

OVERCOMING THE LIABILITY OF FOREIGNNESS

SRILATA ZAHEER
University of Minnesota

This study addressed the question of whether firms in a competitive, globally integrated environment face a "liability of foreignness" and to what extent either importing home-country organizational capabilities or copying the practices of successful local firms can help them overcome this liability. Predictions were tested with a paired sample of 24 foreign exchange trading rooms of major Western and Japanese banks in New York and Tokyo. Results support the existence of a liability of foreignness and the role of a firm's administrative heritage in providing competitive advantage to its multinational subunits. They also highlight the difficulty firms face in copying organizational practices from other firms.

Researchers in international business have long theorized that multinational enterprises (MNEs) doing business abroad face costs (Hymer, 1976; Kindleberger, 1969) arising from the unfamiliarity of the environment, from cultural, political, and economic differences, and from the need for coordination across geographic distance, among other factors. This liability of foreignness has been the fundamental assumption driving theories of the multinational enterprise (Buckley & Casson, 1976; Caves, 1982; Dunning, 1977; Hennart, 1982). Further, it has been argued that to overcome the liability of foreignness and compete successfully against local firms, MNEs need to provide their overseas subunits with some firm-specific advantage, often in the form of organizational or managerial capabilities (Buckley & Casson, 1976; Caves, 1982; Dunning, 1977; Hennart, 1982). Resource-based views of strategy (Barney, 1991; Lippman & Rumelt, 1982; Winter, 1991) have also stressed the importance of firm-specific resources and organizational capabilities in providing sustainable competitive advantage to firms. These theories suggest that multinationals' subunits will try to overcome the liability of foreignness by importing capabilities embodied in the organizational practices of their parent enterprises, particularly if the subunits are competing in an undifferentiated product market in which other sources of imported competitive advantage, such as a brand name, a superior technology, or factor-cost advantages, have little role to play.

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Drawing from institutional theory (DiMaggio & Powell, 1983; Scott, 1987; Zucker, 1988), however, writers in international organization theory (Powell & DiMaggio, 1991; Rosenzweig & Nohria, 1994; Rosenzweig & Singh, 1991) have argued that MNE subunits are most likely to attend to the demands of their local, host country environments and that their organizational practices will tend to become similar, or isomorphic, to the practices of local firms. In particular, institutional theory would lead one to predict that, if local firms are the best-performing exemplars in the immediate local environment of an MNE subunit, it will attempt to mimic their organizational practices in its bid to better its performance (DiMaggio & Powell, 1983).

The puzzle that emerges from these two theories is this: If in fact MNE subunits face a liability of foreignness, does importing firm-specific organizational practices or imitating local organizational practices better help them overcome this liability and compete successfully against purely local firms? This is the question addressed here and tested in an industry context in which organizational capabilities, rather than product differentiation or product-market fit considerations, provide an important source of competitive advantage.

I addressed this research question by studying one industry, foreign exchange trading, in depth through observation, interviews, and multiple-respondent surveys conducted in a paired sample of the trading rooms of a set of U.S. and Japanese banks in New York and Tokyo. I defined local trading rooms as those in banks that were substantially owned by individuals or firms from the country in which the rooms were located and foreign trading rooms as those in banks that were substantially owned by individuals or firms from countries other than the country of the trading rooms' location. Specific organizational practices on which the Western trading rooms in New York differed most from the Japanese trading rooms in Tokyo were identified. I then tested to what extent the competing theories of local isomorphism and imported firm-specific advantage explained the difference between the performance of the foreign and local trading rooms.

This study is of interest for both theory and practice. It sought to establish whether there are costs to doing business abroad, an assumption that, although largely untested, is critical to theories of multinational enterprise. I also attempted to test the performance implications for firms of two sets of alternative theories, the resource-based and the institutional. The study also has implications for the question of how integrated or responsive a company can or should be in its organizational practices (Prahalad & Doz, 1987) as it pursues an international strategy.

THEORY AND HYPOTHESES

The Liability of Foreignness

In the literature on multinational enterprises (Hymer, 1976; Kindleberger, 1969), the liability of foreignness—the costs of doing business abroad that result in a competitive disadvantage for an MNE subunit—have

been broadly defined as all additional costs a firm operating in a market overseas incurs that a local firm would not incur. In general, the liability of foreignness can arise from at least four, not necessarily independent, sources: (1) costs directly associated with spatial distance, such as the costs of travel, transportation, and coordination over distance and across time zones; (2) firm-specific costs based on a particular company's unfamiliarity with and lack of roots in a local environment; (3) costs resulting from the host country environment, such as the lack of legitimacy of foreign firms and economic nationalism; (4) costs from the home country environment, such as the restrictions on high-technology sales to certain countries imposed on U.S.-owned MNEs. The relative importance of these costs and the choices firms can make to deal with them will vary by industry, firm, host country, and home country. Whatever its source, the liability of foreignness implies that foreign firms will have lower profitability than local firms, all else being equal, and perhaps even a lower probability of survival.

The liability of foreignness is likely to be particularly acute in a simple, market-seeking, horizontal MNE (Caves, 1982), which is a multinational whose subunits are essentially replicas of each other that manufacture or distribute goods and services in different markets around the world. Such operations essentially compete on a local-for-local basis (Bartlett & Ghoshal, 1989). A vertical multinational enterprise, which uses its geographically dispersed subunits as stages in a globally integrated value-adding system in which it can exploit economies of global scale or scope, or a networked MNE, whose subunits have differentiated roles and levels of integration, may feel the liability of foreignness less (Ghoshal & Nohria, 1989).

The foreign exchange trading rooms of major multinational banks approximate horizontal MNEs in the financial services industry as they are essentially simple stand-alone operations in each of the locations they operate in, mandated to turn a profit by speculating on global currency markets and by providing currency exchange services to local customers. The product is undifferentiated. The bulk (over 85%) of banks' trading in currency markets appears to be driven by speculation on short-term trends in currencies (Bank for International Settlements, 1993; Lyons, 1993; Ohmae, 1990). Information—on trends in the demand for various currencies, on market expectations of price movements, and on likely policy outcomes—is critical to running a successful speculative trading operation. The rest of the trading is business conducted for bank customers, which tends to be competitively priced and may even be offered at no profit as a service to important customers (Eccles & Crane, 1988). However, the customer-related business is still valued as the flow of customer orders provides important advance information to trading rooms about the demand for different currencies, thereby acting as a leading indicator of potential price movements and facilitating the rooms' speculative operations. Further, currency trading rooms are legally allowed to "trade ahead" of customer orders, and large customer orders can thus contribute to speculative profit making (Lyons, 1993; Zaheer, 1992) even if the orders are not themselves particularly profitable.

Although the speculative portion of trading may take place across international borders, the customer-based business of currency trading rooms tends to be largely local (Bank for International Settlements, 1993). Perhaps institutional relationships or cost and convenience lead customers to contact trading rooms in the country in which they are located for quotes on currencies, rather than trading rooms overseas.

In this context, foreign trading rooms' liability of foreignness is likely to arise from the fact that the local trading rooms in a given location are better integrated into local information networks and perhaps also have a larger customer base than the foreign trading rooms in that location. Further, local trading rooms may have better connections to the local central bank and to other policy makers who influence the exchange rates of the local currency. Thus, German banks in Germany might have a better feel for whether the Bundesbank is going to lower deutsche mark interest rates within the next 24 hours than might British banks located in Germany. Information of this type is critical to running a successful trading operation; thus,

Hypothesis 1: Foreign trading rooms will be less profitable than local trading rooms in the same location, ceteris paribus.

Firm-Specific Advantage Versus Local Isomorphism

To overcome the liability of foreignness and compete with local firms, a multinational enterprise needs to either bring to its foreign subunit resources or capabilities specific to the firm (firm-specific advantages) or attempt to mimic the advantages of successful local firms. The costs that contribute to creating a liability of foreignness do not directly point to which of these options an MNE might prefer. An MNE might attempt to reduce the costs of coordination directly by giving total autonomy to a foreign subunit allowing it to behave like a local firm by, for instance, performing all value-adding stages in the foreign location. Or the parent might attempt to compensate for distance-related costs through scale economies or the premium attached to a brand name imported from the home country. Researchers studying international strategy and organization (Bartlett & Ghoshal, 1989; Porter, 1986; Prahalad & Doz, 1987) have suggested a range of industry-specific factors that might influence the extent of "local responsiveness" required from an MNE subunit, which in turn could affect the subunit's degree of similarity to local firms. Rosenzweig and Singh (1991) suggested that MNE subunits in multidomestic industries might be much more prone to local isomorphism than those in global industries.¹

In general, firm-specific advantage can be derived from traditional sources of competitive advantage, such as cost savings derived from econo-

¹ In multidomestic industries, competition in each country is essentially independent of competition in other countries (Porter, 1986); this is not so in global industries.

mies of scale or scope (Porter, 1986), or exploiting location-based cost advantages (Dunning, 1977), or such resources as a brand name or a differentiated product. Competitive advantage can also be derived from organizational capabilities such as the ability to learn or to transfer organizational practices and managerial skills across a multinational network (Bartlett & Ghoshal, 1989; Kogut, 1993).

In foreign exchange trading, the products are undifferentiated commodities, and practically any trading room anywhere in the world can satisfy a particular customer's requirements for most currencies. The technology in use in the large multinational banks' trading rooms is also fairly standard, as there are essentially three major global technology suppliers to this industry. In this context, the traditional sources of competitive advantage are likely to be of little or no consequence. Therefore, the transfer of firm-specific managerial or organizational skills, as embodied in organizational routines, is likely to be critical in compensating for the liability of foreignness. Thus,

Hypothesis 2a: Foreign trading rooms whose organizational practices more closely resemble those of their firms' domestic trading rooms will show less evidence of the liability of foreignness.

In discussing and testing the hypotheses, I use the difference between a foreign trading room's profitability and the average profitability of the local trading rooms in a particular location as an indicator of the foreign firm's liability of foreignness.

However, as discussed earlier, an alternative hypothesis is plausible. Writers in international organization theory (Arias & Guillen, 1991; Powell & DiMaggio, 1991; Rosenzweig & Nohria, 1994; Rosenzweig & Singh, 1991) have argued that MNE subunits are most likely to attend to the demands of their local environments. Others (Westney, 1988, 1993; Zaheer, 1992) have argued for the existence of multiple isomorphic pulls on MNE subunits, and Rosenzweig and Nohria (1994) suggested a number of factors that, across industries or practices, might moderate the extent of local isomorphism. The assumption behind the arguments for local isomorphism in these models is that an MNE subunit operating in a particular local environment (say, a subsidiary of an American multinational in Germany) will tend to follow local practices either because of coercive isomorphism (caused by the requirements of German regulations, for example), normative isomorphism (caused by professionally imposed requirements), or mimetic isomorphism (imitation caused by the success of local exemplars; DiMaggio & Powell, 1983). Mimetic isomorphism is likely to be particularly important in areas of free and unregulated economic competition, where firms will try to adopt the practices of others that appear to be the most successful in a given environment.

These arguments suggest that if local firms are generally more profitable than foreign firms in an industry (that is, if Hypothesis 1 is supported), the

pressures of mimetic isomorphism would lead MNE subunits to mimic the organizational practices of local firms and that those that do so will be more successful and show less evidence of the liability of foreignness than those that do not. Thus,

Hypothesis 2b: Foreign trading rooms whose organizational practices more closely resemble the practices of local trading rooms in their location will show less evidence of the liability of foreignness.

MARKET AND BUREAUCRATIC CONTROLS

Two criteria were used in selecting the organizational practices to be studied. First, the chosen practices had to be very different in the two sets of local trading rooms—those in the Western banks in New York and the Japanese banks in Tokyo—as only in that case would I be able to separate the effects of local isomorphism from the effects of imported firm-specific advantage. In addition, the practices needed to have some influence on trading room performance.

An exploratory phase of the study eliminated several organizational practices and pointed toward others. For example, formal structure was identical in all the trading rooms in New York and Tokyo and was therefore inappropriate for the purposes of this study. Every trading room had inter-bank traders dealing with currency pairs (dollar-mark traders and dollar-yen traders, for example), a smaller number of customer traders who executed orders from corporate clients, and a back office that confirmed deals and wired payments. Even the physical layout of trading desks tended to be fairly similar in both sets of local rooms, although a few of the Western banks in New York had island-shaped layouts rather than the less space-consuming straight-line layouts common in both New York and Tokyo. I eliminated both formal structure and physical layout as organizational practices worth comparing.

The one area in which the Western trading rooms in New York differed markedly from the Japanese trading rooms in Tokyo was in their control systems, which can be viewed as made up of market and bureaucratic controls.²

Market controls. When an organization employs a market mode of control, it “can simply reward each employee in direct proportion to his contribution” (Ouchi, 1979: 835). Organizational practices associated with mar-

² I did not use clan controls, which Ouchi (1981) noted as distinguishing Japanese and Western organizations, for two reasons: first, a construct of clan control based on variables drawn from previous research had low reliability across the subsamples (ranging from 0.35 to 0.62); second, the literature on clan controls would lead one to predict a relationship between clan controls and speculative profit making in currency trading only if they reduced costs by acting as a substitute for other forms of control. However, that was not the case in this sample, as the Japanese banks were high on both clan and bureaucratic control.

ket-type controls, such as basing a high proportion of traders' total incomes on performance-linked bonuses, hiring experienced traders from the external labor market, and high turnover among traders, were prominent in Western banks in New York. The Japanese banks in Tokyo, however, showed little evidence of these practices. Other writers have noticed these differences between Japanese and Western organizations (e.g., Aoki, 1988; Beechler, 1990; Ouchi, 1981).

What makes market-based controls particularly interesting in this context are the possible links between incentive-based compensation of traders, which is likely to result in better individual performance, and trading room performance. Profits in interbank foreign exchange trading in the major multinational banks tend to be driven largely by taking speculative positions in different currencies (Lyons, 1993; Ohmae, 1990; Zaheer, 1992) rather than by providing service to customers. As a room's speculative profits depend on the ability and efforts of individual traders, tying traders' compensation to their profit performance could lead both to a self-selection process, in which high-quality traders are attracted to market-controlled organizations, and to traders being motivated to put more effort into trading as they have high personal stakes in outcomes (Nalbantian, 1987). A trading room's profit largely depends on the aggregate profits of its individual traders, so individual and organizational performance are closely linked. This discussion suggests that market control will be positively associated with trading room performance.

Bureaucratic microcontrols. Bureaucratic control, which has been extensively discussed in the organization theory literature (e.g., Crozier, 1964; Meyer, 1990; Thompson, 1967; Weber, 1978), is a system of control based on rules and on the legitimacy of authority rather than on prices (market control) or on socialized commitment (clan control). There were striking variations in the type and extent of bureaucratic control exercised in the Japanese trading rooms in Tokyo and Western trading rooms in New York. These differences were most pronounced in an aspect of bureaucratic control unique to the trading environment, "microcontrols." These involve firms' setting detailed limits on intraday and overnight open positions³ by currency and by trader in an attempt to micromanage speculation by individual traders. Although some Western banks in New York also had such limits, the limits were much more rigid and appeared to be taken far more seriously by the Japanese banks in Tokyo. Again, other researchers studying Japanese organizations have commented on the tight bureaucratic control exercised in Japanese organizations (Beechler, 1990).

Further, bureaucratic controls are also likely to influence performance in a speculative profit-making context. Successful speculation in the currency markets depends on a trader's being able to accurately gauge market

³ An open position is the stock of a particular currency held by a trader in anticipation of a price change.

expectations of short-term price movements. To do so, the trader needs to be intensely engaged in trading and in seeking market information on the direction of trades and who is buying or selling particular currencies. Further, the trader has to make decisions within seconds on what prices to quote and whether to go long (buy) or go short (sell) a particular currency. Thus, only the trader on the spot has all the information required to make good decisions. Even a trading room manager who is watching the monitor on which banks display indicative prices from time to time does not have the intense engagement in the market required to sense and "ride" on short-term market trends, especially as when the market is busy, the prices shown on the monitor tend to lag behind the actual action (Lyons, 1993). In such a situation, attempts to micromanage trading through strict limits on risk positions and rules on the levels at which losses and profits have to be realized are likely to constrain traders' abilities to take full advantage of profit opportunities as they arise and are therefore likely to have a negative impact on trading room profitability.

The extents of these two organizational practices, use of market controls and of bureaucratic microcontrols, were examined to test the alternative hypotheses, 2a and 2b. However, I decided to test for the effect of firm-specific advantage and local isomorphism on the liability of foreignness separately for each practice as I expected them to influence performance in different directions, with market controls having a positive impact on profits per trader and bureaucratic controls having a negative impact. Not just the absolute distance, but the direction in which a particular trading room's practices differed from local or from home country practices, was likely to make a difference to its performance.

The results of a one-way analysis of variance and of a Scheffé test confirmed that market control was significantly different ($p < .01$) and bureaucratic control marginally different ($p < .10$) between the Japanese foreign exchange trading rooms in Tokyo and the Western rooms in New York.

METHODS

An initial exploratory study, which consisted of observation and interviews conducted at eight foreign exchange trading rooms of U.S. and Japanese banks in New York and in Tokyo, was used to identify the organizational practices that appeared most different in U.S. trading rooms in New York and Japanese trading rooms in Tokyo. This initial phase was followed by two surveys: the first, given to all foreign exchange traders in each room, asked about room-level practices (the independent variables); the second, given to the head of each trading room, assessed the dependent variable, trading room performance. Use of these two respondent groups was designed to eliminate common method bias.

Data

The full sample consisted of 28 trading rooms, 13 in New York and 15 in Tokyo, belonging to eight Western and eight Japanese banks. Surveys

were returned by 198 traders in the 28 rooms, for a 79 percent response rate, 63 percent in New York and 92 percent in Tokyo. The tests of isomorphism and firm-specific advantage were carried out on a subset of this sample, a paired sample of 24 trading rooms, 12 in New York and 12 in Tokyo, belonging to six Western and six Japanese banks. Each pair consisted of a trading room in Tokyo and a trading room in New York belonging to the same parent bank. The number of traders answering the survey in the paired sample was 174; numbers in each trading room subsample were as follows: Japanese rooms in Tokyo, 51; Japanese rooms in New York, 31; Western rooms in Tokyo, 53; Western rooms in New York, 39.

The banks were selected as follows: Using the list of foreign banks in Tokyo published by the Federation of Bankers Associations of Japan (Zenginkyo, 1989) and the Hambros Bank's (1989) *Foreign Exchange and Bullion Dealers Directory* as a guide, I identified nine New York-based U.S. commercial and investment banks as having operations and being authorized foreign exchange banks in Tokyo. The managers of six of the nine banks agreed to participate, but one bank had to be dropped as it did not have a full-fledged interbank currency-trading operation in Tokyo. Ten Japanese commercial and wholesale banks were identified as having trading operations in New York and Tokyo, and the managers of eight of these agreed to participate in the study. However, the New York operations of two of these banks could not be surveyed within this study's time frame because the heads of these rooms were away. Further, to increase the number of non-Japanese banks in the sample, I decided to include one American-European joint venture that had trading operations in New York and Tokyo. The banks studied were all prominent players in the global foreign exchange market. Ten of the 12 banks appeared on a list of the top 50 worldwide foreign exchange dealers over the 1979–91 period (Euromoney, 1991).

Questionnaires

I administered the questionnaires to all foreign exchange traders at each trading room and gave a separate questionnaire to the head of the trading room, who was also interviewed. The traders' aggregated responses were used in the analyses. Thus, although the full sample consisted of only 28 trading rooms, the room-level measures aggregated from the responses of 198 traders were remarkably robust and free from position bias (Phillips & Baggozzi, 1982). A Japanese version of the traders' questionnaire, which went through translation, back-translation, and pretesting, was used in Tokyo. To verify the accuracy of the translation, I calculated the reliability of all the constructs separately for the Japanese and English questionnaires and found them to be stable ($\alpha = .65-.95$; results are available upon request).

Variables

I checked the basic variables from the trader's questionnaires for inter-rater reliability and for the existence of room-level effects and aggregated them for each room. I further checked the room-level measures for correla-

tion with the responses of the heads of the trading rooms. The variables were then converted into distance measures, which are described below.

The liability of foreignness. For the foreign trading rooms (the Japanese trading rooms in New York and the Western trading rooms in Tokyo), the dependent variable was measured as the difference between the average profits per trader of all local trading rooms and the foreign room's profits per trader in the same city. For example, the liability of foreignness of a Japanese trading room in New York is the difference between the average profits per trader of all Western trading rooms in New York and the actual profit per trader of that particular Japanese trading room in New York. As the profits per trader of the local rooms were higher than those of the foreign rooms in most cases, the liability of foreignness was typically positive (though I did not constrain it to be so), with higher values implying a higher liability.

Profits per trader was derived from the questionnaire given to the trading room heads. I used a logarithmic transformation of this variable as it was a dollar figure.

Perceived room performance. In addition, a perceptual measure of room performance was constructed from the aggregated responses to four questions. Traders were asked if their rooms had "some of the best traders in the city" and were "among the most profitable rooms in the city" (1 = strongly disagree to 7 = strongly agree). They also rated total room profit and profits per trader. The reliability of this construct ranged from .93 to .95 across the subsamples. A high correlation with the trading room heads' ratings of profit per trader ($r = .65$, $p < .01$) provided an external check on the perceptual measure of room performance.

Some data on the basic dependent variable, profits per trader, were missing as only 18 heads of trading rooms reported this figure. This level of missing data (for 10 rooms across all subsamples) is understandable, given that this information is not publicly available, and it is remarkable that this study generated the level of support and confidence it did from the trading room heads who did report profits per trader.

The question then arose of whether to proceed using only the perceptual measure of performance. Although the perceptual measure is a good measure, I decided that the 18 data points on actual profits per trader were too valuable to ignore. The missing data were therefore estimated from the perceptual data, and a derived variable, profit per trader, was created, which consists of actual profits per trader for the 18 cases and predicted profits per trader for the other 10 cases ($R^2 = .29$, $F = 10.56$, $p = .003$, $\beta = .54$, $t = .003$). Some of the heads of trading rooms whom I was subsequently able to contact on the phone confirmed that the estimated figures were approximately correct. This estimated measure is at least as good as the perceptual measure on which it is based, and it benefits from including the available hard data on actual profits per trader.

Age and size. In testing Hypothesis 1 for the existence of a liability of foreignness, I controlled for trading room age, derived for most of the rooms

from the Hambros Bank's directories, which commenced publication in 1960, and in two cases, from interviews with long-tenured staff in the trading rooms. Trading room size, defined as number of traders, was drawn from the trading room heads' questionnaire.

Extent of local isomorphism. For each of the two organizational practices of interest, extent of market controls and extent of bureaucratic microcontrols, I measured the distance of a foreign room from the average value for that practice for the local rooms in the same city. These measures, signed distance on market controls and signed distance on microcontrols, captured both the degree of similarity and its direction, or whether the foreign rooms' use of the practices exceeded or fell short of local average use. I also measured absolute distance on both sets of practices, taking just the absolute values of the signed distance measures. For example, the extent of local isomorphism in market control for a particular Western trading room in Tokyo was the absolute value of the difference between its use of market controls and the average value of market control use for all Japanese trading rooms in Tokyo. The smaller this difference, the greater the extent of local isomorphism. A point to note here is that the reliability of a difference score on a construct is the square of the reliability of the underlying construct. As the reliabilities of the basic constructs being "differenced" for the full sample were .83 for market control and .92 for bureaucratic microcontrol, the reliabilities of the calculated difference scores are reasonably good (.69 and .85).

Firm-specific advantage. As in the case of local isomorphism, a separate measure of imported firm-specific advantage was created for each practice. Two measures, signed distance from home market controls and signed distance from home microcontrols, capturing both distance and the direction of firm-specific advantage, were calculated for each foreign trading room as the difference between the value of that practice for that room and the value of that practice for its paired room in the home country. As with the local isomorphism measures, I also calculated nondirectional measures of firm-specific advantage, capturing only how close a focal room's practices were to those of its home counterpart, without considering whether the values were larger or smaller. All the distance measures were based on the following measures of bureaucratic and market controls.

Bureaucratic microcontrols. Most empirical studies (e.g., Ghoshal & Nohria, 1989; Khandwalla, 1976) have defined bureaucratic control as formalization, centralization, and standardization, after the Aston studies (Pugh, Hickson, & Hinings, 1969). However, as discussed earlier, in foreign exchange trading the major source of variation in bureaucratic controls is the extent to which different trading rooms set detailed limits on open positions. These microcontrols are related to the concepts of centralization, standardization, and formalization, but the focus on controlling and dictating individual behavior is perhaps unique to trading environments. I used four questions to capture the existence of microcontrols, asking traders if their rooms

employed overnight position limits by currency, intraday position limits by currency, overnight position limits by trader, and intraday position limits by trader (yes or no; $\alpha = .92$, full sample).

Market control. Trading rooms that rely on the market to control their employees tend to pay for performance, are likely to hire traders from the external labor market, and are likely to sustain a fair amount of turnover because traders leave if they perceive their market price as higher (or are asked to leave if their market price is lower). Market control was therefore measured as the average for a trading room of responses on three questions capturing the extents of pay for performance, outside hiring, and turnover on seven-point Likert-type scales ($\alpha = .83$, full sample).

Control variable: Actual risks taken. Since foreign exchange trading profits are closely tied to risks taken (Ohmae, 1990), I controlled for actual risk taking in the trading rooms, measuring the difference in risk taking between each foreign room and the average risk taking of the local rooms.

In foreign exchange trading, risk is easily measured as the size of the net open position, as all trading rooms face the same exogenous volatility in currencies. This definition is analogous to viewing risk as bet-size (March & Shapira, 1992) when odds are the same. Further, individual traders have a good sense of what overnight positions each of them and their currency groups as a whole usually hold. This information and an indicator of the level at which individual traders usually took their losses were aggregated for each room and used to form an index of actual risk taking in that room. This index had high reliability ($\alpha = .83-.93$) across the subsamples and was a reasonable proxy for the rooms' net open positions. This measure also had a high correlation ($.63, p < .01$) with trading room heads' ratings of risk taking, providing an independent check on the measure's validity.

RESULTS

Caveats

Some caveats about interpreting the results of the data analysis are in order. Although the sample is small, the measures reflect an aggregation of the responses of 174 traders, so the reported correlations are ecological (Hofstede, 1980), or correlations of means. Regression analyses of such measures tend to have high explanatory power because of the robustness of the underlying measures and their low variance. Second, the sample consists of carefully matched pairs and contains a large proportion of the population I sought to represent (the nine U.S. and ten Japanese banks that had full-fledged currency-trading operations in both New York and Tokyo).

The problem of small numbers will affect nearly any study that attempts to look in depth at cross-national matched pairs of subunits of the same firm in any single industry. Without a doubt, one should treat findings based on small numbers as suggestive rather than definitive. But comparing local isomorphism with imported firm-specific advantage requires studies that control for industry and firm because specific organizational practices differ

in their importance and impact across different industries, and both isomorphism and competitive advantage are subtle concepts that benefit from exploration through combined field and survey methods.

A further caveat is that performance could only be measured once. However, the heads of the trading rooms did not consider the period during which the survey was given to be atypical.

Subsample Descriptive Statistics

Table 1 gives descriptive statistics for the four subsamples. Profits per trader, which ranged from \$0.95 million for the Japanese trading rooms in New York to \$1.88 million for the Japanese trading rooms in Tokyo, with the Western rooms in Tokyo and in New York in between, and the index of actual risk taking were not significantly different across the four subsamples. However, the subsamples differed significantly on market control, age, and size ($p < .05$), and bureaucratic control was marginally higher ($p = .07$) in the Japanese rooms in Tokyo than in the Western rooms in New York. In terms of age, the Western trading rooms in New York had been in the business of interbank currency trading longest, averaging 24 years in 1991, and were significantly older than all three other groups. The average age of the Japanese rooms in Tokyo, 12 years, was not significantly different from the average age of all the foreign rooms (8 years). In terms of number of traders, the Japanese rooms in Tokyo, with an average 82 traders each, were twice the size of all the other rooms, which averaged between 31 and 43 traders.

The Liability of Foreignness

In testing, I controlled for age to ensure that the liability of foreignness was not just a liability of newness (Carroll, 1983; Freeman, Carroll, & Hannan, 1983), or a parent bank's lack of experience in a particular location in this line of business. I also controlled for trading room size. A one-way analysis of variance comparing profits per trader in the foreign and local rooms, with the age and the size of the trading room as covariates, yielded a cell mean of 13.9 for foreign trading rooms and 14.42 for local rooms ($F = 7.5, p < .05$). These results support Hypothesis 1, which predicts that trading rooms operating overseas will be less profitable than rooms operating in their home country.

Further, neither the age nor size of a trading room was significantly related to profits per trader. Size did not matter perhaps in part because these were all large rooms of major international banks, the only banks to trade out of both New York and Tokyo. Age may not be significant in explaining performance in this industry because, although some trading rooms have been providing customer service for over 30 years, the industry changed dramatically in the late 1970s and early 1980s after the Jamaica agreement of 1976 formalized the break from fixed exchange rates (Daniels & Radebaugh, 1994). As a result, it is possible that length of experience is not as important in this industry as it may be in some others. Since age and size showed no

TABLE 1
Descriptive Statistics for Subsamples^a

Variables	1. Western Trading Rooms in New York	2. Western Trading Rooms in Tokyo	3. Japanese Trading Rooms in New York	4. Japanese Trading Rooms in Tokyo	F ^b	F ^c
Profit per trader	\$1.76 million	\$1.23 million	0.95 million	1.88 million		
trader (log)						
Mean	14.38	14.03	13.76	14.45	2.13	
s.d.	0.70	0.75	0.32	0.38		
Risk taking						
Mean	1.32	1.23	1.37	1.69	1.81	
s.d.	0.48	0.43	0.36	0.09		
Market controls						
Mean	1.87 ⁴	1.99 ⁴	1.66 ⁴	0.92 ^{1,2,3}	12.81 ^{**}	26.87 ^{**}
s.d.	0.45	0.22	0.48	0.17		
Bureaucratic microcontrols						
Mean	2.51	2.87	3.79	3.51	2.63 [†]	4.05 [†]
s.d.	1.21	1.21	0.33	0.51		
Age ^d						
Mean	24.14 ^{2,3,4}	7.86 ¹	7.67 ¹	11.75 ¹	9.84 ^{**}	
s.d.	9.77	3.53	5.09	5.73		
Size						
Mean	43.14 ⁴	31.43 ⁴	42.00 ⁴	82.13 ^{1,2,3}	6.77 ^{**}	
s.d.	28.16	25.09	21.08	19.45		
N	7	7	6	8		

^a Superscripts indicate which other subsamples a given subsample is significantly different from ($p < .05$).

^b Across all four subsamples.

^c Subsamples 1 and 4 only.

^d Age is in years.

† $p < .10$

** $p < .01$

relationship to the relative profitability of local and foreign trading rooms in this group of firms, I omitted them from the regression analyses reported below.

The finding that a liability of foreignness exists even in a highly competitive, global industry such as foreign exchange trading, where the product is undifferentiated and the costs of operating across borders should be minimal, lends strong support to Hymer's (1976) primary argument that there are always costs to doing business abroad.

Local Isomorphism Versus Firm-Specific Advantage

Correlation matrixes of all variables used in the subsequently reported hypothesis tests, including a variable for location, appear in Table 2 for the signed measures and in Table 3 for the absolute measures of isomorphism.

For both market controls and microcontrols, local isomorphism and firm-specific advantage were negatively correlated, though the relationship was significant only for market controls (Pearson's $r = -.87$, $p < .01$). Also, location (New York or Tokyo) significantly affected both the extent to which the market control practices of foreign firms were similar to local market control practices ($r = .80$, $p < .01$) and the extent to which they imported

TABLE 2
Descriptive Statistics and Correlations of Signed Distance Measures

Variables	Means	s.d.	1	2	3	4	5	6
1. Liability of foreignness	0.45	0.62						
2. Distance from local rooms, microcontrols	0.17	1.45	.43					
3. Distance from home rooms, microcontrols	0.05	0.67	-.16	.12				
4. Distance from local rooms, market controls	0.44	0.77	-.07	-.64*	.24			
5. Distance from home rooms, market controls	0.39	0.58	.58*	.72**	-.07	-.38		
6. Distance from local rooms, risk	-0.21	0.48	-.30	.52	.09	-.65*	.24	
7. Location ^a	1.50		-.28	-.80**	.12	.88**	-.75**	-.57

^a New York = 1, Tokyo = 2.

* $p < .05$

** $p < .01$

TABLE 3
Descriptive Statistics and Correlations of Absolute Distance Measures

Variables	Means	s.d.	1	2	3	4	5	6
1. Liability of foreignness	0.45	0.62						
2. Distance from local rooms, microcontrols	1.16	0.82	-.42					
3. Distance from home rooms, microcontrols	0.44	0.49	-.17	-.14				
4. Distance from local rooms, market controls	0.73	0.47	-.17	-.28	.26			
5. Distance from home rooms, market controls	0.54	0.43	.29	.18	-.33	-.87**		
6. Distance from local rooms, risk	-0.21	0.48	-.30	.09	-.11	-.18	-.04	
7. Location ^a	1.50		-.28	-.15	.33	.80**	-.65**	-.57

^a New York = 1, Tokyo = 2.

* $p < .05$

** $p < .01$

such practices from home ($r = -.65$, $p < .01$); however, location was unrelated to microcontrols. Among the foreign trading rooms in Tokyo, local isomorphism in market control was low and imported practices were high. This finding has considerable face validity, for it is the foreign firms in Tokyo that have been introducing market control practices such as performance-linked compensation into the Japanese foreign exchange trading industry. The direction of the relationships in microcontrols is just the opposite, with foreign rooms in Tokyo showing greater distance from their home rooms, though this relationship is not significant.

Table 4 shows the results of regression analyses using both the absolute values of distance from local and home practices (the measures of isomorphism and firm-specific advantage, respectively) and the signed directional measures.

Results on the absolute measures suggest that the most important finding is that local isomorphism and imported firm-specific advantage have different effects on the liability of foreignness for the two sets of organizational practices. For microcontrols, foreign trading rooms that are distant from local practice show less evidence of the liability of foreignness (they perform better), but this is not true of market control. Previous studies have established that local isomorphism varies across organizational practices (Rosenzweig & Nohria, 1994; Zaheer, 1992). This study attempted to take those findings a step further by relating the extent of local isomorphism and

TABLE 4
Results of Regression Analyses for Liability of Foreignness

Variables	Absolute Distances		Signed Distances	
	Microcontrols	Market Controls	Microcontrols	Market Controls
Distance from local practice	-0.47†	1.01	0.79†	-2.24†
Distance from home practice	-0.08	0.03	-0.19	2.06*
Distance from local rooms, risk	-0.67*	-1.08*	-0.71*	-0.59*
Location ^a	-0.71*	-1.68*	-0.03	2.90†
R ²	0.61	0.64	0.60	0.72
Adjusted R ²	0.39	0.44	0.37	0.56
F	2.78	3.15	2.63	4.49
p	0.11	0.09	0.13	0.04

^a New York = 1, Tokyo = 2.

† $p < .10$

* $p < .05$

imported firm-specific advantage to the difference in performance between local and foreign subunits.

In results for the signed difference measures, the differing effects on the liability of foreignness of market controls and of microcontrols is more marked. The higher the extent of market control compared to local norms, the lower a trading room's liability of foreignness. Thus, whether a trading room is in New York or in Tokyo, strong market-based controls relative to the local average are likely to lead to better performance. The opposite appears to be the case with microcontrols, whose extensive use appears to depress performance.

As for imported firm-specific advantage, the closeness (the absolute distance) to home practices does not have a significant relationship to the liability of foreignness for bureaucratic or for market control, but the direction in which the extent of market control differs from practices at home does have an effect: the higher the extent of market control in a focal unit compared to practices at home, the greater the liability of foreignness.

The combination of that finding with the earlier finding, that high market control compared to local practice is linked to better performance, has some very subtle implications regarding firm-specific advantage. Although it is clear that high use of market-based control relative to local practice enhances performance, subunits of firms whose home trading rooms do not use high levels of market control (and whose foreign rooms have higher levels of market control than their counterparts at home) suffer in performance. This result may occur because the firms lack the internal expertise needed to implement market controls. This finding reinforces the idea that firms find it difficult to implement practices with which they are unfamiliar and that

their administrative heritage can thus facilitate or constrain their performance (Bartlett & Ghoshal, 1989). It also supports the idea that the mimicking of organizational routines across firms is an imperfect process, but that "a firm with an established routine possesses resources on which it can draw very helpfully in the difficult task of attempting to apply that routine on a larger scale" (Nelson & Winter, 1982: 119). In other words, for a multinational enterprise trying to establish organizational routines (such as market controls) in a subsidiary, experience with those routines in the home office can provide significant firm-specific advantage. In contrast, attempting to copy the practices of efficient local organizations in areas in which the home office has no expertise may depress performance at the subunit level.

Follow-up interviews with the heads of some of the Japanese trading rooms in New York and in Tokyo further supported this finding. Almost without exception, the heads of these rooms (all Japanese nationals) felt that market-based controls could help improve performance among their traders, given the nature of trading, and some of them were trying to implement performance-based compensation plans, particularly in their New York offices. However, the lack of expertise in the parent banks in this area appeared to hinder their efforts to implement effective plans, and some of them mentioned their continuing struggles and experimentation with different types of performance-based plans.

Specific examples of foreign rooms that were high and low performers will illustrate some of the issues raised. Most of the Japanese trading rooms in New York attempted to differentiate some of their organizational practices from those of the local rooms by being even more bureaucratic than their Tokyo siblings, while still attempting to copy local New York practices in market control; the extent of market control in these rooms was, however, lower than that of the average Western bank in New York. But the worst-performing Japanese trading room in New York was less differentiated from the local rooms on bureaucratic control than the other New York-based Japanese trading rooms, and in trying to copy local practices, it ended up more market-oriented in its control than the average Western bank in New York. This attempt to outdo the locals in what they were good at was clearly not working for this trading room, and perhaps in the process, it lost distinctive organizational competence that might have been available to it as a result of its administrative heritage.

In contrast, the two best-performing Western trading rooms in Tokyo (which, incidentally, were the best-performing foreign rooms in the sample) were both more driven by market control than even their siblings at home in New York, thus differentiating themselves substantially from the local rooms in Tokyo. One of the two was also lower on bureaucratic controls (it had no limits or rule-based controls at all) than its sibling in New York and substantially lower on bureaucratic controls than the local rooms in Tokyo, and the other was slightly more bureaucratic than its home-based sibling in New York, while still significantly less bureaucratic than the average Japanese trading room in Tokyo.

IMPLICATIONS

The reported results imply that, when the major source of firm-specific advantage lies in organizational capabilities, foreign subunits may be better off sticking with routines imported from home than attempting to completely mimic local practices with which their parent organizations have little experience. This result supports the role of administrative heritage in providing competitive advantage to multinational subunits (Bartlett & Ghoshal, 1989) and offers evidence of the difficulty firms face in copying organizational routines from other firms (Lippman & Rumelt, 1982; Nelson & Winter, 1982).

Although the results generally support the role of firm-specific advantage as embodied in imported organizational practices over local isomorphism as an effective way for MNE subunits to overcome the liability of foreignness, this finding needs to be interpreted with caution. In particular, it is possible that in industries in which firm-specific advantage is embodied in technology, brand name, scale, or some other resource, rather than in organizational capabilities, local isomorphism in organizational practices may not hurt and may even help subunit performance.

Overall, the influence of isomorphism and of firm-specific advantage on the organizational practices of multinational subunits as they try to overcome their liability of foreignness is complex and often practice-dependent. Certain practices—for example, the formal structure of a trading room—are globally isomorphic, driven by practicality and efficiency considerations: any caller from anywhere in the world wanting to trade can ask for the dollar-mark trading desk and be assured that there will be one. Deviation from such global norms would likely be a source of competitive disadvantage as such a structure would ignore the demands of the global environment (Lawrence & Lorsch, 1967). Again, certain practices may be isomorphic with those of the local environment, but not because of the regulatory influences of coercive isomorphism, or because of the professional norms of normative isomorphism, or because of deliberate mimetic behavior, but because of economic considerations alone. For instance, even those Western trading rooms in Tokyo whose home offices in New York have island layouts have little choice but to adopt a tightly packed, straight-line layout, given the high price of real estate in the downtown Ohtemachi district of Tokyo. Some theorists, notably Westney (1988, 1993), have begun to deal with some of the complexity in the issue of isomorphism in multinational subunits by discussing the pressures for isomorphism from the multiple “organizational fields” (DiMaggio & Powell, 1983) to which a multinational subunit belongs.

The results of this study also suggest a different way of looking at the issue of integration versus responsiveness (Pralhad & Doz, 1987) for different elements of value-adding activity in multinational enterprises and may offer a way to integrate the theory of multinational enterprise (Buckley & Casson, 1976; Dunning, 1977; Hymer, 1976) with theories of multinational strategy and organization (Bartlett & Ghoshal, 1989; Prahalad & Doz, 1987).

For instance, one could speculate that value-adding activities that provide a multinational corporation with its firm-specific advantage are best carried out in a globally integrated manner (whether the integration happens through centralization or through coordination or through the systematic replication of the source of the advantage across all of the MNE's subunits) but that other value-adding activities, those in which the multinational has no particular advantage over local firms (or even faces a disadvantage), are best left to the discretion of the subunit. Of course, an MNE may have different advantages over its competitors in various markets, a factor that shifts the choice from the simple one of whether a particular activity should be managed in an integrated or responsive fashion, to the more complex issue of the transnational management (Bartlett & Ghoshal, 1989) of networks of subunits. Perhaps groups of subunits that share similar advantages over their competitors could be managed as an integrated cluster. Cross-subunit learning could be encouraged if a particular subunit develops expertise that may be valuable for another subunit facing a different type of competitor in another local market. If, for example, the Japanese trading rooms in New York gradually became more adept in implementing market controls, they might be in a position to transfer their skill in this area to their sister rooms in say, France, where such skill might provide a competitive advantage over French trading rooms.

This study suggests several possible directions for future research. The issue of the liability of foreignness itself opens up a range of possible research questions and suggests a need for both longitudinal and cross-sectional empirical work in different industries with different types of firms. How does the liability of foreignness behave in different industries and over time? As a foreign firm gains experience in a particular location, does its liability of foreignness decline? As industries globalize, does foreignness continue to carry costs? What aspect of foreignness matters most: a unit's ownership, the location of its head office, or the perception that its parent is foreign? Does variation in the legitimacy of foreign firms in different countries influence the liability of foreignness?

The study also suggests a need to empirically compare strategic choice-based theories of competitive advantage to institutional theories, even in nonforeign situations. Further, researchers need to understand what influences successful intra- and interfirm replication of organizational practices.

CONCLUSIONS

This study established that a liability of foreignness exists in a competitive industry, foreign exchange trading, and examined whether local isomorphism or imported capabilities better explained the difference in the profitability of local and foreign trading rooms in international banks. The results suggest that firm-specific advantage, as embodied in imported organizational practices, may be a more effective way for multinational enterprises' subunits to overcome the liability of foreignness than imitation of

local practices. Although local isomorphism was related to differences in profitability, the relationship was not always in the direction predicted by institutional theory. For example, greater distances from local practice in the area of market controls were related to better performance. Further, the effect of imitation of local practices on the liability of foreignness varied by practice. It became apparent in this in-depth study of one industry that a multinational subunit trying to overcome its liability of foreignness is likely to be drawn toward models both from its local and its home environment in complex and subtle ways, with its administrative heritage influencing the effectiveness with which it can implement certain organizational practices overseas. The study also suggested a way of integrating the theory of multinational enterprise with theories of international strategy and organization.

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Srilata Zaheer received her Ph.D. degree from the Sloan School of Management at the Massachusetts Institute of Technology and is currently an assistant professor in the Carlson School of Management at the University of Minnesota. Her research interests include the organizational capabilities and liabilities of international firms and risk management processes in global financial service firms.