The Uppsala model on evolution of the multinational business enterprise – from internalization to coordination of networks

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Abstract

Purpose – This paper seeks to offer a model on the evolution of the multinational business enterprise (MBE). It is meant to be an alternative to the eclectic paradigm, the preeminent theoretical tool applied in studies of the multinational enterprise (MNE) and foreign direct investment. The label MBE aims at moving focus from structure of production to change processes in business relations and entrepreneurship.

Design/methodology/approach – While the eclectic paradigm is grounded in neo-classical economics meant primarily to be applied in studies of macroeconomic interest and is based on assumptions not applicable in studies of individual firms, the model of the MBE is meant to be used in studies at the micro-level. It is rooted in assumptions consistent with behavioural theory consequently being more realistic. The model is based on the Uppsala model with input from studies on dynamic capabilities, entrepreneurship research and research on management under uncertainty.

Findings – The realistic assumptions of the model imply that it is relevant for understanding the dynamics of strategy and management of the MBE.

Research limitations/implications – As the model aims at enriching our understanding of the dynamics of the MBE the paper recommends empirical longitudinal studies of firms.

Originality/value – Realistic and relevant assumptions imply that the model differs in critical respects from received theory in international business.

Keywords Internationalization process, Multinational business enterprise, Dynamic capabilities, Uncertainty, Uppsala model, International business, Macroeconomics

Paper type Research paper

In the paper "The mechanism of internationalization" (Johanson and Vahlne, 1990) we responded to some suggestions that we should discuss how the Uppsala model is related to the eclectic (OLI) paradigm and, perhaps, integrate the model in the framework of the paradigm. The result of our discussion was "the two frameworks in their present shape are inconsistent as the basic assumptions are so different" (p. 16). Once again we are now discussing the basic assumptions of the frameworks. As a result we now present an alternative paradigm based on the Uppsala model.

The eclectic (OLI) paradigm "has been widely recognized as the preeminent theoretical paradigm within IB" (Cantwell *et al.*, 2010, p. 567). It has its roots in economic theory, as is indicated by Dunning's perspectives on international business research (2002). There he mentions a number of economists specialized on studies of

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international corporations – Kindleberger, Vernon, Hymer, Aliber and Caves – who seem to have played an important role for him during the period before the emergence of the eclectic paradigm. With this background it is no wonder that the assumptions, on which the eclectic paradigm is built, primarily aim at explaining the functioning and structure of the wider economic system and not the organization and activities of the individual firm.

Consider, for example, the internalization advantage, a central element in the eclectic paradigm, which is based on an explanation of the existence of multinational enterprise (MNE) as a consequence of market failure (Buckley and Casson, 1976). Following Coase's (1937) explanation of the existence of the firm in general, it assumes that the firm controls and coordinates resources that it owns while the use of other resources is governed by the market mechanism. According to other theories it can, however, be argued that under certain, not unusual, circumstances firms cannot fully control the use of their own resources and that in some situations they can exercise some control over resources of other firms (Emerson, 1962; Pfeffer and Salancik, 1978; Forsgren, 1989). If so, the internalization advantage rests on unrealistic assumptions.

In a discussion of the assumptions of economic theory Friedman (1953) argued that the realism of assumptions is irrelevant. Their value depends on the quality of the predictions based on them and he meant that studies of economic theory support the predictions of the neo-classical theory. And, as stressed by Buckley and Casson (1998) simplicity based on strict assumptions provides logical transparency and ensures that explanations of complex phenomena, for instance the existence of MNE, can be understood. However, if the objective is to explain the organization and activities on the firm level we consider it necessary to build the analysis on assumptions that are realistic and relevant in the sense that they are based on theories and empirical research that can explain control and coordination of the firm. In the other two elements of the OLI framework – ownership advantage and localization advantage – there are similar differences between assumptions appropriate for explanations on the firm level and on the economic system level. This point will be elaborated upon below.

A practical example of this problem can be found in a study of foreign operation modes by Benito *et al.* (2009). Explanations of mode have mainly used classification in such categories as licensing/franchising, JVs and wholly owned subsidiaries (Hill *et al.*, 1990) or contracts and equity (Brouthers and Hennart, 2007). Explanations for choice of mode have been based on transaction cost theory. In their analysis Benito *et al.* (2009) found important changes within modes, changes in mode roles and interrelationships within mode combinations. Such changes and combinations could not be analyzed by transaction cost theory and the authors conclude that a process model is needed for an analysis of mode choice and change from the firm point of view. Their study shows clearly that a theoretical approach that is based on economic theory may be inappropriate for studies that are relevant for individual firms. A more realistic and dynamic approach as compared with the eclectic paradigm is needed.

Against this background we think that there is a need for an alternative approach that can capture the development of the MNE with focus on the firm level. This implies changing many of the rigid assumptions connected with neo-classical economics and instead use assumptions from research on for example dynamic capabilities and other areas identified by Nightingale (2008) in his paper on "Meta-paradigm change and the theory of the firm." Also, we subscribe to the assumptions outlined by Dosi and Marengo (2007) in their paper "On the evolutionary and behavioral theories of organizations: a tentative roadmap." We specify those assumptions below. But critical to us is that managing the development of the MNE to a high degree is a matter of coping with uncertainty. Because of the above mentioned theoretical developments and the need to have an approach that can capture the development of the individual MNE, we have to change the unit of analysis: to understand the development of the MNE we have to understand the development of international, or global networks (Johanson and Mattsson, 1988). We even think that the internalization theory is not needed as it is possible to coordinate entities not owned but cooperated with in a network fashion. Earlier we have argued (Johanson and Vahlne, 1990, 2009) that we should contemplate merging the Uppsala model and the eclectic paradigm. But we have found that the differences between the underlying assumptions of the two perspectives are too large for a merger so we have changed our mind and go for a more radical solution and develop the Uppsala model to be an alternative approach. We do this by adding to the 2009 version of the Uppsala model elements from the dynamic capabilities theory, theory of entrepreneurship and theory of management of uncertainty. We are out to secure a paradigm shift in the Kuhnian sense. We do this by posing the research question: how does the MNE evolve? That is, we focus on the process by which the MNE evolves and not on the stock and structure of aggregate foreign direct investment.

As Dunning and Lundan (2008) stresses, the various theoretical attempts to explain the existence of the MNE are in reality often trying to answer different questions. That is no doubt true. The eclectic paradigm itself answers questions, at least in a general fashion, on "what makes it possible for a company to sustainably enter and operate in a foreign market," "what mode it will apply" and "where" it will go. Answers to these questions will make it possible to explain the size and structure of total foreign direct investment (Rugman, 2010). The Uppsala model originally was meant to explain the characteristics of the process whereby firms internationalize but it also was an early exponent of "the resource-based view" on strategy formation as it stressed the importance of heterogeneous resources (Penrose, 1959) and pointed out how learning adds to the capability of the firm (Johanson and Vahlne, 1977, 2009; Vahlne *et al.*, 2011). Dunning and Lundan (2008) characterizes the Uppsala model as behavioral and evolutionary. The dynamic capabilities theory and the evolutionary theory of the firm explain how companies can develop their competitive strength. With the Uppsala paradigm we are out to explain how the individual MNE evolves over time.

The eclectic paradigm

Argued by its creators, Buckley and Casson (1976), in their volume "*The Future of the Multinational Enterprise*", internalization explains the existence of the MNE. And this is no doubt true as long as we stick to the definition of the MNE they use: an MNE is a firm that *owns* and controls activities in two or more different countries (our italics). It is true that in many cases internalization is the preferred mode as judged by company managers, but this is not necessarily so. Obviously other modes of operating are often preferred for international activities.

Internalization is needed at the start of the firm. There has to be some ownership advantage to allow the firm to survive. This is not, however, an indication of market failure but of the success of organizations (Lazonick, 1991). The market failure phenomenon has been the main argument for economists to explain internalization. Such a failure is assumed to exist predominantly for "technology transfer and international trade in semi-processed products" (Buckley and Casson, 2009). Dunning and Lundan (2008) develop the reasons for internalization in the case of market failure. In fact, often there is no market at all as the "semi-processed products," mainly components, often are specific to the need of the focal firm. To characterize this as a market failure does not make sense. Knowledge is not always a public good. But even so it is more in line with the realities of economic activities, that the MNE is a superior way of developing knowledge, especially tacit knowledge (cf. Kogut and Zander, 1993; Dunning and Lundan, 2008, p. 267). But once the firm is started, internalization is just one of many different modes available. Our own case study on Volvo's heavy truck business indicates that what gets internalized or staying external is not a matter of principle, and definitely not only a result of transaction cost economics analyses. Rather, "strategic" and contextual aspects seem to impact on how the borderline between the firm and the environment is drawn, or expressed differently when to make and when to buy (Vahlne *et al.*, 2011, 2012). As Lundan (2010, p. 52) has expressed it: "[…] boundaries of the firm have become more porous comprised of a variety of equity-based and contractual interfaces with suppliers and customers." We postulate that the "internalization advantage" is not needed for the firm to prosper as long as performance is not growth and the size of the firm. Instead, performance is related to the network and the ability of the firm to control and coordinate development of the network. MNEs have in many cases developed an ability "to expand their value-adding activities through contractual means" (Lundan, 2010, p. 52; Augier and Teece, 2007). Dunning and Lundan (2008, p. 267) understand the propensity to do this as depending on the quality of the institutional advantage of the firm.

Given a satisfactory level of profitability, working with various contractual modes in a network fashion, allows the firm to affect the future, save on capital and keep the level of uncertainty at an acceptable level. Internalization theory has lost its *raison d'etre* as an explanation to the existence of the MNE. Its correct status is that it explains the phenomenon of FDI.

Governance via different contractual means requires, though, access to an ability to coordinate in a network fashion. This advantage is named "institutional advantages" by Dunning and Lundan (2008; Lundan, 2010). We prefer to regard this advantage as a "networking advantage," more exactly specifying what the advantage is about. This advantage is also of great importance as we, like many others (Bartlett and Ghoshal, 1989; Andersson *et al.*, 2007) see the MNE as a network itself, where headquarters (HQ) need similar skills to coordinate internally as well as externally (Vahlne *et al.*, 2011b, 2012).

We cannot help but concluding the section on internalization by citing Dunning and Lundan (2008) on an interesting point, that is again the less than perfect functioning of transaction-cost economies: "We would make one final but, we believe important, point. Most of the research on internalization of markets assumes that firms behave in an economically rational way, and in so far as it is considered at all, are able to combat, or at least minimize, uncertainty. However, in a non-ergodic world, and in one in which firms pursue multiple changing interests and engage in unfamiliar cultural domains, the efficiency-based transaction-cost model may need some modification" (p. 142). We like to hint the nature of our preferred view on assumptions by quoting Cantwell *et al.* (2010): "[…] to counter complexity and uncertainty is now seen as a driving force in the evolutionary process" (p. 567), a view we subscribe to. It is true we need a new approach to link the various characteristics of the firm and the environment to choice of mode of international operations. It should be based on realistic assumptions regarding control and coordination.

Obviously, also Dunning over time became less happy with some of the assumptions of the OLI-paradigm and he gradually eased some of them in the direction of more realism and in line with modern theory of the firm. Consequently, he presented several varieties of the paradigm (Eden and Dai, 2010; Narula, 2010), bringing it closer to our own thinking as expressed in the Uppsala model of the 2009 version (Johanson and Vahlne, 2009). The development has been to introduce various imperfections of the market into the OLI-paradigm such as bounded rationality, asymmetrical information, oligopolistic market structures, etc., and not least the existence of uncertainty (Dunning and Lundan, 2008, pp. 235, 264, 322). He seems to be unhappy with the static property of the paradigm and stated that business strategy bridges OLI at different points in time (Dunning and Lundan, 2008, p. 111). The resource-based theory is "injecting" dynamism into the eclectic paradigm (Dunning and Lundan, 2008, p. 120). However, the basics of the neo-classical assumptions remain.

In a later paper Cantwell *et al.* (2010), show how, in a dynamic fashion, external and internal institutions evolve over time. Institutions have an uncertainty reducing function as they reduce the liability of foreignness. This is no doubt true and of importance to MNEs. However, in our opinion, foreignness is reduced by decreasing the degree of outsidership, making it possible to interact to reduce the foreignness (Johanson and Vahlne, 2009).

We believe, that allowing for dynamics already to begin with by focussing on the process of internationalization and starting with empirically based assumptions is the way to proceed to build an alternative to the eclectic paradigm.

Assumptions

Those firms which grow and prosper have access to competitive advantages in the shape of operational and dynamic capabilities allowing them to interact with other actors in the environment in a manner advantageous to them (Helfat *et al.*, 2007). The dynamic capabilities imply that the firm is developing its operational capabilities over time by learning and innovating. As firms are no more than boundedly rational, path and network dependence will characterize the development process (Augier *et al.*, 2000).

Firms organize in fashions preferable according to contexts, relying on strategic preferences, including costs and potential for future profitable action. Transaction costs economics, due to the assumptions on which it is based, is a too narrow formula for judging on managerial preferences (Ghoshal and Moran, 1996). Or in the words of Cantwell (1989, p. 215): "[...] transaction cost theory specifies conditions under which non-market institutional arrangements will obtain (for example, within the firm), it does so at present to the exclusion of any active role for managerial strategy." One important reason, among several, is that decisions are not taken on the impact on individual transactions as in most cases firms are parts of many dyadic business relationships, in which there are long series of transactions affecting each other in a dynamic fashion (Dyer and Singh, 1998; Ford, 1997; Håkansson, 1982).

In a neo-classical market, it is assumed, there are numerous sellers and buyers dealing with homogeneous products. In opposition to this we assume that there is a limited number of actors in the market, dealing with heterogeneous products and services. Over time parties in dyadic business relationships learn about each others' capabilities and needs and accordingly adjust to each other as a way of improving on efficiency. In this way mutual commitments may be increasing, if performance is satisfying and prospects are promising (Johanson and Vahlne, 2009). If performance is less than satisfactory and prospects are not promising, commitment may decrease and, in not rare cases, the relationship may come to an end.

Dyadic business relationships are connected to other such relationships and because of that firms and individual relationships are embedded in webs of relationships – business networks (Anderson *et al.*, 1994). Generalizing from that view we assume that markets are networks of interconnected relationships, where relationships and interconnections may be of varying character (Johanson and Mattsson, 1988; Johanson and Vahlne, 2006). This implies in turn that different country markets may be more or less interconnected through network relationships. As interaction with parties in the market environment is accomplished within relationships – learning, creating, internationalization, improving on dynamic capabilities – it is important to be an insider in relevant networks. The insidership is in itself a critical dimension of several dynamic capabilities and hence constitutes an advantage. Hence, there is an advantage of insidership and a corresponding liability of outsidership (Johanson and Vahlne, 2009).

The market network view implies that market networks are emergent structures, which develop through the interaction between the actors in the market (Kogut, 2000). The market structures are stable and changing. In some cases the changes are gradual, in others they are rapid and even revolutionary. Such rapid changes may depend on the actions by single actors.

A neo-classical market is in equilibrium. We rather prefer the opposite: markets, and the whole economic system, are always undergoing change as assumed by Austrian scholars (cf. for instance Kirzner, 1973). Starting from the assumption of equilibrium can be extremely misleading in analysis of changes and developments. In fact, an assumption of equilibrium inhibits dynamic analysis.

We also assume that it is reason to view the MNE itself as a network (Bartlett and Ghoshal, 1989; Forsgren *et al.*, 2005). This implies that the firm is not one decision unit and strict hierarchical relations between HQ and subsidiaries do not exist. Subsidiaries and other group units are in various ways dependent on resources from each other and from firms in the market environment. Subsidiaries may gain some influence on other group units by controlling critical resources. In particular, subsidiaries which have access to critical external resources thanks to strong relationships get a strong position in the firm (Andersson *et al.*, 2007).

Finally, the internalization theory explains conditions for cost minimization and we mean that there is reason to have a wider perspective assuming that the role of the firm is to create value by building, developing and coordinating business network relationships. Following Snehota (1990) and Pitelis and Teece (2011) we regard this as the business enterprise role of the firm. This means first that, compared with the firm view in the eclectic paradigm, we move focus from structures to change and development processes, and, second, from production investment to business relations with market actors. According to our view the MNE, or rather the multinational business enterprise (MBE), is a firm building and developing value-creating business networks in and between foreign countries both inside and outside the boundaries of the firm.

These assumptions allow us to develop the Uppsala model which we think is in accordance with the characteristics of the economic reality as we know it, also characterized by dynamics and uncertainty and focus on the evolutionary processes and not the stock of foreign direct investment. Below we describe the building blocks we are using in developing our approach to explain the evolution of the MBE: the Uppsala model, the dynamic capabilities theory, theory of entrepreneurship and management under uncertainty.

The Uppsala model

The original Uppsala model was based on inductive studies of Swedish multinational companies which were found to start their internationalization on markets close to the home market in psychic distance terms and gradually entering markets further away. On the individual market, entry modes were typically preferred were those implying little investment and hence risk taking, while later more committing modes were chosen as to better exploit the market potential (Johanson and Vahlne, 1977). This behavior was explained as balancing uncertainty. Later, we have found this pattern to be more diverse, as more modes have become applicable and the psychic distance concept, being of relevance on the micro-level, implies that "what is close to the home market" is in reality highly context specific, that is depending on the experiences made by critical people in the firm (Johanson and Vahlne, 2009). Lately, we have applied the model on the process of globalization (Vahlne *et al.*, 2011) and on internationalization seen as an entrepreneurial process (Schweizer *et al.*, 2010). These studies have convinced us that uncertainty is a phenomenon we have to pay more attention to.

Now the environment of the firm is assumed to be of a network character with companies embedded in dyadic relationships with other actors, who in turn are embedded in other such relationships. This implies that relationships are connected to each other constituting network structures. It is in those relationships exchange takes place: not only exchange of products and services, but also knowledge and information. New knowledge is developed in sequence with a growing trust as to strengthen the relationship. If the two parties to such a relationship see potential for a positive development, in the shape of growth or improved efficiency, they will commit themselves to future joint cooperation (Johanson and Vahlne, 2003). As "what happens, happens in relationships," building a number of such relationships constitutes a large and important investment, and once established, an organizational or ownership advantage.

Engaging in relationships is not risk-free as far from all relationships continue to develop but on the contrary are coming to a halt (Hohenthal, 2001). In that case, what has been invested was in vain, from both parties point of view. This is an important characteristic of the network view on markets. The individual firm cannot maneuver freely from what relationship partners prefer, but many important activities are to be understood as a joint undertaking. This implies that the focal firm is not independent, it can on the other hand exercise some influence on partner firms.

In the network view on markets it is assumed that resources are heterogeneous as assumed by Penrose (1959) and in the resource-based view (Barney, 1986). That is a reason why the knowledge developed is locally situated and not available to those being outsiders. Being an outsider implies you are not part of the network having access to the resources developed in the critical relationships and hence also from the potential opportunities emerging out of the ongoing activities.

We mean that internationalization is an aspect of developing opportunities that emerge in the ongoing interaction in one or more relationships. That is why we see the internationalization process as consisting of two intertwined sub-processes: learning, mainly experiential learning and commitment building. And, as said above, these sub-processes happen at both ends of dyadic relationships. When establishing such a relationship across a border, we name it internationalization.

As to the underlying assumptions, one has already been mentioned: the heterogeneity, from which follows several things. Knowledge developed by the focal firm or jointly with its partners is not a public good but available only to those involved in its development. Knowledge about opportunities is an aspect of that, and this is important as the existence of opportunities, whether discovered or created, available to insiders only, we suppose is the driving force in the economic system.

Actors in the firms are supposed to be boundedly rational and guided by problemistic search (Cyert and March, 1963; Augier *et al.*, 2000). As firms operate in an environment which is only vaguely known, and where information is unclear and hard to interpret, firms operate in a climate of uncertainty, ambiguity and complexity. Managers have to act on highly subjective grounds, and acting may be the only way to learn and create new knowledge (Vahlne *et al.*, 2011, 2012). Also, "Organizations are characteristically pictured as acting in pursuit of intelligence, but the route to intelligence is not calculative rationality but the application of rules that adapt through conscious intent, learning, imitation and selection" (Augier *et al.*, 2000, p. 560). Those rules can also be named institutions or routines.

According to Knight (1921) uncertainty prevails when the phenomena of relevance are unique so that it is not possible to calculate risks. And as the business environment offers unique change bringing ignorance about the future, there is a situation of "Knightian" uncertainty: the future is unknowable. It seems as if Knight recommends adjustment as a way to cope with uncertainty, if the context does not permit transformation to a situation of risk. Repeating the action will allow managers to learn. "Contemporary economic theories of organizations are almost entirely theories of *uncertainty*" (italics in original) (Augier *et al.*, 2000, p. 559). This statement fits well with our view and management under uncertainty is an important ingredient of our suggested model.

In relation to the environment Weick (1979) mainly stresses ambiguity and complexity. Even with a wealth of information available, the causal relations may be heavily unclear. There is scope for interpretation and managers make "sense," perhaps diverse, of what they learn. Organization members even enact the environment, implying they partly "create" the environment. Action, and especially, repeating the action is seen by Weick as a way to cope with complexity and ambiguity, a view that is consistent with the business network view assuming that the firm in interaction with other firms creates new market structures. This view resembles that of Knight and a similar opinion is raised by Winter (2005). Even emotionally grounded action, such as commitment to an objective makes it according to the Jamesian theory of action (James, 1879; Barbalet, 1997) possible and necessary to act. The assumption is, humans have an in-built will to act as to improve on the current state of affairs.

The Uppsala model then consists of an interplay between state and change variables, implying that learning and commitment building affect the stock of knowledge, including emotionally based will to act, and the network position of the firm, which in turn affects learning and commitment building, making the model dynamic and evolutionary. The network position encompasses the degree of internationalization, trust and commitment for and from network parties. Apart from opportunities, already mentioned as an important part of the knowledge stock, there is also knowledge on network parties' strategies, capabilities and plans. It should be noted that both learning and commitment building not only serve the purpose of improving on efficiency and promoting growth, but also help managing uncertainty.

In later applications of the model we have made the distinction between the external network position of the firm as a whole and the internal network positions of HQ or MBE units, as we see the firm as a network itself (Bartlett and Ghoshal, 1989). Also, adjusting the model to explain the globalization process, we have added processes of re-designing the coordination system and reconfiguring the operations of the firm (Vahlne *et al.*, 2011b, 2012). It follows that we have clearly adopted the view of the MBE as a network in itself (Ghoshal and Bartlett, 1990; Forsgren *et al.*, 2005) embedded in wider business networks, where different group units have specific network relationships with external firms. Thus, configuration is a matter of the patterns of relations between different units with different roles in the MBE network. For example, some subsidiaries, embedded in their local environments, are important in terms of innovating on behalf of the whole group (Birkinshaw, 2000). Regnér (2003, 2008) even found that subsidiaries at the periphery of the group are able to produce, given the strategy of the MNE, radically new innovations. A price HQ may have to pay for this higher degree of innovativeness, is a higher level of uncertainty.

Due to incremental change, absorptive capacity and experiential learning under uncertainty, technical change is path-dependent (Rosenberg, 1979, 1982; Zander, 1994). For similar reasons so are the internationalization and globalization processes (Vahlne *et al.*, 2011b, 2012).

Dynamic capabilities

Grounded in the resource-based view, dynamic capabilities have become an important concept within evolutionary economics and strategic management. The definition is: "A dynamic capability is the capacity of an organization to purposefully create, extend, or modify its resource base" (Helfat *et al.*, 2007). As opposed to operational capabilities, determining effectiveness in ongoing operations, dynamic capabilities determine an organization's ability to adjust to its environment, that is strategic change. Dynamic capabilities are exploited via organizational processes and are themselves developed via such processes. Of particular interest is the information processing capability which among other things impacts on the ability of the organization to discover or create opportunities (Teece *et al.*, 2002). The main mechanism for development of such capabilities are processes of learning and experience (Helfat *et al.*, 2007, p. 3; Zollo and Winter, 2002).

The difference between the dynamic capabilities concept and the traditional resource concept is that the former can develop and exploit a given set of resources. A certain resource may, for example, have little value in one company while being of high value in another organization thanks to a superior dynamic capability. It is acknowledged that a focal company can have access, although limited, to the resources of other companies thanks to, for example, an alliance (Dyer and Singh, 1998).

Important is that the proponents for the dynamic capabilities view see emergent strategic change as acceptable under the umbrella of "purposeful," as there no doubt is an intent behind the change although it is not necessarily planned in advance. This also includes action taken by managers down in the organization even without top management involvement (Helfat *et al.*, 2007, p. 5).

The performance of a dynamic capability is its "evolutionary fitness," that is how well the organization adjusts to the changing environment. If the value of those dynamic capabilities is superior to those of competing companies, the focal company has a competitive advantage. This may be thanks to heterogeneity, an assumption of great importance. To some extent the environment may not be regarded as fully exogenous but can to some extent be endogenously determined (Helfat *et al.*, 2007, p. 12). This we regard as important, allowing for entrepreneurial action and network development.

As said above, organizational processes is the mechanism through which dynamic capabilities are put to use but it is also through such processes that dynamic capabilities develop (or disappear): "Key ingredients of dynamic capabilities include organizational processes directed toward learning and innovation, the basic manner in which a business is designed, as well as the decision frames and heuristics that inform firms' investment choices over time" (Helfat *et al.*, 2007, p. 19). In our interpretation, this is very similar to the Uppsala model, depicting two change processes, learning and creation and commitment decisions, which to some extent are investment decisions (Johanson and Vahlne, 1977, 2009). Further, the dynamic capabilities can be described and evaluated at any point in time, just like the "state" variables of the Uppsala model, but in principle there is no equilibrium as the organizational processes go on more or less continuously. Another similarity is the importance paid to opportunities, by Helfat *et al.* (2007) regarded as a dynamic capability and by us as an especially important knowledge. As remarked by Helfat *et al.* (2007, p. 62) with reference to Dierickx and Cool (1989) and Teece *et al.* (1997), "The idea that capabilities emerge from a series of path-dependent learning experiences is a central one," related to the thinking of Nelson and Winter (1982) on evolutionary economics. That same thought was also critical already in the 1977 version of the Uppsala model (Johanson and Vahlne, 1977). Finally, "[…] organizational resource reconfiguration and coordination processes underpin dynamic capabilities" (Helfat *et al.*, 2007, p. 117). This is an important part of the dynamic interplay between state and change variables of the Uppsala model (Johanson and Vahlne, 1977 and 2009).

On top of path dependence, there are some other assumptions, on which the dynamic capabilities view rests, that are of interest. Where the firm border is drawn is assumed to be dependent on several factors, not just the transaction costs. On the other hand, exactly how the border is drawn is not a critical question as the focal firm can, by employing its relational capabilities, exploit resources outside of its borders (Dyer and Singh, 1998; Helfat *et al.*, 2007, p. 28).

Humans are supposed to have more interesting characteristics than those assumed by Williamson (1985). But here is no mentioning of trust building and a propensity to cooperate, but obviously managers are supposed to be only boundedly rational. The existence of uncertainty and ambiguity is acknowledged, but the impact of these contextual characteristics on the dynamic capabilities or the organizational processes is not discussed. When discussing relational capabilities, Helfat *et al.* (2007) focusses mainly on the intellectual side of these capabilities, such as knowledge management, while the trust-building side of those capabilities is only rarely touched upon, and how firms can build trust is not dealt with at all (Chapter 5).

Entrepreneurship theory and management under uncertainty

The context of the MNE, we and others (e.g. Dunning and Lundan, 2008) believe, is complex and changing in ways not always easy to understand and explain (Weick, 1979). Not least is the business environment changing due to actions by several actors, trying to innovate better technology and better ways of serving customers. This is consistent with the view that firms are not just passively adjusting to the environment but actively seek to transform the environment: technology is endogenously created rather than received from the environment (Nightingale, 2008). This can also be seen as a way of coping with uncertainty: push your solution onto the environment! Hence, the dynamic capabilities are important in improving on the operational abilities of the MNE. Of these, we think the entrepreneurial capability deserves some extra interest. As the context, for reasons given above, often is characterized by high degrees of uncertainty, the capability to develop the business under such circumstances is critical.

We think the "effectuation process" as described by Sarasvathy (2001) well characterizes the entrepreneurial process. The focus on exploitation of contingencies, in our words experiential learning, working with network parties and concentration on what can be controlled, are valuable elements of the effectuation process theory. Exploitation of contingencies is made possible by accepting March's (1982) view of goal ambiguity. Effectuation is consequently suitable in the high-level uncertainty context. But Sarasvathy is eager to point out, that of course there are contexts characterized by lower levels of uncertainty and a causation process may be adequate. The causation process is similar to a model of rational decision making, useful in the neo-classic context.

An interesting aspect of the effectuation process is that it is assumed that the decision maker focusses on "affordable loss" rather than profit. This makes uncertainty less important as long as the project at hand seems to perform within the "loss limit." The same impact follows from the fact that the vague objectives allow the decision maker to exploit the emerging contingences, presumably characterized by less uncertainty than those factors having been the object of predictions.

Given the context described above characterized by uncertainty, we postulate that (corporate) entrepreneurship is to a large extent what management is about. Consequently, coping with uncertainty is an ever present aspect of firm evolution, even if managers presumably think they are dealing with relatively immediate problems or opportunities (Vahlne *et al.*, 2012). It follows from the Uppsala model that while exchanging products, services and knowledge in the network relationships, new opportunities, contingencies emerge and that managers start acting and in that way gradually learn so that uncertainty decreases. There is a will to act as to improve on the current state of affairs (James, 1879; Weick, 1979). But as the future is unknowable Shackle (1979, p. 12) states: "Decision is choice, but choice amongst what?" "Choice is amongst imagined experiences." In our interpretation, history matters but as experiences are input into processes of innovation, change may occur.

Cantwell *et al.* (2010) argues that the increased uncertainty forces MNEs to engage in institutional entrepreneurship, implying experimentation and decentralization (p.580). We believe this is correct but not enough: MNEs are on and off rethinking the whole structure and control of the economic and non-economic activities they are involved with. Our belief is that the network development is more likely. We need to change the unit of analysis from being the MNE only to the MBE in its network.

The Uppsala model on evolution of the MBE

Building on the stepping stone of the Uppsala model, congruent with the dynamic capabilities view and incorporating building blocks from theory of entrepreneurship and management under uncertainty we develop the model to explain the evolution of the MBE. Important to note is that following our assumption of the context of the MBE as a network of relationships is that the organizational processes pictured in Figure 1, are happening also at the other end of the dyadic relationships in which the MBE is involved (Johanson and Vahlne, 1990).

Essentially, the model captures a process consisting of two sorts of change variables: decisions committing the organization to a certain party, project or strategy and ongoing inter-organizational processes of learning, creating and trust building. These processes that essentially are interaction processes involving several actors go on more or less continuously as there is no equilibrium. The model is dynamic in the sense that when new knowledge is learned or created, it will have an impact on the

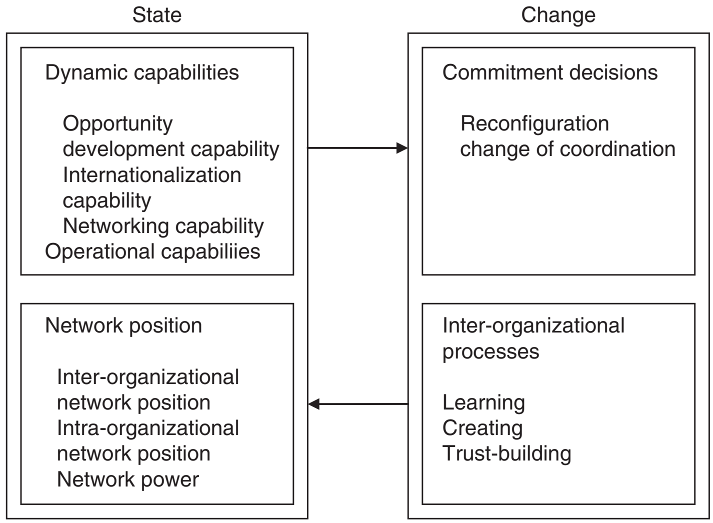

Figure 1.
The Uppsala model of MBA evolution

continued learning and creation as well as on the commitment decisions. Correspondingly, the commitment decisions will have an impact on subsequent knowledge development. The state variables can, at any moment in time describe the current status of the MBE knowledge and capabilities as well as the network position. The organizational capability says what we can do and the network position tells where we are in a network space. Together they have a strong impact on the changes. An effort has been made to keep the model as parsimonious as possible.

The upper right quadrant identifies the decisions driving the process of emergence and growth forward. The basics of these decisions are that the focal entity, HQ or a subsidiary on behalf of the group externally or HQ on its own behalf internally, commits resources to a particular object, a relation to an important external partner, a product development project at an owned center of excellence or a strategy of the group. Commitment may take the shape of a tangible investment, which then can be described in terms of volume and degree of commitment, that is with what difficulty resources invested can be used for an alternative project (Hill *et al.*, 1990; Johanson and Vahlne, 2006). Size of the commitment is then the volume times the degree of commitment. However, commitment may also be intangible, consisting of, for example, an oral statement by a powerful individual supporting a particular development project or a public statement of a strategic change. Indirectly, this intangible commitment may later draw large financial resources. Top management praising a particular action taken by a subsidiary at a conference with all subsidiary heads attending may also have strong impact in changing subsidiary behavior.

In taking such decisions we assume the criteria postulated by Sarasvathy (2001) apply: affordable loss, or even unclear impact on stated official objectives and other ad hoc objectives utilizing means available. Driving the process is knowledge of opportunities, whether "discovered" or "constructed" (Johanson and Vahlne, 2006).

Commitment decisions, as stated above, can be expressed according to the two dimensions: volume and degree of restraint in re-allocating the resources committed. In a somewhat operationalized fashion, this can be regarded as reconfiguration of resources available and re-design of coordination systems and their content

(Vahlne *et al.*, 2011). According to the network view of the firm and its related partners such decisions may concern both internal and external configuration and coordination systems. This implies that HQ is to some extent "forcing" other parties, whether internal or external to the group, to commit resources to a particular object. Like Emerson (1962), we see no major difference in coordinating with owned units and with external units in the network. No longer can HQ rely upon entirely hierarchical means but has to some extent to "sell" its wishes and make other parties see long-term advantages following implementation according to HQ intensions (Vahlne *et al.*, 2011, 2012).

The network view of the MBE suggests that the same reasoning can be applied on a specific subsidiary management. It can make commitment decisions according to the effectuation process within the limits of affordable loss, which frequently are based on budget constraints. The commitment decisions are likely to concern development of specific customer or supplier relationships. Such commitments, however, will initially lead to limited investments but as the value of the initial investment is dependent on considerable subsequent investments of managerial efforts over long periods in expectation of future business the commitment may have long-term effects. Frequently such investments are handled as operational costs and the real investments by the subsidiaries will probably be underestimated. Thus, it is reason to believe that most estimates of foreign direct investments according to the eclectic paradigm will be too low. An exception is acquisition of firms. In that case, the take-over price includes the value of the network of the acquired firm. In particular it can be expected that trading firms and other firms whose business is dominantly based on a network of trading relations will not according to the eclectic paradigm be classified as MNEs. In the international business research they are usually regarded only as extensions of manufacturing firms. In the Uppsala model those firms are regarded as MBEs and their developments can be explained in the same way as other MBEs.

Outcome of commitment decisions is, to begin with, the birth of a firm, whether "born global" or not. The decision to start by committing resources, in the extreme case only the entrepreneur's own capabilities, implies that, after this decision, there is a firm with at least a basic organizational capability from which it can proceed. This firm can then grow domestically, to internationalize later, or quickly advance internationally. The difference is, in our opinion, not necessarily that large, given the characteristics of the focal firm's network (Johanson and Vahlne, 2009).

Although it can be assumed that the commitment decisions are based on some kind of intentions (Hutzschenreuter *et al.*, 2007) it is quite possible that the intentions are not realized as demonstrated by Santangelo and Meyer (2011) in their extension of the Uppsala model based on Mintzberg and Waters (1985). It is likely that such commitment decisions lead to unexpected knowledge development processes as well as future commitments, which, in turn, will have effects on subsequent development of the MBE.

The lower right quadrant identifies inter-organizational interaction processes involving learning, creation and trust building. We share the view that individuals learn and what has been learned is transferred as tacit or explicit knowledge to other organizational members and are if useful made into routines (Cohen and Bacdayan, 1994; Nelson and Winter, 1982), patterns of action. The most important learning fashion is experiential, but also imitation and search is of importance (Argote, 1999; Forsgren, 2002). As learning is cumulative in nature, in the sense that previous knowledge seems to have a strong impact on the ability to learn more, but also on the direction of future learning, the absorptive capacity, there is a history dependence in the firm evolution process (Cohen and Levinthal, 1990). We think the relation between learning and creation is tight and that mostly, the creation process occurs more or less simultaneously with the learning process. The creation process is of central importance as it infuses novelty in the evolution process of the MBE (Dosi and Marengo, 2007). It does so in two ways, it creates new knowledge and new relationship structures.

Trust seems to be an important prerequisite for learning (Granovetter, 1985, 1992; Madhok, 1995). Nahapiet and Ghoshal (1998) understands this so that existing social capital supports learning which in turn supports the further building of joint social capital. Trust consists of both affective and cognitive elements and is of importance in building relationships, so important in our model (Morgan and Hunt, 1994). Trust makes it possible to predict the behavior of the other, that is the party at the other side of a dyadic relationship, and in that sense affects the degree of uncertainty. Trust is a prerequisite for commitment which is the essential building bloc in constructing a relationship. And relationships are essential to our paradigm. It signals a willingness to continue the relationship and make it grow in importance.

Transaction cost economics, with its focus on opportunism, we think is based on abstract assumptions (Williamson, 1985, 1991) not validated by empirical research. We prefer and conjure with the position of Madhok (2006) to assume the relevance of trust rather than opportunism. And we agree with Morgan and Hunt (1994) that "when both commitment and trust – not just one or the other – are present, they produce outcomes that promote efficiency, productivity and effectiveness" (p. 22). Madhok (2006) found that trust building is a "costly and time-consuming process" and commitment is developed late in the process (Boersma *et al.*, 2003). We subscribe to this view, consistent with our own findings related to internationalization and entrepreneurship (Johanson and Vahlne, 2009; Schweizer *et al.*, 2010).

The upper left quadrant comprises the first of the two state variables: the dynamic and operational capabilities (Teece *et al.*, 1997) of the focal firm. According to the process model above the capabilities are assumed to be influenced by processes of learning, creation and trust building and the related commitment decisions. In earlier versions of the model we specified knowledge only. Given the importance we attach to the dynamic capability of firms we use the capability concept including the knowledge required to use the resources. It is also worth comparing the capability concept with ownership advantage concept which has a somewhat similar role in the eclectic paradigm. A first difference is that the concept of capabilities is consistent with the diffuse borders of the firm by including that the operational and dynamic capabilities controlled by other members of the focal firm's network may be exploited. Moreover, advantage is a relative concept based on assumed competitors' resources. An important reason for using the capability concept is that we want to understand the development over time of the MBE, while the eclectic paradigm is out to explain the FDI structure.

We specify three types of dynamic capabilities that we, following the Uppsala model, consider to be of special importance for firm international development. The first is opportunity development capability that is critical in driving the firm development process (Ardichvili *et al.*, 2003; Chandra *et al.*, 2012; Johanson and Vahlne, 2009; Pitelis and Teece, 2011). This includes capability to identify opportunities and to mobilize relevant resources both within the own firm and within other firms involved in the opportunity. The second is internationalization capability that is central in the development of the multinational firm (Eriksson *et al.*, 1997). This comprises capabilities to approach and develop different markets and locations under various circumstances. The third is the networking capability encompassing the ability to build, sustain and coordinate relationships in a network type context (Ritter, 1999). This can also be labeled relational capability. As mentioned we consider both the internal and external environment to be of a network character.

The lower left quadrant identifies the performance variable, organizational network position. The network position of an actor is a matter of which other actors it has relationships with, the strength of those relationships as well as the roles of those actors in the wider networks (Johanson and Mattsson, 1992). The favorableness of that position, in terms of profitability and potential for continued good position development is a result of earlier commitments and learning, creating and trust building and is, in turn, a starting point for future commitment decisions in the network. The position can be described also in terms of degree of multinationality or globalness. To note is that the organization's network position is by no means an outcome of HQs' actions only. As has been shown lately, subsidiaries play an important role in promoting the degree of success of the group and their activities may have a decisive impact on the external network position of the MBE. Also, HQ has a far from full control over internal and external units and consequently the degree of success depends also on the quality of the relational skills and, including the "institutional advantages" in Dunning and Lundan's (2008) terminology.

Finally, the network position is a matter of the power-dependence relation between the network partners (Cook and Emerson, 1978). This implies, in turn, that actors with strong network positions have a kind of market power (cf. Hymer, 1960/1976). Market power allows the MBE to affect the environment in a way advantageous to itself. An aspect of this is that as the powerful MBE, compared with a powerless MBE, can affect environmental change, it experiences less uncertainty.

Discussion

As is hopefully evident from the previous sections the main reason why we develop the Uppsala model to be an alternative to the eclectic paradigm, is the need to use realistic assumptions. The major difference concerns uncertainty. Dunning himself is clearly "suffering" from the inability to cope with this. But he is on the final page of his (and Lundan's) opus magnum pointing to "[…] the challenge of the non-ergodicity of the global economy we believe that IB scholarship will need once again embrace a broader range of methodologies […]" (Dunning and Lundan, 2008, pp. 762-763). We believe our model accommodates, not new methodologies but a different theoretical approach allowing extreme uncertainty. Dunning and Lundan are referring to the current and future rapid and complex changes of the environment to motivate the existence of the extreme uncertainty. It may be true that the level of uncertainty is rising. We, however, believe there has always been a lot of uncertainty connected with management and that is why we constructed our model the way we did. We think the existence of uncertainty, including complexities and unclear cause and effect relationships, is an underestimated factor in management. The Uppsala model eliminates that under-estimation.

While the focus of the eclectic paradigm is the structure of foreign direct investments the Uppsala model places attention on the evolution process of the MNE. The central element of this process is the inter-organizational processes in the lower right quadrant in Figure 1. In the 1977 Uppsala model this was called current activities that were assumed to lead to increased market knowledge by experiential learning. In the 1990 version of the model it was called current interaction as the focus was moved to the ongoing inter-organizational process involving the firm and its counterparts on the foreign markets. It was assumed that the activity or interaction processes resulted in learning about foreign markets and operations. It is now assumed that the ongoing inter-organizational processes have a wider impact on the organizational capability of the firm. It influences both operational and dynamic capabilities. Consistent with the dynamic capability theory it is assumed that the basic effect comes from experience (Zollo and Winter, 2002).

We believe that our suggested model will have some important consequences for theory. The relevance of one of the critical issues in international business, choice of mode, in our view becomes of lesser importance. In many instances, as we have argued above, several alternative modes can bring similar result: degree of success from cooperation with both internal and external entities depends very much on the ability of HQ to build and develop relationships and coordination with and between those entities. Hence, the value of the internalization advantages should also be of lesser importance while the operating capabilities to build and coordinate relationships with network parties are of higher importance. Also, then the dynamic capability of developing those skills should be seen as being of utmost importance. Those skills are critical in the efforts of the MBE's ability to learn and create for example new technology, always having been looked at as one of the most important explanations behind successful and sustainable development of multinationals.

Another consequence from the paradigm is that location is rather an aspect of the relationship building. In the extreme, it might be that the national location of a partner is totally irrelevant: it is the firm-specific characteristics of the partner that matters. These in turn of course are more or less dependent of the characteristics of the home country of the partner. But it is often so, in our world, that the location is not an explicit decision criterium, while it is so according to the eclectic paradigm.

Admittedly, in both aspects mentioned above, there are differences between contexts. For example, in certain cases, internalization is judged as advantageous for development of technology. Another example could be that China is a preferred location and that a partner is looked for there. We therefore ask for theories, clarifying in what contexts choice of mode and location are taken before choice of partner, to be developed.

Our model leaves scope for managerial discretion following from strategic analysis. According to the eclectic paradigm there is no such scope for managerial discretion: the outcome of the transaction cost analysis is the sole criterium.

It has been suggested that the Uppsala model implies path dependence in firm internationalization (Hutzschenreuter *et al.*, 2007; Johanson and Vahlne, 2009). Path dependence is also an implication of dynamic capability theory (Vergne and Durand, 2010; Teece *et al.*, 1997). The concept was initially used in explanations of technology development (Arthur, 1989; David, 1985). Later it has also been used in analysis of organization development. In a discussion of the emerging theory of organizational path dependence Sydow *et al.* (2009) stresses that path dependence is strongly influenced by initial conditions together with a self-reinforcing mechanism leading to a narrow development path. They argue that path dependence typically is associated with developments characterized by coordination effects, complementarity effects, learning effects and/or adaptive expectation effects. Several of those effects are present in the Uppsala model and, consequently, it is reason to assume that the model implies strong path dependencies. But the paradigm also comprises several characteristics that work in the opposite direction. First, it assumes that creation is an important effect of the inter-organizational interaction processes. Knowledge creation in the interaction between two parties will be an outcome of the different problems that the parties bring to the interaction. Second, it assumes that commitment decisions frequently are made in situations characterized by uncertainty using the effectuation model where the consequences are undetermined. Thus although the model implies some path dependence it leaves room for new path creation (Garud *et al.*, 2010). Against that background we think that the development of the MBE is better characterized by history dependence (Cyert and March, 1963) which denotes a weaker dependence than path dependence.

The Uppsala model, meant to be an alternative to the eclectic paradigm, has to be very general in nature; it should be able to accommodate different theories within IB, for example, issues such as location and mode of operation. Also, it is obvious that the model must be able to accommodate theories on strategic change as so much of outcomes from decisions in the multinational in dimensions such as location and mode are actually following from decisions concerning strategy (Dunning and Lundan, 2008, pp. 87, 144, 266). Moreover, the fact that MBEs to an increasing extent develop their own "individual personalities," for example in terms of the by Dunning and Lundan (2008, pp. 322-323 labeled as "institutionally related advantages" (of which we are strong believers), will make it necessary for the model to be general and be able to accommodate also the contextual aspects. Having been sometimes bothered about the generality of the Uppsala model, we feel more comfortable now with this characteristic as we see it as an alternative to the eclectic paradigm.

Empirically we believe longitudinal case studies would be the way forward. As we think the strategic considerations and contextual aspects are important in understanding the processes of internationalization and globalization, these are better studied jointly, and preferably real time.

It should be noted that the Uppsala model only deals with the business side of the activities of the firm. The financial side of the business offers other ways of dealing with uncertainty (cf. Oxelheim and Wihlborg, 2008).

Finally, we return to the definition of the MNE, which impacts on the way we can explain the evolution of such a firm. As so often, we find Dunning and Lundan (2008) approaching a, what we consider to be a reasonable view, but not going to the logical end. The definition of an MNE offered (p. 143) goes as: "The MNE is thus best considered as *a coordinator of a system of domestic and foreign activities* that are controlled and managed by it" (italics in original). We prefer to see the MNE, as a business enterprise (MBE), a firm that has a capability to build, develop and coordinate value-creating multinational business network structures, involving both internal and external actors.

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