuring potential customers that their mixed experience was not indicative of a chronic problem. In contrast, for positive insupplier experience, an all-positive referral message does not convey new information to the potential customer. Therefore, the less positive the insupplier experience, the more an allpositive referral message should reduce potential customers' uncertainty and improve their supplier evaluation.

On the other hand, research on word of mouth (e.g., Herr, Kardes, and Kim 1991) shows that potential customers trust their own experience more than they trust the evaluations of a referrer. Furthermore, in the context of new product innovation, Bolton (2003) shows that managers assimilate information such that it bolsters their own previous experience. With mixed insupplier experience, potential customers expect that the insupplier's solution may have some negative aspects, and a balanced referral message supports that expectation. With positive insupplier experience, an all-positive referral message bolsters potential customers' extant belief about the insupplier's capabilities more than a balanced referral message does, thus improving potential customers' supplier evaluation. Therefore,

H₇: The more positive the insupplier experience, the greater the positive effect of an all-positive referral message on potential customers' supplier evaluation compared with a balanced referral message.

Method. To empirically assess H_6 and H_7 , we use a 2 (insupplier experience: mixed vs. positive) × 2 (referral valence: balanced vs. all-positive) experimental design with 83 students enrolled in an executive MBA program (all respondents were currently working in the industry). As stimuli, we replicated the questionnaire structure from Study 1 and applied the same method to measure potential customers' supplier evaluation both before and after the supplier-selected referral (for measures, see Table 1). Furthermore, we model the effects of the manipulated variables on potential customers' perceived bias and supplier evaluation, taking into account the correlated nature of the two dependent variables (see Appendix C).

Results. In support of H₆, we find that the positive effect of an all-positive referral on potential customers' perceived bias is greater for customers with mixed rather than positive insupplier experience ($\alpha = .59$, p < .01; see Table 4 and Figure 6, Panel A). To test H₇, we must calculate the total effect of referral valence and insupplier experience on potential customers' supplier evaluation, mediated by potential customers' perceived bias—a moderated mediation (see, e.g., Preacher, Rucker, and Hayes 2007). Consistent with Study 1, we find that referral valence had a positive, significant indirect effect on potential customers' supplier evaluation ($\theta = .42$, p < .05)⁵ and that an all-positive referral had a

⁵The 95% confidence interval of the indirect effect of referral valence on potential customers' supplier evaluation was (.06, 1.02). In addition, potential customers' perceived bias in the referral has a complementary mediating effect (Zhao, Lynch, and Chen 2010).

TABLE 4 Study 2b Results

	Supplier Evaluation (Pre-Referral)	Perceived Bias in Referral	Supplier Evaluation (Post-Referral)
Intercept	4.51	2.83*	3.47*
Positive insupplier experience (vs. mixed)	.87*	.4	.05
All-positive referral (vs. balanced)	N.A.	2.00*	1.15*
All-positive referral × positive insupplier experience	N.A.	69*	.17
Effect of all-positive referral × positive insupplier experience including mediating effect of perceived bias	N.A.	N.A.	.59*
Perceived bias in referral	N.A.	N.A.	39*
Potential customers' supplier evaluation before receiving the supplier-selected referral	N.A.	N.A.	.51*

*p < .05 (one-tailed tests).

Notes: N.A. = not applicable. Results in boldface indicate hypothesized effects.

more positive effect on supplier evaluation than a balanced referral (H₂ in Study 1; $\alpha = .99$, p < .05). In support of H₇, the more positive the insupplier experience (i.e., positive vs. mixed), the greater the effect of an all-positive referral on potential customers' supplier evaluation compared with a balanced referral (total effect $\alpha = .59$, p < .01; see Figure 6, Panel B). As we also expected, pre-referral supplier evaluation had a positive effect on post-referral evaluation ($\alpha = .51$, p < .05).

Discussion. Study 2b replicates key findings from Study 1 regarding the trade-offs associated with referral valence and the role of perceived bias in supplier-selected referrals. It extends our previous findings by showing that the effect of referral valence depends on insupplier experience. As we expected, potential customers perceive greater bias in the supplier-selected referral when their previous experience with the insupplier was mixed but the referral valence was all positive. Furthermore, if an all-positive referral bolsters potential customers' previous experiences, its net effect on supplier evaluation is more positive than that of a balanced referral.

General Discussion

We investigated an important customer acquisition strategy in B2B markets: supplier-selected referrals. To do so, we introduced the MaTriC framework; we next discuss theoretical and managerial implications of our work.

Theoretical Implications

Our primary contribution to theory lies in our introduction of the MaTriC framework to study supplier- or firm-managed communications. Although this framework is critical for studying supplier-selected referrals in business markets, it can also be useful for studying referrals or word of mouth in the consumer market. Because the MaTriC framework includes the supplier firm as a part of the communication between the source and the recipient, the firm's strategies (e.g., referral reward programs) can be studied within it. The MaTriC framework also provides a theoretical framework for studying the firm's management of social media interactions with its customers, as (for example) when firms intervene in social communications between consumers on message boards to recommend their own products (e.g., Mayzlin 2006).

By introducing the MaTRiC framework, which includes the supplier, and specifically supplier uncertainty, we also contribute to the organizational buying literature, which has largely focused on the construct of purchase uncertainty (e.g., purchase novelty, technological uncertainty) (e.g., Heide and Weiss 1995; Lewin and Donthu 2005). We show that the influence of the supplier-selected referral on a potential customer depends on supplier uncertainty. For example, we find that referral valence is more influential for an outsupplier than for an insupplier and that referrer credibility has almost no effect on the potential customer for a reputed outsupplier.

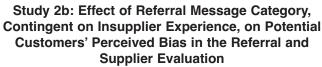
Substantively, we contribute to research on referrals and word of mouth by showing that potential customers perceive a bias in the referral because they expect the supplier to select a satisfied customer as a referrer. This observation seems applicable to referral reward programs in consumer markets as well, in which researchers have investigated optimal referral reward strategies and amounts (e.g., Ryu and Feick 2007). Because perceived bias diminishes supplier evaluation, consumers' perceived bias that results from the reward associated with the referral also could affect the efficacy of reward programs.

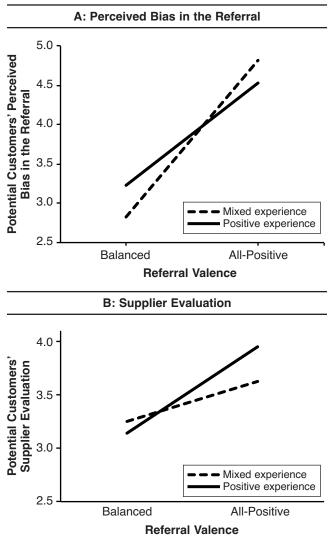
We also contribute to research on B2B marketing, as the practice of referrals in B2B markets has largely been ignored (cf. Hada, Grewal, and Lilien 2010; Kumar, Petersen, and Leone 2013). The MaTriC framework should enable researchers to conduct additional studies in this domain.

Managerial Implications

Several of our findings offer implications for marketing practice. Many suppliers encourage their referrers to convey both negative and positive details to potential customers. Our results indicate that a balanced referral is a double-edged sword. On the one hand, it reduces perceived bias in the referral, but on the other hand, it reduces the potential customer's likelihood of considering the supplier. In addition, in our experiments we find that if the referrer is highly credible, an all-positive referral increases potential customers' per-

FIGURE 6





Notes: In support of H₆, Panel A shows that the positive effect of an all-positive referral message (vs. a balanced referral message) on potential customers' perceived bias is stronger for mixed insupplier experience (vs. positive experience). In support of H₇, Panel B shows that the positive effect of an all-positive referral message (vs. a balanced referral message) on potential customers' supplier evaluation is stronger for positive insupplier experience (vs. mixed experience).

ceived bias in the referral by only 7% compared with a balanced referral. Thus, our work helps resolve the conflicting practices of using balanced versus all-positive referrals by cautioning against the use of balanced referrals except under the conditions noted in the following paragraphs.

We find that the referral message is more diagnostic for an outsupplier than for an insupplier. Furthermore, if an outsupplier cannot access a highly credible referrer, the outsupplier should select a less credible referrer who is likely to give an all-positive referral; such a supplier-selected referral is almost as good as a highly credible referrer giving an all-positive referral. However, if an insupplier must select a less credible referrer, it is better if that referrer gives a balanced referral rather than an all-positive referral. Finally, if an insupplier can select a highly credible referrer, referral valence does not matter.

Referral valence gains importance for insuppliers when we consider their previous experience with the potential customer. We find that for insuppliers with positive previous experience, an all-positive referral message significantly improves supplier evaluation compared with insuppliers with mixed previous experience (26% vs. 11%). Thus, for insuppliers with mixed previous experience, even an all-positive referral will likely not bring them at par with insuppliers with positive previous experience. In general, our findings suggest that for insuppliers, their previous experience with the potential customer frames the evaluation for a new solution.

If a reputed outsupplier is competing with a reputationless firm, such as a start-up, we find that referrer credibility does not provide a significant benefit to the reputed outsupplier. In contrast, we find that a supplier-selected referral does enable reputationless firms to overcome their "liability of newness" in that a highly credible referrer significantly improves potential customers' supplier evaluation even when competing with a reputed supplier.

Limitations, Further Research, and Conclusion

Our study has several limitations. We considered that an experimental study would provide the best way to test our theoretical framework while recognizing the limitations of such a method for external validity. However, our results should be viewed in conjunction with those of Kumar, Petersen, and Leone (2013), who empirically assess the benefit of supplier-selected referrals in a field study. They introduce a measure, business reference value, that enables firms to assess the benefit of supplier-selected referrals; the authors show that the selected referrer directly influences the value of that referrer to the supplier, providing support for our findings. The experimental nature of our study also limited the number of variables we could study. For example, insupplier reputation could play a significant role between two insuppliers with either positive or mixed previous experience. In addition, further research that investigates other constructs, such as the length of the relationship between supplier and referrer, and validates other findings from Kumar, Petersen, and Leone would provide valuable insights. Such research would also enrich the MaTriC framework with additional variables.

In addition, in Study 1, we investigate the interactions between referrer credibility and referral valence for supplier's outsupplier/insupplier status. In Studies 2a and 2b, we relied on research to conduct an in-depth investigation of the effect of referrer credibility for outsuppliers and referral valence for insuppliers. Further research studying the interaction of referrer credibility and referral valence for both outsuppliers and insuppliers could answer managerially relevant questions such as whether a highly credible referrer with an all-positive message would overcome the previous mixed experience of an insupplier.

Our constructs can be operationalized in different ways. For example, relying on the solutions literature (Tuli, Kohli, and Bharadwaj 2007), we specify certain aspects of the ERP solution in the referral message (positively and negatively). Although we assessed the robustness of specifying different aspects negatively (e.g., implementation costs, support) in our manipulation check, further research should assess different contexts and solution aspects that would affect potential customers' evaluation of the supplier. We limited our empirical test to potential customers purchasing a solution for the first time (i.e., a "new buy" situation, as defined by Robinson, Faris, and Wind 1967). The findings should be tested in other situations, such as a modified rebuy situation. Suppliers also could select more than one referrer to influence potential customers; further research should assess empirically a supplier's selection criteria in a multiple-referrer situation.

In conclusion, supplier-selected referrals play a critical role in many purchasing situations in B2B markets. We developed and tested the MaTriC framework to help understand the effects and trade-offs in such situations, and we hope our framework and findings are useful to practitioners and stimulate further research.

Appendix A: Study 1

Methodology

Empirical context. To test our hypotheses in Study 1, we required a purchasing situation in which (1) the solution is complex, (2) customers have varying needs related to the same solution, and (3) suppliers and potential customers use supplier-selected referrals. The purchase of an ERP solution context satisfies these criteria. The solution is complex (Verville and Halingten 2003b), ERP solutions are customized to fit each customer's unique needs, and supplier-selected referrals are common in ERP sales processes.

Questionnaire structure. The stimulus consists of four sections (see the Web Appendix). First, we establish the purchase scenario by specifying that (1) the respondent is a purchasing manager for the potential customer who is evaluating ERP solutions and (2) the next step in the purchasing process is to create a short list of suppliers for an in-depth evaluation. To aid in this decision, the purchasing manager asked suppliers to provide a key reference customer. Second, we present details about the outsupplier and then measure potential customers' supplier evaluation. Third, we present details about the supplier-selected referral for the previously described outsupplier. After receiving information about the supplier-selected referral, we again measure potential customers' supplier evaluation and perceived bias in the referral. Fourth, we include manipulation checks and measure respondent-specific constructs.

Data Collection

Manipulation check. We assessed the manipulations in a pretest with MBA and executive MBA program students. We administered the stimuli online to 150 students and received 43 responses; 22 responses were complete and

usable. As we expected, respondents perceived that an allpositive referral indicated higher referrer satisfaction than a balanced referral ($M_{all-positive} = 6.1$, $M_{balanced} = 5.0$; p <.01), whereas a balanced referral was more negative in valence than an all-positive referral ($M_{balanced} = 4.9, M_{all}$ positive = 5.7; p < .01). For balanced referrals, we tested two versions in which we changed the attribute about which we gave the negative information; respondents rated both the versions similarly. We assess the manipulations for referrer credibility on three dimensions: (1) expertise ($M_{high} = 5.7$, $M_{low} = 4.3; p < .01$, (2) trustworthiness ($M_{high} = 5.7, M_{low} =$ 4.6; p < .01), and (3) corporate image as viewed by peer and customer firms in the industry ($M_{high} = 6.4$, $M_{low} = 4.6$; p <.01) (e.g., Gürhan-Canli and Batra 2004). We found our manipulations to be successful. As we expected, respondents also rated potential customers' experience with an insupplier significantly higher than for an outsupplier $(M_{high} = 5.9, M_{low} = 1.8; p < .01).$

Pretest. We also conducted a pretest for assessing potential customers' perceived difference in supplier uncertainty between insuppliers and outsuppliers with 110 MBA and executive MBA program students. As we expected, respondents perceived (1) greater supplier uncertainty for outsuppliers than for insuppliers ($M_{outsuppliers} = 4.75$, $M_{insuppliers} = 3.91$; p < .01) and (2) higher risk of failure for outsuppliers than for insuppliers ($M_{outsuppliers} = 4.48$, $M_{insuppliers} = 3.28$; p < .01).

Methodology

Model. To test our hypotheses, we modeled the effects of the manipulated variables (X) on potential customers' pre-referral supplier evaluation (Equation A1), perceived bias (Equation A2), and supplier evaluation (Equation A3). For response i, we estimate the following equations:

(A1) Eval1_i =
$$\alpha_0^{E1} + \alpha^{E1}$$
(Supplier Status)^{E1}_i + ε_{i3} ,

(A2) Bias_i =
$$\alpha_0^{\text{B}} + \alpha^{\text{B}} \mathbf{X}_i^{\text{B}} + \varepsilon_{i4}$$
, and

(A3)
$$Eval_{i} = \alpha_{0}^{E} + \alpha_{bias}^{E} \times Bias_{i} + \alpha^{E} \mathbf{X}_{i}^{E} + \alpha_{eval1}^{E} \times Evall_{i} + \varepsilon_{i5},$$

where α_0 denotes the intercept, $\boldsymbol{\alpha}$ is the vector of coefficients for \mathbf{X} , α^E_{bias} captures the effect of perceived bias on potential customers' supplier evaluation, α^E_{eval1} controls for the effect of potential customers' supplier evaluation before receiving the referral (Eval1), and ε_i is the random error. The superscripts E1, B, and E specify pre-referral evaluation, bias, and post-referral evaluation, respectively.

We have a moderated mediation because referrer credibility moderates the effect of referral valence on potential customers' perceived bias in the referral. Following Preacher, Rucker, and Hayes (2007, pp. 196–97), we assess referral valence's indirect effect (θ) on potential customers' supplier evaluation, conditional on a value of referrer credibility (RC), with the following:

(A4)
$$f(\theta|RC) = \alpha_{\text{bias}}^{E} (\alpha_{\text{val}}^{B} + \alpha_{\text{val} \times \text{Cred}}^{B} \times RC).$$

Robustness tests. To test for the robustness of our results, we weight the potential customers' supplier evaluation with potential customers' confidence in the supplier evaluation. This weighted evaluation is our dependent variable. We also weighted potential customers' pre-referral supplier evaluation against their pre-referral confidence evaluation as an independent variable. In all cases, the results remained robust. We also assessed the robustness of our results with a means cell comparison; substantively, the results did not change.

Appendix B: Study 2a

Methodology

For Study 2a, we replicated the stimulus of Study 1. We assessed our manipulations with students in an undergraduate business program as our sample and selected real supplier firms to assess the effects of supplier reputation. For a reputed supplier, we selected Oracle Inc., one of the top ERP firms globally. For a start-up supplier, we selected BlueStripe Software, an ERP solutions firm launched in 2008 (see Table 1). As we expected, the respondents differentiated the reputed supplier (Oracle) and the start-up (BlueStripe) in terms of whether it (1) was an established firm ($M_{high} = 6.2$, $M_{low} = 2.3$; p < .01), (2) was a well-known firm ($M_{high} = 6.5$, $M_{low} = 2.04$; p < .01), and (3) had experience in supplying ERP solutions ($M_{high} = 5.4$, $M_{low} = 2.7$; p < .01).

We modified the manipulation of referrer credibility from Study 1 to enhance the difference in reputation between a referrer of medium credibility and one of high credibility. We used *Fortune's* "Most Admired Companies" ranking, and we included whether the firm was considered a market leader in the domain. As we expected, respondents differentiated high and low referrer credibility for (1) industry ranking ($M_{high} = 5.8$, $M_{low} = 1.8$; p < .01), (2) industry status ($M_{high} = 5.8$, $M_{low} = 1.8$; p < .01), and (3) respect within the industry ($M_{high} = 5.9$, $M_{low} = 2.1$; p < .01).

Data Collection

Before our data collection, we interviewed three purchasing managers from firms that evaluate suppliers such as Oracle and BlueStripe. The managers appraised the content and realism of the stimuli, and we incorporated their comments. We also conducted a pretest to assess potential customers' perceived difference in supplier uncertainty with 110 MBA and executive MBA program students. As we expected, respondents perceived greater supplier uncertainty for startups than for reputed outsuppliers ($M_{start-up} = 4.49$, $M_{reputed} = 3.51$; p < .01).

We mailed the stimuli to the purchasing managers, including a cover letter on university letterhead that provided details of the study and asked respondents to attach their business cards if they wanted to receive a copy of the report. We also included a self-addressed, prepaid envelope and a \$1 bill to increase the response rate. In the survey packet, we included a redirecting form that respondents could return to us if someone else in the firm was better suited to answer the stimuli. When we received such forms, we forwarded the survey to the identified alternate respondents. After three weeks, we mailed reminder letters, including the stimuli and another prepaid envelope.

We sent 800 mailers to managers who either were members of or had interacted with the Institute of Supply Management. However, 280 were returned because of address problems (unable to forward), and 32 were returned because the respondent no longer worked at the firm. We also received six redirection forms. Ultimately, we obtained 47 responses, of which 40 were complete and usable (effective response rate of approximately 9%). A reason for the low response rate could be that approximately 50% of the sample for Study 2a were not members of the Institute of Supply Management (368 of 800) and were likely not as receptive to research studies. The high numbers of returns resulting from address problems also likely stemmed from the number of nonmembers. Because of the low response rate, we compared our respondents with the original sample on the functional domains in which the managers worked. The proportions of managers working in a specific functional domain who responded were comparable with our original sample overall: purchasing/procurement (response = 31%, original = 34%), buyer/sourcing (response = 26%, original = 47%), supply chain/logistics/operations (response = 14%, original = 7%), commodity (response = 6%, original = 3%). We also compared early and late respondents with a 50-50 split of the returned questionnaires and found no significant differences on total experience ($M_{early} = 27.8, M_{late} =$ 24.3; p > .1). Thus, nonresponse bias did not seem to be a significant problem.

Model Specification

To test H_5 , we modeled the effects of the manipulated variables—outsupplier reputation and referrer credibility on potential customers' supplier evaluation after receiving the supplier-selected referral. The coefficients estimated using ordinary least squares would be statistically inefficient because of heteroskedasticity, so we used White's (1980) corrected standard errors instead. We ran the same robustness tests as for Study 1; the results remained substantively the same.

Appendix C: Study 2b

Manipulations and Measures

For referral valence in Study 2b, we used the same manipulation as in Study 1. For insupplier experience, we manipulated the factor at two levels: wholly positive or positive with some negative aspects (mixed experience) (Table 1).

Manipulation Checks

As we expected, respondents differentiated positive and mixed insupplier experience on the following two items: (1) previous experience with supplier was all positive ($M_{high} = 5.8$, $M_{low} = 2.6$; p < .01) and (2) previous experience with supplier did not have any negative aspects ($M_{high} = 5.1$, $M_{low} = 1.9$; p < .01). We also conducted a pretest for assessing potential customers' perceived difference in supplier uncertainty with 110 MBA and executive MBA program

students. As we expected, respondents perceived greater supplier uncertainty for insuppliers with mixed experience than for those with positive experience ($M_{mixed} = 4.23$, $M_{positive} = 3.67$; p < .05).

Model

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To test our H_6 and H_7 , we replicated Study 1's model

specification. We ran the same robustness tests as for Study

1, and the results remained substantively the same.

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