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DIVISIONAL MULTIMARKET CONTACT WITHIN AND BETWEEN
MULTIUNIT ORGANIZATIONS

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The theory of multimarket contact has important but uninvestigated implications for interactions among a firm’s divisions because divisions often meet and even compete in multiple geographical and product markets. I hypothesize that firms with incentives to induce competition among divisions will act to reduce levels of multimarket contact among those divisions. Further, I predict that, in markets with substantial uncertainty, firms will increase divisional multimarket contact. I find support for these hypotheses in the setting of the franchised fast-food industry.

Much like separate multiunit firms, divisions within a firm often meet in multiple markets and may end up competing in those markets (Phelps & Fuller, 2000); consequently, interesting multimarket dynamics may emerge among the divisions. These intraorganizational dynamics have largely remained uninvestigated, despite the prevalence of multiunit and multidivisional firms in the U.S. economy and despite the large academic literature on multimarket contact between firms (see Korn and Baum [1999] and Greve and Baum [2001] for extensive reviews).

An important first question, then, is whether these dynamics are simple analogues of those that, according to existing multimarket theory, occur between firms. To begin to answer this question, in this paper I develop theory regarding a firm’s choices about the multimarket contact levels among its divisions (intraorganizational divisional contact) and between its divisions and their counterparts in other firms (cross-organizational divisional contact). By integrating theories of intraorganizational competition and multimarket contact, I show that very different implications emerge for contact among organizational divisions than the past literature has shown to be the case for contact between firms.

A theory of intraorganizational multimarket contact is developed here very generally so that it might apply to a large variety of firms organized into administrative divisions that coordinate the divisions’ activities. In the exposition of the hypotheses, I emphasize geographically dispersed multiunit firms, such as multinationals and service and retail chain firms, in which individual operating locations are grouped into divisions. But the theory is broad enough to also apply to conglomerates and “M-form organizations” with divisions that meet in multiple product markets, rather than geographic markets. The setting in which I chose to test the theory is franchised hamburger restaurants, an industry where substantial multimarket contact exists among multiunit franchisees, each of whose holdings can be viewed as a distinct division. In choosing franchised firms, I follow Knott and McKelvey (1999) and Knott (2001), who used the interactions between a franchisor and its affiliated franchisees to gain insight into the dynamics between a firm’s headquarters and its divisions.

The theory developed here makes at least two contributions. First, it expands the vistas of multimarket contact theory. By developing multimarket theory that can be applied within firms, the paper sheds new light on the logics of divisional autonomy (see, e.g., Eccles & White, 1988). Second, this paper examines underlying assumptions of the game-theoretic mutual forbearance argument, as well as processes of mimetic isomorphism and localized search. Although the theories underlying these processes have very similar implications for multimarket contact between firms, their implications will often diverge in the intraorganizational case. This divergence facilitates a simultaneous investigation that can distinguish between the game-theoretic and the sociological antecedents of observed choices about multimarket contact.
LITERATURE REVIEW AND THEORY DEVELOPMENT

The antitrust expert Corwin Edwards (1955) first argued that collusion could be increased through multimarket contact. In his famous “mutual forbearance” hypothesis, he stated that multimarket contact provides firms with increased incentives to forbear from price competition and to cooperate with rivals because multiple points of contact increase the threat of “general warfare.” Bernheim and Whinston (1990) formalized mutual forbearance theory by using game theory to show that multimarket contact may facilitate forbearance. A large empirical literature has consistently confirmed the forbearance- and cooperation-inducing effects of multimarket contact on pricing and performance (e.g., Evans & Kessides, 1994; Gimeno & Woo, 1996). In addition, Baum and Korn (1996) and Boeker, Goodstein, Stephan, and Murmann (1997) found that multimarket competitors are less likely to exit from markets, suggesting that multimarket contact affects a broad array of cooperative behaviors. More recently, scholars have investigated whether firms choose to embrace or avoid multimarket contact when deciding among markets in which they might initiate or expand operations. Researchers have found that multimarket contact with incumbent firms in a market induces a firm’s entry into that market at moderate levels and decreases it at high levels (Baum & Korn, 1999; Have-\-man & Nonnemaker, 2000).

Overview of Divisional Multimarket Contact

The lack of academic application of multimarket contact theory to an intraorganizational setting is surprising, because competition among a firm’s divisions is a common phenomenon. Phelps and Fuller (2000) presented a synthesis of academic studies in the disciplines of management, economics, and sociology that provided extensive evidence that divisions often compete with each other. Birkinshaw (1999) highlighted the importance for intraorganizational competition of “mandates,” which are the assignment by a firm’s headquarters to a particular division of the rights to develop a technology, sell a product, or operate in a particular market. In this study, I focused on the assignment to divisions of mandates to operate in new markets, and on the multimarket contact that arises when those mandates overlap.

The assignment of mandates plays an important role in intraorganizational multimarket contact. While the existing literature has emphasized market entry as the means through which firms increase or decrease multimarket contact, the importance of market entry is secondary in the case of intraorganizational contact; the primary concern is a headquarters’ choice of a given division to receive a mandate to operate in a new market. When a nondoniversalized firm enters a market, that market comes with a certain level of built-in multimarket contact for the firm as a whole. In the case of a divisionalized firm, the level of multimarket contact among divisions resulting from entry into a market is not set until the headquarters has assigned the mandate for that market to a particular division. Some divisions would clearly have higher levels of existing multimarket contact with the incumbent divisions in the market than would others.

Underlying Assumptions of Mutual Forbearance

To understand differences between divisional and firm-level multimarket contact, I examined three underlying assumptions of game-theoretic mutual forbearance theory. First, in mutual forbearance theory, “decision maker inseparability” is assumed. According to this premise, the same part of a firm choosing a level of multimarket contact also makes subsequent market-level decisions regarding forbearance or cooperation (Haveman & Nonnemaker, 2000). Second, “outcome desirability” is assumed: the chooser of a multimarket contact level must desire the market-level outcomes facilitated by the contact. Outcome desirability is fulfilled, for example, if the market-level outcome of forbearance and cooperation among divisions yields higher profits for the firm overall than does competition. Third, “strategic rationality” is the assumption that the initial choices regarding multimarket contact are rationally and specifically guided by the desired outcomes. The fulfillment of these assumptions implies the standard theory—that firms will try to increase their level of multimarket contact with other firms, at least at moderate levels of existing contact. I argue below that the first two assumptions often do not hold for divisional multimarket contact, and therefore firms often act to reduce rather than increase divisional contact, regardless of level of existing contact.

The violation of both the decision maker inseparability and the outcome desirability assumptions is required to imply multimarket contact reduction. For example, in most large organizations, the decision maker inseparability assumption does not hold literally. Separate decision makers often make the choice regarding level of multimarket contact and the market-level choice regarding forbearance and cooperation. But as long as these decision makers have the
same goal, such as increasing their firm’s overall profit, rather than increasing the profit of only one division, they will desire the market-level outcomes of forbearance and cooperation.

**Intraorganizational divisional multimarket contact.** Decision maker inseparability is very unlikely to hold for intraorganizational divisional multimarket contact. In divisionalized firms, the initial decisions (for instance, market entry, mandate assignment) that yield a level of multimarket contact are typically made at the headquarters level of the organization, as mentioned earlier, and subsequent decisions regarding strategy vis-à-vis rivals in particular markets are made at a divisional level (Chandler, 1991).

Outcome desirability will not hold when a firm as a whole benefits from more, rather than less, competition among its divisions. In such cases, Phelps and Fuller (2000) stated, firms’ headquarters often induce competition among divisions. While some authors have noted problems associated with headquarters-induced competition (e.g., Eccles & White, 1988), organizations have at least four incentives to induce intradivisional competition. First, as Phelps and Fuller (2000) emphasized, competition fosters efficiency and resourcefulness among divisional management. Second, as Fauli-Oller and Giralt (1995) concluded in their analysis of intraorganizational competition, the latter is preferable to divisional cooperation when divisions meet in various markets. The mechanism underlying their result was that competition among divisions lowered market entry by rival firms. Third, headquarters often do not receive profits directly from subsidiaries, particularly when divisions are based in different nations or are not fully owned by the corporate parent (e.g., McQuade & Gomes-Casseres, 1991). Similarly, firms such as franchisors usually receive payments from divisions in the form of percentages of sales (Lafontaine, 1999). In such cases, the firms may prefer divisional competition because the higher divisional profits resulting from forbearance do not necessarily translate into higher profits for headquarters. Finally, the divisions of an organization may form coalitions to oppose headquarters’ initiatives, even when their opposition reduces the overall profits of the entire organization (Palmer, Jennings, & Zhou, 1993). Headquarters-induced competition may decrease the cooperation among divisions that would facilitate unwanted coalition formation.

Given strategic rationality of decision makers, violation of both the outcome desirability and decision maker inseparability assumptions implies:

**Hypothesis 1a.** A division’s level of existing intraorganizational multimarket contact with a market’s incumbent divisions will be negatively related to the probability that headquarters will choose the division to operate in that market.

**Cross-organizational divisional multimarket contact.** Similar dilemmas may arise for a firm regarding competition of its divisions with those of other divisionalized firms. On the one hand, absent incentives to induce competition, a firm will prefer mutual forbearance to competition between its divisions and those of other firms. On the other hand, the first three incentives of the four listed above for firms to prefer competition among their divisions also may apply to cross-organizational divisional competition. First, firms may wish to make their divisions efficient through competition. Second, competition with divisions of another firm may reduce entry by other rivals. Third, if firms do not directly receive the profits of divisions, the firms may profit more from high sales levels generated by competition-induced low prices. For these reasons, if the outcome desirability assumption does not hold for a firm in the case of intraorganizational divisional multimarket contact, it also may not hold in the cross-organizational case. If so, given strategic rationality, the violation of both the outcome desirability and decision maker inseparability assumptions implies:

**Hypothesis 1b.** A division’s level of existing cross-organizational multimarket contact with a market’s incumbent divisions will be negatively related to the probability that headquarters will choose the division to operate in that market.

**Divisional multimarket contact and dominance of a market.** I argue that a firm’s incentives to avoid divisional contact in a market are moderated by the presence in that market of other divisions of the firm. A firm wishing its divisions to compete should be particularly concerned with discouraging multimarket contact among its divisions in markets where the units of the firm’s own divisions dominate—that is, where they outnumber the units of rivals. Using a similar logic, the firm should be less worried about reducing cross-organizational divisional multimarket contact in a market where the firm’s own divisions dominate. This simple logic implies two hypotheses that moderate the “main effects,” predicted by Hypotheses 1a and 1b, regarding a firm’s choice about which divisions will operate in a market.
Hypothesis 2a. The negative relationship between a division’s level of existing intraorganizational multimarket contact in a market and the probability that headquarters will choose the division to operate in that market will be stronger in markets where a firm’s own divisions dominate.

Hypothesis 2b. The negative relationship between a division’s level of existing cross-organizational multimarket contact in a market and the probability that headquarters will choose the division to operate in that market will be weaker in markets where a firm’s own divisions dominate.

Underlying Assumptions of Localized Search and Mimetic Isomorphism

Localized search and mimetic isomorphism, concepts respectively grounded in two sociological theories—organizational learning theory and institutional theory—have different underlying assumptions than the game-theory-based idea of mutual forbearance. In place of the strategic rationality assumption is either the assumption that a chooser is very “boundedly rational” (Cyert & March, 1992: 214–215) or the assumption that the chooser prefers options that are “taken for granted” (Haunschild & Miner, 1997). Further, in place of the instrumental profit maximization of game theory, the assumed logics underlying the posited processes of search and isomorphism can be reduction of uncertainty (DiMaggio & Powell, 1983) or pursuit and maintenance of legitimacy (Suchman, 1995). Through these processes, firms will participate in more and more of the same markets and will thus become more homogeneous as to which markets they serve. Substantial multimarket contact may then result, even without there having been any explicit desire for the outcomes of mutual forbearance (Korn & Baum, 1999). Thus, the fulfillment or violation of the outcome desirability assumption should not alter behavior based on these processes, and similar implications should hold for intraorganizational divisional multimarket contact as would hold for contact between firms.

Localized search and intraorganizational divisional contact. First, considering multimarket contact among a firm’s divisions, I focus on the role of localized search routines in the mandate assignment decision. Organizational search often begins in a “local search space”: an area that prior searches have investigated (Cyert & March, 1992: 170). This prior search space is incorporated into routines as a starting point for future choices, an action that reduces the uncertainty of decision making (Cyert & March, 1992: 121). Reliance on such routines leads to a tendency to exploit local terrain rather than to explore more distant areas, which are typically more uncertain (March, 1991). Applying the logic of local search geographically, Baum, Li, and Usher (2000) found that use of localized search routines led firms to limit new acquisitions to areas local to existing operations.

I argue here that the same logic can be applied to the choice among divisions for the mandate to operate in a market. If a firm’s headquarters has given previous mandates to operate in similar markets to division Y, then it will likely also give the new mandate to Y. If Z is a division that has multimarket contact with Y, Z will have likely been in the same search space as Y when the firm made previous decisions. Thus, if some constraint exists that makes Y inappropriate for the new mandate, Z is likely to be chosen because of its presence in the search space that is local to decisions involving Y. For this reason, even if the firm would strategically prefer competition among its divisions, the use of familiar search routines by the headquarters may have the effect of increasing the multimarket contact among the firm’s divisions. When substantial uncertainty exists in a market, the exploitation of existing routines and previously searched space increases relative to exploration, implying:

Hypothesis 3a. A division’s level of existing intraorganizational multimarket contact with an uncertain market’s incumbent divisions will be positively related to the probability that headquarters will choose the division to operate in that uncertain market.

Mimetic isomorphism and cross-organizational divisional contact. Assuming mimetic isomorphism (e.g., Haunschild, 1993; Haveman, 1993; Palmer et al., 1993) leads to a prediction similar to that described for localized search—but in this case, the relevant multimarket contact is with divisions of other firms. Even if the underlying logic of mimetic isomorphism is considered to be legitimacy maintenance and not explicit uncertainty reduction, mimetic behavior is still more likely to occur in contexts with high uncertainty because it strengthens the influence of social considerations (Haunschild & Miner, 1997). In the context of mandate assignment decisions, given substantial uncertainty, a headquarters-level manager may be particularly likely to make choices resulting in greater levels of multimarket contact regardless of the effect on market-level forbearance and cooperation. Even if the outcome desirability assumption does not hold—that is, market-level cooperation will not
generate higher profits for the firm overall—headquarters managers may still mimetically assign mandates in a way that increases the multimarket contact of the firm’s divisions with those of other firms.

If headquarters decision makers observe a rival firm assigning a market to a division R, they may then imitatively assign one of their own divisions, Z, the mandate to operate in that market if Z has previously been chosen for other markets where R also operates. Choosing Z would reduce uncertainty regarding success in the new market if, as is likely, Z would be experienced in solving problems likely to arise in markets inhabited by R. The assignment of the market to Z will increase multimarket contact between Z and R, but no desire for the cooperative outcomes of the contact existed. The fact that mimetic isomorphism is particularly likely to appear in uncertain environments implies:

**Hypothesis 3b.** A division’s level of existing cross-organizational multimarket contact with an uncertain market’s incumbent divisions will be positively related to the probability that headquarters will choose the division to operate in that uncertain market.

**METHODOLOGY**

**Industry Setting**

I followed the strategy used in previous research of studying franchise organizations as a means of investigating the interactive dynamics between a firm’s headquarters and its divisions (e.g., Knott & McKelvey, 1999; Knott, 2001). Franchise organizations such as McDonald’s or Holiday Inn consist of a separate franchisor firm (the headquarters) and many franchisee firms (the divisions), many of which own more than one unit (a restaurant or a hotel). Franchised organizations provide an appropriate setting in which to test the above hypotheses because the assumptions of decision maker inseparability and outcome desirability do not hold for them. The decision maker inseparability assumption does not hold for the franchisors in this study (and most large franchisors) because, although they behave like typical headquarters and decide when and where to locate new units and which franchisee will operate the new unit (Kalnins & Lafontaine, 2004), franchisees make the decisions relevant to forbearance and cooperation in their markets—in particular, the pricing decision (Lafontaine, 1999).

The outcome desirability commonly assumed in mutual forbearance theory also does not hold. Intra-chain competition among franchisee-owned units is common within large franchise organizations (e.g., Kalnins, 2003). This fact is not surprising, as three important incentives may make franchisors prefer competition among divisions to cooperation. First, as the franchisors’ main source of revenue is sales royalties, they may prefer large sales volumes generated by competing franchisees charging low prices rather than high franchisee profits resulting from forbearance (Kaufmann & Rangan, 1990). Second, intrachain competition is desirable for a franchisor as it may depress rivals’ entry (Baye, Crocker, & Ju, 1996). Third, cooperation among franchisees may facilitate the formation of coalitions opposing franchisor initiatives, such as chainwide price promotions.

Localized search and mimetic processes and the legitimacy seeking and uncertainty reduction underlying these processes also play a role in decision making by franchisors. Practitioners have observed the prevalence of mimetic location decisions among the large fast-food chains (Salvanesci, 1996: 181). Further, Thompson (1971: 34) stated that franchisors view the closure of a franchisee-owned unit as very harmful to their legitimacy and as more likely in a market with substantial uncertainty.

In sum, franchising was an attractive setting in which to test these hypotheses. Like many other industries with firms split into divisions, the franchised fast-food industry offers a case in which (1) the game-theoretic processes underlying mutual forbearance theory are likely to operate in a different manner than those predicted and often observed for multimarket contact between firms, and (2) mimetic and localized search processes are likely to operate as well—but in largely the same manner as in the standard between-firms case.

**Data and Analysis**

**Data source.** The data analyzed in this study are maintained by the Texas State Comptroller’s Office for the purpose of collecting sales tax. The data used here consist of franchisee identity, chain affiliation, street address, and opening date of all Burger King, McDonald’s, and Wendy’s restaurants in Texas in the period 1980–95. In these three chains, 203 multiunit franchisee divisions owned 915 of the 1,258 total units open in December 1995, implying that multimarket contact was an important concern every time a mandate to operate a new unit was assigned. No franchisee owned units of more than one chain. The analysis presented below focused on the 1,196 units opened in or after 1980 as accurate market information was not available for those opened before then. The franchisors
owned 218 of these 1,196 units directly, and those were excluded from the analysis, leaving a final sample of 978 units. Of these 978, 269 were Burger Kings; 576 were McDonald’s; and 133 were Wendy’s. Kalnins and Lafontaine (2004) used a larger set of data from this source to examine basic franchisee attributes within many franchised chains.

Model. A franchisor’s assignment of a mandate for a new unit in a given market is a choice among the franchisees existing at the time and a new franchisee. I used a “conditional logit model” commonly used in studies of location choice in the fields of strategy and organization theory (e.g., Greve, 2000). An extensive general description can be found in Greene (1998: 520–537).

The conditional logit model was specified as follows: An underlying latent variable \( V_j \) represented the value to the franchisor of assigning a mandate to franchisee \( j \) for the market where unit \( i \) would be located. The alternatives \( j \) included the 60 franchisees operating the units geographically closest to the new unit and a new franchisee with no existing units at the time the new unit was built. Each observation, therefore, had 61 rows of data. The observed dependent variable \( Y_{ij} \) was such that:

\[
Y_{ij} = \begin{cases} 
1 & \text{if } V_{ij} > V_{ik} \text{ for all } k, \quad \text{where } k = 1 \text{ to } 61, \\
0 & \text{otherwise, indicating the 60 franchisees not chosen.} 
\end{cases}
\]

If a linear relationship with the latent variable were assumed,

\[
V_{ij} = b'X_{ij} + e_{ij},
\]

where \( X \) was a vector of independent variables of theoretical interest and control variables (discussed in the next section). Positive values for the \( b \) coefficient implied that franchisees with high values on the associated variables had a higher probability of being assigned the mandate. Negative coefficients implied a lower probability of being chosen.

Variable Measurement

The dependent variable \( Y_{ij} \), as mentioned above, was binary: the row within an observation that corresponded to a particular franchisee division was set to a value of one if that franchisee was assigned the mandate to operate the new unit associated with the observation. The other rows of data for that observation, each associated with a specific franchisee, received a value of zero because those franchisees were not assigned the mandate for the unit.

The measures of each franchisee’s multimarket contact with same-firm franchisees and other-firm franchisees were the independent variables used to test Hypotheses 1a and 1b. I constructed these variables using the common “firm-in-market” multimarket contact variable considered ideal for studies of entry (Gimeno & Jeong, 2001) and used in major studies of multimarket contact (e.g., Baum & Korn, 1996; Gimeno & Woo, 1996). The variable was based on the number of contact points among franchisees existing at the time a new unit was opened. The measure for potential multimarket contact of franchisee \( j \) at new unit \( i \) can be written as:

\[
MMC_{ij} = \sum_{a=1}^{n} \sum_{b=1}^{n} [\text{franchisee}(a) = j] \times \{[b \in \text{comp}(a)] \ast [\text{franchisee}(b) \in \text{comp}(i)]\},
\]

where \( a \) and \( b \) index all units in existence from 1 to \( n \), franchisee \( (a) \) operates unit \( a \), and \( \text{comp}(a) \) is the units with overlapping markets—specifically, a set of up to five units located closest to unit \( a \) and within five miles of it. In other words, for each franchisee \( j \), I found up to five units that were the closest to each of \( j \)’s units, within a five-mile radius, and then counted those that belonged to other franchisees that also owned units that were in the set of the up-to-five closest units within five miles of the new unit \( i \). I calculated the relative distance between all pairs of units very precisely by using the longitude and latitude coordinates of each unit, which were obtained by “geocoding” the unit addresses provided by the sales tax data. The five-mile cutoff was based on the statement in a restaurant location guide that customers rarely travel over five miles for fast food (Salvaneschi, 1996).

To test Hypotheses 2a and 2b, I included an interaction between the multimarket contact variables discussed above and a binary variable set equal to one if units of the same franchisor that was adding the unit of interest dominated in the new market. If the number of units affiliated with the same franchisor within five miles of the new unit was greater than or equal to the number of other franchisors’ units within five miles, the variable was set equal to one. Otherwise the variable was set equal to zero.

To test Hypotheses 3a and 3b, I included an interaction of the multimarket contact variables with a binary variable for county-level income decline. The binary variable was set to one if per capita income had declined in the year the new unit was opened relative to its level two years previously. Markets with declining per capita incomes
are often those in which uncertainty regarding a unit’s viability is high. Business-unit failure is often associated with low economic growth (e.g., Ingram & Baum, 1997). Further, as mentioned above, Thompson (1971: 34) stated the large franchisors take great care to avoid failure of franchisees’ units in order to maintain legitimacy, indicating that they would be very sensitive to this type of uncertainty.

Control variables were included to distinguish the effects on mandate assignment of a franchisee’s own characteristics from those related in any way to multimarket contact. To do so, I measured geographic and demographic distances between a new unit and each franchisee’s holdings at the time the new unit was opened. First, I included the logged distance between the new unit and the closest existing unit of each franchisee. Second, I included the logged distance between each franchisee’s headquarters and the new unit. Third, I estimated market boundaries using the boundary assignment technique of “Thiessen polygons” described by Kalnins and Lafontaine (2004). Following those authors, if two units shared a side of a polygon, I considered their markets to have a boundary. Further, using 1990 U.S. Census data on zip-code-level market demographics—specifically, median household income, the percentage of the population that was African American, and the percentage of the area classified as urban—I measured demographic similarity as the (absolute value of the) difference between the level of a characteristic in the zip code where the new unit was located and the average level in zip codes in which each of the franchisee’s existing units was located.

The final control variables were the number of units owned by each franchisee and the length of time the franchisee had operated in Texas, both measured at the time a new unit was opened. Gimeno and Jeong (2001) pointed out the need to control for firm size because of its correlation with firm-in-market multimarket contact. Otherwise, the coefficients of multimarket contact variables may merely reflect the effects of being a large franchisee, as they are more likely to be multimarket competitors. Descriptive statistics for all variables are in Table 1.

RESULTS

Core Results

Table 2 presents the results of three conditional logit regression analyses for the choice among franchisees for the mandate to operate a new unit. The variables for each pair of hypotheses were introduced incrementally in the regressions. All control variables were included in all regressions.

The negative and significant coefficient ($p < .01$) of the intraorganizational divisional contact variable directly supports Hypothesis 1a, which states that a division’s level of existing intraorganizational multimarket contact with a market’s incumbent divisions will be negatively related to the probability that the division will be chosen to operate in that market. I note that the lack of significance of this variable in the remaining regressions does not in any way weaken support for Hypothesis 1a, because a variable’s primary effect can only be appropriately assessed when no interaction terms including that variable are present (Aiken & West, 1991: 9–15). The lack of significance for cross-organizational divisional contact shows that Hypothesis 1b is not supported. Across all markets, a division’s level of existing cross-organizational multimarket contact with a market’s incumbent divisions was not negatively and significantly related to the probability that the division would be chosen to operate in that market.

Hypotheses 2a and 2b were supported. The interaction of intraorganizational divisional contact with the binary variable for same-firm dominance has a significant and negative coefficient ($p < .05$), supporting Hypothesis 2a. The negative relationship between a division’s level of existing intraorganizational multimarket contact and the probability that the division will be chosen was stronger in markets in which the firm’s own divisions dominated. The interaction of cross-organizational divisional contact with the same-firm-dominance binary variable has a significant and positive coefficient ($p < .05$), supporting the hypothesis (2b) that the negative relationship between a division’s level of existing cross-organizational multimarket contact and the probability that the division will be chosen is weaker in markets where the firm’s own divisions dominate.

Hypotheses 3a and 3b were also supported. The interactions of the multimarket contact variables with the uncertainty binary variable are positive and significant (both at $p < .05$), supporting the hypotheses that a division’s level of existing intra- and cross-organizational multimarket contact with an uncertain market’s incumbent divisions is positively related to the probability that the division will be chosen to operate in that uncertain market.

The primary binary variables associated with the above hypotheses were not included in the regression equations described above, even though their interactions with multimarket contact were included. In conditional logit equations, unlike in most regression equations, it is correct to exclude
primary variables such as the market-level characteristics of same-franchisor dominance and uncertainty when their values do not vary among the rows within each observation. Interaction terms including such variables can still be included and properly interpreted (Greene, 1998: 528).

Several control variables were significant. An existing franchisee was more likely to be assigned a unit if it owned other units nearby, had headquarters nearby, and particularly, had existing units that shared a market boundary with the new unit. Multiple interpretations for these results exist: geographically proximate franchisees are more likely to be assigned new units because they can more easily monitor the new units, because they know the market well, or because the franchisor has used localized search routines within its own chain when assigning the units. The fact that demographic similarity is preferred, at least with respect to the percentage of African Americans in a market, can also mean that certain franchisees will operate most effectively in markets with particular demographics, or again be the result of localized search. Kalnins and Lafontaine (2004) discussed more detailed implications of these variables.

### Robustness Tests

In addition to the models presented in Table 2, I estimated regression equations that defined as overlapping up to three and the four, six, and seven closest units. Using the three- through six-unit definitions gave results entirely consistent with those presented above. Using the three- and four-unit

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**TABLE 1**

Descriptive Statistics and Correlations of Variables Used to Estimate Choice of Franchisee

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>s.d.</th>
<th>Maximum</th>
<th>1</th>
<th>2</th>
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<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intraorganizational divisional contact</td>
<td>0.14</td>
<td>0.87</td>
<td>26.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Cross-organizational divisional contact</td>
<td>0.31</td>
<td>2.89</td>
<td>134.00</td>
<td>.49</td>
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<tr>
<td>3. Intraorganizational contact × same-firm dominance of market</td>
<td>0.05</td>
<td>0.52</td>
<td>15.00</td>
<td>.59</td>
<td>.25</td>
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<tr>
<td>4. Cross-organizational contact × same-firm dominance of market</td>
<td>0.10</td>
<td>1.53</td>
<td>132.00</td>
<td>.28</td>
<td>.52</td>
<td>.48</td>
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<tr>
<td>5. Intraorganizational contact × uncertainty</td>
<td>0.01</td>
<td>0.07</td>
<td>5.00</td>
<td>.08</td>
<td>.03</td>
<td>.00</td>
<td>.00</td>
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<tr>
<td>6. Cross-organizational contact × uncertainty</td>
<td>0.01</td>
<td>0.18</td>
<td>21.00</td>
<td>.04</td>
<td>.06</td>
<td>.00</td>
<td>.00</td>
<td>.59</td>
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<tr>
<td>7. Market boundary</td>
<td>12.30</td>
<td>63.60</td>
<td>720.00</td>
<td>.22</td>
<td>.52</td>
<td>.14</td>
<td>.30</td>
<td>.02</td>
<td>.05</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>8. Distance to franchisee’s closest unit</td>
<td>4.50</td>
<td>1.34</td>
<td>6.63</td>
<td>-.32</td>
<td>-.25</td>
<td>-.19</td>
<td>-.15</td>
<td>-.04</td>
<td>-.04</td>
<td>-.34</td>
<td></td>
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<tr>
<td>9. Distance to franchisee’s headquarters</td>
<td>4.74</td>
<td>1.39</td>
<td>7.47</td>
<td>-.21</td>
<td>-.10</td>
<td>-.15</td>
<td>-.09</td>
<td>-.03</td>
<td>-.02</td>
<td>-.19</td>
<td>.84</td>
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<tr>
<td>10. Difference in median household incomes</td>
<td>0.11</td>
<td>0.10</td>
<td>0.77</td>
<td>-.04</td>
<td>-.03</td>
<td>-.03</td>
<td>-.02</td>
<td>-.01</td>
<td>-.01</td>
<td>-.08</td>
<td>-.14</td>
<td>-.14</td>
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<tr>
<td>11. Difference in percentages of African Americans in populations</td>
<td>0.14</td>
<td>0.18</td>
<td>0.96</td>
<td>-.01</td>
<td>-.03</td>
<td>-.03</td>
<td>-.02</td>
<td>.01</td>
<td>.01</td>
<td>-.06</td>
<td>-.04</td>
<td>-.02</td>
<td>.09</td>
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<td>12. Difference in percentages of areas classified as urban</td>
<td>0.20</td>
<td>0.24</td>
<td>1.00</td>
<td>-.12</td>
<td>-.07</td>
<td>-.07</td>
<td>-.04</td>
<td>-.02</td>
<td>-.01</td>
<td>-.07</td>
<td>-.12</td>
<td>-.16</td>
<td>.08</td>
<td>-.05</td>
<td></td>
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<tr>
<td>13. Number of franchisee’s units</td>
<td>2.80</td>
<td>3.73</td>
<td>34.00</td>
<td>.10</td>
<td>.23</td>
<td>.03</td>
<td>.11</td>
<td>.01</td>
<td>.03</td>
<td>.16</td>
<td>.02</td>
<td>.09</td>
<td>-.07</td>
<td>-.07</td>
<td>-.10</td>
<td></td>
<td></td>
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<tr>
<td>14. Franchisee’s experience in years</td>
<td>5.77</td>
<td>4.88</td>
<td>27.60</td>
<td>.06</td>
<td>.10</td>
<td>.03</td>
<td>.07</td>
<td>.01</td>
<td>.02</td>
<td>.06</td>
<td>.02</td>
<td>.05</td>
<td>-.07</td>
<td>-.08</td>
<td>-.09</td>
<td>.46</td>
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<tr>
<td>15. New-franchisee binary variable</td>
<td>0.02</td>
<td>0.14</td>
<td>1.00</td>
<td>-.02</td>
<td>-.02</td>
<td>-.01</td>
<td>-.01</td>
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<td>-.03</td>
<td>-.48</td>
<td>-.49</td>
<td>.25</td>
<td>-.02</td>
<td>.40</td>
<td>-.11</td>
<td>-.17</td>
</tr>
</tbody>
</table>

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*a* $n = 49,318 = 978$ mandates assigned to franchisees multiplied by 60 closest franchisees in existence (plus option of new franchisee) at unit opening. 

*b* All correlations over .012 are statistically significant at $p < .01$. 

*c* Absolute difference between the level of this demographic characteristic in the zip code where a new unit would be located and the average level of characteristic across franchisee’s existing zip code locations; 1990 census data were used.
TABLE 2
Conditional Logit Estimates of Choice among Divisions (Franchisees)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hypothesis</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intraorganizational divisional contact</td>
<td>1a</td>
<td>-0.29** (0.09)</td>
<td>-0.06 (0.04)</td>
<td>-0.06 (0.04)</td>
</tr>
<tr>
<td>Cross-organizational divisional contact</td>
<td>1b</td>
<td>-0.03 (0.02)</td>
<td>-0.02* (0.01)</td>
<td>-0.02* (0.01)</td>
</tr>
<tr>
<td>Intraorganizational contact × same-firm dominance of market</td>
<td>2a</td>
<td>-0.18* (0.08)</td>
<td>-0.18* (0.08)</td>
<td></td>
</tr>
<tr>
<td>Cross-organizational contact × same-firm dominance of market</td>
<td>2a</td>
<td>0.05* (0.03)</td>
<td>0.05* (0.03)</td>
<td></td>
</tr>
<tr>
<td>Intraorganizational contact × uncertainty</td>
<td>3a</td>
<td>0.94* (0.39)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-organizational contact × uncertainty</td>
<td>3b</td>
<td>0.26* (0.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market boundary</td>
<td></td>
<td>-1.11** (0.08)</td>
<td>-1.12** (0.08)</td>
<td>-1.10** (0.08)</td>
</tr>
<tr>
<td>Distance to franchisee’s closest unit</td>
<td></td>
<td>-0.24** (0.05)</td>
<td>-0.25** (0.05)</td>
<td>-0.24** (0.05)</td>
</tr>
<tr>
<td>Distance to franchisee’s headquarters</td>
<td></td>
<td>-0.73 (0.66)</td>
<td>-0.70 (0.66)</td>
<td>-0.74 (0.66)</td>
</tr>
<tr>
<td>Difference in median household incomesb</td>
<td></td>
<td>-1.16** (0.41)</td>
<td>-1.15** (0.40)</td>
<td>-1.16** (0.41)</td>
</tr>
<tr>
<td>Difference in percentages of African Americans in populationsb</td>
<td></td>
<td>0.25 (0.22)</td>
<td>0.21 (0.22)</td>
<td>0.22 (0.22)</td>
</tr>
<tr>
<td>Difference in percentages of areas classified as urbanb</td>
<td></td>
<td>0.06** (0.02)</td>
<td>0.06** (0.02)</td>
<td>0.06** (0.02)</td>
</tr>
<tr>
<td>Number of franchisee’s units</td>
<td></td>
<td>-0.09** (0.01)</td>
<td>-0.09** (0.01)</td>
<td>-0.09** (0.01)</td>
</tr>
<tr>
<td>Franchisee’s experience in years</td>
<td></td>
<td>-1.56** (0.39)</td>
<td>-1.59** (0.39)</td>
<td>-1.54** (0.39)</td>
</tr>
<tr>
<td>New-franchisee binary variable</td>
<td></td>
<td>-1.242.9</td>
<td>-1.239.0</td>
<td>-1.233.6</td>
</tr>
</tbody>
</table>

| Total observations (new units)                   | 978        | 978    | 978    |
| Total rows of data                               | 49,318     | 49,318 | 49,318 |
| Log-likelihood                                   | -1,233.6   | -1,239.0 | -1,233.6 |

* A positive value for a coefficient implies that divisions (franchisees) possessing high values of the associated variables have a higher probability of being chosen (assigned the mandate) to operate in a market. A negative coefficient can be interpreted as a lower probability of being chosen.

b Absolute difference between the level of this demographic characteristic in the zip code where a new unit would be located and the average level of characteristic across franchisee’s existing zip code locations; 1990 census data were used.

*p < .05
**p < .01

definitions even gave marginal support for Hypothesis 1b. An erosion of some multimarket contact effects when seven or more units were considered to be overlapping was not surprising as it does not seem likely that a franchisee could cooperate and forbear effectively with such a large group.

Second, I used two alternative choice sets, including only the closest 20 and 40 franchisees. All variables of theoretical interest remained at the levels of significance reported in Table 2, consistent with Parsons and Hauber’s (1998) finding that adding many alternatives with low likelihoods of being chosen had almost no effect on conditional logit estimation results.

Third, I reestimated the models shown in Table 2, adding quadratic terms of the multimarket variables in order to explicitly distinguish a strictly linear effect (as predicted by Hypotheses 1a and 1b) from possible curvilinear effects; Stephan and Boeker (2001) emphasized the importance of making such a distinction. As predicted here, the quadratic effects were insignificant, implying that franchisors discourage multimarket contact among multiunit franchisees at both high and moderate levels.

Fourth, the two interaction terms associated with Hypotheses 3a and 3b (intraorganizational contact × uncertainty and cross-organizational contact × uncertainty) had a correlation of .59. Although this level of correlation is far below that considered prohibitive (typically, .7 to .8), the correlation was high enough to suggest that the significance of effects might arise only when both variables were included. To test this possibility, I estimated two equivalents of the third column of Table 2, including only one of these interaction terms in each. Both variables remained significant at the .05 level in these separate regressions, indicating that their high correlation was not influencing their significance levels.

Finally, as noted earlier, 218 new units were company-owned (owned by the franchisor), and were not included in the analyses. The inclusion of company ownership as a separate “nest” within a nested logit model did indicate that company ownership was more likely when many franchisees would have enjoyed multimarket contact in a market, implying that company ownership might be used to limit multimarket contact. Yet, as many determinants of company ownership exist (e.g.,
I hesitate to assign a causal explanation to this result.

**DISCUSSION**

**Implications of the Results**

In this study, I developed and found support for hypotheses regarding intraorganizational and cross-organizational divisional multimarket contact. These hypotheses are based on game-theoretic mutual forbearance theory as well as on sociology-based concepts of mimetic isomorphism and localized search. Of particular theoretical interest is the fact that the implications of mutual forbearance theory for divisional multimarket contact are not simple analogues of its implications for the oft-examined case of multimarket contact between firms. The theory development within this paper has illustrated an important boundary condition to the implications of current mutual forbearance theory, based on the fulfillment or violation of two assumptions of that theory, and it has identified intraorganizational multimarket contact as an economically significant case that lies on the uninvestigated side of this boundary. Although firms try to increase between-firms multimarket contact when existing contact is moderate and try to decrease it when it is high (Baum & Korn, 1999; Haveman & Nonnemaker, 2000), I found that firms with incentives to induce competition among divisions will attempt to avoid intraorganizational and cross-organizational divisional multimarket contact, whether it exists at a low or a high level.

Equally important is the empirical support found here for the roles of mimetic and localized search processes developed in the sociological literature. I hypothesized that these processes have the same implications for intraorganizational multimarket contact as they do for standard multimarket contact between firms. I showed that their relevance increases with the presence of uncertainty, building on the findings of organization theorists such as Haunschild and Miner (1997), who found uncertainty affected the prevalence of mimetic processes. Further, the results here, in illustrating that market uncertainty influences choices related to market entry, fill a gap noted by Baum, Li, and Usher (2000).

**Implications for Theory Development**

This paper has illustrated the value of extending multimarket contact theory to new applications through combining its implications with those of existing theory for those applications. Multimarket contact theory could also be combined with the network theory of “structural holes” (Burt, 1992) to investigate how firms embedded in networks of ties can maintain the network sparseness required for them to play other network members off each other; acting to discourage multimarket contact among other members is one way to maintain sparseness. A logic similar to that presented here about firms’ avoidance of divisional multimarket contact could then be used to shed light on networks in which incentives to discourage multimarket contact may exist, such as alliances and networks among suppliers. Boeker and his colleagues (1997), for example, observed no benefits of meeting rivals in multiple markets through arms-length outsourcing arrangements. An interesting and related question is whether a firm chooses suppliers in such a way as to reduce their contact in multiple markets where they serve the choosing firm. Much like a firm desiring to induce competition among divisions, a buyer firm may wish to keep network ties between suppliers to a minimum; otherwise the suppliers may collude at the expense of the buyer. Similarly, managers affiliated with alliances and joint ventures that involve a common parent firm may not act in the parent’s best interest if extensive network ties develop between those ventures.

In general, the combination of economic and sociological perspectives is crucial for further development of theory regarding complex phenomena such as multimarket contact; a rich understanding is unlikely to be achieved by ignoring either discipline. To clarify the role of each perspective, academics need to continue to seek out natural experiments, such as arenas of intraorganizational contact, in which game theory and sociological processes have clearly distinct implications, and these implications can be teased apart empirically. In the setting of this study, both types of processes appeared to operate, and uncertainty moderated their relative importance. The game-theoretic processes dominated and decreased multimarket contact when uncertainty was low, while the sociological processes dominated when uncertainty was high. By identifying other such moderators through natural experiments, researchers can build more complete and robust theories that include the insights of both economic and sociological perspectives.

**Limitations and Suggestions for Future Research**

I have emphasized that the hypotheses developed here, based on the view that a firm will decrease divisional multimarket contact if it is acting
with strategic rationality, are relevant only when a firm’s headquarters has incentives to induce at least some competition among its divisions. I described four such incentives. An analysis of a given firm should yield clues as to whether at least one of the four incentives applies. For example, if a firm’s divisions face high rivalry from external competitors, depressing rivals’ entries via intraorganizational competition (an effect predicted by Fauli-Oller and Giralt [1995] and Baye et al. [1996]), may be of particular value, as may the operating efficiency predicted by Phelps and Fuller (2000). Alternatively, if profit-sharing arrangements of divisions with their headquarters are such that higher divisional profits do not necessarily benefit headquarters or a firm as a whole, the firm may well benefit from divisional competition.

For many large conglomerates, these incentives will be outweighed by incentives for divisional cooperation—knowledge sharing among divisions may be particularly useful to a parent firm seeking to develop new technology, for example—and thus the standard prediction will hold: at moderate levels of contact, the firm will increase multimarket contact. Future research comparing different types of divisionalized organizations on the basis of the importance of incentives to induce competition would be particularly useful; such research would further knowledge regarding multimarket contact as well as knowledge about the determinants of intraorganizational competition.

Finally, I reiterate that my conclusions here are based on franchise organizations and that future research replicating these findings in other types of divisional organizations would be very useful. However, franchise organizations clearly fall within the scope of the multimarket and divisionalization theories: franchisors have incentives to induce competition among their franchisees. Most importantly, the royalty structure typical in franchising implies that a franchisor profits most from units with high sales. Therefore, despite the many obvious differences between franchise organizations and other multidivisional organizations, they often have in common firm-level incentives to induce intraorganizational competition. Thus, franchising organizations were very appropriate for at least this initial foray into studying intraorganizational multimarket contact.

REFERENCES


Arturs Kalnins (kalnins@usc.edu) earned his Ph.D. at the University of Michigan; he is an assistant professor of management and organization at the Marshall School of Business, University of Southern California. His current research interests include competition and knowledge transfer within and between geographically dispersed multiunit organizations.