Determinants of local responsiveness: perspectives from foreign subsidiaries in an emerging market
Yadong Luo

Journal of Management 2001; 27; 451
DOI: 10.1177/014920630102700404

The online version of this article can be found at:
http://jom.sagepub.com/cgi/content/abstract/27/4/451
Determinants of local responsiveness: perspectives from foreign subsidiaries in an emerging market

Yadong Luo*

Department of Management, School of Business Administration, University of Miami, 414 Jenkins Building, Coral Gables, FL 33124-9145, USA

Received 1 October 1999; received in revised form 3 June 2000; accepted 27 September 2000

Abstract

This study examines various determinants of local responsiveness as perceived by MNE subsidiary managers in a dynamic environment. It proposes and validates three levels of factors affecting responsiveness, including environmental, structural, and organizational. Analysis of data containing 168 MNE subsidiaries in the People’s Republic of China suggests that environmental complexity and business culture peculiarity heighten local responsiveness. Structural factors such as competition intensity, demand heterogeneity, and component localization elevate local responsiveness. A subsidiary’s local market orientation and the strength of its established network with the business community and governmental agencies also propel such responsiveness. Finally, there is a stronger relationship between environmental and industrial factors and responsiveness for firms seeking local market expansion than for those pursuing export growth. © 2001 Elsevier Science Inc. All rights reserved.

1. Introduction

An MNE consists of a group of geographically dispersed subsidiaries with a wide range of goals. Given the increasing globalization of the competitive environment, the dual imperatives of global integration and local responsiveness are becoming more critical than ever before for the survival and growth of MNEs (Bartlett & Ghoshal, 1989; Doz & Prahalad, 1991; Kobrin, 1991; Roth & Morrison, 1991). Global integration concerns the coordination of activities across countries in an attempt to build efficient operations networks and to take maximum advantage of similarities across locations. In contrast, local responsiveness con-
cerns the attempt to respond to specific needs within a variety of host countries. Foreign subunits must be differentiated enough to successfully confront cultures, markets, and business practices that contrast markedly with those of the home country, but this flexibility must be accommodated within a structure that will provide maximum contribution to corporate performance (Jarillo & Martinez, 1990; Prahalad & Doz, 1987; Roth, Schweiger & Morrison, 1991). Thus, an asymmetrical treatment of various subsidiaries is necessary for coordinating worldwide businesses within an intraorganizational network (Doz & Prahalad, 1991; Prahalad & Doz, 1987).

Although global integration and local responsiveness can be inversely related, their underlying determinants are not necessarily homogeneous (Doz & Prahalad, 1991). While global integration is primarily determined by the need for internalization from the perspective of corporate headquarters, local responsiveness is mainly influenced by situational contingencies at the subunit level (Ghoshal & Nohria, 1989). Perceptions of these contingencies may also differ between subsidiary managers overseas and parental managers in a head office. In balancing global integration with local responsiveness, MNE headquarters must be sensitive to what local managers think about indigenous contingencies in a specific environment because the managers are in a better position to screen and appraise local dynamics and impediments (Birkinshaw, 1997).

The global integration-local responsiveness (I-R) paradigm (Doz & Prahalad, 1991; Prahalad, 1975; Prahalad & Doz, 1987) has proven to be a robust framework for describing and analyzing MNE strategies at the both corporate and subsidiary levels. This has been empirically validated by Jarillo and Martinez (1990), Johnson (1995), Roth and Morrison (1991), and Taggart (1998), among others. These empirical studies verify that global integration and local responsiveness are two salient dimensions articulating types of international strategies or strategic roles of subsidiaries. Important determinants underlying global integration and local responsiveness still need to be understood (Bartlett & Ghoshal, 1989). Responding to this call, Kobrin (1991) examined structural determinants of global integration, finding that technological intensity, advertising intensity, and transnationality were important forces driving global integration. Birkinshaw, Morrison and Hulland (1995) recently observed that market demand, national advantage, and competitive actions all made a significant impact on the degree of global integration. Little research has yet been undertaken to probe determinants of local responsiveness. Johnson (1995) concludes that the cluster of factors which affect local responsiveness deserves further attention because it is more sophisticated than those influencing either global integration or multifocal groups are. The assessment of these factors is a prerequisite for MNEs making decisions about resource dispersal, strategic control, goal setting, and power delegation for a focal overseas subsidiary (Doz & Prahalad, 1981; Gupta & Govindarajan, 1991; Yip, 1995).

Thus, this study aims to diagnose major determinants of local responsiveness as perceived by senior managers of foreign subsidiaries. We do not mean to imply that MNEs should maintain high local responsiveness nor that local responsiveness should be more important than global integration. The degree of this integration or responsiveness is a firm-specific issue depending upon an MNE’s contextual contingencies and organizational dynamics. What spurs our research is the necessity to find major factors affecting the degree of local responsiveness. To increase the robustness of our investigation and provide some implica-
tions for MNEs active in new foreign markets, we examine this issue within the context of an emerging market (P. R. China). Emerging markets are promising (rapid growth) but volatile (environmental and industrial uncertainty) countries using economic liberalization as their central engine of growth. A dynamic environment provides a rich testing ground for analyzing factors behind local responsiveness because such responsiveness is largely derived from the diversity, uncertainty, and complexity of the contextual environment (Ghoshal & Nohria, 1989; Johnson, 1995).

2. Hypotheses development

The I-R paradigm suggests that participants in global markets develop competitive postures for both global integration and local responsiveness. These two dimensions represent two salient imperatives that simultaneously confront a business competing internationally (Prahalad & Doz, 1987). MNEs can choose to emphasize one dimension over another or to compete in both dimensions, resulting in the following three basic strategies: integrated (global), multifocal (transnational), or locally responsive (multidomestic) (Prahalad & Doz, 1987; Roth & Morrison, 1991). Firms that perceive a high level of pressure to integrate employ the strategy of global integration. Globally integrated businesses link activities across nations in an attempt to minimize overall costs, avoid various taxes, or maximize income. Locally responsive businesses perceive pressures to respond strategically to local needs. Multifocal businesses perceive the need to respond simultaneously to pressures both for integration and responsiveness. In either case, an appropriate assessment of required local responsiveness is a precondition for subsequent midrange arrangements balancing the two dimensions (Bartlett & Ghoshal, 1989; Doz & Prahalad, 1991).

Allowing foreign subsidiaries the necessary flexibility to adapt to their particular environment while maintaining a system of integration and internalization enables MNEs to benefit from both location-specific advantages and competitive advantages (Bartlett & Ghoshal, 1989; Ghoshal, 1987). Location-specific advantages are secured through exploiting differences in factor, capital, and product markets or governmental policies among countries. Competitive advantages are developed through international economies of scale and scope and via organizational learning from various national markets. Operational flexibility serves as leverage for adjusting the degree of integration or responsiveness (Kogut, 1985). Local responsiveness often stems from the complexity and dynamism of market conditions as well as of the sociopolitical and macroeconomic environments in a host country (Morrison & Roth, 1992). Foreign companies must respond to diverse consumer tastes, distribution constraints, different business cultures, and changes in governmental regulations (Golden, 1992; Roth & Morrison, 1991).

Maintaining necessary local responsiveness helps maximize subsidiary initiative and the proactive pursuit of new business opportunities in a manner consistent with the MNE’s strategic goals (Birkinshaw, 1996). It motivates subsidiary managers to establish sustained, solid relationships with indigenous customers, suppliers, distributors, competitors, and governmental authorities, which in turn creates more competitive opportunities or extenuates contextual hazards for the subsidiary as well as its parent firm (Ghoshal & Nohria, 1989).
When product differentiation and customer responsiveness are required to gain a local competitive advantage, local responsiveness becomes part of an MNE’s organizational system for stimulating business success (Porter, 1990). To enhance economic efficiency from location advantages, factor endowments, and demand opportunities, local responsiveness is necessary (Dunning, 1981; Porter, 1990). It is even more critical to know what factors determine this responsiveness as such knowledge serves as an *ex ante* foundation bolstering formulation and implementation of appropriate corporate and business-level strategies in an international setting (Ghoshal, 1987; Porter, 1990).

This study argues that major determinants of local responsiveness in a dynamic environment can be classified into three categories: national environmental factors within a host country, industrial structural factors, and organizational factors. The national environment within a host country can be perceived along two dimensions: the source of impact (e.g., macroeconomic, regulatory, and socio-political) and the nature of impact (e.g., volatility and complexity) (Miller, 1992). The combination of these two dimensions constitutes a societal profile of the institutional environment facing an MNE subunit in a host country (Sorge, 1991). Contextual impediments can hinder dissemination of information and diffusion of technological and organizational skills within an integrated, cross-border network (Doz & Prahalad, 1991; Mueller, 1994; Sorge, 1991). These impediments increase liability of foreignness and adaptation costs (Dunning, 1981). High local responsiveness is then necessary if an MNE attempts to maintain a strong and sustainable competitive position in a host country (Ghoshal & Nohria, 1989; Golden, 1992).

Industrial structural imperfections in foreign markets not only make foreign direct investment preferable to trade or licensing but also determine the relative attractiveness of some host countries over others or the home country itself (Dunning, 1981). This structure reflects the dynamics of an industry’s competition, demand situations, and industrial policies made by a host government. To achieve economic potential from such imperfections, however, MNEs need to employ strategies that align properly with the structural attributes of the host industry. According to industrial organizational economics, an industry’s structural forces determine the conduct, behavior, and strategy of firms in that industry (Scherer & Ross, 1990). The degree of local responsiveness is therefore influenced by structural characteristics (Chang & Singh, 2000). Birkinshaw et al. (1995) observed a significant linkage between such structural forces as economy of scale or market demand standardization and a global integration strategy. Kobrin (1991) demonstrates the critical effect of an industry’s technological or advertising intensity on the degree of global integration. Johansson and Yip (1994) validate the notion that market and cost drivers among structural attributes are consistently associated with the level of global strategy. Based on these studies and as a point of departure, the present study suggests that competition intensity and demand heterogeneity in a host market affect the product differentiation and customer responsiveness needed to achieve a competitive position, which in turn influences local responsiveness. In a dynamic, emerging market, component localization may also be an important structural factor because governmental requirements often enforce localization.

The neo-classical perspective of industrial organization economics asserts that firms in the same environment behave heterogeneously because of idiosyncratic capacities and objectives (McGee, 1988). While previous studies emphasize contextual or structural factors as pre-
dictors of global integration strategy (e.g., Kobrin, 1991; Yip, 1995), this study argues that organizational dynamics such as international experience and market orientation additionally explain variations in local responsiveness. Without taking this into consideration, one may mistakenly assume that foreign subsidiaries in the same environment will be isomorphic with one another at the level of local responsiveness. This level is firm specific, attributable not only to a firm’s specific environment but also to its organizational dynamics, including its adaptability to contextual hazards. Accumulated experience and having an established business network with indigenous organizations affect this adaptability in an emerging market (Burt, 1997; Erramilli, 1991). The constant interplay between environmental and organizational factors and ways of deploying strategic resources in a dynamic environment are critical to rent generation and firm growth (Prahalad & Hamel, 1990). As a major manifestation of the interaction effect, a subsidiary’s market orientation (local vs. export) may also influence the extent to which it must be locally responsive. Figure 1 schematically highlights proposed determinants and their hypothesized relationships with local responsiveness, which are detailed below.

2.1. Environmental factors within a host country

Within an emerging market such as China, firms in different regions often face various environmental complexities and business practice specificity (Shenkar & Von Glinow, 1994). Environmental complexity involves the diversity (e.g., scope of economic policies,
breadth of governmental authorities, segments of consumers) and heterogeneity (e.g., distinctions among economic policies, incongruence of policies by various governments, deviations of consumption behavior among each segment of consumers) of various factors or issues in each environmental segment (e.g., macroeconomic, political, and social-cultural) that impacts firm operations. This complexity is not homogenous across locations because different regions have varying levels of economic development, governmental authority, policy treatment, and openness to the outside world. Naughton (1995) argues that emerging economies such as China have a highly complex economic structure and complex institutional environment during structural transformation. While the radical approach of privatization (e.g., the one used by the Czech Republic and Russia) creates environmental volatility, the gradual approach, notably used by China, adds more complexities to the environment (Rawski, 1994). The gradual approach proceeds within the framework in which different policies are imposed to different firms (Naughton, 1995). This complexity represents a prominent difference between advanced market economies and transitional ones. Firms, whether local or foreign, are hardly able to avoid the impact of such dynamics. This requires a superior ability to respond quickly to environmental changes if a firm seeks economic benefits from vast market demand or national advantages such as cheaper labor. Luo and Peng (1999) and Xin and Pearce (1996) also suggest that many emerging markets, notably China, are shaped by unique business and commercial practice ascribed to historical, social, and economic reasons. This contingency heightens the liability of foreignness and requires more adaptation if a foreign business seeks long-term growth. Furthermore, cultural distance between home and host countries may influence the strategic behavior of foreign subsidiaries (Erramilli, 1991). The distance between the home and host country in terms of cultural values and social behavior may influence an MNE subsidiary’s ability to respond and adapt to environmental changes (Hofstede, 1980). We therefore argue that environmental complexity, business practice specificity, and cultural distance between home and host countries are likely to be important environmental contingencies that will affect local responsiveness.

2.1.1. Environmental complexity

A complex environment elevates the transaction costs of doing business abroad as well as the overall difficulty of integrating globally (Prahalad, 1975). Unlike contractual risks that result from the exposure of transaction-specific assets, which can be neutralized or mitigated through internalization of intermediate markets (Dunning, 1981), uncertainty and risks embodied in the complex environment are usually beyond the control of the firm (Root, 1988). When a firm confronts a complex environment, it faces greater difficulties in making strategic decisions and deploying productive resources (Ghoshal, 1987). Correspondingly, the degree of global integration is generally low in a heterogeneous indigenous context (Bartlett & Ghoshal, 1989). Without local responsiveness, environmental complexity may narrow a firm’s economy of scope, rule out certain business potentials, and increase information costs. Asset specificity also increases as such complexity grows, leading to greater transactional costs and contractual uncertainty (Williamson, 1985). Under these circumstances, high adaptability stimulates a subsidiary’s dynamic learning capability, ensures the evolutionary development of sustainable advantages (Collis, 1991), generates new
bundles of resources (Tallman, 1991), and reduces the liability of foreignness and transaction costs (Dunning, 1981). Thus:

**H1**: An MNE subsidiary’s local responsiveness is positively associated with environmental complexity

2.1.2. Business practice specificity

Business and commercial practices in a dynamic environment (e.g., unique terms of payment, higher price sensitivity, personnel direct marketing, preference of doing business on the basis of family-related or clan-like connections in China) vary from those permeating in advanced market economies. Understanding the particular business practices of a host market is country-specific knowledge that can reduce an MNE’s liability of foreignness and promote its financial efficiency and competitive position (Dunning, 1981). When an MNE expands into a new territory with a unique business practice, localized learning is essential (Tallman, 1991). This learning heightens a firm’s dynamic capability and explains performance variations among different MNEs in the same foreign market (Collis, 1991). Thus, when a subsidiary operates in an unfamiliar business context, it must be adaptive and responsive. This will facilitate the acquisition of country-specific knowledge and promote the firm’s corporate image. Without such knowledge, high responsiveness will lead to operational instabilities in a dynamic setting. Configuring an MNE’s organizationally embedded skills with acquired host country-specific knowledge is a primary prerequisite for earning abnormal and sustained profits in a dynamic market (Porter, 1990). As a result, operating in a dynamic market with a peculiar business and commercial practice requires high responsiveness. Thus:

**H2**: An MNE subsidiary’s local responsiveness is positively associated with business practice specificity

2.1.3. Cultural distance

Although they are related, cultural distance between home and host countries is a different construct from commercial practice specificity. Cultural distance concerns the differences in uncertainty avoidance, individuality, power distance, and masculinity-femininity between the two countries (Hofstede, 1980) and, thus, goes beyond commercial practice peculiarity of a particular society (Shenkar & Von Glinow, 1994). Moreover, business practice specificity affects all MNEs in a host country no matter how great the cultural distance is between the home- and host countries. Regardless of the country of origin, foreign firms need to comply with local commercial standards. Cultural distance implies differences in managerial values, mind-sets, and norms. Although firms may want to be more responsive to the market where there is greater cultural distance, the presence of barriers arising from cultural distance is likely to have a greater impact on the actual level of local responsiveness in a complex and volatile environment such as China. Transferring competencies and capabilities is more difficult when cultural barriers are greater (Kogut & Singh, 1988). To win a competition in a culturally different country is also more difficult than in a culturally similar market because competition extends from the essence of products to the appropriateness of corporate values and mind-sets as well (Prahalad & Hamel, 1990). People whose cultural
backgrounds are very different find it hard to communicate, share their experiences, and verify one other’s credibility (Erramilli, 1991). Such a distance also affects levels of transaction difficulty and learning capacity, which in turn will impact the degree of control and performance (Kogut & Singh, 1988). A foreign investor’s cultural distance from the host country should be negatively related to its ability to adapt to the host country’s environment. The evolutionary perspective of MNE theories suggests that the degree of local responsiveness should align with the understanding of local culture (Chang, 1995; Erramilli, 1991). The greater the cultural distance, the lower the responsiveness, *ceteris paribus*. Thus:

**H3**: An MNE subsidiary’s local responsiveness is negatively associated with cultural distance from the host country.

### 2.2. Industrial structural factors

Previous studies have observed the importance of competitive threats, as indicated by technological intensity or advertising intensity, in relation to global integration (e.g., Birkinshaw et al., 1995; Kobrin, 1991). A more recent study by Chang and Singh (2000) suggest that the relative importance of business unit effects such as local responsiveness depends on the industry structure in which the unit participates. We specifically posit that structural factors affecting responsiveness in an emerging market include demand heterogeneity (i.e., how much the market demand and consumer behavior vary across market segments such as region, income, education, or other demographic attributes) and industrial localization requirements by a host government. Each emerging economy is likely to be “multiple emerging markets” because economic development and income levels greatly differ by regions while consumption functions and market demand are heterogeneous among consumers in different segments (Naughton, 1995). This heterogeneity may influence local responsiveness because a foreign subunit needs more resources and autonomy to quickly respond to different groups of local consumers. Moreover, as emerging economies need to protect certain vital or infant industries, their governments often require foreign investors in these industries to procure and utilize local materials and parts. This localization stipulation is particularly relevant to local responsiveness because MNE subunits will be more dependent upon, and vulnerable to, indigenous resources and market forces. In light of the above, the structural forces we examine include not only the perceptual intensity of competition but also demand heterogeneity and content localization.

#### 2.2.1. Competition intensity

When the degree of competition in a host market is high, a foreign firm needs to be more responsive to customer needs and provide better products and superior services (Porter, 1990). Even if a company uses product differentiation or a strategic focus strategy in response to increasing competition, it still must develop innovations to meet the utility functions of various consumers in segmented markets. This requires high local responsiveness. To seize market opportunities while alleviating competitive threats, firms must continuously make resource commitments to local operations and maintain good relationships with buyers, suppliers, distributors, competitors, and governments. This further increases the
level of local responsiveness. For foreign businesses operating in a new but competitive market, adaptation often determines their market power, competitive advantage, and corporate image as perceived by host market businesses and consumers. Local responsiveness may therefore be an increasing function of the degree of competition. Thus:

**H4:** An MNE subsidiary’s local responsiveness is positively associated with competition intensity

2.2.2. Demand heterogeneity

Previous studies have agreed that heterogeneous market demand across nations leads to low integration or high responsiveness (Birkinshaw et al., 1995; Prahalad & Doz, 1987; Yip, 1995). It seems that this notion can also apply to the setting within a nation in which an MNE subsidiary operates. In an economically dynamic and culturally diverse economy, market demand and consumer behavior are likely to vary according to region, income, gender, education, and other demographic attributes. This increases pressure on foreign subsidiaries to be locally responsive if they are seeking firm growth. Roth and Morrison (1990) suggest that having a variety of customers and geographical markets within a national market escalates the level of local responsiveness. A more standardized and less heterogeneous market makes it easier for an MNE to expand throughout the breadth of the market and yield financial and operational synergies from global integration (Bartlett & Ghoshal, 1989; Kim, Hwang, & Burgers, 1993). When heterogeneity increases, however, it will be more difficult as well as less efficient for an MNE to globally deploy rent-generating resources and monitor dispersed operations (Doz & Prahalad, 1991; Yip, 1995). Thus:

**H5:** An MNE subsidiary’s local responsiveness is positively associated with market demand heterogeneity

2.2.3. Content localization

Content or component localization regulated by a host government is a pertinent structural force affecting responsiveness as it institutionally enhances the bargaining power of suppliers, influences competitive opportunities or threats, and affects return on investment (Root, 1988). Many dynamic, emerging economies employ this policy to stimulate economic development, particularly in pillar sectors. As an institutional force, a localization requirement increases pressure on companies to be more locally responsive. This requirement constitutes institutional and normative forces that will increase transaction costs for those firms not adapted to them (Martinez & Dacin, 1999). Not only does it pressure foreign subsidiaries to procure materials and components from local firms, thus institutionally enhancing the competitive threats from supplier bargaining power, but it may also force foreign companies to depend more upon the local product market for sales because of an inability to meet international market standards as a result of poor component quality (Boddewyn & Brewer, 1994). Because contractual force has to yield to the institutional framework of a host government (Root, 1988), localization policies directly and strongly drive up MNE local responsiveness. According to bargaining power theory, MNEs are often in a subordinate position because access to foreign markets or resources are controlled by
political actors in host countries (Boddewyn & Brewer, 1994; Gomes–Casseres, 1990). Thus:

\[ H6: \] An MNE subsidiary’s local responsiveness is positively associated with government instituted component localization

2.3. Firm-specific factors

Each firm has its respective requirements for local responsiveness. MNEs targeting a host market necessitate more responsiveness to preempt emerging opportunities and attenuate competitive threats. Firms emphasizing export markets are less dependent on host country resources, thus requiring less responsiveness. When operating in an emerging market, an MNE’s previous experience with the host country and its established network with the local business community determine its ability to benefit from local responsiveness. Without this ability, local responsiveness is likely to waste firm resources, lose market opportunities, and bear unnecessary economic risks. Thus, the degree of local responsiveness must be configured with the firm’s strategy (i.e., market orientation) and capability (i.e., experience and network).

2.3.1. Market orientation

Market orientation (local vs. export market) has increasingly served as an organizational system that balances global integration and local responsiveness (Doz & Prahalad, 1991). It is also an effective instrument for adjusting a subsidiary’s vulnerability to contextual hazards and bolstering the implementation of an MNE’s strategic goals (Bartlett & Ghoshal, 1989). By manipulating market orientation, an MNE can better monitor foreign operations and maintain organizational control over subunits within an integrated network. Subsidiaries pursuing a local market position inevitably have more interactions with the local business community and host governmental authorities, which demands more local responsiveness. Decentralized responsiveness boosts a subsidiary’s ability to respond quickly to market changes, consumer needs, and regulatory uncertainties, which then help its market expansion in a host economy. By contrast, export-seeking subsidiaries are less dependent on, and thus less vulnerable to the indigenous environment, and thereby require little responsiveness. In fact, a large proportion of these export businesses accrues through intrasubsidiary trade within an MNE network (Kobrin, 1991), which further reduces the necessity for local responsiveness. Thus:

\[ H7: \] An MNE subsidiary’s local responsiveness is positively associated with a local market orientation and negatively associated with an export market orientation

2.3.2. Previous experience

Previous experience about the host market is a critical force that mitigates the liability of foreignness and improves foreign operations (Erramilli, 1991). Its intensity is often positively associated with the familiarity of the external environment and the achievement of high performance, albeit not necessarily in a linear fashion (Luo & Peng, 1999). The Uppsala process model assumes that the lack of such experience is an important obstacle to the
development of international operations and suggests that accumulated knowledge about
country-specific markets, practices, and environments help firms increase indigenous com-
mitment, reduce operational uncertainty, and enhance economic efficiency (Johanson &
Vahlne, 1977). A subsidiary with more experience is more likely to commit resources,
knowledge, and investment to local operations (Chang, 1995). This evolutionary configura-
tion ensures lower financial risks and less operational uncertainties. Without previous
experience, high responsiveness may destabilize the routinization of organizational activities
and endanger organizational evolution and growth (Levinthal, 1991). In a dynamic environ-
ment characterized by distorted information flow, blurred firm boundaries, and limited
protection of intellectual property rights (Luo, 1998), host country experience is a major
determinant of resource contributions, investment size, knowledge commitment, and busi-
ness localization (Pan, 1996). Thus:

H8: An MNE subsidiary’s local responsiveness is positively associated with its previ-

ous experience in this environment

2.3.3. Established network

To gain a competitive advantage in a dynamic environment, it is important to cultivate and
maintain managerial ties with local managers at other firms as well as with governmental
authorities (Xin & Pearce, 1996). Relationship building is a social investment that requires
socialization, commitment, and adaptation (Burt, 1997). Without such ties, local responsi-

iveness will not be able to create any sustained benefits from emerging opportunities. On the
other hand, established connections with local suppliers, distributors, buyers, and competi-
tors facilitate local responsiveness because such a network implies a previous heavy com-
mitment to local stakeholders. Firms making such commitments will be more likely to seek
economic benefits from the host market by utilizing their networks. These firms are able to
benefit more from factor endowments and the comparative advantages of the host country
than those without established business relations are. Thus the former tend to be more active
in local sourcing, production, marketing, and management. Established ties with officials
further stimulate local responsiveness because the firm can benefit from preferential treat-
ment granted by the government, such as access to scarce resources, regulated industries, and
state-owned distribution channels. Thus:

H9: An MNE subsidiary’s local responsiveness is positively associated with having
established ties with managers at other businesses and with government officials

2.3.4. Market orientation as a moderator

The strategy-environment configurations may be influenced by firm-level factors to the
extent that they reflect the level of organizational commitment to the local market (Tallman,
1991). When the subsidiary operates in an essential market for the MNE, the influences of
such a market (environmental and industrial conditions) on subsidiary operations and
parental commitment become particularly strong. If the MNE does not target on local market
participation, but just use the host country as a platform for export, the influences of the host
market conditions will be weaker. In this case, the best firm-level variable (no others seem
necessary) to investigate the moderating effect of firm-level factor on the responsiveness-
environment alignment seems to be market orientation (i.e., local market vs. export market). In other words, the hypothesized linkages between environmental or industrial contingencies and local responsiveness may not necessarily be the same, depending on a focal subsidiary’s market orientation, as graphically illustrated in Fig. 1.

MNEs may either emphasize local market expansion (i.e., benefiting from market demand advantages) or target export growth (i.e., benefiting from factor endowment advantages). Firms with local market orientation are expected to face a greater impact from environmental and industrial forces than those with export market orientation. The former are likely to be more dependent on and more vulnerable to contextual forces and resources in a host country than the latter. When a dependency situation arises, the party relying on external resources will be subject to a greater influence of the party controlling these resources (Pfeffer & Salancik, 1978). Dependence serves as a source of power, making a reliant party unable to control the exchange process of irreplaceable resources (Pfeffer & Salancik, 1978). Thus, environmental and industrial forces exert a more direct, stronger, and more enduring influence on MNEs seeking local market expansion than those pursuing export growth. Therefore, the linkages between environmental and industrial forces and local responsiveness may be stronger for MNEs with a local market orientation than for firms with export orientation. Other firm-level factors such as experience, network, size, and entry mode do not seem to have such a moderating role. Thus:

**H10:** There is a stronger relationship between environmental or industrial factors and local responsiveness for MNEs with host market orientation than for MNEs with export market orientation

3. **Research methods**

3.1. **Analytical setting**

Many emerging economies provide MNEs with both tremendous opportunities and uncertainty. Such economies have recently become major hosts for foreign direct investment (FDI) from the Western world. Facing uncertain situations, MNE headquarters must delegate power to overseas managers to enable them to react and adapt quickly to changes in the local environment, particularly the industrial, macroeconomic, and sociopolitical segments. At the same time, local operations in such economies require immense and varied support and resources from MNE headquarters. Without such contributions, foreign subsidiaries will be quite vulnerable to the risks resulting from complexity, dynamism, and unpredictability in the host environment.

Considering that China is the largest emerging economy in the world, and the biggest host of MNE activities among developing countries, this research chooses it as its analytical context for empirically validating propositions set in a dynamic environment. China has been absorbing enormous foreign investment over the past two decades, with an accumulated amount of $265 billion by the end of 1998. More than U.S.$100 million foreign capital is now invested every day in the country. From a research perspective, the dynamic Chinese
environment offers a rich setting for empirical tests of environmental, structural, and organizational determinants of local responsiveness as perceived by subsidiary managers. Compared with other emerging economies such as Eastern Europe and the former Soviet republics, MNE operations in China have been more sophisticated both in scale and scope, allowing for examination of a diverse range of issues.

3.2. Data collection

A nationwide mail survey of senior foreign managers (general or deputy general managers) in MNE manufacturing subsidiaries in China was undertaken during 1996–1997. In a pilot test, preliminary versions of the questionnaires in both English and Chinese were sent to seven senior foreign managers in Shanghai and Nanjing. They were asked to identify any ambiguities in the terms, concepts, or issues raised. Face-to-face interviews were later conducted. The questionnaire was adjusted based on their comments. The standard back-translation procedure for the Chinese version was followed.

Our sample list was drawn from information in the Directory of Foreign-Invested Industrial Enterprises compiled by MOFTEC, China, in 1996, and the Almanac of China’s Foreign Economic Relations and Trade (1993–1996). We sent both English and Chinese versions of the questionnaire to 500 foreign subsidiaries in China through an independent contractor. The geographical focus was on investments in the Yangtze River Delta (Shanghai, Jiangsu, and Zhejiang) and the Pearl River Delta (Guandong and Fujian). These regions are major hosts of foreign investment in China, representing 61% of the total value of FDI nationwide at the end of 1995. After three rounds of reminders, there were 168 complete responses, including 76 wholly owned subsidiaries and 92 foreign-dominated equity joint ventures. Foreign minority joint ventures were excluded because the dominant position of local partners often changes the MNE’s economic rationale, strategic ability, and resource commitment in its subsidiary operations overseas (Teece, 1983). It is therefore inappropriate to lump foreign minority joint ventures with other foreign subsidiaries when examining local responsiveness.

The industries involved include electronics, telecommunications, garments, fiber products, food processing and beverages, leather, rubber and plastic products, chemical products, medical equipment, pharmaceuticals, electric equipment, and machinery. Major countries of origin of investment include the U.S., HK, Japan, Germany, France, the U.K., Italy, Australia, Canada, Singapore, and South Korea. To provide triangulations with some of the mail survey results and between respondents within the same company, sixteen senior managers in foreign subsidiaries in Jiangsu (two from each) were interviewed semistructurally and asked to identify various factors underlying local responsiveness. The reported results demonstrated a high consistency with their answers on the questionnaires and between the two interviewees from each firm (Gunttman Split-Half Reliability R: 0.77–0.90).

We used the Directory of Foreign-Invested Industrial Enterprises and 22,000 Businesses in P.R.C (published by China International Business Investigation Co. in 1996) to check the nonresponse bias. From these resources we were able to compare some firm attributes between responding and nonresponding firms. The mean difference between respondents and
nonrespondents with respect to the number of employees, length of operations, sales, and net profit was tested using an unpaired $t$ test. The results demonstrated that all $t$ statistics were insignificant. To check the representativeness of the sample, the mean of the project size of the sample firms was compared with those of the population nationwide, using information obtained from the *China Statistical Yearbook* (1996, pp. 424–425). The $t$ test results were insignificant, suggesting no bias from the population in terms of investment size.

In an attempt to check the threat of common method variance, we followed the *post hoc* procedural method suggested by Podsakoff and Organ (1986). In early 1998, we sent the same questionnaires to 29 randomly selected senior managers who had responded in the early round. The correlation analysis of 22 responses exhibited a strong consistency in survey items between the two different periods (all at $p < 0.0001$), suggesting no noticeable variance. In early 2000, we also sent 60 questionnaires (concerning local responsiveness) to marketing managers of firms in Jiangsu who had responded earlier. From 35 collected responses, we found that the two different informants (general vs. marketing manager) of each firm responded in a significantly consistent way to the items of local responsiveness (all correlated at $p < .001$ level). When marketing managers’ responses ($N = 35$) to local responsiveness were substituted for those of general managers, the resulting significance ($p$ values) on the effect of proposed contingencies on local responsiveness remained the same. After completing the *post hoc* procedural method, a statistical remedy was further employed. We conducted Harman’s one-factor test (Harman, 1967) where all variables revealed in the questionnaire were entered into a factor analysis. No single factor emerged in the results, nor was there a general factor that could account for the majority of covariance in these variables. Our exploratory factor analysis also suggested that local responsiveness was loaded in a different factor than environmental and industrial variables.

### 3.3. Variable measurement

Local responsiveness is measured as the average of responses to three questions on a seven-point Likert scale, as indicated in the Appendix. These questions cover how responsive a subsidiary is to environmental changes, strategically, structurally, and overall. Under each question, there are four subitems asking for each respondent’s best assessment of each of four different areas (consumer needs, governmental policies, market conditions, and rivalry). The mean of these subitems was then the score for that question (Cronbach’s $\alpha$: 0.69–0.87). These scores were then aggregated and averaged as the score for the local responsiveness construct. The reliability and unidimensionality of this overall construct were validated by the high level of Cronbach’s $\alpha$ (0.73) and communality estimates ($\geq 0.80$) found from the exploratory factor analysis. Except host country experience, all other questions asked were based on a time frame of the most recent three years.

To measure environmental complexity, the average score of the three environmental components (i.e., macroeconomic, political/legal, and socio-cultural) under each of the paired subdimensions was first computed. Each pair of subdimensions was then averaged to obtain an overall construct of environmental complexity. Likewise, business practice specificity was defined as the mean of a pair of questions involving how the business and commercial practice differs from international standards and how China-specific it is as...
perceived by foreign managers. Previous research suggests that subjective measures by managers concerning the environment are more relevant than archival measures (Venkatraman and Prescott, 1990). The Cronbach’s $\alpha$ coefficients for these two variables range from 0.74 to 0.81, indicating adequate internal consistency. Communality estimates range from 0.82 to 0.93, confirming their dimensionality. The third environmental variable, namely cultural distance, was computed according to the composite index used by Kogut and Singh (1988) and data contained in Hofstede (1980) and Huo and Randall (1991). This index measures the deviation along each of four cultural dimensions identified by Hofstede (1980) (i.e., uncertainty avoidance, individuality, power distance, and masculinity-femininity) from the score of a given focal country for each country. Cultural distance between the country of origin (j) and China ($CD_{j/china}$) is hence calculated as $CD_{j/china} = \frac{1}{4}\sum (I_{ij} - I_{ichina})^2/V_i$ where $I_{ij}$ is the index value for the cultural dimension i of country j, $I_{ichina}$ the index value for the cultural dimension of China, and $V_i$ the variance of the index dimension i.

Industrial structural variables were measured as the mean of a pair of questions concerning competition vigor (existing and potential rivalry), demand heterogeneity (segmentation and diversity), and component localization (indigenousness and dependency). The Cronbach’s coefficients ($\geq 0.70$) and communality estimates ($\geq 0.85$) validated internal consistency and dimensionality, respectively, for these structural constructs containing multiple items. Of firm-specific variables, market orientation is defined as a dummy variable (1 if export oriented, 0 otherwise). Previous experience was measured by the geometric average of the experience diversity (number of projects) and intensity (number of years) in China before the formation of the subsidiary. Business networking was operationalized as a multidimensional construct including personal ties with managers at other firms (buyers, suppliers, distributors, and competitors) and governmental officials from the political government, industrial bureaus, or regulatory or support organizations. Each subdimension was first arithmetically averaged to obtain a score (managerial ties with other firms and with government officials, respectively). These were then further averaged to get a score for business networking. For the overall construct of business networking, its reliability and dimensionality were confirmed by Cronbach’s $\alpha$ (0.77) and communality estimates (0.81–0.90).

3.4. Control variables

This study used wholly foreign-owned and foreign dominant joint ventures as sample subsidiaries. Entry mode choice between wholly owned and dominant ventures may be associated with a subsidiary’s risk propensity, degree of control, or resource commitment (Kogut & Singh, 1988), thus possibly affecting the transaction cost economies inherent in local responsiveness (Teece, 1983). This control variable was defined as a dummy variable (1 if wholly owned; 0 otherwise). Lastly, subsidiary size is controlled for because it has implications for the extent to which an MNE will commit to a host country environment and local market dynamics. This variable was defined as the number of full time employees in an MNE subsidiary.
4. Analysis and results

Table 1 provides descriptive statistics and a Pearson correlation matrix. It shows a significant correlation between most proposed predictors (except local experience and firm size) and the degree of local responsiveness. To assess the influence of various determinants on local responsiveness, a standardized regression analysis was conducted (Table 2). The variance inflation factors (VIF) reject the presence of a serious multicollinearity problem, with the VIF values ranging from 1.03 to 3.61 across the four models in Table 2. Normality was checked using a modified Kolmogorov–Smirnov test. Except for business networking, the results for all other dependent, independent, and control variables (0.05–0.08, \( p > 0.10 \)) justified the validity of the univariate normality assumption. Business networking (0.11, \( p < 0.01 \)) was transformed by taking its logarithm because its distribution was somewhat positively skewed. After transformation, it demonstrated normality.

Table 2 presents the regression results for the effect of environmental factors, structural factors, and organizational factors on local responsiveness within an integrated model. All three groups together demonstrate a high statistical significance in explaining variations in local responsiveness \( (R^2 = 0.65) \). Among the predictor variables, environmental complexity has a significantly positive impact on local responsiveness \( (p < 0.001) \). A complex national environment requires high local adaptations responding to heterogeneous needs from different environmental components. Also corroborating our proposition, the specificity of business standards and commercial practices in a host country is significantly and positively associated with local responsiveness \( (p < 0.10) \). While this specificity is positively related to responsiveness, cultural distance is found to be negatively linked to responsiveness \( (p < 0.001) \). These results lend support to H1–H3.

The regression analysis suggests that all three structural factors are important to local responsiveness. First, the degree of competition in a host market is strongly and positively associated with the degree of local responsiveness after controlling for all other factors \( (p < 0.001) \). High competition necessitates product differentiation, customer responsiveness, and marketing adaptation, which in turn escalate the demand for local responsiveness. Thus, H4 is supported. Second, demand heterogeneity within a host market is fundamental and positive in relation to local responsiveness \( (p < 0.001) \). Heterogeneity creates a complex, diverse market demand environment and increases the competitive threat from heightened bargaining power of buyers. No matter whether a company uses product differentiation or a focused competitive strategy, local responsiveness is necessary. H5 is supported. Third, component localization has a critical and positive influence on local responsiveness when controlling for other factors \( (p < 0.01) \). This structural variable institutionally forces MNE subsidiaries to be more dependent upon local suppliers, which then externally propels their local responsiveness. This leads to an acceptance of H6.

Of firm-specific factors, market orientation has a moderately strong influence on local responsiveness \( (p < 0.10) \). The negative coefficient implies that an export market orientation involves low local responsiveness whereas a host market orientation is associated with high local responsiveness. Thereby, H7 is supported. In contrast to our hypothesis, however, host country experience is not found to be an important determinant of local responsiveness. This may suggest that, when operating in a very dynamic, emerging market such as China,
Table 1
Descriptive statistics and Pearson correlation matrix (N = 168)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>α*</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Local responsiveness</td>
<td>3.83</td>
<td>1.03</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Environmental complexity</td>
<td>3.50</td>
<td>1.98</td>
<td>.81</td>
<td>.55***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Business practice</td>
<td>4.84</td>
<td>0.87</td>
<td>.74</td>
<td>.24**</td>
<td>.32***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Cultural distance</td>
<td>5.66</td>
<td>1.05</td>
<td></td>
<td>-.29***</td>
<td>.01</td>
<td>.16*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Competition intensity</td>
<td>3.37</td>
<td>0.94</td>
<td>.78</td>
<td>.54***</td>
<td>-.13</td>
<td>.12</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Demand heterogeneity</td>
<td>4.48</td>
<td>1.89</td>
<td>.86</td>
<td>.51***</td>
<td>.23**</td>
<td>.22**</td>
<td>.10</td>
<td>.44***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Component localization</td>
<td>3.80</td>
<td>1.24</td>
<td>.70</td>
<td>.41***</td>
<td>.23**</td>
<td>.07</td>
<td>.07</td>
<td>.30***</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Market orientation</td>
<td>0.21</td>
<td>0.40</td>
<td></td>
<td>-.20**</td>
<td>-.01</td>
<td>-.08</td>
<td>-.32***</td>
<td>.09</td>
<td>.18*</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Previous experience</td>
<td>2.09</td>
<td>1.04</td>
<td></td>
<td>-.05</td>
<td>.08</td>
<td>.07</td>
<td>.17*</td>
<td>-.08</td>
<td>-.11</td>
<td>-.13</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Established network</td>
<td>3.20</td>
<td>0.92</td>
<td>.77</td>
<td>.53***</td>
<td>.32***</td>
<td>.29***</td>
<td>-.25***</td>
<td>.17*</td>
<td>.12</td>
<td>-.29***</td>
<td>.11</td>
<td>-.20**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Entry mode</td>
<td>0.45</td>
<td>0.50</td>
<td></td>
<td>-.16*</td>
<td>.08</td>
<td>-.19*</td>
<td>.04</td>
<td>.14</td>
<td>.02</td>
<td>-.15*</td>
<td>.18*</td>
<td>.07</td>
<td>-.22**</td>
<td></td>
</tr>
<tr>
<td>12 Subsidiary size</td>
<td>319</td>
<td>39.5</td>
<td></td>
<td>-.12</td>
<td>-.09</td>
<td>-.14</td>
<td>.02</td>
<td>.08</td>
<td>.04</td>
<td>-.09</td>
<td>.04</td>
<td>-.09</td>
<td>-.03</td>
<td>-.02</td>
</tr>
</tbody>
</table>

* Cronbach’s alpha.
* p < 0.05.
** p < 0.01.
*** p < 0.001.
required local responsiveness is driven by other external or internal factors regardless of how much experience the foreign firm has accumulated. H8 is hence rejected. Lastly, the regression test observed a significant linkage between business networking and local responsiveness \( (p < 0.01) \). Specifically, the level of established personal ties with managers at local businesses and with officials in the host government facilitates local responsiveness. This evidence lends support to H9.

As Table 2 shows, local responsiveness is also negatively related to the wholly owned entry mode and positively linked to the joint venture form. This finding complies with the notion in MNE theory that a full ownership mode is a crucial mechanism for internalizing global businesses. The wholly owned mode enables the investor to better control subsidiary activities, and hence spurs internalization of dispersed businesses within an integrated network (Ghoshal & Nohria, 1989).

We hypothesized earlier that the effect of environmental and industrial contingencies on responsiveness may be stronger for firms seeking local market share than for those focusing on export market (H10), as the former are generally more dependent on the host country environment than the latter. To test this hypothesis, a moderated regression analysis (MRA)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Local Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment factors within a host country</td>
<td></td>
</tr>
<tr>
<td>Environmental complexity</td>
<td>0.32***</td>
</tr>
<tr>
<td>Business practice specificity</td>
<td>0.11†</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>-0.39***</td>
</tr>
<tr>
<td>Industry structural factors</td>
<td></td>
</tr>
<tr>
<td>Competition intensity</td>
<td>0.43***</td>
</tr>
<tr>
<td>Demand heterogeneity</td>
<td>0.25***</td>
</tr>
<tr>
<td>Component localization</td>
<td>0.21**</td>
</tr>
<tr>
<td>Firm-specific factors</td>
<td></td>
</tr>
<tr>
<td>Market orientation</td>
<td>-0.10†</td>
</tr>
<tr>
<td>Previous experience</td>
<td>-0.07</td>
</tr>
<tr>
<td>Established network</td>
<td>0.22**</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
</tr>
<tr>
<td>Entry mode</td>
<td>-0.12*</td>
</tr>
<tr>
<td>Subsidiary size</td>
<td>-0.08</td>
</tr>
<tr>
<td>Model F</td>
<td>26.83</td>
</tr>
<tr>
<td>( p &lt; .10 )</td>
<td>0.001</td>
</tr>
<tr>
<td>Adjusted ( R^2 )</td>
<td>0.65</td>
</tr>
<tr>
<td>N</td>
<td>168</td>
</tr>
</tbody>
</table>

\( #a \) The entries in the table are the standardized \( \beta \)s and their significance levels; \( p < .10 \) is considered significant given that China is an extremely complex and unstable setting.
\( #b \) A dummy variable with 1 if export-oriented, 0 otherwise (local market-oriented);
\( #c \) A dummy variable with 1 if wholly owned, 0 otherwise (joint venture);
\( † \) \( p < .10 \).
\( * \) \( p < .05 \).
\( ** \) \( p < .01 \).
\( *** \) \( p < .001 \).
was conducted, after having used the centering technique for such variables that their
bivariate interactions were examined in a same model (Aiken & West, 1991). In Table 3,
model 1 is the first step (main effect) and model 2 is the second step (expanded effect after
including interactions) to test the interactions between market orientation and environmental
variables. Similarly, model 3 is the first step and model 4 is the second step to examine the
interaction effects between market orientation and industrial variables. The separation of
these two groups of interactions (environmental vs. industrial) from different equations can
help us to assess their increased statistical power respectively and to mitigate the effect of the

<table>
<thead>
<tr>
<th></th>
<th>Local responsiveness</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.08</td>
<td>0.11</td>
<td>-0.10</td>
<td>0.20**</td>
</tr>
<tr>
<td>Market orientation</td>
<td>-0.12†</td>
<td>-0.13†</td>
<td>-0.15*</td>
<td>-0.12†</td>
</tr>
<tr>
<td>Environmental/industrial factors</td>
<td>0.18**</td>
<td>-0.16**</td>
<td>0.36***</td>
<td>0.43***</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>0.18**</td>
<td>-0.16**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental complexity</td>
<td>0.36***</td>
<td>0.43***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business culture specificity</td>
<td>0.16*</td>
<td>0.18*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition intensity</td>
<td>0.30***</td>
<td>0.50***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand heterogeneity</td>
<td>0.21**</td>
<td>0.26***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component localization</td>
<td>0.28***</td>
<td>0.23**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous experience</td>
<td>0.04</td>
<td>0.07</td>
<td>-0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>Established network</td>
<td>0.41***</td>
<td>0.44***</td>
<td>0.32***</td>
<td>0.51***</td>
</tr>
<tr>
<td>Entry mode</td>
<td>-0.10†</td>
<td>-0.12*</td>
<td>-0.11†</td>
<td>-0.20**</td>
</tr>
<tr>
<td>Subsidiary size</td>
<td>-0.08</td>
<td>-0.10†</td>
<td>-0.07</td>
<td>-0.04</td>
</tr>
<tr>
<td>Interaction terms</td>
<td>x1*y</td>
<td>-0.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x2*y</td>
<td>-0.20*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x3*y</td>
<td>-0.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x4*y</td>
<td>-0.28**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x5*y</td>
<td>-0.23*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x6*y</td>
<td>-0.19†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model F</td>
<td>15.96</td>
<td>19.06</td>
<td>16.11</td>
<td>18.33</td>
</tr>
<tr>
<td>p &lt;</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.42</td>
<td>0.48</td>
<td>0.47</td>
<td>0.59</td>
</tr>
<tr>
<td>DF (model)</td>
<td>8</td>
<td>11</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Δ R²</td>
<td>0.06</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hierarchical F test</td>
<td>6.00**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**a** A dummy variable with 1 if export oriented, 0 otherwise (local market oriented);

**b** F = (Δ R²/Δ K)(N − K₂ − 1)/(1 − R²₂) where K₂ is the number of predictors and R²₂ is R² in the expanded
model; Δ R² and Δ K are changes of R² and the number of predictors, respectively, between the two models (see

† p < .10.

* p < .05.

** p < .01.

*** p < .001.
artifacts that may cause statistical power to drop (Aguinis, 1995). As shown in model 2, market orientation significantly interacts with environmental complexity, and this interaction is important to responsiveness ($p < 0.05$). The negative sign suggests that there is a stronger relationship between environmental complexity and responsiveness for firms with local market orientation than for those with export orientation. This orientation, however, does not moderate the linkage between cultural distance or business practice specificity and responsiveness.

According to Table 3, the interactions between the three industrial variables and market orientation are all significantly and negatively associated with responsiveness ($p < 0.10$ or lower), suggesting that there is a stronger relationship between industrial structural determinants and responsiveness for host market oriented firms than for export oriented businesses. In other words, when foreign firms aim to pursue a competitive position and market share in the host country, the influence of competitive intensity, demand heterogeneity, and component localization on responsiveness is significantly greater compared to a situation where firms seek export benefits. Overall, market orientation moderates the linkage between responsiveness and environmental complexity and structural dimensions. As it independently affects responsiveness (Table 2), market orientation should be defined as a quasi-moderator in these cases (Sharma, Durand & Gur–Arie, 1981). The effect of cultural distance and commercial practice specificity on responsiveness does not change when the moderating effect of market orientation is incorporated, implying that these two environmental factors influence responsiveness no matter whether the firm emphasizes a local or export market. Our subgroup analysis (export market group vs. local market group) also verifies this evidence, that is, cultural distance and commercial practice specificity are significantly related to local responsiveness in both local market and export market groups.

5. Discussion

This study examines factors underlying local responsiveness as perceived by MNE subsidiary managers within a dynamic environment (China). It proposes and validates three levels of factors, including those that are environmental, structural, and organizational. Among environmental factors within a host country, environmental complexity and commercial practice specificity are found to drive up local responsiveness whereas cultural distance between home and host countries is negatively associated with responsiveness. Of industrial structural factors, competitive intensity, market demand heterogeneity, and component localization are all important forces elevating local responsiveness. A subsidiary’s market orientation is not only an independent predictor of local responsiveness but also a moderator affecting the relationship between environmental and industrial forces and the degree of responsiveness. There is a stronger effect from environmental complexity and structural factors on responsiveness for local market oriented firms than for export oriented businesses. In addition, a firm’s strength of established managerial ties with other local businesses and governmental institutions facilitates responsiveness in China’s dynamic environment.

The key findings of this study suggest that local responsiveness is determined by multi-
level factors. Previous studies already shed light on the influence of structural forces on responsiveness or integration (e.g., Birkinshaw et al., 1995; Kobrin, 1991) but have been relatively silent on the relation between macroenvironmental and organizational forces and local responsiveness. Contextual factors such as environmental complexity and business practice peculiarity in a host country are salient determinants of responsiveness because they create sustained external constraints to which MNE subsidiaries must react and adapt. Firms from culturally distant countries also tend to maintain low responsiveness. Cultural barriers may impede the degree of local responsiveness as it makes the subsidiary take more risks. These results have confirmed our proposition that unique business practices necessitate more responsiveness that, however, is a negative function of cultural distance between home and host countries. Nevertheless, future research should verify whether cultural distance at the corporate level exerts a similar effect as it is a different construct from the national-level distance (Luo & Peng, 1999). Corroborating earlier studies, this study indicates that structural forces deriving from competitors, buyers, and suppliers are significantly linked with higher levels of local responsiveness. In a dynamic market such as China, structural forces have a collectively stronger power in explaining variations of local responsiveness than do environmental or organizational factors alone.

Organizational factors such as market orientation and established relationships with the business community and governmental institutions remain fundamental to responsiveness because they determine a firm’s degree of interactions with, and vulnerability to, changes in the task environment and hazards of the institutional environment. Market orientation is found to have a moderate influence on responsiveness. Naturally, MNE subsidiaries seeking a local market share need more decision-making power, less global integration, and superior expertise for responding to hazards in the indigenous environment compared to those pursuing benefits from an export market. Contrary to our proposition, however, this study did not find a systematic link between experience and local responsiveness. The reason may lie in the possibility that experience is insufficient to ensure the effectiveness of, or enhance the level of, responsiveness in a highly uncertain environment. Local responsiveness is determined by other external or internal factors no matter how much experience the firm has accumulated. Whether or not the findings of these two variables and its possible explanations are China-specific is an empirical question which needs to be verified in other dynamic contexts.

In Prahalad and Doz’s theory (1987), multidimensionality, a key factor leading to the necessity for integration-responsiveness balance, covers multiple geographical markets or national environments. This study suggests that, even within a national market, firms may face different environmental conditions. These conditions within an economically and socially diverse market are not homogeneous and, thus, have various effects on responsiveness for different firms. This study also suggests that some organizational factors such as market orientation and networking infrastructure are important determinants of responsiveness. It further implies that responsiveness is influenced by a subsidiary’s resource dependence on local environment. The greater the resource dependence on the host environment, the higher the responsiveness or the lower the integration. Doz and Prahalad (1991) call for a midrange theory for the integration-responsiveness balance, containing economic, environmental adaptation, and organizational learning theories. It seems that the resource de-
dependence theory is also pertinent and should be integrated into other theories as suggested by Doz and Prahalad (1991, pp. 148–154). Further, we may need some caution when examining or validating the relationship between environmental or structural determinants and integration or responsiveness. Previous studies have treated this relationship as linear, and yet have not considered the possible moderating effect of other relevant factors. This study suggests that this relationship is moderated by an MNE subsidiary’s market orientation.

Increasing globalization has captured the attention of international managers searching for sustained competitive advantages in an ever-changing world. While failing to recognize the importance of market integration can be shortsighted, ignoring the importance of local responsiveness is also misguided. The impact of a host country’s environmental and structural forces on a subsidiary’s decision-making characteristics and organizational behavior is fairly vigorous, ongoing, and direct. Understanding how to ‘think globally and act locally’ is a complex issue requiring system-wide coordination and market-specific differentiation. Indeed, the integration-responsiveness (I-R) framework (Bartlett & Ghoshal, 1989; Doz & Prahalad, 1991; Prahalad & Doz, 1987) addresses the importance of these two dimensions and offers insight into the midrange balance between the two. Nevertheless, future research needs to further advance this framework by investigating various situational contingencies underlying this balance and providing corresponding balancing mechanisms and tools.

Various factors examined in this study may still be incomplete. For instance, an MNE’s strategic goals (or a subsidiary’s role), tacitness of deployed knowledge, and risk-taking ability are likely to be pertinent to local responsiveness. Because factors influencing responsiveness and integration are not necessarily the same or are such influences definitely inversely related, future studies should incorporate various factors into an integrated model assessing integration and responsiveness simultaneously. This could improve our understanding of what factors are common to both dimensions and which affect only individual dimensions. Second, although studies on local responsiveness are inevitably context-specific, it would also be a worthy endeavor to undertake comparative studies on the issue and identify what determinants are common to multiple environments and what are relevant only to individual markets. A multiple-country study is therefore warranted. Third, because this study (as well as previous ones) has focused on the degree of global integration or local responsiveness, future research should devote more attention to diagnosing the process and mechanisms of local responsiveness. Fourth, our empirical analysis was largely based on the survey data collected from a single informant for each sample firm. Although we checked the common method bias, the use of reliable objective data, or of multiple sources to measure responsiveness and its contingencies, is encouraged. This may improve the accuracy and reliability of the findings while also enabling researchers to diagnose more insights into the antecedents and consequences of local responsiveness.

Finally, the WTO (World Trade Organization) membership of a host country has not been addressed in this study as well as previous research. When a host country like China joins the WTO, MNEs are expected to face dual pressures for more local responsiveness: more opportunities and increasing competition. Obviously, the primary beneficiaries of the WTO entry are MNEs. For instance, by opening previously closed sectors to foreign investment and by promising established investors easier operating conditions, China’s WTO entry will
bring in enormous opportunities to western MNEs. Once China completes the phase-in of WTO commitments, MNEs will encounter heightened competition from export marketers and other foreign investors. Because entry into the WTO facilitates privatization, MNEs will also face strong competition from local rivals, reinforcing the need for adaptation and responsiveness. While the WTO effect propels responsiveness, it also provides more favorable, transparent, and stable conditions that can stimulate the payoff from this responsiveness. Future studies should articulate how the WTO status affects an MNE’s responsiveness and resource deployment to a host country and how an MNE should prepare new strategies or restructure current businesses in response to changes induced by the WTO entry and privatization.

Acknowledgments

The author would like to thank three anonymous reviewers and Professor Rhonda Reger for their insightful comments.

Appendix: Selected major items from the questionnaire

1. Local responsiveness (7-point Likert scale: 7 very true—1 not true at all)
   a. During subsidiary operations, we respond quickly to environmental changes in the host country in each of the following areas (consumer needs/government policies/market conditions/rivalry situation);
   b. During subsidiary operations, we adopt different strategies and policies under different conditions or situations in each of the following areas (consumer needs/government policies/market conditions/rivalry situation);
   c. During subsidiary operations, we are structurally flexible and adaptable in response to indigenous contingencies from each of the following areas (consumer needs/government policies/market conditions/rivalry situation).

2. Environment factors within a host country (7-point Likert scale: 7 very strong—1 very weak)

   (1) Environmental complexity
   a. During subsidiary operations, to what extent do you think each of the following environmental components is diverse (i.e., how many different factors and issues does the subsidiary have to deal with in each component) (macroeconomic; political/legal; and socio-cultural)?
   b. During subsidiary operations, to what extent do you think these multiple factors and issues are different from one another (macroeconomic; political/legal; and socio-cultural)?
(2) **Business practice specificity**

a. During subsidiary operations, to what extent do you think the commercial practices and business culture in the host country differ from that of the commonly accepted international standard?

b. During subsidiary operations, to what extent do you think the commercial practices and business culture in the host country are country-specific?

3. **Industry structural factors** (7-point Likert scale: 7 very strong—1 very weak)

(1) **Degree of competition?**

a. During subsidiary operations, to what extent do you think the product market in which your company participates is competitive among existing rivals?

b. During subsidiary operations, to what extent do you think the product market in which your company participates faces competitive threats from new entrants and substitutes?

(2) **Demand heterogeneity**

a. During subsidiary operations, to what extent do you think the demand for your products within a host market is segmented according to region, income, gender, education, or other demographic attributes?

b. Following the above question, to what extent do you think the demand for your products within each segmented market is diverse?

(3) **Component localization**

a. During subsidiary operations, to what extent do you think the host government mandates materials, components, and parts to be locally procured in the industry?

b. Under the above requirement, to what extent do you think your company has to depend on local materials, components, and parts?

4. **Firm-specific factors**

(1) **Market Orientation** (dummy variable): 1 if export market orientation, i.e., the foreign subsidiary sells 50% of total output made by the subsidiary on export markets;

0 otherwise (i.e., local market orientation).

(2) **Host Country experience**

a. Number of FDI projects/subsidiaries established in China prior to this project/subsidiary;

b. Number of years the foreign company operated in China prior to this project/subsidiary.
(3) **Business networking** (7-point Likert scale: 7 very strong—1 very weak)

a. To what extent do you think you and other senior managers in your company have established and maintained managerial or personal ties and connections with managers of each of the following kinds of firms (buyers/suppliers/distributors/competitors)?
b. To what extent do you think you and other senior managers in your company have established and maintained managerial or personal ties and connections with officials at each of the following government authorities (political leaders in various levels of the government/officials in industrial bureaus/officials in regulatory or support institutions such as tax bureaus, banks, and commercial administration)?

Yadong Luo is an associate professor of strategy and international business at the University of Miami. His interests include global strategy, strategic alliance, and international management.

References


