

Developing the eclectic paradigm as a model of global strategy: An application to the impact of the Sep. 11 terrorist attacks on MNE performance levels

Sali Li ^{a,*}, Stephen B. Tallman ^{b,1}, Manuel P. Ferreira ^{c,2}

^a David Eccles School of Business, The University of Utah, 1645 E. Campus Center Dr., Salt Lake City, UT 84112, USA

^b Robins School of Business, The University of Richmond, Richmond, VA 23173, USA

^c Escola Superior de Tecnologia e Gestao-I.P.Leiria, Morro do Lena-Alto Vieiro, 2411-911 Leiria, Portugal

Received 14 December 2004; accepted 12 September 2005

Abstract

We expand the eclectic paradigm into a model of global strategic management and apply the latter to the analysis of the impact of the Sep. 11th terrorist attacks on the MNEs' performance to investigate the effect of exogenous shocks on the global strategies of firms. First, we integrate MNE resources and capabilities, strategy, and structure with the eclectic paradigm. Then we focus specifically on location attractiveness to examine how MNEs adjust internal factors with the exogenous distortions caused by an extreme environmental shock. We suggest that this adjustment is carried out at four levels: resources and capabilities, strategy, structure, and choice of location which jointly determine MNEs' performance. Although we restrict the application of this model of global strategic management to the post-Sep. 11th, our model may be applied to other extreme events that change, at least partly, the worldwide, or regional, economic order.

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Keywords: The eclectic paradigm; Global strategic management model; Sep. 11th terrorist attacks

* Corresponding author. Tel.: +1 801 585 5526; fax: +1 801 581 7214.

E-mail addresses: pmgtsl@business.utah.edu (S. Li), stallman@richmond.edu (S.B. Tallman), portugal@estg.ipleiria.pt (M.P. Ferreira).

¹ Tel.: +1 804 287 6589.

² Tel.: +11 351 244 843317.

1. Introduction

“The unprecedented Sep. 11 terrorist attacks in the U.S. caused massive casualties and damage, and ushered in an era of greater uncertainty. While a prompt and vigorous policy response helped limit the immediate economic impact of the aggression, the heightened terrorist threat has some long-lasting, if diffuse, macroeconomic repercussion”. (Lenain et al., 2002: 2)

The Sep. 11, 2001 terrorist attacks shocked and saddened the world, and they also introduced substantial distortions on international political, economic and business activities. Unlike conventional wars and local rebellions, which are usually initiated by identifiable groups’ rent seeking behaviors (Collier, 2000), global terrorism has fewer governmental ties and does not attempt to prey upon natural resources. Rather, as defined in the US codes, terrorism is “premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience” [Title 22 of the US codes, section 2656 f(d), cited from the US Department of State, 2002]. Given that the Sep. 11th terrorist attacks were also a premeditated attack on globalization, multinational enterprises (MNEs), and not only the Western countries, became unwitting focal targets. The attacks provided a major exogenous shock to the global economic system and to the notion that the post-Cold War era would provide a secure context for international business. The fall of the Berlin Wall and of the Soviet Union a decade earlier, as it turns out, did not mark the “end of history” (Fukuyama, 1992), but only the start of a period of adjustment that ended on Sep. 11, 2001 with the beginning of a new era of uncertainty as forces burst onto the public stage.

Although various studies have examined how the Sep. 11th attacks affected the global political structure (e.g., Cohen-Tanugi, 2003), the international economy (e.g., Lenain et al., 2002; Blomberg et al., 2004), and foreign direct investment trends (for a review, see UNCTAD, 2002), they provide no coherent examination of how the terrorist attacks, as an example of a major exogenous shock heralding a new, unexpected, and poorly understood future, have affected individual MNEs’ strategic and structural choices and, ultimately, their performance. Were some MNEs more prepared than others to face the new international business environment reality? And are some MNEs more prepared now to navigate terrorism-troubled years and countries?

To address these questions, we seek to understand better some of the drivers of MNEs’ performance differences and to then consider how this new environment will change MNE strategies, structures, and performance. This requires that we develop a model of global strategic management that incorporates not only MNEs’ endogenous factors but also addresses how these factors adjust to acute shifts in the context of global business. Our model of global strategic management of MNE activities builds on Dunning’s eclectic paradigm (Dunning, 1988a,b, 1995). This model describes the international production decision by intertwining three eclectic factors—Ownership, Location, and Internalization (OLI)—to provide a framework for understanding the drivers of MNEs’ competitive advantages, global strategies, and governance structures. Dunning’s model has proved flexible in its application. Dunning himself (2004) discusses how the international business environment, and therefore the application of the Eclectic Model, has changed over time. Tallman (2004) notes that many recent studies on MNEs’ strategy and performance are rooted in scrutinizing small parts of the eclectic paradigm, often despite lack of a clear statement of their linkage to the global model (e.g., Birkinshaw and Hood, 1998; Rugman, 2000; Tallman and Li, 1996). While these applications of the eclectic

paradigm in global strategy have contributed to a better understanding of the factors underlying performance differences among MNEs, their evolutionary perspective is insufficient to provide a dominant view of IB in the post-Sep. 11th world.

In keeping with recent approaches, we depart from the pure eclectic paradigm to develop a model of global strategic management, which highlights three key components of global strategy—resources/capabilities, strategy, and structure—and ties them back to the interactions between Ownership (O), Location (L), and Internalization (I) factors. We position our view of global strategic management as one suited to a punctuated-equilibrium international business environment, departing from the traditional static focus on market failure that supports the eclectic paradigm and other transaction cost economics derived models of FDI. Our model of global strategy depicts MNEs' performance levels as the consequences of the ability or inability of individual firms to adapt their internal resources and capabilities, strategies, locations, and structural forms to sudden environmental shifts. This model is dynamic and explicitly takes into consideration discontinuities in the international environment, contrary to the traditional eclectic paradigm. As noted by [Dunning \(2001\)](#), a dynamic component is essential in extending the eclectic paradigm into a strategic management model. Through this model, we also set up a conceptual basis to analyze the influence of profound environmental changes, such as those revealed by the Sep. 11th attacks, on MNEs' performance.

This paper is organized as follows. First, we develop a dynamic model of global strategy and broadly demonstrate the advantage of this model over the eclectic paradigm in explaining MNEs' activities in face of the sudden environmental changes caused by Sep. 11th attacks. Second, given the nature of changes caused by Sep. 11th attacks, we propose that certain types of resources, strategy, and structure may help MNEs achieve relatively higher performance. A discussion and avenues for future inquiry conclude this paper.

2. Extension of the eclectic paradigm into a strategic management perspective

The eclectic paradigm argues that international market failure underlies the existence of MNEs ([Dunning, 1988a,b](#)).³ The two main types of market failure that influence international trade and investment are structural and transactional market failure ([Dunning, 1988a,b](#); [Dunning and Rugman, 1985](#)). The former arises from scale economies, knowledge advantages, distribution networks, product diversification, and some forms of government intervention that are tied to the size, scope, or abilities of multinational firms that cannot be established through market means ([Dunning, 1988a,b](#)), while the latter refers to market inefficiencies caused by transactional uncertainties that prevent arms' length pricing from providing sufficient information about the transaction to enable the transactors to conclude a bargain ([Dunning, 1988a,b](#); [Williamson, 1985](#)).

The analysis of international market failure provides the foundation of MNEs' O and I advantages ([Dunning, 1988a,b](#)). However, due to its emphasis on static market failure, the eclectic paradigm has been criticized as lacking dynamism (for a review, see [Dunning, 2001](#)). To build a dynamic model of global strategic management, we shift attention from market failure to the need to develop and exploit MNEs' endogenous components (i.e., resources, strategy, and structure) to earn rents effectively, and demonstrate the role of these components in linking the O, I, and L factors of the traditional eclectic paradigm.

³ Market failure represents the inability of buyers and sellers of a product to settle on a price for that good or service, and thus their inability to conduct a market transaction.

2.1. *O advantages and strategic resources*

Ownership advantages may be transposed directly to a contemporary strategic model of global operations. Dunning (1988a,b) decomposed ownership advantages into asset (Oa) and transaction (Ot) advantages. As Dunning (1988b: 2) defined them: "...while the former arise from the proprietary ownership of specific assets by MNEs; the latter mirror the capacity of the MNE vis-à-vis the external market to capture the transactional benefits or lower the transactional costs arising from the common governance of a network of these assets, located in different countries". We can naturally fit Oa and Ot into the broad concept of strategic resources (Barney, 1991) in the strategic management literature as strategic resources and dynamic capabilities (Tallman, 1992, 2004). Oa correspond relatively directly with firm-specific endowments of potentially rent-generating or strategic resources, as defined by Barney (1991) and explicated by Fladmoe-Lindquist and Tallman (1994). Ot, on the other hand, correspond to the constructs of routines and capabilities that guide the firm in the efficient and effective application of its strategic resources to actually capture these rents (Devinney, 2004). Although ownership advantages and proprietary resources and capabilities have similar implications, the former tend to reflect firms' monopolistic power generated by structural market imperfections (Dunning, 1988a,b), while the latter underline the rent-earning value of firms' internal resources. Thus, the concept of resources allows us to focus on MNEs per se rather than on external market imperfections in an analysis of MNEs' performance.

2.2. *L advantages and adaptation*

Tallman (1991, 1992) suggests that the key strategic choice for MNEs is the determination of which products to offer in which countries. The eclectic paradigm integrates location factors to address why production might take place in foreign locales. Location factors broadly refer to the international business environment, which can be further divided as the home or host country's specific economic and market environments (Dunning, 1988a,b, 1998; Porter, 1990, 1997). Traditionally, scholars considered that a host country environment must have comparative advantages in resource endowments or possess a greater market size than the home country to attract production, as opposed to simple sales, by MNEs. More recently, scholars have further integrated innovation in the knowledge-based economy, and have focused on the institutional and strategic knowledge resources of host countries (Porter, 1997; Dunning, 1998; Tallman et al., 2004). From a strategic management perspective, L factors can include both local adaptations to address the host market and rent-yielding resources, especially knowledge resources, that are tied to a particular location and that the MNE could incorporate into its proprietary resource base or access via alliance arrangements in the host country.

Location factors set the stage for MNEs' activities but only have meaning for competitive advantage when interacting with MNEs' resources and capabilities. The eclectic paradigm assumes that MNEs act as rational players to accommodate market imperfections, and addresses the question of why an MNE enters a specific host country via FDI. However, this approach cannot explain the differences in performance between MNEs within the same host country (Guisinger, 2001), nor does it address strategic asset seeking strategies.

2.3. *I advantages and structure*

Internalization advantages refer to the inherent advantage of MNEs' hierarchical organization structures in internalizing cross-border transactions for intermediate products, especially

knowledge, in the face of failed market transactions (Teece, 1981; Hennart, 1982; Rugman, 1981). We differentiate Internalization (I) factors from Ot factors because I factors typically have been focused on sectoral conditions (technological intensity, indivisibilities of products, scale effects, etc.) as drivers of the tendency to internalize markets (Rugman, 1981; Dunning, 1988b), while Ot are firm-specific skills or activity sets that influence the idiosyncratic strategic decisions of individual firms and the capacities of these firms to appropriate rents to their Oa factors. Through elaborating on the advantages of internalization, the eclectic paradigm (and other internalization models) demonstrates why firms internalize markets into hierarchical forms with common ownership rather than exporting or licensing knowledge to access foreign markets. Strategic management scholars further suggest that structural decisions not only can help overcome transactional market failure, but that different types of structures can also create various organizational advantages, particularly in terms of the acquisition and application of organizational knowledge (Ghoshal and Moran, 1996; Malnight, 2001; Brusoni et al., 2001) that are simply not available in market relationships. Guisinger (2001) extended the OLI paradigm to OLMA (i.e., Ownership Location, Mode of entry, and Adjustment), noting that while the former only focuses on the control of a subsidiary, the latter embraces and interacts with the full range of the MNEs' resources and strategic choices to form a comprehensive view of global strategic management.

2.4. Strategic intent, the S factor

We have discussed our interpretation of the OLI model and its three factors in terms of strategic management, and in particular resource- and capability-based, models. Of considerable note, however, is the fact that the Eclectic Paradigm, as an economic model, does not really address issues of strategy, or the actions of the firm, as opposed to its capabilities and possibilities. Dunning (2004) states that the Eclectic Paradigm is an economic framework that describes the tendencies of a group of firms to locate production abroad and to own the means of production, rather than a description of the actions of a particular firm. He also introduces the possibility of a strategic, or S, factor (Dunning, 1993), and develops the idea (Dunning, 2004) that the specific pressures of the OLI factors on an MNE, and its responses to them, will differ according to the strategic purposes of the firm in any particular situation. Here strategy refers to firms' purposes and plans for resource (re)deployment (Chandler, 1962; Hofer and Schendel, 1978; Miller, 1982). Firm strategy is concerned with what to internalize, that is, which resources might provide rents (Dunning, 2004) and when to internalize, that is, how external conditions might affect rent generation (Tallman and Fladmoe-Lindquist, 2002). As Vernon (1966, 1974) pointed out, an MNE's strategy changes over its product life cycle, as does its patterns of FDI and trade. We believe that Strategy is an essential component of any model that is considering dynamic response to a changing (whether through gradual evolution or punctuated equilibria) environment.

2.5. Towards a dynamic model of global strategic management

Through analyzing the interdependence of OLI factors, as above, we expand the eclectic paradigm from its traditional focus on the existence of MNEs to consideration of MNEs' strategies and performance (see Fig. 1). Here we refer to MNEs' performance in terms of profitability, rather than, for example, MNEs' production efficiency. The latter is primarily determined by MNEs' endogenous factors, while the former reflects the adaptation of MNEs'

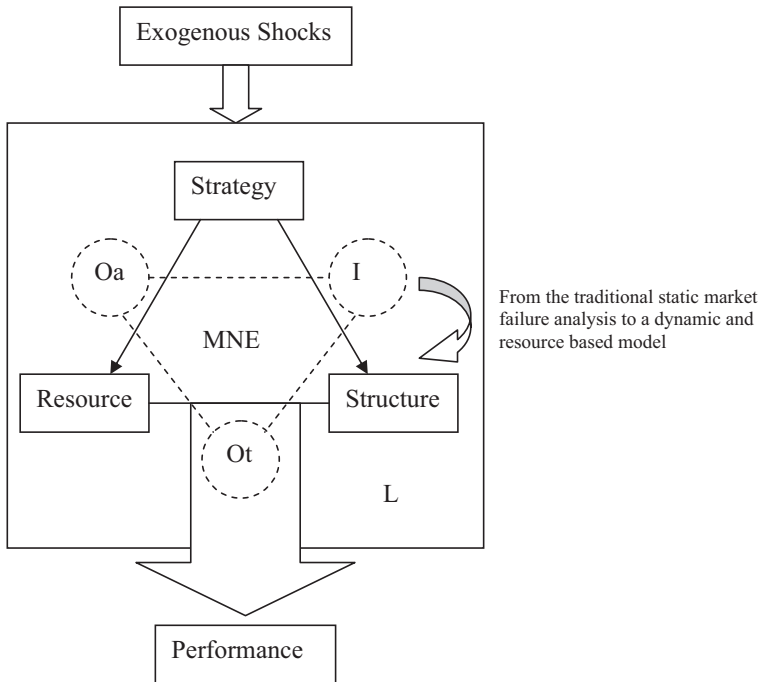


Fig. 1. A basic model of global strategic management.

resources, strategy and structure to local and international business environments. The difference is more than rhetorical, and, as noted by Makino et al. (2002), an MNE that exploits its advanced technology in a low-income country may achieve higher efficiency than in a high-income country due to the availability of cheap labor; nevertheless, the MNE may achieve higher profitability in the high-income country due to the size of the market and its closeness to the specific requirements of that market.

As Dunning (1988a,b, 2001, 2004) notes, a static eclectic paradigm cannot adequately explain MNEs' strategies in a changing world, and thus a model of global strategic management requires us to incorporate the dynamics of environmental changes. In building a model of global strategic management, we therefore include an exogenous shock event in the model and analyze how an environmental change moderates the relationships between MNEs' endogenous components (i.e., resources, strategy, and structure), external context (location), and performance. By exogenous shocks, we refer to unexpected events that occur independently from the international business environment, but have massive effects on the latter by disrupting the original business order.⁴ Large-scale disasters that can cause disorders of multiple vital systems such as energy supplies, transportation and communications, and generate widespread uncertainty beyond the affected regions are considered as exogenous shocks to the international business environment. However, we do not seek to argue that our model responds well to all types of extreme externalities, but rather that it is effective for events that cause devastating

⁴ The exogenous shock may not have direct impacts on MNEs' endogenous components. For instance, few MNEs (e.g., Morgan Stanley) that were located in the World Trade Center were directly affected by the terrorist attacks. However, many MNEs were indirectly affected through the change of international business environment.

distortions similar to those induced by the recent terrorist attacks on US soil. The main difference between these terrorist attacks and other externalities is that the latter may disrupt production but do not necessarily change the global strategic management model of each MNE. Conversely, the terrorist attacks, despite a far smaller direct impact on production,⁵ seem likely to force a more or less profound reconsideration of MNEs' strategies, locations, and structures for their worldwide operations.

3. Global strategy, punctuated equilibrium, and the impact of the Sep. 11th terrorist attacks on MNE performance

The traditional Eclectic Paradigm and other internalization models consider the effects of marginal changes in sectoral transaction costs on the market-FDI decision within an essentially stable environment. More recently, [Dunning \(2001, 2004\)](#) shows that the changing international business environment and changing strategic directions together have resulted in new needs for resources and capabilities and changing internalization pressures. However, gradual evolution in the environment may have very different effects on MNE strategies and structures than the severe dislocations of events such as the Sep. 11 attacks in a punctuated equilibrium framework.

For instance, the Sep. 11, 2001 attacks have led to increased trading costs and to an upsurge of uncertainty about the direction of the global business system ([Lenain et al., 2002](#)). While before Sep. 11th, experts forecast that 2001 global FDI flows would drop about 40% due to economic downturns ([UNCTAD, 2001](#)), global FDI inflows and outflows in 2001 actually dropped 51% and 55%, respectively ([UNCTAD, 2002](#)). Further, a recent business survey conducted by the Multilateral Investment Guarantee Agency and Deloitte and Touche, conducted immediately following the Sep. 11th event, indicates that a significant portion (29%) of the respondents intended to postpone their expansion, and 10% of the respondents planned to downsize their planned business expansions. However, the standard Eclectic Paradigm suggests that increased costs and uncertainty should lead to increased FDI. Contrary to the typical internalization assumption of estimable risks within a static or predictably changing system, this level of systemic uncertainty cannot be addressed by marginal calculations of the estimated costs and returns of a single transaction. Actors cannot be concerned just about the possibility of an opportunistic partner, but rather must consider that the entire exogenous environment may have become more hostile to business activities. [Tallman \(1992\)](#) proposes that strategic decisions attempt to reduce uncertainty as well as generate returns. [Haveman et al. \(2001\)](#) note that following an environmental dislocation that potentially cuts firms' profit margins, firms will contract their business domains, limiting their business investment and expansion efforts. From a strategic management perspective, we suggest the drop of FDI is due to MNEs contracting their business domains in an effort to adjust to the dislocative change signaled by the Sep. 11th attacks.

The Sep. 11th attacks not only inflicted immediate panic and disorder in the international business community, but also caused long-lasting changes in major dimensions of the international business environment such as international trade, insurance conditions, and political relationships ([Lenain et al., 2002](#)). In this paper, we analyze both the short-run and the medium/long-run effects of these changes, but with an emphasis on the latter. MNEs predictably adapt to short-run, or transitory, changes, or take losses for a short period, and these changes

⁵ For instance, the direct casualties and material damages of the September 11 attacks on the US were far smaller than the Kobe earthquake in Japan ([Lenain et al., 2002](#)).

possibly do not require an obvious need to modify resources, strategies or structures in a substantial manner. On the other hand, the long-lasting changes caused by the Sep. 11th attacks have required MNEs to adjust their strategies and structures to the post-Sep. 11th business environment, which is our focus.

In the short run, the Sep. 11th attacks had two major impacts on the international business environment. First, this tragedy directly affected the victim firms that were located in the World Trade Center. For instance, Morgan Stanley, as one of the largest tenants of the World Trade Center, lost about 40 people and 2 major business branches in this accident. Despite the direct impact on Morgan Stanley's normal business operations, the terrorist acts did not strongly affect the international financial service giant's performance. Compared with the net income of the 2001 third quarter (June 1st to August 31st), net income in the fourth quarter (September 1st to November 30th) increased from \$735 million to \$870 million. The overall growth of the US economy in the fourth quarter (October 1st to December 31st, see [Lenain et al., 2002](#)) suggests that while US consumer and business confidence plummeted immediately after the terrorist attacks, it soon recovered to pre-attack levels. Worldwide stock prices also tumbled after the terrorist attacks, but again quickly bounced back to, and even above, Sep. 10th levels ([Lenain et al., 2002](#)). Certainly, MNE performance levels proved vulnerable to the volatile changes of international business environment, but for the most part, these firms were able to engineer rapid recoveries. In sum, MNEs did not need to readjust resources, strategy or structure to adapt to transitory shocks, and we can infer that the direct effects upon victim firms did not cause a significant impact on international business environment.

For the longer run, the Sep. 11th attacks imposed psychological and financial challenges to the international business community due to the dramatic increase in costs and uncertainty about the global environment of business. The medium/long-run impact of Sep. 11th attacks on the international business environment implies that at least some MNEs feel the need to carry out profound strategic changes. These long-term impacts may be summarized in four major points. First, the sequential tightening of homeland security decreased the efficiency and increased the costs of international transportation. Although there is no evidence of a substantial increase in international shipping rates after Sep. 11th, the time delays alone imposed by the new security procedures worldwide are estimated to cost between 5% and 13% of the value of the traded goods ([Lenain et al., 2002](#)). For instance, the US Customs Service introduced 24-Hour Advance Cargo Manifest Rule, which requires carriers to provide cargo manifests electronically via the Automated Manifest System 24 h before loading a container shipping to or transiting through a US port. Besides adding extra burdens on exporters and customs in preparing documents, this rule literally delays the shipping time for 24 h and thus reduces the efficiency and flexibility of the international shipping system. The reduced reliability and efficiency of the international transportation system lower the effectiveness or raise the costs of internal transfers, especially for MNEs employing just-in-time logistic systems.

Second, the reduction in affordable insurance coverage increased the cost and uncertainty of investing abroad. The Sep. 11th attacks, as the largest single-event insurance loss in US history, cost insurance companies between 30 and 55 billion dollars ([Tillinghast-Towers Perrin, 2001](#)). Although no major insurance or reinsurance companies filed for bankruptcy, all such firms instantly hiked their insurance premiums and reduced coverage, especially for terrorism-related risks ([Lenain et al., 2002](#)). For instance, average commercial property and liability insurance rates were raised by about 30%; and the premium for more likely "target" facilities (e.g., chemical and power plants) and "iconic" office buildings increased even more ([Lenain et al., 2002](#)).

Third, the Sep. 11 attacks and the consequent war on terror have reshuffled the contemporary world political structure. For example, transatlantic relations between EU countries and the US, notably Franco–US relations, were seriously affected. Moreover, to prevent future terrorist attacks, new multi-national cooperation is needed to cut off the financial roots of international terrorist groups and to trace the groups or regimes behind the scene. To some extent, the quest for this international cooperation warmed up relationships between various countries and may affect MNEs' original assessment of the risk and uncertainty levels for some host countries. Any new patterns of international cooperation and competition will take years to solidify.

Finally, the attack raised dramatically the general awareness of the existence and real threat of international terrorism. Terrorism is not a recent phenomenon (see Table 1), but has been largely ignored in both business practice and research (Blomberg et al., 2004). The initiation of the national terrorism alert system in the US increased the public's and the business community's awareness of the dangers of terrorist activity. This increased awareness of terrorism seems likely to affect MNEs' investment decisions. In Table 1, we list 25 countries' historical terrorist activities and FDI inflows. Although no discernible pattern of correlation between FDI and

Table 1
Terrorist activity and FDI inflows for 25 countries

Country	Terrorist attacks (1968–1997)	Casualties (dead/injured)	Attacks (1998–2004)	Casualties	Average FDI inflows (bil \$) (1991–2000)	FDI inflows (bil \$) (2002)
Argentina	189	158/511	4	0/0	7.80	1.00
Australia	31	4/10	1	1/0	6.84	14.0
Brazil	43	6/50	13	0/2	13.7	16.6
China	30	147/88	8	52/6	31.8	52.7
Colombia	337	149/111	1099	1022/1514	1.99	2.03
Denmark	21	1/57	3	0/1	7.00	5.95
Egypt	82	163/325	3	7/13	0.798	0.647
France	422	87/1388	440	15/69	26.2	51.5
India	63	447/1563	240	496/1148	1.72	3.45
Indonesia	8	5/21	138	335/776	1.49	–1.52
Ireland	16	1/3	8	0/5	6.40	19.03
Israel	338	631/3520	315	564/3254	1.54	1.65
Japan	49	14/5044	17	4/62	3.23	3.33
Rep. Korea	52	8/72	1	0/0	3.43	1.97
Kuwait	28	19/139	4	4/8	0.0668	0.0070
Mexico	62	3/11	8	5/10	9.25	13.63
Poland	24	2/14	4	1/3	4.06	4.12
Portugal	35	4/7	1	0/0	2.24	4.28
Russian Fed.	23	0/3	244	780/1587	2.94	2.42
South Africa	19	5/54	33	4/139	1.32	0.75
Spain	218	27/295	883	59/403	12.8	2.12
Sri Lanka	25	177/1563	28	106/382	0.168	n.d.
Turkey	253	128/431	666	246/561	0.802	1.037
UK	307	122/2030	19	0/10	44.3	24.9
USA	461	31/1252	91	3068/30	116	30

Numbers in bold indicate higher than average.

Terrorism data from RAND® Terrorism Chronology 1968–1997 and 1998–2004 (http://www.db.mipt.org/rand_tc.cfm). RAND Terrorism Chronology defines terrorism according to the nature of the act, not by the identity of the perpetrators or the nature of the cause. Terrorism is violence, or the threat of violence, aimed at creating an atmosphere of fear and alarm. According to U.S. Department of State (2002), the terrorist attacks mainly include bombing, armed attack, kidnapping, arson and assault.

FDI data from World Development Indicators, 2002.

terrorist acts is visible, most of these terrorist acts were seen as tied to a specific situation in a specific country, but the international character of terrorist attacks aimed at the Western cultural and economic system makes simply diversifying risk through more widely dispersed FDI difficult.

These four long-term and long-lasting changes have required MNEs to adjust to the post-Sep. 11th business environment and better coordinate with international stakeholders. As noted by Gersick (1991), in a punctuated equilibrium, organizations need to change their “deep structures” (i.e., the set of fundamental choices a system has made of the components and activity patterns) to adjust to post-change environments. In the special context of the post-Sep. 11th world, we suggest that MNEs adjust by altering their “deep structures” in terms of strategies, resources, capabilities, structures, and locations of operations. The examination of these changes is the main objective of the next sections of this paper, and the ensuing propositions aim at highlighting the relationship between MNEs’ strategies, resources structures, and locations and their post-Sep. 11 performance levels.

3.1. MNE strategies and post-shock performance

Exogenous shocks force firms to rethink their strategies, and MNEs to reconsider their international strategies. A wide variety of strategic typologies exist in the strategic management and global strategy fields. The Eclectic Paradigm and closely allied internalization models focus on market entry strategies. Early versions of these models generally considered foreign market entry to be based on the desire of firms to exploit their firm-specific assets more widely. Dunning (2004) confirms that the evolving Eclectic Paradigm can be adapted to various asset-seeking strategies as well as asset-exploiting or market-seeking strategies, an area very amenable to analysis using resource- and capability-based models. However, as we are considering the impact of the Sep. 11th attacks to be a system-wide, global increase in uncertainty and of the corresponding costs to attempt to manage this new uncertainty, we will focus on a higher level of strategy.



The primary international strategy of any MNE is international diversification, and a basic distinction of international diversification strategies at the worldwide level is that between multi-domestic (multinational) and globally integrated (global, integrated) strategies (Prahalad and Doz, 1987; Porter, 1986; Bartlett and Ghoshal, 1989). In the most general terms, multi-domestic strategies are pursued on a country-by-country basis, with the MNE acting more or less as a domestic firm in each market, but with access to technological, financial, and product resources and economies of scale from its international operations that provide competitive advantages over local firms. Each subsidiary or affiliate manages the majority of its value-added chain in-country and accesses regional or global assets only where critical. The integrated global strategy, on the other hand, presumes that competitive success is based on global efficiencies in technology development, power in marketing, and economies of scale in manufacturing. Local affiliates are largely sales offices, and upstream activities in any country are oriented toward regional or global markets, not the local population. Thus, a Japanese affiliate may design electronic equipment while a Chinese subsidiary carries out manufacturing for worldwide markets while the American headquarters manages finances and marketing for the global firm.

The international strategy pursued is likely to influence the extent to which an MNE’s foreign operations are affected by the post-Sep. 11th environment. Given the nature of the Sep. 11th attacks, the performance of MNEs following an integrated strategy is likely to be more vulnerable to institutional, regulatory and political changes and direct terrorist threats post-Sep.

11th for two major reasons. First, these MNEs are more likely to expose physical assets abroad and transfer a high volume of intermediate products (Dunning, 1988a,b, 1998). The increase in insurance premiums on commercial property and the lower efficiency of international transportation after Sep. 11th, as noted before, decreases the ability to exploit MNEs’ assets across borders. Conversely, MNEs pursuing multi-domestic strategies, are in essence bringing knowledge from the MNE’s wider network to local markets, but maintain most of their facilities and manage their value-added chains locally. Transferring knowledge between MNEs’ subsidiaries and headquarters does not demand a high volume of international intra-firm trade and transportation, nor is knowledge transfer vulnerable in the long run to physical disruption.

Second, because integrated global strategies signify that MNEs seek to take advantage of a host countries’ resource endowment or to compete more fiercely with local firms over the host country’s market, but without necessarily adding to local employment or skill bases, these MNEs are more subject to hostile attitudes in host countries. The Sep. 11 attacks and the subsequent war on terror highlighted and further provoked the conflicts between the local cultural and social autonomy and the tendency toward globalization. Leveraging firm-specific resources that were developed in the MNE’s home country (Hymer, 1960; Caves, 1971) in a host country often is interpreted as an invasion of global capitalism or foreign cultures over local folklores, beliefs and culture. As illustrated in Table 2, some countries may have stronger responses to this invasion and resist MNEs’ exploitation activities more strongly. These emotional responses possibly are

Table 2
Typology of locations according to terrorist activity

Intensity of attacks 	❶	<p>Domestic terrorism active (countries with recurrent terrorist attacks targeting on domestic audience)</p> <p>India, Colombia, Turkey, Israel</p>	❸	<p>International terrorism active (countries with recurrent terrorist attacks involving citizens or targets of more than one counties)</p> <p>UK, Spain, France, USA</p>
	❷	<p>Terrorism supporters (countries that have links to terrorist groups, and have been shown as supporters of these groups)</p> <p>Afghanistan, Iran, Iraq, Libya,</p>	❹	<p>Terrorism free (countries with little or minimal damage, attacks)</p> <p>Australia, Canada, Denmark,</p>
				Attitude toward globalization 

This classification does not aim at an accurate definition, but rather to distinguish countries with different levels of terrorist activity and general attitudes toward globalization.

exaggerated by divergent political perspectives on the war on terror. An example is the plan initiated by several European governments to switch from the Microsoft Windows operating system to Linux after the Sep. 11th attacks, which forced Microsoft to accept more local policies and conventions in order to improve its position in European market. Hence, increased hostility in host countries will add to the difficulty of pursuing globally integrated strategies. On the other hand, MNEs with multi-domestic strategies are less likely to impose their own home country's view of the world on the host countries (Perlmutter, 1969), and are more likely to seek conformity and legitimacy in the host country, learn about international and local idiosyncrasies, and thus can better coordinating with the local stakeholders to maintain or improve performance.

Proposition 1. *MNEs following globally integrated strategies are more likely than those following multi-domestic strategies to suffer decreased performance post-Sep. 11, 2001.*

3.2. MNEs' resources and capabilities and post-shock performance

Resources and capabilities that distinguish MNEs from domestic firms also play essential roles in determining MNE performance (Tallman and Li, 1996; Hitt et al., 1997). International diversification strategies, whether global or multi-domestic, leverage the rent-generating strategic resources (Oa) in the MNE's asset base through the application of firm-specific capabilities (Ot) for managing across borders, whether in a tightly integrated global system or a loosely connected network of semi-independent affiliates.

From the Resource-Based View (RBV), the notion of international diversification emphasizes the fact that MNEs can effectively utilize their strategic resources internationally (Tallman and Li, 1996). These international resources include, MNEs' physical assets located abroad, internationally known brand names, technologies developed in one location but diffused to others, and so forth. However, from the TCE perspective, the level of international diversification is an illustration of an MNE's ability to minimize its internal collaboration and coordination costs in exploiting its firm-specific assets in foreign markets (Rugman, 1981; Hitt et al., 1997). Tallman and Fladmoe-Lindquist (2002), show that such capabilities are gained through diverse international experiences, provide competitive advantage in efficiently and effectively managing internationally diversified corporations. Therefore, we can infer that successful international diversification requires elements both of resources (Oa) and of capabilities (Ot).

To disentangle the question, we apply the RBV in a punctuated equilibrium setting and derive two general propositions on performance-internationalization relationship in the post-Sep. 11th. First, we suggest that with the business environment changes caused by the Sep. 11th attacks, the value of certain firm-specific resources, especially those with strong home-country or strongly global attributes, has been greatly reduced. For instance, the rise of insurance premiums, especially on "iconic" facilities and buildings, increased the variable costs of possessing and utilizing what had been valuable physical assets, and even brand names (e.g., the brand McDonalds is often a target of political statements). Since the Sep. 11th attacks were explicitly aimed at what is seen in many quarters as intrusive Western culture, strategic resources with strong American or Western attributes, such as brands, cultural products, or technologies, seen as particularly valuable in the apparently globalizing world of the 1990s, appear particularly vulnerable in the backlash of Sep. 11. On the other hand, other MNEs from Western home countries, such as Nestle, have focused on collecting local companies and brands without enforcing a strong corporate or home country identity. The performance of MNEs whose

strategic resources are identified with their home cultures are likely to suffer either directly or indirectly in this “new world” of global terror and struggling cultures.

Proposition 2. *MNEs that rely on American or explicitly global identities for their strategic resources are more likely than firms that are adept at taking on local identities to suffer decreased performance post-Sep. 11, 2001.*

Second, from a capability perspective, involvement and experience in international operations can be substantial sources of value, as well as difficulties, in the face of exogenous shocks. For example, through foreign experience in general, MNEs are able to gather valuable routines, skills, and knowledge that may facilitate reconfiguring and readjusting resources to respond to novel environmental conditions, thus protecting the performance of the firm. That is, prior international experience provides MNEs with scripts to use in case similar events occur in the future, or in other locations. For instance, firms that have operated in regions with high country risk, and particularly with prior experience of operating in terrorism active, or terrorism supporting countries (see Table 2), should have routines for dealing with sudden violence that can be applied post-Sep. 11th, despite scale differences. Highly diversified MNEs, too, should be less affected by and can adjust faster to the new economic and political changes, as they can both buffer themselves against threats and are more likely to have experienced similarly global challenges in the past. As declared in a joint statement by Philip Purcell and Robert Scott (the Chair and President, respectively, of Morgan Stanley in the 2001 annual report) “While the economic environment remains uncertain, we continue to benefit from the diversity of our businesses.”

While all MNEs should experience performance problems after a major exogenous shock, we expect that more experienced, more widely diversified, MNEs will be able to avoid the worst effects through their diversification, will be better prepared to deal with changes in their environment due to their previous exposure to a variety of situations, and will be able to adjust more quickly and effectively to the new environment due to more effective strategic management.

Proposition 3. *MNEs with more widely diversified international operations are less likely than others to suffer decreased performance post-Sep. 11, 2001.*

3.3. MNE structures and post-shock performance

Several strategic management scholars (e.g., Donaldson, 1987; Tallman, 1992; Malnight, 2001) have discussed the role of firm’s internal structure to complement firms’ resources and strategy in determining firms’ performance. However, given the difficulty of covering all the diverse structural forms in one paper, we simplify our argument by highlighting the most basic multinational organizational structure decision—the entry mode (Guisinger, 2001).

Different structural forms of entry, or entry modes, impose diverse requirements and hazards, as well as benefits, on the MNEs’ performance in the post-Sep. 11th. We suggest that wholly owned entry modes (e.g., greenfield startups) are more subject to hazards in the host country for two main reasons. First, because shared equity arrangements entail coordinating with local partners, they are likely to reduce an MNE’s liability of foreignness (Hymer, 1960; Zaheer, 1995). As discussed above, increased hostility toward foreign products, brand names, and firms will negatively affect MNEs’ performance, particularly for those MNEs pursuing an exploitation strategy. However, structural forms of collaboration with host country firms allow MNEs to

associate themselves with local brand names, and thus enhance the legitimacy in the host country.

Second, shared modes (e.g., joint ventures or partial cross border acquisitions) facilitate MNEs' learning about how to operate in the new environment from the local partners. For instance, changes in international transportation procedures require MNEs to relearn how to transfer products between home and host countries efficiently. From a political perspective, this may require MNEs to know how to influence the new local authorities in charge of security procedures (Boddewyn, 1988). Therefore, MNEs that have expanded abroad through collaborations with local host partners may have an advantage over MNEs that tended to "do it alone".

Proposition 4. *MNEs that have used more joint ventures as entry mode structures are less likely than those using wholly owned structures to suffer decreased performance post-Sep. 11, 2001.*

3.4. Location and post-shock performance

The final aspect of the Eclectic Model is Location. While location effects are closely entwined with Strategy, Resources, and Structure in the previous sections, we would expect that some aspects of location will be directly relevant to MNE performance after any major exogenous shock, but particularly post-Sep. 11th. We stated above that a response to uncertainty involves pulling back strategic commitments, and we expect that many MNEs will consider (whether as a primary strategy or under pressure from stakeholders) reducing their levels of FDI in favor of using exports and licensing to access international markets. While removing assets from "the line of fire", however, exports are subject to the various new expenses of the post-Sep. 11th trading system, and licensing may be exposed to greater threats of opportunism in markets where a weak intellectual property protection regime may be further weakened by anti-foreign or anti-global attitudes. It is also possible that firms would attempt to refocus their international operations in their own regions, or only in industrial economies. However, while such actions may benefit some firms, others may gain little if they are not likely targets, if their home region is seen as having higher threats, or if their industry sector forces them to undertake risky investment and trade.

Therefore, to illustrate a possible new view on location factors in the post-Sep. 11 eras, we can broadly classify four groups of countries according to their attitudes towards globalization and the intensity of terrorism (see Table 2). Although the majority of the countries have suffered multiple terrorist attacks, most of these terrorist activities rest largely outside the global public eye. Moreover, the attitudes of the countries themselves towards terrorism, for example through the support of terrorist groups, vary considerably. Each of these groups of countries possibly requires different forms of adjustment by MNEs.

We believe that while domestic terrorism would have previously been a major concern, MNEs will feel that they can bear such risks through diversification and local identity. However, countries that are particularly subject to global terrorism threats or that are identified as terror supporters (and hence threatened by counter strikes by threatened target countries) will be considered as particularly uncertain environments.

Proposition 5. *MNEs with significant direct investment in countries identified as either targets of global terrorism or as supporters of global terrorists are more likely than other firms in their industry sectors to suffer decreased performance post-Sep. 11, 2001.*

4. Discussion and conclusion

Through extending the eclectic paradigm toward a model of global strategic management and seeking a theoretical explanation of how exogenous shocks such as the Sep. 11th attacks affect MNEs' performance, we contribute to the current international business literature in two major ways. First, in our global strategic management model, we illustrate the interdependence among the OLI factors by shifting attention away from market failure and toward MNEs' internal resources and capabilities, strategy and structure. Current research on the eclectic paradigm, such as Li and Guisinger's (1992) finding that MNEs' size is positively correlated with FDI, has focused on how each individual OLI factor influences MNEs' investment decision, but has largely neglected the impact of the integrative aspect of OLI on MNEs' performance. Studies on I factors have discovered that sectoral technological intensity accounts for higher levels of FDI (e.g., Lall, 1980). Studies of the L factor have focused on the natural resources and labor endowment, national policy, culture and geographic distances of a nation (e.g., Sethi et al., 2003). However, these studies have not examined how the OLI factors interrelate and affect FDI in an integrated manner. In this paper, we highlighted the interaction between OLI factors by replacing market failure as a driver of foreign direct investment and MNE performance with strategic management concepts of resources, strategy, structure, and adaptation.

Second, we reappraise the eclectic paradigm as a strategic management model in a punctuated-equilibrium paradigm. Extant studies in the eclectic paradigm have focused on the effects of market failure on FDI, but paid less attention to the causes of market failure, particularly those that lie outside the economic system. Major exogenous shocks, as punctuations on the existent international business order, significantly alter the costs and potential costs of the international market and may even create new types of market failures. This gap limits the applicability of the eclectic paradigm to the analysis of how non-governmental behavior, such as the Sep. 11th attacks, affects international investment and production.

This extension of the OLI model towards a model of global strategic management is important for the study of MNEs in the contemporary era. As illustrated by Pulitzer Prize winning author Thomas Friedman (1999), the global core conflict has shifted from the rivalry between two superpower nations to one between super-powered individuals and the superpower nation. Unlike in the Cold War era, when government policies were the main drivers of market failures, in the contemporary era we may expect super-empowered individuals and groups (such as terrorism groups or cells) to create an entirely novel set of unpredictable environmental changes. Thus, the current global system illustrates more features of a punctuated equilibrium rather than a general one. The devastating destruction of the World Trade Center not only exposed the vulnerability of the current system of globalization, but also exposed the dark face of anti-globalization, anti-Americanism, and anti-Western society's way of life. By integrating an exogenous shock event into the global strategic management model and analyzing how MNEs might adapt after the shock, we provide a consistent firm-level model to explain MNEs' activities in the post-Sep. 11 world.

In addition, our paper sheds new light on international business practice in the post-Sep. 11th era. Given that more than 40% of MNEs prefer to mitigate risks by increasing coordination with international stakeholders (FDI confidence Index, 2003), this paper points out a general roadmap for MNEs to better navigate the turbulent post-Sep. 11th international business environment. Specifically, we suggest that MNEs can take at least three strategic approaches to better coordinate with international stakeholders. First, MNEs should consider adopting multidomestic

strategies to better absorb the local culture and institution changes caused by the Sep. 11 shock; second, MNEs should consider that the optimal international diversity level may be more localized today; third, MNEs should seek local or regional partners for assistance in managing the overseas business. Thus, MNEs can effectively reduce operational risks and enhance performance in the post-Sep. 11th era.

Certainly, as we attempt to reappraise the OLI framework toward a broad model of global strategy, we limit our ability to delve into the different theory streams of the eclectic paradigm to provide a deep and thorough analysis on theory development. As Tallman (2004) notes, to establish a global strategy model from the eclectic paradigm needs great effort from strategy scholars. Our contribution is reasonably modest and exploratory but there are multiple avenues for additional research. Additional comparative research may test some of the propositions we advanced. It may also be conceptual before any solid empirical studies are designed.

To conclude, we suggest that in the contemporary world changes in the international business environment are not only induced by the actions of governments and monopolistic firms, but also can be caused by super-empowered individuals and groups. These groups have the power to create substantial systemic transformations to which MNEs need to adapt. Hence, traditional models of international production and foreign direct investment do not suffice to explain environmental scanning behaviors, or MNEs' adaptation to some types of exogenous shocks. Conversely, a model of global strategic management seems to have far greater ability to provide the necessary insights for the study of MNEs, particularly in new age of global terror.

Acknowledgements

We are thankful to Darrell Coleman and the participants of the 6th Annual I.B. Research Forum at Temple University for their comments on earlier versions of this paper.

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