The empirical literature on multinational enterprises, subsidiaries and performance

Quyen T.K. Nguyen
School of Management, Henley Business School, University of Reading, Reading, UK

Abstract

Purpose – This paper aims to provide a synthetic review of the empirical literature on the multinational enterprise (MNE), subsidiaries and performance.

Design/methodology/approach – The paper examines the following: the theoretical and conceptual foundation of multinationality (M) and performance (P) measures; the impact of MNE strategic investment motives on performance; the influence of contextual external and internal environment factors on performance; the strategy to optimize value chain activities of the MNE by cooperating with external partners in an asymmetric network, the key drivers of enhanced shareholder value and the implications of performance; and the need to access primary data provided by firms and managers themselves when analyzing the internal functioning of the MNE and its subsidiaries.

Findings – The overall message from this literature review is that empirical research should be designed on the basis of relevant theoretical and conceptual foundations of the performance construct.

Originality/value – The paper provides a systematic and synthetic review of theoretical and empirical literature.

Keywords Multinational companies, Subsidiaries, Foreign direct investment

Paper type Literature review

Introduction

The relationship between multinational enterprise (MNE) strategy and subsidiary performance is linked to the international business research stream of multinationality (M) and performance (P). Here we provide a systematic and synthetic review of theoretical and empirical literature on these topics. We proceed on three fronts. First, we briefly revisit the relevant theories of the MNE in international business. Second, we examine key innovative empirical studies, addressing not only the metrics of the main constructs and samples, but also the analytical methods, key moderator or control variables and major findings. Third, we suggest a future research agenda.

Theoretical literature review

There are several key theories explaining the strategic investment motives, foreign entry mode choice and performance of MNEs. According to Dunning and Rugman (1985)

The author is grateful to Professor Alan Rugman for his helpful comments on several earlier versions of this paper. She would also like to thank Professor Rajneesh Narula for his help and support.

The Multinational Business Review
Vol. 19 No. 1, 2011
pp. 47-64

1525-383X
DOI 10.1108/15253831111126749

and Hymer (1976) explains the existence of the MNE based on firm level micro-economic foundations. Before Hymer, economists did not consider the international firm or foreign direct investment (FDI) as a distinctive phenomenon. In Hymer's views, two conditions must be met to explain the existence of FDI: foreign firms must own special advantages over domestic firms to make such investment profitable; and the market for sales of these advantages must be imperfect.

MNEs derive competitiveness from monopolistic advantages specific to their ownership, which is sufficient to outweigh inherent disadvantages when operating abroad. For Hymer, ownership-specific advantages may arise in goods or factor markets. There are two major reasons why firms move beyond national borders. First, MNEs are instruments to reduce competition in industries where high-entry barriers have been created to maintain local monopoly. Second, firms employ abroad their ownership-specific advantages.

Building on Hymer, internalization theory extends to the MNE the central ideas of Coasian transaction cost economics (TCE) (Coase, 1937). Internalization theory economists (Buckley and Casson, 1976; Rugman, 1981; Hennart, 1982) explain why firms engage in international production instead of selling their advantages to foreign competitors. They are concerned with the reasons why cross-border transactions in intermediate products are coordinated within MNE hierarchies, rather than through the external market. When the market for intermediate products is imperfect (e.g. due to natural market imperfections in the public goods nature of knowledge, and government imposed market imperfections, e.g. tariffs), there is an incentive to create an internal market; such internalization of markets across borders generates MNEs.

Rugman (1981) argues that internalization theory is a general theory of the MNE. He emphasizes the response of MNEs in overcoming imperfections in the goods or factor markets and the policy implications. The country-specific advantages (CSAs) of a nation, which lead to trade need to be distinguished from firm-specific advantages (FSAs) internal to an MNE, which lead to FDI. Internalization theory has emerged as the dominant explanation of the existence and growth of the MNE. TCE theory, initially developed by Williamson (1975), is broadly consistent with internalization theory and adds depth to the MNE's choice of institutional involvement and its governance mechanisms.

Teece (1981) expands on Williamson to develop a contingency theory which explains the choice of FDI as the preferred entry mode, taking into account governance costs (Teece, 1983). Hennart's (1982) approach and that of McManus (1972) both focus on the behavior of MNEs as explained by property rights theory, agency theory and Williamson's version of TCE theory. Hennart shows that with the cross-border expansion of firms and by organizing international inter-dependencies, FDI will take place when firms internalize markets for their intermediate inputs.

Dunning (1977) develops the eclectic paradigm to explain FDI activities at country and firm level. There are three types of advantages influencing the FDI process: ownership (O) specific advantages; location (L) specific advantages; and internalization (I) advantages. Accordingly, the paradigm has become known as the OLI framework.

The (O) advantages can be divided into assets (Oa) and transaction skills (Ot) advantages. The former include various unique assets specific to the firms, such as patented technology, management knowhow, etc. The latter relate to the capabilities to develop optimal internal coordination and control mechanism to capture transactional benefits.

The (L) advantages include the benefits which are derived from locating certain value-adding activities in particular foreign countries. The host market structure and government legislation and policies contribute to location advantages.

The (I) advantages are the relative benefits associated with different entry modes (e.g. export, FDI, joint ventures and licensing) when serving foreign markets. The greater the perceived cost of transactional market failure and the greater the benefits of circumventing the market failure, the more likely the firm will internalize its ownership-specific advantages within the firm. Dunning (1998) also identifies four types of international production: natural resource seeking, market seeking, efficiency seeking and strategic asset seeking.

OLI has been subsequently extended by Dunning into five versions, and it has become a big tent. Narula (2010) recommends the simplicity of the "coat hanger" of the original OLI framework rather than the "Swiss army knife" that OLI has become. Rugman (2010) demonstrates that L advantages are CSAs whereas O and I are both components of FSAs. He also shows that FSAs are fully consistent with the notion of the resource-based view (RBV) (Wernerfelt, 1984). The RBV argues that a firm's competitive advantages stem from its unique resources and capabilities. Acquisition and retention of resources which are valuable, rare, in combination, non-imitable and non-substitutable are a source of economic rent and account for the heterogeneity of firms in any industry (Mahoney and Pandian, 1992). The recombination of unique resources and capabilities within the network of the MNE parent firm and its subsidiaries is a type of dynamic capability (Rugman and Verbeke, 2002).

Multinational subsidiary strategy

Building on the core notion of FSAs and their internalization by MNEs, strategic management research on MNEs has emphasized the study of the subsidiary as a unit of analysis, besides the corporate parent. Many international business activities occur at the local affiliate level across a network of subsidiaries. The subsidiaries serve critical roles within MNEs and have their own initiatives to develop FSAs (Birkinshaw, 1997). Research suggests that the capacity of foreign subsidiaries in enhancing their competitive position depends on their resources, capabilities, strategies and location (Birkinshaw and Hood, 1998).

Rugman and Verbeke (1992, 2001, 2003) argue that FSAs can be developed by both parents and the subsidiaries. There are two types of FSAs: non-location bound (NLB) FSAs and location bound (LB) FSAs. They are linked to the economic integration and national responsiveness matrix of Bartlett and Ghoshal (1989). The former is defined as FSAs which can be exploited on a worldwide basis, and lead to the benefits of scale, scope and exploitation of national differences. In contrast, LB-FSAs can be defined as FSAs which benefit a company only in a particular location (or a set of locations), and lead to benefits of national responsiveness. The development of these two types of FSAs allows internalization theory to link with the strategy literature on dynamic capabilities.

In terms of CSAs, MNEs can leverage the CSAs of other host countries, besides those of the home country, thus contributing to the development of new FSAs. This also explains the two-way flows of FDI, parent-subsidiary relationships and the nature of network activities of MNEs, as analyzed in the "double diamond" framework (Rugman and Verbeke, 1993).

In 2001, Rugman and Verbeke expanded Birkinshaw's concept of "subsidiary-specific advantages" to explain the interaction of NLB-FSAs, LB-FSAs and CSAs. They present a framework of ten types of MNE – subsidiary linkages leading to recombinations and capability development. A more extensive treatment of how these LB-FSAs can be recombined into NLB-FSAs appear in Verbeke (2009).

The empirical literature on FSAs and subsidiary performance

First, we will discuss the concept of FSAs, which are important determinants of subsidiary performance. Second, we will review the subsidiary performance literature.

Firm-specific advantages

FSAs are important determinants of entry mode choice and firm performance, not multinationality *per se* (Rugman, 1980b, 1981; Morck and Yeung, 1991; Verbeke and Brugman, 2009). Rugman and Verbeke (2008) argue that the basic regression between multinationality (M) and performance (P) at parent level studies is mis-specified in the light of internalization theory. Multinationality is really an intermediate variable, not an independent variable. If performance is the dependent variable, the true independent variables are FSAs. These FSAs can be measured, for example, through firm-specific data on R&D, advertising expenditures, or sales (as a proxy for economies of scale). These FSAs should not just be used as control variables but as the true independent variables determining the performance of an MNE.

Previously, Rugman (1980b, 1981) provided empirical evidence to support internalization theory by showing that FSAs such as R&D are important determinants of FDI and performance. Similarly, Morck and Yeung (1991) also find that the impact of spending for R&D and for advertising on market value increases with a firm's multinational scale, but that multinationality *per se* does not have any significant impact. Their results support internalization theory, which holds that intangible assets are necessary for direct foreign investment to make sense. More recently, Verbeke and Brugman (2009) strongly argue that firm-level performance depends primarily on the characteristics of the FSAs rather than on the degree of multinationality. A firm may experience a strong, positive performance when investing abroad in order to exploit its intangible assets, not because of its degree of internationalization *per se*, a point also made by Severn and Laurence (1974).

Various intangible assets are employed as proxies for FSAs, which include R&D and technological knowhow, brand name, marketing expertise and consumer goodwill and management skills (Rugman and Sukpanich, 2006):

- *R&D and technological knowhow*. R&D intensity is measured by R&D divided by total sales, or R&D divided by assets (Rugman, 1981; Grubaugh, 1987; Morck and Yeung, 1992).
- *Marketing ability, brand name, consumer goodwill*. Advertising intensity is measured by advertising divided by sales or advertising divided by assets (Morck and Yeung, 1992); or general administrative expenses divided by total sales as a proxy for advertising intensity (Grubaugh, 1987).

- *Management skills*. It is measured by a percent of firm's outstanding equity held by insiders as a proxy for management (Morck and Yeung, 1992); the share of managers in total employment (Pugel, 1981).
- *Firm size*. Some studies include firm size as one of the FSAs, which is measured by firm's assets and sales (Horst, 1972; Grubaugh, 1987).
- *Industry type*. It is important to understand the industry in which a firm is operating (Grubaugh, 1987).

Subsidiary performance

The literature on subsidiary performance can be divided into several strands:

(1) The first strand focuses on entry mode choice in order to achieve the best performance in a specific situation. Anderson and Gatignon (1986) use the TCE approach in order to find the best entry mode.

(2) The second strand investigates the impact of entry timing, entry mode on subsidiary performance and survival. Pan and Chi (1999) and Pan *et al.* (1999) examine the impact of entry timing, entry mode, market focus and location advantages on the financial performance and survival of MNEs in China. Isobe *et al.* (2000) study the commitment of resources and timing effects on the perceived economic performance of Chinese-Japanese joint ventures. Delios and Makino (2003) adopt a contingency approach to analyze the relationship between entry timing and subsidiary performance.

(3) The third strand follows the premise of "liability of foreignness," which argues that foreign subsidiaries face disadvantages in a host country, compared to domestic firms (Hymer, 1976; Zaheer, 1995). Zaheer defines this phenomenon as the additional costs of doing business abroad which result in a competitive disadvantage for an MNE subsidiary. Miller and Eden (2006) examine how local density (i.e. the number of firms competing for similar resources in a local environment) within a host country can affect performance – directly and indirectly through effects on market experience and strategic conformity.

(4) The fourth strand examines the relationship between multinationality and subsidiary performance; mobility of knowledge resources and within country product diversification and foreign subsidiary performance. Fang *et al.* (2007) examine the link between multinationality, organizational knowledge resources and subsidiary performance. Delios *et al.* (2008) investigate the product diversification of a multinational firm within each of its host country markets and foreign subsidiary performance.

(5) The fifth strand compares the entry mode choice and subsidiary performance, or FSAs, entry mode and performance (Woodcock *et al.*, 1994; Nitsch *et al.*, 1996). Woodcock *et al.* (1994) find that the greenfield wholly owned subsidiary (WOS) mode outperforms the JV mode, and that the JV mode outperforms the acquisition mode.

Subsidiary performance measures

The subsidiary performance measures can be summarized into objective and subjective categories. The objective criteria are based on financial indicators. Rugman (1980b, 1981), Lecraw (1983, 1984) and Rugman *et al.* (1985) use objective accounting-based performance measures, e.g. return on equity (ROE) and return on assets (ROA). Some non-financial indicators such as the level of business survival and duration of survival (Harrigan, 1988) and the stability of shareholding are also used in the literature.

Owing to the absence of financial performance data reported at the subsidiary level, subjective measures of subsidiary performance such as loss, breakeven and gain are frequently used. Isobe *et al.* (2000) demonstrate the content validity of this measure. The argument supporting the use of the subjective performance measures is that parent MNEs commonly generate financial returns through mechanisms other than dividends, including supply contracts, management fees, technology licensing fees, royalties and transfer pricing (Geringer and Herbert, 1991). Other frequently used subsidiary performance measures are survival and exit. Obtaining objective performance data of subsidiary operations are difficult (Brouthers, 2002). The main impediments are the reluctance to disclose financial data at subsidiary level, and the compatibility of various accounting standards between countries.

Limitations of this literature

Despite the large body of research on the relationship between a firm's FSAs, international geographic expansion and product diversity strategies, the literature has not addressed at least one of the following three issues.

First, virtually none of the empirical literature attempts to incorporate the firm's motives for international investment (Li, 2007; Dess *et al.*, 1995; Verbeke and Brugman, 2009). Delios and Makino (2003) discuss the motives for foreign entry, but they are not able to obtain the information on the investment motives of Japanese subsidiaries. They suggest exploring motives as moderators for the entry timing and performance relationship. Li (2007) argues that a firm's motivation for international expansion exerts a direct effect on both the firm's multinationality and performance. Dess *et al.* (1995) suggest that examining performance without considering motivation may not be fruitful. Furthermore, Verbeke and Brugman (2009) point out that by adopting an overly simplified view of what constitutes firm-level performance, and neglecting the firm's motives for internationalization, the effects on performance may remain ill understood.

Second, most of the previous studies have not examined the roles of important external and internal contextual factors on performance (Li, 2007, Verbeke and Brugman, 2009). They suggest incorporating contextual factors such as international strategy and structure, industrial characteristics, etc. Firms are affected by changes in the external economic environment, and hence, they suggest taking into account other dynamic aspects influencing the firm and industry level, e.g. the impact of macroeconomic, technological changes.

Third, earlier research has neither examined value chain activities (Verbeke and Brugman, 2009; Dess *et al.*, 1995), nor how managing for value contributes to subsidiary performance. The five basic key drivers of enhanced shareholder value are revenue growth, operating cost reduction, fixed capital efficiency, working capital efficiency and optimal tax minimization (Christopher, 2005). Rugman and Verbeke (2003) suggest that the internal governance of MNEs is becoming increasingly complex and requires very sophisticated organizational tools, whereas external markets push for centralized accounting controls, simplicity and transparency of operations, a focus on short-run financial performance and cost discipline. Thus, external financial markets may have an intrinsic bias against complex differentiated network MNEs, thereby favoring some degree of de-internalization of large MNEs, and the formation of the asymmetrical clusters documented in Rugman and D'Cruz (2000).

Future research agenda

The review of theoretical and empirical literature indicates that there are several major areas which require further theoretical foundation and empirical development.

First, there is no agreement on how to define and measure performance at the subsidiary level. In previous empirical research, most scholars use a single dimension, single item measure, e.g. objective measures of profitability (Rugman, 1980a, b; Lecraw, 1983); subjective profitability measures, especially studies using the Japanese Toyo Keizai database on a three-point scale of loss, break even and profit; or survival and exit rates. However, Morck and Yeung (2009) argue that growth and survival do not necessarily reflect better performance or better capabilities. Self-serving managers are known to pursue excess growth and to prolong inefficient survival. Likewise, shrinkage and non-survival may not indicate business failure. A smart manager may pursue shrinkage for better efficiency and a greater rate of return. A successful business may not survive, yet it is acquired at a high price. Thus, the metrics need to be developed with care and tied in carefully with both the theories and the empirical context.

Phatak (1989) and Rugman and Hodgetts (2000) suggest that subsidiary performance should be perceived as multi-dimensional. The dimensions include profitability, marketing, production, finance and human resources. Profitability can be measured by return on capital employed, cash flow and annual profit growth. Market success can be measured by market share and/or sales growth. Production can be evaluated by quality and cost control, and by the introduction of cost efficient production methods. Finance can be assessed by financing of foreign affiliates either by retained earnings or local borrowing; minimizing tax burden; optimum capital structure, and foreign exchange management by minimizing losses from foreign fluctuation. Human resources measures include the development of host country nationals, and good relationships with host government. However, there are few studies that test these jointly (Pan *et al.*, 1999; Brouthers, 2002). In short, more fundamental theoretical development is needed to advance our understanding of subsidiary performance.

Second, a firm's strategic investment motives should be incorporated in subsidiary performance. A review of empirical studies shows that investment motives have been neglected. Obviously, the study of the MNE includes a focus on the drivers of investment. Robock and Simmonds (1989) compile a list of objectives of international investment: the search for new markets; new resources; production efficiency seeking; technology seeking; and the search for lower risk (Tallman and Yip, 2009). Dunning (1998) also identifies the key location advantages of four different types of international production motives that can be grouped as asset exploitation and strategic asset seeking. Gestrin *et al.* (1998) show a strong correlation between the financial performance of firms and the degree of internationalization of their revenues. While international expansion gives firms new opportunities to exploit their FSAs, the recombinations of such capabilities are the key to sustained competitive advantages and performance (Rugman and Verbeke, 2001). Verbeke and Brugman (2009) argue that theoretical reasons as to why firms expand internationally will have an effect on performance. Therefore, strategic investment motives and the underlying FSAs of the MNE need to be included when examining subsidiary performance.

Third, important contextual factors in the external and internal environment need to be examined. Many factors related to the location advantages of country investment known as CSAs may contribute to the firm's performance. Managerial decisions should attempt to optimize this contribution. Theoretically, there is a relationship between performance, subsidiaries' characteristics and the business environment. Among these are external macroeconomic factors, the level of industrial development, and internal factors such as strategic resources and capabilities. The ultimate objective of MNEs with FSAs is to exploit them and to enhance performance. The regional, not global, nature of business also matters. Rugman (2005) and Rugman and Verbeke (2004) find that 320 out of the 380 of the world's 500 largest MNEs for which geographic sales data are available have an average of 80 percent of their sales in their home region of the broad triad of North America, Europe and Asia. Market access on a regional, rather than a global basis, should be the focus for MNE managers. Therefore, we suggest that a more promising research agenda can be achieved by examining the interaction between CSAs in a broader context of regional trade and investment agreement and FSAs.

Fourth, the value chain and managing for value also needs to be addressed in empirical work on performance. MNEs have two major strategic decisions in international expansion. First, they can transfer their resources by creating a proprietary network of foreign subsidiaries, i.e. FDI. This "internalization strategy" is based on internalization theory (Buckley and Casson, 1976; Rugman, 1981; Hennart, 1982). In the process of its business expansion and growth, MNEs also build up networks with key partners (local and/or regional), such as key suppliers, key customers, selected key competitors and non-business infrastructure organizations, e.g. governments, universities, research institutes, etc. which perform different value-added activities for the MNEs. This is the "flagship network" strategy, placing the MNE as a "flagship" firm in the framework developed by Rugman and D'Cruz (2000). The rationale for an MNE to develop flagship network relationships is to reduce uncertainty while internationalizing and to increase learning. The MNE interacts with four types of partners to expand internationally. Such an inter-firm network strategy complements the intra-firm network of the MNE and its subsidiaries. Certainly, the value chain can be enhanced by cooperating with external partners in an asymmetric inter-firm network, as well as by the intra-firm subsidiary/parent network.

Finally, more than ever the message is to go "inside the multinationals" (Rugman, 1981). Recently, there is still a need to access primary data provided by firms and managers themselves when analyzing the internal functioning of the MNE and its subsidiaries (Rugman and Verbeke, 2003). A case study may provide a better assessment of the performance relationship as scholarly analysis often lacks inside knowledge, e.g. detailed accounting data of MNE operations (Verbeke and Brugman, 2009). In order to obtain information on MNE investment motives, strategy and performance as suggested in points (1)-(4), an in-depth understanding of the MNE is required to make the findings bear greater relevance to business and managerial reality.

Conclusions

Research on MNE strategy, FDI and the performance of subsidiaries has received significant attention in the literatur (Table I). This paper has a focus on the empirical

Empirical studies	Independent variable Measures	Dependent variable Types	Measures	Sampling	Analytical method	Key moderator or control	Results
Rugman (1980a, b)	Size (sales): $100 million	Objective accounting measures	ROE, mean return and risk of Canada subsidiaries and parent MNEs	Largest 14 MNE subsidiaries in oil industry and 16 firms in mining industry in Canada over the period 1960-1977	*t*-statistics, between subsidiaries and parents	None	Profits of MNEs and Canadian subsidiaries are not excessive (close to the normal, average observed profit rate of about 12 percent on equity) Parent MNEs enjoy more stable profits than their Canadian subsidiaries
Lecraw (1983, 1984)	Market concentration. Market share. Growth rate in market share Ownership complexity R&D and advertising intensity Import penetration and tariff rate Capital intensity	Objective accounting measures	ROE	153 subsidiaries in six light manufacturing industries in five ASEAN countries (1978-1979)	Linear multiple regression	None	Firm profitability increases as its market share, advertising, and R&D intensity increase and as the market share of the two largest firms in the industry and tariffs increase
Woodcock *et al.* (1994)	WOS, acquisition and JV	Subjective measures	Overall performance (self-reported): profit, break even or loss	Toyo Keizai database. 321 Japanese firms entering North America: 166 new ventures, 79 JVs, 76 acquisitions	χ^2, Spearman's rank correlation and Kruskal – Wallis	Effects of entry age	WOS outperforms JV and JV outperforms acquisition

(continued)

Table I.
Summary of key empirical literature on subsidiary performance

Table I.

Empirical studies	Independent variable Measures	Dependent variable Types	Measures	Sampling	Analytical method	Key moderator or control	Results
Li (1995)	(i) Diversification strategy; (ii) entry strategy; (iii) organizational learning and experience	Subjective measures	Exit or not	267 foreign firms entering the US computer (153 firms) and pharmaceutical (114 firms) industries in 1974-1989 period	Event history and logistic regression model	Subsidiary and parent size Subsidiary age Industry concentration Entry before 1978 for pharmaceutical and computer industries	Higher exit rate for foreign acquisitions and joint ventures than for subsidiaries established through greenfield investments Higher exit rates for subsidiaries that diversify Firms benefit from learning and experience in foreign operations, which improves the chances of success for subsequent foreign investments
Nitsch *et al.* (1996)	Greenfield, JV and acquisition	Subjective measures	Overall performance (self-reported): profit, break even or loss	Toyo Keizai database. 123 and 173 Japanese firms entering Europe in 1992 and 1994	Person χ^2, Kruskal Wallis test, Spearman's rank correlation, Wilcoxon rank sum test	Effects of entry age	Greenfield, WOSs perform best, followed by joint ventures and acquisitions
Makino and Beamish (1998)	Local ownership restrictions Entry mode: JVs and WOSs	Subjective measures	(i) Overall performance (self-reported): profit, break even or loss (ii) survival/ termination rate	Toyo Keizai database 917 Japanese subsidiaries in eight Asian countries at the end of 1991	*t*-test and Krusal Wallis one-way ANOVA; Wilcoxon signed test and χ^2 Spearman correlation analysis	None	The extent of local ownership restrictions is negatively and significantly associated with the financial performance of WOS, whereas it does not directly influence that of JVs There is no clear association between the extent of local ownership restrictions and the termination rate for the JV and WOS samples

(*continued*)

Table I.

Empirical studies	Independent variable Measures	Dependent variable Types	Measures	Sampling	Analytical method	Key moderator or control	Results
Pan and Chi (1999)	(1) Timing of market entry; (2) mode of entry: WOS, EJV, cooperative operations; (3) market focus strategy: local market or export; (4) location-specific advantages	Subjective measures	Ordinal measure of net profit	924 MNEs in first year 1992, 859 MNEs in second year 1993, in manufacturing in China	Ordered response logistic regression	Investment size Technology transfer Working capital Production capacity Recruitment methods Industry effect Country of origin	(1) MNEs entering China in an earlier year had a higher profit than those entering a later year (2) EJV had a higher profit level than cooperative operations and WOS (3) MNEs that used well the location advantages in China had a higher profit
Siripaisalpipat, and Hoshino (2000)	(i) FSAs: parent firm asset, R&D intensity, efficiency, international experience Local experience; (ii) entry mode: JV vs greenfield WOFS	Subjective measures	Overall performance (self-reported): profit, break even or loss	Toyo Keizai database Japanese manufacturing entities in Thailand: 99 for 1996, 102 for 1995 and 105 for 1994	Multiple logistics regression	Industry type: (i) market share; and (ii) four-firm concentration ratio	Greenfield venture tends to have a higher performance profile than the international JV when the Japanese parent firm possesses relatively high FSAs Yet, it has a poor performance if the Japanese parent firm lacks FSAs

(continued)

Table I.

Empirical studies	Independent variable Measures	Dependent variable Types	Measures	Sampling	Analytical method	Key moderator or control	Results
Brouthers (2002)	(1) General transaction cost (i) cost of searching for and negotiating with the potential partner and the costs of making and enforcing contracts in the target market vs home market; (ii) asset specificity (R&D/sales) (2) institutional context: legal restrictions on foreign ownership (3) cultural context: (i) market potential; and (ii) investment risk	Subjective measures	Model 1: entry mode choice: (i) WOS; (ii) joint venture Model 2: mode performance: three self-rating financial measures of sales, profitability and sales growth; four non-financial measures of market share, marketing, reputation and market access	Largest EU companies (pre-1995 expansion of 12 member nations) 213 respondents from a questionnaire survey	Multiple logistic regression for entry mode choice and two-stage regression for mode performance	Firm size International experience Industry effect	(1) Mode choice: firms that perceive higher levels of transaction costs tend to use wholly owned modes of entry Firms entering markets characterized by high legal restrictions and perceiving high levels of investment risks tend to use JV No finding supports the asset specificity and market potential measures Industry type is significant with manufacturing firms using wholly owned modes (2) Mode performance: firms report higher mode performance, both financial and non-financial, when they enter markets with higher market potential and when they use wholly owned modes

(continued)

Empirical studies	Independent variable Measures	Dependent variable Types	Measures	Sampling	Analytical method	Key moderator or control	Results
Miller and Eden (2006)	Local density Market experience Strategic conformity	Objective accounting-based measures	ROA, based on call reports database	83 foreign bank subsidiaries from 21 countries over four years, 1995-1998 operating in the USA	Hausman test, using fixed effects model	Micro-level: expense ratio (cost efficiency); market share. Macro level: market size, home GDP growth from World Development Indicators Dummy variables for 1996, 1997 and 1998	Local density is negatively correlated to foreign subsidiary performance and that market experience is less beneficial in high-density environments Strategic conformity enhances performance in low-density environments but adversely affects performance in high-density environment
Fang *et al.* (2007)	Parent firm's host country experience and parent firm internationalization experience Technological knowledge and marketing knowledge	Subjective measures	Three categories: loss, break even, gain (Toyo Keizai database)	4,964 Japanese subsidiaries, cross sectional and 14-year time series 1990-2003	Ordered logistic regression	Subsidiary size. Subsidiary age Entry mode (JV or WOS) Industry category of the subsidiary (tertiary or not) Region of host country	Knowledge that is valuable, but not rare, positively affects subsidiary performance in the short term, but not the long term Knowledge that is both valuable and rare affects the subsidiary performance in the long term, but not the short term
Delios *et al.* (2008)	Host institutional environment diversity measures Subsidiary age and its square in all models, subsidiary size New business line, size of parent firm	Subjective measures	Subsidiary exit and sales growth	12,992 foreign subsidiaries of Japanese MNEs	Sales growth: general least square model Subsidiary exit: event history analysis	None	Higher levels of within country product diversity lead to higher subsidiary performance where the institutional strength of the local market is weak, and where a firm corporate product diversity level is high

Table I.

literature which has been based on the key theoretical contributions addressing the nature of the CSAs and FSAs of the MNEs and the motives for FDI. This synthesis of the literature reviews the categorization and measures of FSAs and the main empirical results on subsidiary performance.

In essence, the performance of an MNE and its subsidiaries is not determined by the degree of multinationality, or other aspects of FDI, but by the basic FSAs of the firm itself. The FSAs can be NLB in the parent firm or LB in a subsidiary. In either case, the potential recombination of FSAs with home and host country CSAs is the nexus of strategy for the MNE and this internal resource redeployment is impossible to measure directly. Therefore, we need to use indirect measures of performance, such as accounting data on profits at parent and subsidiary level.

The overall message from this literature review is that empirical research should be designed on the basis of relevant theoretical and conceptual foundations of the performance construct. Research now needs to address the underlying strategic investment motives of MNEs, the drivers of performance, the external linkages with partners across the value chain and specific contextual external and internal environmental factors. Above all, we would emphasize that there is a greater need to access primary data provided by firms and managers themselves when analyzing the internal functioning of the MNE and its subsidiaries.

References

Anderson, E. and Gatignon, H. (1986), "Mode of entry – a transaction cost analysis and propositions", *Journal of International Business Studies*, Vol. 17, Fall, pp. 1-26.

Bartlett, C.A. and Ghoshal, S. (1989), *Managing Across Borders – The Transnational Solution*, Harvard Business School Press, Boston, MA.

Birkinshaw, J.M. (1997), "Entrepreneurship in multinational corporations: the characteristics of subsidiary initiatives", *Strategic Management Journal*, Vol. 18 No. 3, pp. 207-29.

Birkinshaw, J.M. and Hood, N. (1998), "Multinational subsidiary evolution: capability and charter change in foreign owned subsidiary companies", *Academy of Management Review*, Vol. 23 No. 4, pp. 773-95.

Brouthers, K.D. (2002), "Institutional, cultural and transaction cost influences on entry mode choice and performance", *Journal of International Business Studies*, Vol. 33 No. 2, pp. 203-22.

Buckley, P. and Casson, M. (1976), *The Future of the Multinational Enterprise*, Macmillan, Basingstoke.

Christopher, M. (2005), *Logistics & Supply Chain Management: Creating Value Adding Networks*, 3rd ed., Prentice-Hall, Upper Saddle River, NJ.

Coase, R.H. (1937), "The nature of the firm", *Economica*, Vol. 4 No. 16, pp. 386-405.

Delios, A. and Makino, S. (2003), "Timing of entry and the foreign subsidiary performance of Japanese firms", *Journal of International Marketing*, Vol. 11 No. 3, pp. 83-105.

Delios, A., Dien, X. and Beamish, P. (2008), "Within country product diversification and foreign subsidiary performance", *Journal of International Business Studies*, Vol. 39, pp. 706-24.

Dess, G.G., Gupta, A., Hennart, J.F. and Hill, C.W.L. (1995), "Conducting and integrating strategy research at the international, corporate and business levels: issues and directions", *Journal of Management*, Vol. 21 No. 3, pp. 357-93.

Dunning, J.H. (1977), "Trade, location of economic activity and the MNEs: a search for an eclectic paradigm", in Wijikman, P. (Ed.), *The International Allocation of Economic Activity*, Macmillan, London, pp. 395-418.

Dunning, J.H. (1998), "Location and the multinational enterprise: a neglected factor", *Journal of International Business Studies*, Vol. 29 No. 1, pp. 45-66.

Dunning, J.H. and Rugman, A.M. (1985), "The influence of Hymer's dissertation on the theory of foreign direct investment", *American Economic Review: Papers and Proceedings*, Vol. 75 No. 2, pp. 228-60.

Fang, Y., Wade, M., Delios, A. and Beamish, P.W. (2007), "International diversification, subsidiary performance, and the mobility of knowledge resources", *Strategic Management Journal*, Vol. 28, pp. 1053-64.

Geringer, J.M. and Herbert, L. (1991), "Measuring performance of international joint ventures", *Journal of International Business Studies*, Vol. 22 No. 2, pp. 249-63.

Gestrin, M., Knight, R.F. and Rugman, A.M. (1998), *The Templeton Global Performance Index*, Templeton College Executive Briefing, Oxford.

Grubaugh, S.J. (1987), "Determinants of direct foreign investment", *Review of Economics and Statistics*, Vol. 69 No. 1, pp. 149-52.

Harrigan, K.R. (1988), *Strategic Alliances and Partner Asymmetries, Corporative Strategies in International Business*, Lexington Books, New York, NY, pp. 205-26.

Hennart, J.-F. (1982), *A Theory of Multinational Enterprise*, University of Michigan Press, Ann Arbor, MI.

Horst, T. (1972), "Firm and industry determinants of the decision to invest abroad: an empirical study", *The Review of Economics and Statistics*, Vol. 54 No. 30, pp. 258-66.

Hymer, S.H. (1976), *The International Operations of National Firms: A Study of Direct Foreign Investment*, MIT Press, Cambridge, MA.

Isobe, T., Makino, S. and Montgomery, D. (2000), "Resource commitment, entry timing and market performance of foreign direct investment in emerging economies: the case of Japanese international joint ventures in China", *Academy of Management Journal*, Vol. 43 No. 3, pp. 468-84.

Lecraw, D.J. (1983), "Performance of transnational corporations in less developed countries", *Journal of International Business Studies*, Vol. 14, pp. 15-33.

Lecraw, D.J. (1984), "Bargaining power, ownership and profitability of transnational corporations in developing countries", *Journal of International Business Studies*, Spring/Summer, pp. 27-43.

Li, L. (2007), "Multinationality and performance: a synthetic review and research agenda", *International Journal of Management Reviews*, Vol. 9 No. 2, pp. 117-39.

McManus, J.C. (1972), "The theory of the multinational firm", in Paquet, G. (Ed.), *The Multinational Firm and the Nation State*, Collier-Macmillan, Toronto, ON.

Mahoney, J.T. and Pandian, J.R. (1992), "The resource based view within the conversation of strategic management", *Strategic Management Journal*, Vol. 13 No. 5, pp. 363-80.

Makino, S. and Beamish, P.W. (1998), "Local ownership restrictions, entry mode choice and FDI performance: Japanese overseas subsidiaries in Asia", *Asia Pacific Journal of Management*, Vol. 13, pp. 119-36.

Miller, S. and Eden, L. (2006), "Local density and foreign subsidiary performance", *Academy of Management Journal*, Vol. 49 No. 2, pp. 341-55.

Morck, R. and Yeung, B. (1991), "Why investors value multinationality?", *The Journal of Business*, Vol. 64 No. 2, pp. 165-87.

Morck, R. and Yeung, B. (1992), "Internalization: an event study test", *Journal of International Economics*, Vol. 33 Nos 1/2, pp. 41-56.

Morck, R. and Yeung, B. (2009), "Metrics for international business research", in Rugman, A.M. (Ed.), *The Oxford Handbook of International Business*, 2nd ed., Oxford University Press, Oxford, pp. 797-815.

Narula, R. (2010), "Keeping the eclectic paradigm simple: a brief commentary and implications for ownership advantages", *Multinational Business Review*, Vol. 18 No. 2, pp. 35-49.

Nitsch, D., Beamish, P.W. and Makino, S. (1996), "Entry mode and performance of Japanese FDI in Western Europe", *Management International Review*, Vol. 36, pp. 27-38.

Pan, Y. and Chi, P.S.K. (1999), "Financial performance and survival of multinational corporations in China", *Strategic Management Journal*, Vol. 20, pp. 359-74.

Pan, Y., Li, S. and Tse, D.K. (1999), "The impact of order and mode of market entry on profitability and market share", *Journal of International Business Studies*, Vol. 30, pp. 81-103.

Phatak, A. (1989), *International Dimensions of Management*, 2nd ed., PWS Kent, Boston, MA.

Pugel, T.A. (1981), "The determinants of foreign direct investment: an analysis of US manufacturing industries", *Managerial and Decision Economics*, Vol. 2, December, pp. 220-8.

Robock, S.H. and Simmonds, K. (1989), *International Business and Multinational Enterprises*, Richard D. Irwin, Boston, MA.

Rugman, A.M. (1980a), "A test of internalization theory", *Managerial and Decision Economics*, Vol. 2 No. 4, pp. 211-19.

Rugman, A.M. (1980b), *Multinationals in Canada: Theory, Performance and Economic Impact*, Martinus Nijhoff, Boston, MA.

Rugman, A.M. (1981), *Inside the Multinationals: The Economics of Internal Markets*, Columbia University Press, New York, NY (reissued in 2006 as *Inside the Multinationals* (25th Anniversary Edition), Palgrave Macmillan, Basingstoke).

Rugman, A.M. (2005), *The Regional Multinationals: MNEs and "Global" Strategic Management*, Cambridge University Press, Cambridge.

Rugman, A.M. (2010), "Reconciling internalization theory and the eclectic paradigm", *Multinational Business Review*, Vol. 18 No. 2, pp. 1-12.

Rugman, A.M. and D'Cruz, J. (2000), *Multinationals as Flagship Firm: Regional Business Networks*, Oxford University Press, Oxford.

Rugman, A.M. and Hodgetts, R.M. (2000), *International Business*, 2nd ed., Pearson Education, Harlow.

Rugman, A.M. and Sukpanich, N. (2006), "Firm-specific advantages, intra- regional sales and performance of multinational enterprises", *The International Trade Journal*, Vol. 20 No. 3, pp. 355-82.

Rugman, A.M. and Verbeke, A. (1992), "A note on the transnational solution and the transaction cost theory of multinational strategic management", *Journal of International Business Studies*, Vol. 23 No. 4, pp. 761-71.

Rugman, A.M. and Verbeke, A. (1993), "Foreign subsidiaries and multinational strategic management", *Management International Review*, Vol. 33 No. 2, pp. 71-84 (special issue).

Rugman, A.M. and Verbeke, A. (2001), "Subsidiary – specific advantages in multinational enterprises", *Strategic Management Journal*, Vol. 22, pp. 237-50.

Rugman, A.M. and Verbeke, A. (2002), "Edith Penrose's contribution to the resource-based views of strategic management", *Strategic Management Journal*, Vol. 23, pp. 769-80.

Rugman, A.M. and Verbeke, A. (2003), "Extending the theory of the multinational enterprises: internalization theory and strategic management perspectives", *Journal of International Business Studies*, Vol. 34, pp. 125-37.

Rugman, A.M. and Verbeke, A. (2004), "A perspective on regional and global strategies of multinational enterprises", *Journal of International Business Studies*, Vol. 35 No. 1, pp. 3-18.

Rugman, A.M. and Verbeke, A. (2008), "Internalization theory and its impact on the field of international business", in Boddewyn, J.J. (Ed.), *International Business Scholarship: AIB Fellows on the First 50 Years and Beyond* (*Research in Global Strategic Management*), Vol. 14, Emerald Group, Bradford, pp. 155-74.

Rugman, A.M., Lecraw, D.L. and Booth, L.D. (1985), *International Business: Firm and Environment*, McGraw-Hill, New York, NY.

Severn, A.K. and Laurence, M.M. (1974), "Direct investment, research intensity, and profitability", *Journal of Financial and Quantitative Analysis*, No. 9, pp. 181-90.

Siripaisalpipat, P. and Hoshino, Y. (2000), "Firm specific advantages, entry modes, and performance of Japanese FDI in Thailand", *Japan and the World Economy*, Vol. 12, pp. 33-48.

Tallman, S. and Yip, G.S. (2009), "Strategy and the multinational enterprise", in Rugman, A.M. (Ed.), *The Oxford Handbook of International Business*, 2nd ed., Oxford University Press, Oxford, pp. 307-40.

Teece, D.J. (1981), "The multinational enterprise: market failure and market power considerations", *Sloan Management Review*, Vol. 22 No. 3, pp. 3-17.

Teece, D.J. (1983), "Technological and organizational factors in the theory of the multinational enterprise", in Casson, M. (Ed.), *The Growth of International Business*, Allen and Unwin, London, pp. 51-62.

Verbeke, A. (2009), *International Business Strategy*, Cambridge University Press, Cambridge.

Verbeke, A. and Brugman, P. (2009), "Triple testing the quality of multinationality – performance research: an internalization theory perspective", *International Business Review*, Vol. 18, pp. 265-75.

Wernerfelt, B. (1984), "A resource - based view of the firm", *Strategic Management Journal*, Vol. 5 No. 2, pp. 171-80.

Williamson, O.E. (1975), *Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organizations*, The Free Press, New York, NY.

Woodcock, C.P., Beamish, P.W. and Makino, S. (1994), "Ownership based entry mode strategies and international performance", *Journal of International Business Studies*, Vol. 25 No. 2, pp. 253-73.

Zaheer, S. (1995), "Overcoming the liability of foreignness", *Academy of Management Journal*, Vol. 38, pp. 341-63.

Further reading

Amit, R. and Shoemaker, P.J.H. (1993), "Strategic assets and organizational rent", *Strategic Management Journal*, Vol. 17, Winter, pp. 155-65.

Delios, A. and Beamish, P.W. (2001), "Survival and profitability: the roles of experience and intangible assets in foreign subsidiary performance", *Academy of Management Journal*, Vol. 44 No. 5, pp. 1028-38.

Hennart, J.-F. (2009), "The theories of the multinational enterprise", *The Oxford Handbook of International Business*, 2nd ed., Oxford University Press, Oxford, pp. 125-45.

Corresponding author
Quyen T.K. Nguyen can be contacted at: t.k.q.nguyen@pgr.reading.ac.uk