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Inertia and Managerial Intentionality: Extending the Uppsala Model

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ABSTRACT

- The Uppsala Internationalization Process Model is the most cited model within the field of international business. However, even with its most recent formulation, the model is predicated on a key set of assumptions about the limiting and releasing mechanisms in a 'change of state' decision.

- The model assumes that uncertainty, risk, lack of trust, and lack of awareness of opportunities are the main constraints, and that the accumulation of experiential knowledge, trust, and market commitment are the main releasing factors that allow a firm to overcome those constraints and progress to a higher state of commitment.

- We argue that the preceding view may be excessively narrow, and that inertia and managerial intentionality may also play a role as critical limiting and releasing mechanisms respectively. This development implies that the passage of time and experiential learning may not always have a positive impact on firm internationalization.

- The extended model proposed in this paper highlights the role of the manager, and brings a contingent element to the model, thus broadening its applicability by providing new insights on issues typically considered outside the realm of the Uppsala model, such as rapidly internationalizing firms, regionalization, mode inertia and mode skipping.

Keywords: Inertia, managerial intentionality, internationalization, Uppsala model

INTRODUCTION

For more than forty years the original Uppsala internationalization process model (Johanson and Vahlne 1977) and its subsequent variants (e.g., Johanson and Vahlne 1990, 2003, 2006, 2009) have been the dominant explanation of how firms extend and deepen their international expansion[1]. This model and its variants continue to generate debate and inspire empirical investigation (e.g., Vahlne and Ivarsson 2014; Welch and Paavilainen-Mäntymaki 2014; Forsgren 2016). However, while substantial modifications to the model have been suggested, virtually all of the formulations are predicated on a narrow and common set of limiting and releasing mechanisms influencing 'state of change' decisions. Surprisingly, these core mechanisms have not been contested theoretically, nor subjected to empirical testing (Forsgren 2002; Johanson and Vahlne 2006; Petersen and Pedersen 1997). Thus the primary objective of this paper is to question the underlying limiting and releasing mechanisms of the Uppsala model, and propose that a pair of mechanisms commonly employed in the other branches of management literature – specifically inertia (Tushman and Romanelli 1985; Greenwood and Hinings 1996) and managerial intentionality (Lewin & Volberda 1999) - may play such a role in the Uppsala model.

In their original model, Johanson and Vahlne (1977) proposed that firms in general tend to follow a process of gradual, incremental internationalization and that resistance to a 'change of state' is attributable to a key limiting mechanism: the risk and uncertainty arising from imperfect knowledge about foreign markets. This proposition was subsequently expanded to include lack of awareness of opportunities (Johanson and Vahlne 2006), and a sense of outsidership and lack of trust (Johanson and Vahlne 2009). Countering these limiting mechanisms, all of the existing variants of the Uppsala model propose that experiential learning is the key releasing mechanism. Indeed, Johanson and Vahlne (2009, p. 1411) themselves state, "The change mechanisms in the revised model are essentially the same as those in the original version, although we add trust-building and knowledge creation… (p. 1424) the basic structure of the model is the same as the one we built in 1977". The same holds for the most recent variant of the model (Vahlne and Ivarsson 2014).

We argue that the aforementioned set of limiting and releasing mechanisms may be too narrow; and in particular, the concept of inertia may play an important role as a limiting mechanism. For the purposes of this paper, we draw on the strategy and change management literature (Tushman and Romanelli 1985; Greenwood and Hinings 1996), defining inertia as a resistance to fundamental reorientations in strategy or firm activities. Our proposed modification is significant for two related reasons. First, the existing variants of the Uppsala model are all framed as ***positive*** self-reinforcing cycles: *ceteris paribus*, with the passage of time, as firms operate in an international environment, they will learn more about that environment and build stronger relationships. This will decrease the uncertainty and perceptions of risk, as well as increase trust and opportunity awareness, enabling the firms to increase their international commitments. However, we propose that if inertia plays a significant role as a limiting mechanism, this may imply a *negative* self-reinforcing cycle, where the passage of time and the accumulation of experiential knowledge may increase the strength of this limiting mechanism. While Johanson and Vahlne (2009) acknowledge in passing the possibility of learning having a negative impact on international commitment, this possibility is not recognized formally in the existing models.

[1] As noted by one reviewer, the high citation count for the Johanson and Vahlne (1977) article may be due as much to the empirical observation of gradual internationalization as it is to the model explaining that pattern of behaviour. Nevertheless, the combination of the two represent the most cited paper in international business literature.

Bringing inertia into the model raises a second significant issue: if the passage of time and accumulation of experiential knowledge can lead to the entrenchment of inertia, what is the mechanism that releases the firm from this inertial cycle? Here we again draw on the broader management literature and propose that managerial intentionality (Lewin and Volberda 1999), often operating in concert with environmental change, acts as a releasing mechanism. Note here that we are not rejecting the limiting and releasing mechanisms of the original Uppsala model (e.g., the importance of risk, uncertainty and experiential learning), but rather we are proposing that the process may involve a broader array of limiting and releasing mechanisms than the existing models acknowledge, specifically inertia and managerial intentionality.

These changes have two distinct implications for the Uppsala model. The first is what Alvesson and Sandberg (2011: 254) refer to as the challenging of an 'in-house assumption' or assumptions that "are shared and accepted as unproblematic by its advocates". Rather than representing an incremental extension to a theory, it represents a questioning of a fundamental assumption within the existing domain of a theory. In this context we are questioning the role that perceptions of risk and the positive aspects of experimental learning play in the internationalization process. In and of itself, we argue that the questioning of the underlying assumptions of a theory is a critical part of theory development; and thus, this is a major contribution in its own right. Second, this recasting of the Uppsala model to acknowledge the potential role of inertial tendencies and managerial intentionality also may help to explain why all firms do not necessarily following the same internationalization path. Specifically, it has implications for a variety of issues that at times have been viewed as challenges to or limitations of the original and revised Uppsala frameworks, such as rapid internationalization (Knight and Cavusgil 1996; Oviatt and McDougall 1994), regional strategies (Rugman and Verbeke 2004), skipping steps in the establishment chain (Petersen and Pedersen 1997), and firms becoming stuck in one mode of internationalization (Benito et al. 2009).

As a result, the remainder of this paper is structured as follows. Given the breadth of existing literature concerning the Uppsala model, we review the original model and the subsequent critiques and revisions, and propose a meta-model that we argue underlies all the existing variants. From this base, we then set out to develop an extended Uppsala model. The first step is a review of the literature concerning our proposed limiting mechanism, inertia, highlighting how it may influence internationalization decisions. Next we introduce our releasing mechanism, managerial intentionality, and how in combination with changes in the environment, it can trigger a release from inertia. An extended representation of the Uppsala model is presented, with implications and conclusions.

THE UPPSALA MODEL(S) REVIEWED

The Original Uppsala Model

The original Uppsala model builds on both the growth theory of the firm (Penrose 1959) and the behavioral theory of the firm (Cyert and March 1963). Johanson and Vahlne (1977, p. 23) argue that “internationalization [of the firm] is the product of a series of incremental decisions”, and that the process is best viewed as a dynamic learning model (see Figure 1) incorporating both ‘State’ (foreign market knowledge and foreign market commitment) and ‘Change’ aspects (commitment decisions and current activities).

This dynamic model begins with the assumption that imperfect knowledge about foreign markets, arising from psychic distance, is the major obstacle to expanding international operations. In instances where the psychic distance is large, the firm's uncertainty about a market will be magnified by the potential imperfections in information flows. In combination with large and difficult to reverse commitments, a firm may perceive investment in that market as excessively risky. This creates a "barrier to making commitment decisions" (Johanson and Vahlne 1977, p. 30). A firm may seek to reduce this risk either by selecting psychically closer markets - the psychic distance postulate - or by using a lower commitment mode, e.g., licensing or exporting rather than investing in the establishment of a foreign subsidiary. This later behavior is termed the 'establishment chain postulate' by Petersen and Pedersen (1997).

Following Penrose (1959), Johanson and Vahlne stress that experiential learning about foreign markets is the key releasing mechanism that ultimately allows firms to enter more distant markets and/or undertake increased levels of commitment. Once a firm enters and conducts business in a foreign market, it gradually accumulates experiential knowledge about that specific country. In turn, this experiential knowledge reduces the uncertainty about various aspects of the market so that some activities, previously rejected as too risky, begin to fall within acceptable levels of risk, and the firm is able to implement a change of state by progressing to a higher level of commitment.

Insert Figure 1 about here

Empirical Testing, Criticisms and Critiques of the Original Model

As with any theoretical framework, the original Uppsala model has attracted efforts to empirically validate its predictions, and a range of criticisms and critiques. In terms of empirical validation of the predicted firm behaviors, the overall results are best described as mixed (Björkman and Forsgren 2000). On one hand, the Uppsala predictions concerning psychic distance and experiential knowledge are now virtually *de rigueur* control variables in market selection models (e.g., Ellis 2008). The relationship has been supported with respect to predicting trade flows (Dow and Karunaratna 2006; Srivastava and Green 1986), foreign direct investment (FDI) flows (Davidson 1980; Green and Cunningham 1975) and specific market selection by firms (Berry et al. 2010; Dow 2000). Yet conversely, the growing field of research on born global (BG) firms (Knight and Cavusgil 2004) and international new ventures (INVs) (Oviatt and McDougall 1994) is almost entirely based on a subset of firms that appear to deviate from the original Uppsala predictions by expanding rapidly after inception into foreign markets.

Testing of the establishment chain postulate exhibits a similarly bifurcated pattern. A range of studies (Fina and Rugman 1996; Petersen and Pedersen 1997) has found support for this aspect of the original Uppsala predictions. On a more extensive scale, Luostarinen (1979) conducted empirical research covering almost the entire population of industrial firms in Finland and found support for the model. However, in contrast, other studies have found little or no support for the market progression postulate, or have identified a substantial number of firms that do not appear to conform to the predicted behaviors (Knight and Cavusgil 2004; Sullivan and Bauerschmidt 1990). These dissenting results have sparked a variety of criticisms, such as the model is too structurally determined (Reid 1984), does not reflect the contingent nature of a firm's strategy (Turnbull 1987) and does not adequately specify its boundary constraints (Andersen 1993).

Nevertheless, as Petersen and Pedersen (1997, p. 120) comment, the preceding investigations are focussed on the 'operational' predictions of the Uppsala model, and "…very few empirically based investigations of the theoretical part have emerged since 1977" (see also Forsgren 2002). Moreover, of the few empirical studies that have investigated the underlying mechanisms of internationalization, they have in general found only weak support for the Uppsala model. Sullivan and Bauerschmidt (1990) found no difference across the various stages of internationalization in perceptions of psychic distance as a barrier to foreign market entry. This finding casts doubt on the Uppsala assumption that international experience, reducing perceptions of psychic distance, is the major factor in the internationalization process.

Addressing the problem from a different perspective, Calof and Beamish (1995) investigated operation mode change decisions in a sample of Canadian firms. Based on interviews with executives regarding their reasons for foreign operation mode changes, they found a number of factors acted as drivers of change, and that only a small percentage of those factors correspond to the mechanisms described in the Uppsala model. By adding a broader range of factors, Calof and Beamish argued their model more ably incorporates both de-internationalization and mode-skipping, as well as the behaviors predicted by the Uppsala model. Similarly, in a sample of Danish firms, Pedersen and Petersen (1998) had found that the accumulation of foreign market knowledge is a significant predictor of the rate of resource commitment within each country, but that other factors outside the Uppsala model played an even stronger role.

Revisions of the Model

Subsequent to the original Uppsala model, there have been various revisions, including extensions of the original version (Johanson and Vahlne 1990; 2003), a network-oriented version (Johanson and Vahlne 2009) and a globalization model (Vahlne and Ivarsson 2014). Four key extensions to the original version of the Uppsala model are Eriksson et al.'s (1997) exposition on different forms of experiential knowledge; Forsgren's (2002) reconsideration of learning in the Uppsala model; Johanson and Vahlne's (2006) emphasis on opportunity development; and Hadjikhani's (1997) discussion of the concept of commitment. In each case, the respective authors delineate and expand upon existing components of the original model. Each of these extensions will be discussed now in turn.

Eriksson et al. (1997) argue that non-country specific 'internationalization knowledge' is a critical yet under-emphasized form of experiential knowledge. When operating in a foreign market, a firm "…learn(s) how to organize and manage international efforts" (Eriksson et al. 1997, p. 344). This may play a significant role in explaining why firms are able to progress to more psychically distant markets even when they do not possess any specific knowledge about such markets. As Forsgren (2002) notes, while the original Uppsala model does acknowledge broader firm experience, the main emphasis is on market-specific experience.

Forsgren (2002) extends this debate further by acknowledging that useful knowledge may also come from non-experiential forms of learning such as through relationships with other firms, imitation of other firms, the use of short-cuts such as acquisitions and focussed searches in new areas. He stresses these various alternative forms of learning may be part of a strand of 'proactive learning' as opposed to that of 'reactive learning' (Forsgren 2002, p. 261). It is noteworthy that these more active forms of learning - via 'creative activities' - have been included in recent versions of the Uppsala model (Johanson and Vahlne 2009; Vahlne and Ivarsson 2014). With respect to the model developed in this paper, we argue that managerial intentionality may play a role in initiating some of these alternative forms of learning.

In the third article, Johanson and Vahlne (2006) focus on the issue of imperfect knowledge arising from psychic distance, and argue that it may include a lack of awareness of opportunities, thus limiting the incentive for a firm to expand in such markets. This perspective is supported by research in entrepreneurship indicating that differential recognition of opportunities is related to knowledge differences between individuals (Shane 2000); and thus, the gradual accumulation of experiential knowledge is likely to lead to the recognition of new opportunities.

Addressing a different construct, Hadjikhani (1997) focuses on the underlying aspects of commitment, and argues that intangible assets, as well as tangible assets, should be considered when assessing the degree of commitment a firm has to a market. Using a series of case studies of Swedish firms operating in Iran, he illustrates that intangible assets may lead to an even higher level of commitment than investments in tangible assets.

In these four papers, it can be argued that the 'additional' constructs - internationalization knowledge, proactive learning, intangible assets and opportunity awareness - are at least implicitly, if not explicitly, included in the original Uppsala model, and thus they represent elaborations on the original market-oriented model. In contrast, two more recent articles (Figueira-de-Lemos et al. 2011; Santangelo and Meyer 2011) have sought to extend the Uppsala model by more explicitly incorporating aspects of the external environment. In particular, Figueira-de-Lemos et al. (2011) propose that incorporating the concepts of unstable environments and exogenous shocks into the Uppsala model may expand its generalizability by allowing the model to address both mode skipping and de-internationalization (Benito and Welch 1997). Following a similar line of argument, Santangelo and Meyer (2011) highlight that institutional voids and uncertainty may moderate the experiential learning process. They argue that under some circumstances firms may decrease their commitments despite increases in experiential learning. Thus, depending on the nature of the external environment, the internationalization process may be ‘derailed’. As with Figueira-de-Lemos et al. (2011), Santangelo and Meyer (2011) use these aspects of the external environment to broaden the generalizability of the Uppsala model.

Another major category of extensions to the Uppsala model concerns a more fundamental shift in the unit of analysis from the ‘market’ to the ‘business network’. Internationalization then becomes a process of business network development, not just market-specific development. This stream is represented by a series of articles by the original authors, Johanson and Vahlne (1990, 2003, 2006, 2009) and Schweizer et al. (2010). In the most forceful exposition on this business network-oriented view, Johanson and Vahlne (2003, p. 93) argue that “…country borders are no longer relevant” and that it is more appropriate to think of the activities of the firm in terms of their business networks and relationships. In most aspects, Johanson and Vahlne (2009) are advocating a very similar dynamic model to their 1977 one. Experiential learning, risk and uncertainty, opportunity awareness, commitment decisions and irreversible commitments are still crucial in the network-oriented model, but are viewed as taking place with respect to relationships and networks, rather than markets. One of the contributions of their network-oriented model is the concept of outsidership. It replaces psychic distance as “…the root of uncertainty” (Johanson and Vahlne 2009, p. 1411), but even with this change, uncertainty and risk still play a central role in limiting commitment decisions.

In a similar fashion, the business network-oriented perspective introduces additional constructs: trust and social capital with respect to partners and relationships (Johanson and Vahlne 2006), and relationship-specific knowledge (Johanson and Vahlne 2009). These constructs parallel the concepts of market commitment and market-specific knowledge as State aspect variables. Repeated interaction with partners over time increases the levels of trust and social capital in network relationships and increases the level of relationship-specific knowledge. In turn, higher levels of trust, social capital and relationship-specific knowledge reduce the level of risk and uncertainty with respect to new network-specific commitments. Similarly, relationship-specific knowledge increases the awareness of opportunities within the network, again increasing the likelihood of a network-specific investment. In addition, Johanson and Vahlne (2009) emphasize knowledge creation through networking activities. As argued by Shane (2000), access to a greater pool of knowledge is a critical link in the creation of new opportunities. Thus, the bilateral or multilateral sharing of knowledge within a network is likely to produce new opportunities over and above the mere sharing of opportunities.

A final variant of the Uppsala model is the globalization model proposed by Vahlne and Ivarsson (2014). Based on an empirical examination of 17 Swedish multinationals they extend the Uppsala model into the realm of the globalization of MNC value chains. Their resulting framework is an amended version of both previous models (Johanson and Vahlne 1977; Johanson and Vahlne 2009) that includes dynamic capabilities (Teece et al. 1997). However, while the content of the 'boxes' in this model is altered from earlier versions, the underlying change mechanism – the learning-commitment cycle – remains the same.

Table 1 provides a brief tabular summary of this literature, delineating the issues they focus on and the respective models to which they apply.

Insert Table 1 about here

Implications of the Literature Review: A Meta-Model

Given the various re-formulations beyond the 1977 model, it is appropriate to ask: what is the current 'Uppsala model'? We argue there are now three distinct but parallel Uppsala models: the original market-oriented version (Johanson and Vahlne 1977), a network-oriented version (Johanson and Vahlne 2009) and a globalization version (Vahlne and Ivarsson 2014). However, we also contend that there is, at least implicitly, a more general Uppsala meta-model (Figure 2). This meta-model emphasizes the underlying mechanisms and constructs that are common across all three variations.

Whether one is considering further investment in a foreign market, in a business network, or in reconfiguring a global value chain, the aforementioned models all propose a common process and set of issues. The international commitment decision itself, combined with the subsequent activities where the firm is learning, creating and trust-building (Johanson and Vahlne 2009), represent the 'Change aspects' of each model. These in turn influence the firm's degree of commitment, whether it is to a foreign market, a business network, or a globalized value chain. They also influence the firm's stock of experiential knowledge, and ultimately affect the firm's operational and dynamic capabilities (Vahlne and Ivarsson 2014). This stock of existing commitments, experiential knowledge and capabilities influence the next stage of commitment decisions. However, more critically, all three of the existing models explicitly assume that the key limiting variables in these processes are perceptions of risk and the lack of awareness of opportunities, and that the source of forward momentum, or releasing mechanism, is the learning-commitment cycle. Thus, our review shows that while there have been numerous theoretical extensions to the original model, the core mechanisms in the model remain unchanged as Johanson and Vahlne (2009, p. 1411) acknowledge; "change mechanisms in the revised model are essentially the same as those in the original version".

Insert Figure 2 about here

THE BUILDING BLOCKS OF AN EXTENDED UPPSALA META-MODEL

Before we begin to present our 'extended Uppsala meta-model', we re-emphasize that we are not rejecting the main elements of the original Uppsala model, nor the recent modifications as illustrated in Figure 2. In particular, we concur with the notions of State and Change aspects and their various components that bring a processual construction to internationalization. Indeed, our proposal to introduce inertia and managerial intentionality into the formal Uppsala model somewhat paradoxically reinforces the processual nature of the original model. In their recent reflections on the development of the Uppsala model, and their interest in bringing 'process' back into the internationalization process model, Welch, Nummela and Liesch (2016, p.795) ask "What if the process nature of the model had been emphasized more explicitly in the original 1977 paper?" Their intent is to challenge scholars to address the temporality that is implicit in the Uppsala model, and we are responding to that call.

Where our proposed revision of the Uppsala model does diverge from the past is in arguing that the barriers to firms making commitment decisions may be much broader than portrayed in even the most recent versions of the Uppsala model. Introducing the concepts of inertia and managerial intentionality into the debate provides a path to theoretical development. In particular, as one broadens the set of possible barriers, it is apparent that operating experience in a foreign market may not always have a 'positive' impact on the internationalization of a firm. Similarly, factors other than the accumulation of experience, such as managerial intentionality, in response to changing market conditions, may intervene and allow a firm to progress to higher levels of commitment. One obvious question is – why have we chosen to focus on inertia and managerial intentionality? This choice represents the confluence of several factors. The first two factors are ones we have already discussed in our literature review of the Uppsala model. Despite the substantial amount of attention that the Uppsala model has received over the years, very few authors have explored whether the assumptions about the underlying mechanisms are correct (Petersen and Pedersen 1997); and the few that have done looked into this issue have found that the limiting and releasing mechanisms may be much broader (Calof and Beamish 1995). In addition to that, a growing number of issues, such as rapid internationalization, regionalization, mode skipping, and mode inertia have gained prominence as firm behaviors that are inconsistent with the Uppsala model. Combined, these two points argue that there may be a gap or flaw in the model. We have chosen to focus on inertia and managerial intentionality as alternative limiting and releasing mechanisms to fill that gap because, while they have received minimal attention in the IB literature, they have a long and extensive history in the broad strategy and change management literature in explaining similar types of firm behavior. As a first step in developing our extended model, we first review the broader literature concerning what we believe may be a critical, yet under-acknowledged limiting mechanism in the internationalisation of firms: inertia.

An Alternative Limiting Mechanism: Inertia

The earliest references to the concept of inertia in relation to organizations are often attributed to Selznick (1957) and March and Simon (1958). However, similar constructs have gained prominence in a wide variety of fields. For example, Hannan and Freeman (1977, 1984) have been particularly influential in bringing the concept of ‘structural inertia’ to the fore in thinking about how organizations change over time, and how resistance to change might emerge - constraining their ability to respond to the external environment. They stress such aspects as sunk costs in physical plant and people, political coalitions, and the tendency for “precedents to become normative standards” (Hannan and Freeman 1984, p. 149).

At about the same time, researchers in the field of behavioral economics began developing prospect theory (Kahneman and Tversky 1979). This field of research has tended to use experiments to explore decision-making biases at the level of the individual, and has produced such concepts as ‘loss aversion’ (Baron and Ritov 1994), ‘endowment effect’ (Knetsch 1989), and ‘status quo bias’ (Samuelson and Zeckhauser 1988). In parallel to this, also working at the level of the individual, researchers in the field of psychology have similarly used experiments to investigate various aspects of confirmation bias (Klayman and Ha 1987) and decision avoidance (Anderson 2003). Collectively these individual-level biases tend to reinforce the view that individuals demonstrate a substantial degree of inertia or resistance to change when making decisions.

Returning again to the level of the organization, several streams of management literature have embraced and extended Hannan and Freeman’s notion of structural inertia. In particular, researchers focussing on organizational change (e.g., Greve 1998) developed the concept of ‘organizational inertia’, and linked it with broader patterns of firm behavior such as ‘path dependency’ (Sydow et al. 2009) and ‘punctuated equilibrium’ (Gersick 1991). Similarly, strategic choice research (e.g., Romanelli and Tushman 1986) has pointed to the impact of inertia on the evolution of a firm's strategy. For example, Burgelman (2002, p. 342) studied the development of Intel's strategy over a 12 year period and noted how inertia and lock-in, partially resulting from their past successes, represented “a hidden danger of Intel becoming very good ... at only one thing”.

In reviewing this broad range of literature, it becomes obvious that resistance to change is a complex behavior, which can arise because of a variety of factors and operate at multiple levels. As a result, management decisions, such as those described in the various Uppsala models, can be influenced by a resistance to change arising from the personal biases of the managers, firm-level factors, and external (e.g. network) influences, setting up inertial cycles. As a result, we have intentionally chosen to define inertia as a broad construct using Tushman and Romanelli's (1985) definition of it as a *'resistance to fundamental reorientations in policy'*. This definition was selected to bring into the debate both the individual-level factors and the firm-level factors. Nevertheless, in acknowledgement of this diversity, we delineate three major forms of inertia in the following sections. Before proceeding to that discussion, we want to emphasize two potentially contentious aspects of inertia.

One potentially contentious aspect of inertia is that it is occasionally equated with 'no change', or a firm only willing to change 'slowly'. This is not necessarily true. As Miller and Chen (1994, p. 1) point out, “at first, inertia was viewed as stagnation … [however] ... later work recouched the inertia idea as resistance to fundamental reorientations … inertial organizations do in fact change … [but] mostly by elaborating an existing core policy”. This issue has direct parallels with the original Newtonian definition of inertia as “the persistence or continuance of an existing state of rest or path of movement” (Newton 1686, p.78). In this sense inertia does not mean that movement (or change) will not occur, nor that an object (or organization) will only move (or change) slowly, but that more force is required to bring about a change in speed or direction than is required to maintain the status quo. Burgelman (2002) observes this with respect to Intel. The firm innovated rapidly in directions consistent with its 'strategy vector', but was very resistant to other forms of change.

A second contentious aspect of inertia in a management setting is whether it always results in a negative or undesirable outcome. Certainly, some biases in decision-making, such as those highlighted in prospect theory (Kahneman and Tversky 1979), could be classified as such. However, Cyert and March (1963) argue that there can be positive aspects to inertia as well. There must be persistence and continuance in much of what an organization does for periods of time in order for it to survive and serve its markets. Therefore, some degree of inertia is a required feature of any organization to function - constant change in all operational aspects is not feasible. Likewise, Nelson and Winter (1982) stress that resistance to change may be associated with market success and growth, despite the negative connotation associated with the term, ensuring that a particular strategic path is even more strongly embedded in company thinking and routines. However, as Sydow et al. (2009) observe, while some inertia is an essential part of the smooth functioning of organizations, it can become so entrenched that there is difficulty in responding to changes in environmental conditions - echoing Hannan and Freeman's (1977) interpretation of structural inertia. This point is also reflected in the resource-based view, with Leonard-Barton (1992) highlighting the paradox of core competencies and core rigidities. In essence, inertia may have a positive or negative impact on a firm's growth depending on the circumstances.

Our final point before moving on to a discussion of the major forms of inertia is the observation that despite the extensive recognition and application of inertia within the broader management literature, it has received relatively little attention within the international business (IB) literature. With a few exceptions, such as Doz (1996), Dow (2006), and Chung and Beamish (2010), the term inertia is rarely mentioned, although some notable works have used related constructs. For example, Bartlett and Ghoshal (2000, p. 507) do not directly use the term inertia, but comment that a firm's 'administrative heritage' can be a "significant liability, since it resists change". Verbeke and Greidanus (2009) also touch on similar themes in their exposition on 'bounded reliability', as did Luostarinen (1979) in arguably the first application of inertia within IB. In Luostarinen's (1979) model of internationalization, key factors were limited perception, restrictive reaction, selective search and confined choice (driven by risk and uncertainty avoidance) which generated so-called 'lateral rigidity' (what could be called behavioral inertia) in decision-making processes in the international arena, thereby constraining forward momentum. Organizational learning was regarded as the key to a reduction in the degree of lateral rigidity, and thereby facilitating new steps in foreign market operations. However, it was acknowledged that the learning process might raise rigidity, for example because of negative sales outcomes.

In part, this under-emphasis on inertia may be due to the ambiguity of the construct, the alternative forms and manifestations of inertia, and the widely varying terminology. For that reason, in the next three sections we outline three major forms of inertia (see a similar approach in Klossek et al. 2015 and Sydow et al. 2009). We categorize them by the level at which they operate, their underlying mechanisms and how existing evidence suggests that they might influence commitment decisions in an international setting.

Inertia and the Accumulation of Specialized Assets. The first form of inertia concerns the rigidities that arise as a firm accumulates specialized assets. Set in the context of the resource-based view of the firm (RBV), Hutzschenreuter, Pedersen and Volberda (2007, p. 1057) argue that "MNCs and their units accumulate knowledge in the course of their existence, and become repositories of skills that are unique and often difficult to imitate". Such repositories are critical to the firm's competitive advantage, but they may also contribute to inertia. One critical aspect of this form of inertia is that it is likely to increase over time. The very strength that enables the organization to advance also makes it more difficult to look elsewhere, even when the environment changes, leading to what is variously referred to as 'core rigidities' (Leonard-Barton 1992) or 'competency traps' (O'Driscoll and Gilmore 2001).

The RBV literature frames these arguments in terms of the firm's capabilities and competencies, but the same 'traps' and 'rigidities' can arise with any form of investment ranging from fixed investments in specialized plant and equipment, to intangible investments in staff training, product design or process technologies. As Bartlett and Ghoshal (2000, p. 507) argue "… strategic challenges and market opportunities…will be greatly influenced - and often constrained - by existing asset configurations". Having established a strength in a particular area through such specialized investment, a firm will then tailor its supporting investments to ensure exploitation of this developed competence.

Self-reinforcing mechanisms are highlighted by Sydow et al. (2009, p. 691) in that they may result from "a decision … that unintentionally sets off a self-reinforcing process", which explains the development of 'lock-in'. Lock-in, as a form of inertia, refers to strategic persistence, a range of practices, behavioral routines and the like, which continue into the future and help to explain company actions. Learning has been noted as a key self-reinforcing mechanism that introduces path dependent tendencies into internationalization (Araujo and Rezende 2003), contrary to its key advancing role in the Uppsala model. Sydow et al. (2009, p. 692) argue that eventually the firm reaches a third stage of lock-in where "the dominant decision pattern becomes fixed and gains a deterministic characteristic".

At the extreme end of the spectrum in terms of intangible assets is the culture of the firm. Sørensen (2002, p. 88-89) argues that "firms with strong cultures incur a trade off with respect to their adaptive ability in the face of environmental change ... When the environment shifts, strong-culture organizations have no fall-back position, and the lack of internal diversity in perspectives makes it more difficult for the firm to adapt". Similarly, Staber (2003, p. 416) points to the potential costs of a strong culture as the "risks of inertia, myopic thinking and orientation to the past". In general, a firm's corporate culture might be supportive or detrimental to international involvement, but it has the capacity to entrench inertia with regard to how international operations are orchestrated.

Inter-Organizational Networks: Relational Inertia. A second form of inertia is the rigidities that arise through the firm's interactions with other organizations. In the broader management literature, social networks or social capital are seen as having enabling effects, but acknowledgement of their potential inertial effects has gained increased attention (e.g., Kim et al. 2006; Huggins 2010). Bonding within social networks may generate inward network focus and group norms, making participants less open and less responsive to external developments that require adaptation. While investigating social capital amongst biotechnology start-ups, Maurer and Ebers (2006, p. 288) found that "various factors... make organizations subject to inertial tendencies, among them local search behavior …, organizational routines …, competency traps … and external pressures to signal reliability and accountability". Uzzi (1997) similarly notes that embeddedness in social networks may contribute to a range of positive organizational effects such as integrative benefits, access to useful information and cooperation.

However, beyond a certain threshold, embeddedness can generate negative effects that include insulating firms from the pressure to change, and from important information that is outside the network (Maurer and Ebers 2006). Thus, as noted by Chung and Beamish (2010), too little relational change may be harmful.

While the development of networks and relationships can give rise to inertia, they are necessarily underpinned by the role of individuals. The inter-connection between individuals and the evolution of social networks ensures that individuals affect how inertia develops. For example, Tasselli et al. (2015, p.1) argue that individuals and networks co-evolve, and that “social network structuring and change in organizations cannot be fully understood without considering the psychology of purposive individuals”.

The effects of relational lock-in are in contrast to the positive light in which networks and external relationships are viewed in the Uppsala meta-model. For example, in a foreign subsidiary context, Andersson et al. (2002) show that embeddedness in external networks can become a strategic resource for the multinational, improving subsidiary performance and the subsidiary's importance to and influence over the rest of the MNE. Nevertheless, as Johanson and Vahlne (2009, p. 1423) themselves acknowledge, networks and external relationships can also be “constraining”. The constraining effects of embeddedness are observed by Collinson and Wilson (2006) who found that the ability to respond to change was restricted by external connections to preferred suppliers and customers, as well as well-established internal routines.

Relational inertia shares some similarities with inertia arising from the accumulation of specialized assets in that it too is likely to increase with time. Network relationships tend to develop gradually (Johanson and Vahlne, 2003), and while the strength of the relationship increases over time, so does the dependence on the relationship.

Psychological Biases and Commitment: Cognitive Inertia. The third form of inertia is distinct in that it arises from individual-level biases. The related concepts of loss aversion (e.g., Tversky and Kahneman 1991) and endowment effect (e.g., Knetsch 1989) have been developed and tested to explain an individual’s disproportionately strong preference for the current situation, or ‘status quo’ (Samuelson and Zeckhauser 1988). In essence, there is substantial evidence that people place greater value on an object that they already possess, than on equivalent objects that they do not currently possess. This behavior represents a pervasive form of inertia. In a parallel, the social psychology literature has long acknowledged the concept of confirmation bias (Popper 1959; Wason 1960). While confirmation bias may take many forms (Klayman 1995), it essentially builds on the observation that when people are searching for, assimilating and using information to make decisions, there is a strong tendency for them to seek out and place greater emphasis on information which confirms their pre-existing beliefs. While this concept has received only limited attention within the international business literature (Baack et al. 2015), it has been extensively tested and confirmed within the field of social psychology (Klayman and Ha 1987).

While both of these biases were originally conceived and tested at the level of the individual, they have been extended and applied to organizations in general (Hannan and Freeman 1977, 1984; Romanelli and Tushman 1986). They imply that once a strategy has been adopted, it is increasingly difficult for management to consider other alternatives: “organizations have a general tendency to preserve strategy rather than radically change it” (Boeker 1989, p. 490). This behavior may be reinforced by a third individual-level bias, the familiarity effect (Garbuio et al. 2011). These cognitive tendencies are further enhanced by the more ‘rational’ inertial factors such as supporting investments in physical facilities and staff. They are also reinforced by successful implementation of a strategy, international or otherwise, strengthening the manager's belief that the chosen strategy is the correct course of action. Burgelman (2002, p. 351) highlights this issue in a study of Intel, commenting that "the inertia of success is often best understood in terms of the decision-maker's beliefs in the validity of the current strategy". Finally, from a cognitive perspective, strong organizational identity is considered critical in facilitating coordination and communication within a firm, as well as assisting learning; however, it is also often associated with cognitive inertia. As a social construction, the organizational identity of the firm will gain in strength over time as the language, rhetoric, stories and narratives that support it spread ever wider and deeper in the organization (Narayanan et al. 2011).

As is true with the other two forms of inertia, a critical issue with respect to cognitive biases is that they tend to increase in strength over time. As a manager systematically seeks out and places greater emphasis on information that confirms the current strategy, the strength of the belief in that strategy increases. Thus, there is the potential for a negative self-reinforcing cycle that discourages change, generating path dependency (Sydow et al. 2009).

The fact that all three of the aforementioned forms of inertia have a tendency to increase with the passage of time raises a broader issue: if inertia is a significant constraint, when and why would a firm ever deviate from the path dictated by its current state of inertia? This is an important issue because, with the model as presented in Figure 2, changes of state occur when sufficient international experience is accumulated such that the perceived risk of the new opportunity falls to a tolerable level, and/or the firm has become more aware of other superior opportunities. No additional mechanism is required since it is a positive self-reinforcing cycle. However, since inertia is likely to increase with time and experience, a separate releasing mechanism is required to break the inertial self-reinforcing process, otherwise change would never occur. The releasing mechanism we identify focuses on the role of managerial intentionality and changes in the external environment.

An Alternative Releasing Mechanism: Managerial Intentionality

While commentators such as Lewin and Volberda (1999) and Greenwood and Hinings (1988, 1996) often use slightly different terminology, they echo a common theme that for a firm to break free of inertia, and achieve significant 'organizational adaptation' (or radical change), it requires an interaction between 'managerial intentionality' (or capacity for action) and 'changes in the external environment' (or pressure for change). In order to develop this line of argument, we follow Lewin and Volberda (1999) and define managerial intentionality as 'the ability of managers to consciously make choices that significantly change the direction of the firm'. However, this purposeful action has also been labelled executive leadership (Tushman and Romanelli 1985), managerial discretion (Hambrick and Finkelstein 1987; Carpenter and Golden 1997), managerial oversight (Liesch, Welch and Buckley 2011) and capacity for action (Greenwood and Hinings 1996). Tushman and Romanelli (1985) propose that executive leadership is critical in overcoming organizational inertia and responding to the challenges of the external environment. Likewise, Wangrow, Schepker and Barker III (2015, p. 100) refer to managerial discretion as "the latitude of managerial action available to a decision maker in a given situation". Consistent with Sydow et al.'s (2009) model of path dependency, exercising managerial discretion can disrupt the status quo and set off a self-reinforcing process in a new direction.

Within the IB literature, Hutzschenreuter et al. (2010) described managerial intentionality as the "missing link" in IB theory, identifying that relatively few studies (Steen and Liesch 2007) have acknowledged the construct. Hutzschenreuter et al. (2007, p. 1058) point out that managerial intentionality may be central to an explanation of multinational firms' diverse internationalization paths beyond the impact of path dependencies. This strongly echoes comments by Forsgren (2002) that the original Uppsala model takes too narrow a view of learning. He argues that learning may also come in other forms such as through acquisitions or focussed searches in new areas, both of which involve direct and explicit intervention by management.

Importantly, Hutzschenreuter et al. (2010) contend that managers themselves may be subject to inertial forces and entrench such forces (Vergne and Durand 2011), while nonetheless they can also be instrumental in overcoming these constraining influences. It may be that the top management team recognizes the need to create a balance between exploitation and exploration (Barkema and Drogendijk 2007), or they may recognize that a change in the external environment necessitates them overcoming the firm's inertial tendencies (Lewin and Volberda 1999). Threatening external changes may be ignored for some time, driven by inertia (Drummond 1995), but once they begin to substantially affect firm performance, they demand a response by management. This is reinforced by the work of Lin (2014), which demonstrates that the presence of strong performance feedback is positively related to managers initiating dramatic changes. Of course, such changes may by biased by embedded inertial forces - managerial discretion is not absolute (Carpenter and Golden 1997). However, the willingness of management to take action to overcome inertia is critical to the triggering mechanism in the change process. Intentionality as we apply the concept to managerial practice in internationalization implies both agency and desire (Dennett 1989).

This leads us to the second critical ingredient for change - exogenous shocks emanating from changes in the external environment. Lewin and Volberda (1999, p. 523) argue that "change is not the outcome of managerial adaptation or environmental selection but rather the joint outcome of intentionality and environmental effects". As mentioned, this is a view echoed in numerous organizational and strategic change models (e.g., Gersick 1991; Greenwood and Hinings 1996). Recently, Santangelo and Meyer (2011) and Figueira-de-Lamos et al. (2011) confirm the importance of exogenous shocks relating to the external environment. However, a change in the environment will only trigger a change in organizational behavior if there is managerial intentionality to overcome the firm's inertia. Similarly, a change in managerial intentionality (e.g., due to a change in leadership) is more likely to yield beneficial change if the environment is already conducive to such a change. In essence, it is the interaction of the two that is critical.

INTEGRATION INTO AN EXTENDED UPPSALA META-MODEL

Having introduced and reviewed the concepts of inertia and managerial intentionality, we now bring them together into a single extended version of the meta-model. In our revision, we retain the basic dynamic components of Uppsala including its positive learning cycle but accommodate the case where inertia is the limiting mechanism and more learning does not necessarily translate to greater commitment.

To illustrate the incorporation of inertia, managerial intentionality and changes in the environment into the model, we present an extended process version in Figure 3. The basic state and change aspects of the model are retained. The positive cycle is also retained on the left: the passage of time and accumulation of experiential knowledge, associated risk reduction and opportunity creation and commitments may enable a firm to initiate a change of state to a higher commitment mode in the future. However, we have included an inertial cycle on the right, reflecting the accumulation of factors such as specialized assets specific to the current mode of operation (both tangible and intangible), inter-organizational linkages and social capital with existing partners, and individual-level forms of commitment to the current mode of operation. The inertial cycle generates an increase in the firm's resistance towards changes and/or increases in international commitments, thereby reducing the likelihood that the firm will initiate a 'change of state' decision. Sydow et al. (2009, p. 691-692) characterise this mechanism as 'lock-in'. A firm makes "… a decision … that unintentionally sets off a self-reinforcing process … [and eventually] … the dominant decision pattern becomes fixed and gains a deterministic characteristic".

Insert Figure 3 about here

Ceteris paribus, introducing a negative inertia-based cycle into the model raises the possibility that the status quo might be entrenched. However, inertia does not necessarily imply a total lack of international expansion. It merely implies that the current pattern of expansion will be strongly favoured. As will be discussed later in the implications section of this paper, this may provide new insights into issues such as mode inertia, mode skipping, regionalization, and possibly even rapidly internationalizing firms. Moreover, inertia only implies that the exiting patterns will be favoured until an event occurs which is strong enough to unlock them. Here, we add managerial intentionality as the releasing mechanism in the top right of Figure 3. It is the means of overcoming the inertia and allowing the firm to enact a change of state transition, such as changing to a new operation mode or entering an entirely new region. The trigger is often changes in the firm's external environment, but these have to be recognized, reflected upon, and responded to by managers. Thus, our extension of the Uppsala model is framed in the context of a firm orchestrated by decision-makers. The role and impact of managers as decision-makers within firms is more fully recognized in our model, as illustrated in Figure 3.

In Figure 3 we show both positive and inertial cycles as we view our contribution as an extension, not a repudiation of the original Uppsala model. The positive cycle on the left represents the model as presented by Johanson and Vahlne in various publications reviewed above. The inertial cycle on the right, along with the releasing mechanism, represents our extension to the existing model. Various forms of inertia, as noted above, may affect companies firms' international operations, restraining their ability to make changes. Even in the face of continued losses, managers are often reluctant to close down operations and de-internationalize (Benito and Welch 1997). Studies have characterized de-internationalization as an instance of escalating commitment in the face of negative outcomes: that is, firms will often invest further resources, ramping up commitment, even to a losing course of action (Drummond 1995; Staw 1981). Commitment to foreign intermediaries built though relational bonding over time may be difficult for exporters to break when market circumstances suggest change is needed.

The unit of analysis for this model remains the firm, but now includes a behavioral component - the role of the manager. Managers do not just follow habit and routines, but they engage in reflection and 'mindful deviation'. Thus, our extension of the Uppsala model is framed in the context of a firm in which managers engage in intentional actions to change direction, taking decisions to commit resources to foreign markets in the process of seeking revenue and growth from markets. This strongly echoes Forsgren's (2002, p. 267) call for a more teleological approach where "the Uppsala model becomes more realistic". But the outcomes of their actions may be very different to these intentions due to structural and temporal embeddedness. Managers' intentions to change may be thwarted by contrary inertial forces within the organization.

Incorporating inertia into the Uppsala meta-model also enhances our understanding of business network relationships. While the degree to which a firm is embedded in external networks is positively linked to subsidiary performance (Andersson et al. 2002) and is often portrayed as an important source of resources for newly internationalizing firms (Coviello and Jones 2004), the concept of inertia highlights that networks may also act as a constraint on a firm. A firm may become overembedded within a specific network (Huggins 2010), limiting its ability to exploit new network and market opportunities. Similarly, as a firm makes investments in restructuring its global value chain (Vahlne and Ivarsson 2014), relational inertia may come into play. It may not necessarily prevent globalization of a firm but it may constrain particular aspects of the globalization. While the constraining potential of relationships is acknowledged by Johanson and Vahlne (2009), their positive aspects only are developed in the network version of their model.

The inertial cycle we have included in the Uppsala model may intercede in internationalization outcomes in various ways, as different examples have shown. In the following section, we consider how the inclusion of inertia and managerial intentionality may extend the explanatory power of the Uppsala model in areas that have previously been seen as problematic or inadequately dealt with in the international business literature.

IMPLICATIONS OF THE EXTENDED MODEL

Our focus thus far has been on how the concepts of inertia and managerial intentionality might fit into an extended Uppsala model. We now turn to how this extension to the Uppsala model may assist in explaining a broader range of internationalization phenomena. For example, rapid internationalization, often viewed as being inconsistent with the Uppsala model (Oviatt and McDougall 1994), can be partially explained in the extended model. If a firm begins to internationalize in a gradual fashion, as the original Uppsala empirical research indicated, it will develop and accumulate assets consistent with that path of internationalization. As a result, the link between inertia and commitment decisions to more distant foreign markets will tend to be negative for that firm (i.e., inertia inhibits internationalization). However, if the firm begins at a very young age with a rapid and aggressive approach to internationalization, possibly due to the founder's prior experiences and entrepreneurial orientation (i.e. managerial intentionality in action), the firm will tend to develop and accumulate assets and top management commitment (Lamb and Liesch 2002) consistent with and supportive of a trajectory of rapid internationalization. Similarly, the firm will attract, hire and promote people with the skills and aptitudes necessary for rapid internationalization. Indeed, it is noteworthy that even the entrepreneurship literature stresses that entrepreneurs often display resistance to change (Liesch et al. 2011), and when new information to the contrary emerges, they are prone to maintaining beliefs about their businesses and the marketplace Thus, a rapidly internationalizing firm may be subject to inertia, but the inertia is perpetuating the rapid internationalization, rather than discouraging it.

Our model may also help to explain the regional behavior of internationalizing firms. Rugman and Verbeke (2004) demonstrated that less than two percent of the top 500 multinational enterprises (MNEs) are truly global. The majority of MNEs at best can be described as regionally-based. This observation is somewhat inconsistent with the implications of the original Uppsala model in that the model predicts the pace and direction of a firm's internationalization, but it does not include any mechanisms that ultimately limit the extent of firm internationalization. We argue that it may be the case that inertia plays a stronger role later in a firm's development, thus reinforcing a firm's evolving regional focus and thwarting that final transition to a truly global firm. For example, one possible reason may be a firm's attitude towards adaptation in a foreign market. When faced with the need to adapt their products or competitive strategies in foreign markets, firms are most likely to exploit countries that require the least adaptation first (Walters 1986; Welch et al. 2007). As a result, a firm may operate for a sustained period following a standardization strategy in its home-region. This may result in a degree of inertia in favor of standardized products and competitive strategies across markets. Thus, by the time a firm finally decides to enter a region that requires substantial adaptation, inertia has effectively increased the cost of switching strategies.

A third type of firm behavior that poses a challenge to the Uppsala view of internationalization is mode inertia. This is characterized as the tendency of firms to persist with an operation mode or mode package in which the firm already has extensive experience and competence in using (Benito et al. 2009; Welch and Welch 2004). It may occur either within an existing host market, or as a consistent pattern when entering new host markets. In this particular instance, there may still be experiential learning, but other factors dominate. Success and confidence from using a particular mode, and the costs of learning and applying another approach, might encourage mode inertia. For example, born global firms often get started in highly specialized, low volume niches in which it is only viable to maintain one production facility worldwide. As they continue to invest in the necessary skills and assets for centralized production, internationalize exclusively by this mode potentially becomes locked in. Similarly, a firm's entry mode may become locked in, at least temporarily, due to it heavily relying on a strong local agent. The local agent's market-specific knowledge may be necessary in the early stages, but reluctance to severe such relationships, particularly when the firm experiences success in the local market (Welch et al. 2007), can be quite strong.

Fourth, large steps forward in international commitments have often been seen as difficult for the Uppsala model to explain: with gradual, consistent learning, on what basis are firms able to undertake major advances. Petersen and Pedersen (1997) note that mode skipping (or leapfrogging) is a reasonably common phenomenon (approximately 33% of their sample), and that difficulty in explaining this behavior is one of the limitations of the Uppsala model. Similarly, Calof and Beamish (1995) found 25% of their sample of mode changes involved leapfrogging. In our extended model, escaping inertia does not necessarily mean a small incremental move forward. It can also imply a substantial leap forward (e.g., a skipping of steps in internationalization). Mode skipping may arise if there is a substantial delay before a sufficiently strong triggering event occurs to overcome inertia and 'unfreeze' the firm. By the time the firm has overcome its inertial tendencies, the growth in the local market may have been sufficient to make the preferred mode of operation an even higher level of commitment than might have been favored if the triggering event had occurred earlier. In the example of the strong local agent noted above, by the time the firm manages to break away from that reliance, the local market may have grown sufficiently to justify local manufacturing, causing the firm to skip the local sales subsidiary stage and move directly to local manufacturing. A complicating issue with even detecting mode skipping is that the Uppsala model (Johanson and Vahlne 1977) did not specify precise stages. The model only predicts 'gradually increasing resource commitments' (Pedersen and Petersen 1998); and thus the debate more accurately concerns the magnitude of the change in commitment (Shukla and Dow 2010).

These applications to rapid internationalization, regional expansion bias, mode inertia and mode skipping illustrate the operation of forms of inertia in international operations and how an extended Uppsala meta-model is able to accommodate and explain such previously problematic situations. The explanatory power of the Uppsala model can be extended by considering how inertia and its releasing mechanism operates when more learning does not always lead to greater commitment and deepened involvement in international markets.

CONCLUSION

Our extension to the Uppsala theoretical model, incorporating an enhanced role for inertia, managerial intentionality and environmental changes, addresses many of the shortcomings persistently raised about the model's utility and contemporary relevance. Each successive version of the model has introduced new concepts, such as trust, social capital and relationship-specific knowledge in the network-specific models. However, throughout all the variants of the model, risk reduction and increased opportunity awareness through learning have remained the main change mechanisms. Although we do not dispute that risk aversion, opportunity awareness and learning may play key roles as limiting and reinforcing mechanisms, this set of factors is excessively narrow. We believe that this questioning of the underlying mechanisms is arguably a major contribution in its own right.

While Johanson and Vahlne (1990) correctly argue that their model does not exclude other types of internationalization behavior, it is also true their model does not explain, nor attempt to predict them. This leads us to our second major contribution. When inertia, managerial intentionality and changes in the environment are incorporated into the model, the outcomes take on a contingent nature; and thus are better explain a broader range of internationalization behaviors. For example, whether a firm progresses to a higher commitment mode of foreign operation will depend on whether the main limiting factor is risk aversion and opportunity awareness, or inertia. If it is the former, the firm is likely to change to a higher commitment state once it has accumulated sufficient experience. However, if inertia is the dominant limiting factor, then the firm may remain fixed at one level of internationalization and never progress any further. Research across a wide range of business fields indicates that inertia is a powerful force at both individual and firm levels. In an internationalization context, inertia has generally been viewed as a constraint on internationalization, as a negative force. Importantly, in our recast Uppsala model, we show how inertia can be an important factor in the extent and type of internationalization undertaken.

Our recasting of the Uppsala model also offers a needed reorientation in the treatment of learning. Contrary to the various Uppsala models, we argue that further experience may not always lead to furthered commitment and deepened involvement in international markets: the accumulation of experience may in fact entrench inertia. Thus, our extension of the Uppsala model's change mechanisms potentially reverses the role that the passage of time and the resulting accumulation of experience may play in the internationalization process. This in turn highlights the role that managerial intentionality may play as the critical inertia-releasing mechanism in the Uppsala internationalization process model, thereby addressing a shortcoming in its formulation, extending its reach, and bringing a renewed potency to its application in explaining the firm's international expansion activities. While Johanson and Vahlne (1977, p. 23) had acknowledged the "decision style" of the manager in their original model, they also explicitly assumed it away. We argue that this simplifying assumption runs contrary to the broader management literature (Bird 1988; Greenwood and Hinings 1996) that emphasizes the critical role of managers in initiating change; and contrary to the upper echelon research (e.g. Hambrick and Mason 1984; Oesterle et al. 2016) which also emphasizes the importance of the manager in shaping the direction of the firm. Thus our contribution highlights the role of strategy and leadership in the internationalization process. While a number of researchers over the years have emphasized the role of the manager in various international business decisions (e.g. Casillas et al. 2009; Devinney 2011; Kutschker et al. 1997; Lin 2014; Oesterle et al. 2016; Reuber and Fischer 1997), we would argue that it has been heavily under-emphasized in the international business literature. Indeed, in terms of future research, 'behaviorial theory of the firm' research such as Lin (2014), and upper echelon research such as Oesterle et al. (2016) may be rich sources of ideas as to when and why managers are likely to intervene and overcome their firm's inertial tendencies.

A re-emphasis on the role of the external environment is also important aspect of our model given the function it plays in triggering events to either allow or pressure a firm to overcome inertial tendencies. This was recognized in the internationalization literature nearly 40 years ago (Bilkey and Tesar 1977) but until now has received only limited attention (Figueira-de-Lemos et al. 2011; Santangelo and Meyer 2011). A research agenda of more exploratory investigations would seem to be appropriate, similar to the work of Buckley et al. (2007) where international managers are questioned about their motivations and decision-making criteria in internationalization strategy.

Although it is only a by-product of our work, we also argue that our review of the existing Uppsala literature, and in particular the identification of the three basic variants of the model (i.e. the market-oriented, the network-oriented and the globalization-oriented versions) and the development of the meta-model (Figure 2) are important contributions in terms of understanding, after 40 years of development, just what is the Uppsala model.

We note that our model employs a number of simplifying assumptions. As in the original Uppsala model, our recast model is firmly based in the behavioral theory of the firm (Cyert and March 1963). As such, while we acknowledge the firm's profit motive, we stress managers and organizations are often constrained by other behavioral factors. The most obvious of these is our broadening of the range of factors constraining commitment decisions to include inertia. We also acknowledge that factors such as the match between firm-specific advantages and location-specific advantages are not directly acknowledged in our model. This is intentional and reflects our view, sympathetic to that of Johanson and Vahlne (1977, 2009), that models need to retain parsimony. As such, we have chosen to withhold factors that are already addressed in other frameworks often used in international business, such as internalization theory and transaction cost theory.

As was the case with the original Uppsala model, we also concede that our model is focused on market-seeking internationalization as opposed to resource-seeking, efficiency-seeking and strategic asset-seeking internationalization. However, we believe that our modifications extend the generalizability of the model to mature international firms which have generally been precluded from its formulations and which may suffer lesser psychic distance induced perceptions of risk, but could be more prone to other forms of inertia. The final limitation of our recast model, when put to empirical testing, is the difficulty in measuring a construct as elusive and abstract as inertia. On this aspect, we do not deny that it is a substantial challenge, but in part this is true of all attempts to determine the underlying motives of human behavior rather than simply observing behavior. Needed here is more exploratory research, possibly drawing upon new approaches such as the experimental techniques pioneered by our social psychology colleagues. In general, our review of the relevant inertia literature is indicative of a range of feasible research inquiries.

Whilst our main focus has been on extending the theoretical model, our re-formulation nonetheless highlights the need for managerial awareness of the underlying factors that delay internationalization strategy decisions. Our recast model raises the possibility of an inertia-based constraining cycle that requires managerial intervention in order to proceed to a different level of internationalization. In that sense, we do not provide managers with a solution with which to combat inertia, but rather we alert them to the potential problem. This is important for management because, as Sydow et al. (2009 p. 702) argue, awareness of the problem is "…the first step in any path-breaking intervention".

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Table 1 Summary of Extensions to the Uppsala Model

	Market-oriented model	Network-oriented model	Globalization-oriented model
Focus on the overall model	Johanson & Vahlne, 1977		
	Johanson & Vahlne, 1990 *		
	Johanson & Vahlne, 2003 *		
		Johanson & Vahlne, 2009	
			Johanson & Vahlne, 2014
Focus on … Knowledge	Eriksson et al. 1997		
Learning	Forsgren 2002		
Commitment	Hadjikhani 1997		
Opportunity Development	Johanson & Vahlne, 2006 *		
External Environment	Figueira-de-Lemos et al. 2011 Santangelo & Meyer 2011		

* We have deemed three papers to be straddling the market-oriented and network-oriented versions of the model in that they heavily mention networks, but do not formally develop a full network-oriented model.

Fig. 1 The Original Representation of the Uppsala Internationalization Process Model (Johanson & Vahlne 1977, p. 26)

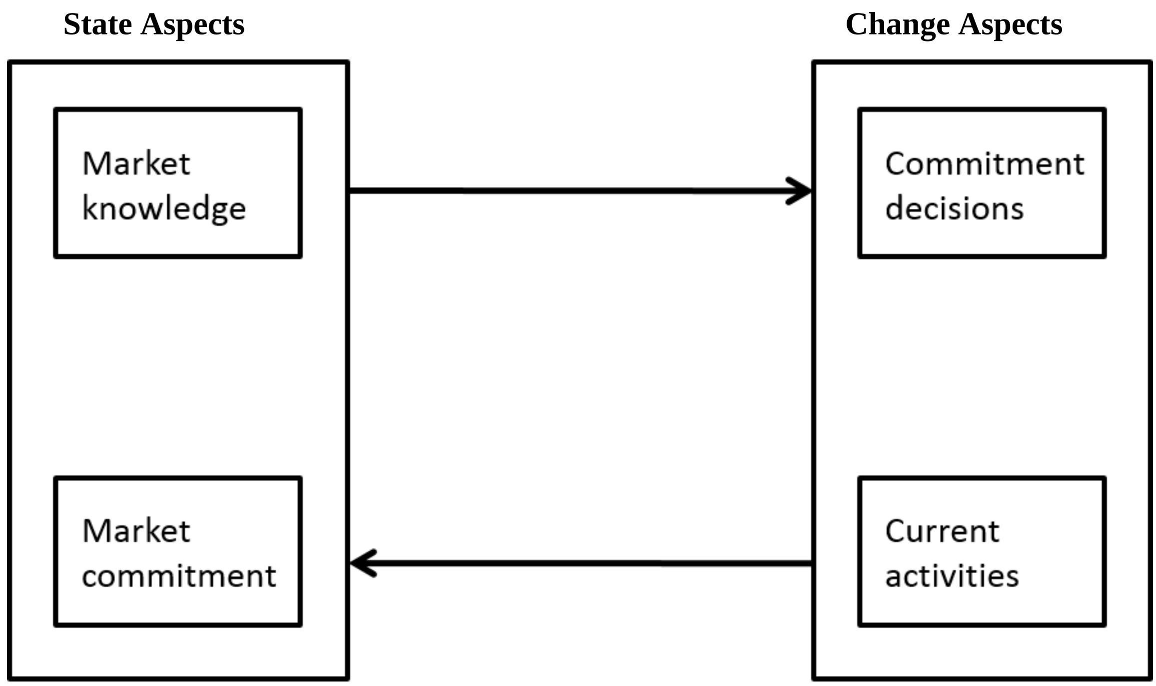
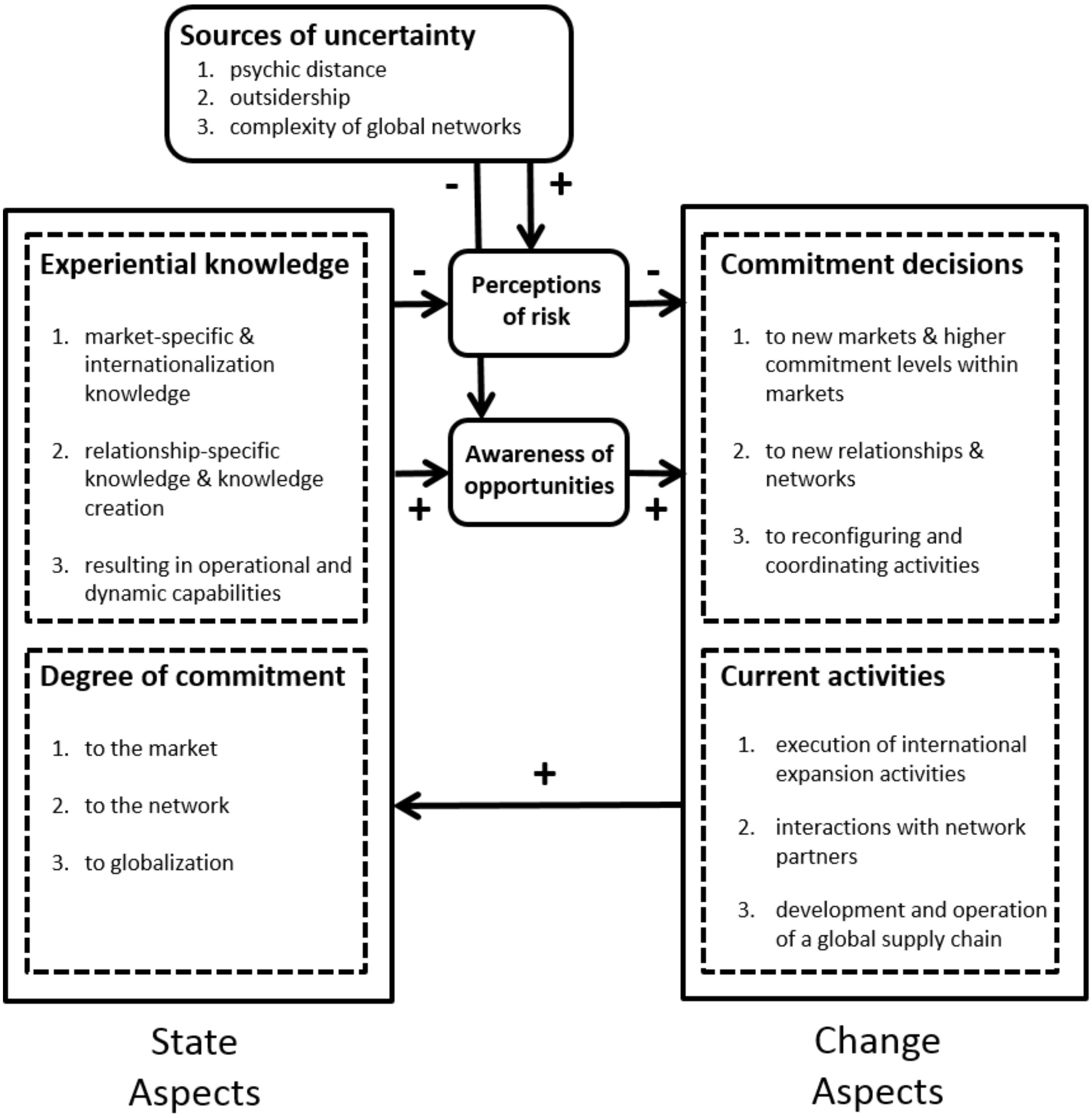
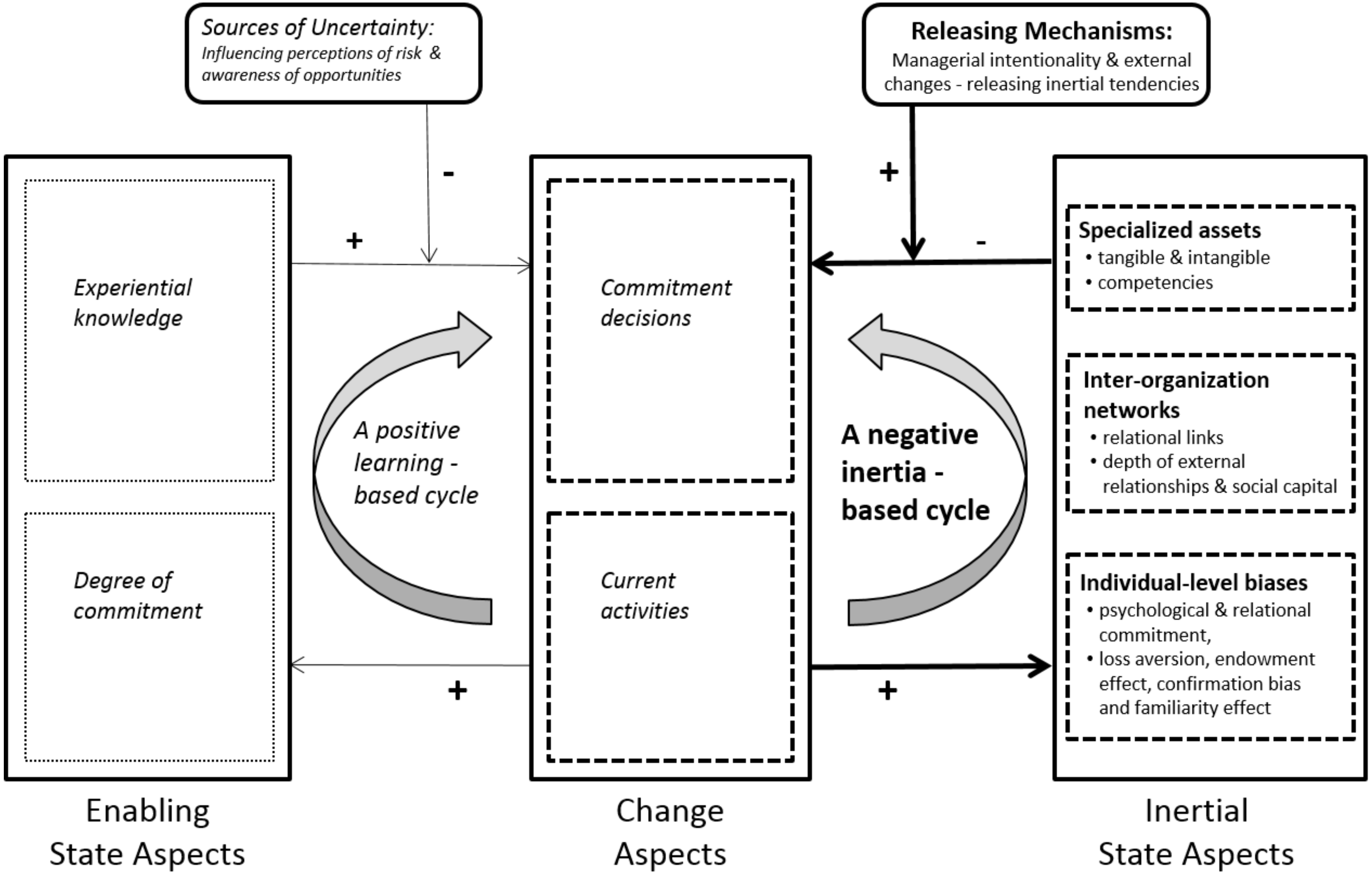


Fig. 2 The Uppsala Meta-Model as of 2016 *



* As a meta-model, this diagram reflects the elements common to all three variations of the Uppsala model. The numbered items in each box respectively refer to the key constructs in the Johanson and Vahlne (1977), the Johanson and Vahlne (2009), and the Vahlne and Ivarsson (2014) models.

Fig. 3 An Extended Uppsala Meta-Model Incorporating Inertia and Managerial Intentionality *



* In this extended meta-model, the new elements are highlighted by the larger/bolder text, heavier arrows and more heavily lined boxes.