

# Back to Origins: Rediscovering the Role of Individuals in the Uppsala Model

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## **ABSTRACT**

For 40 years, the Uppsala model has focused on the internationalization of companies, considering the individual level of analysis as a black box. Recently, the model has been criticized by scholars in that regard, and its authors are consequently introducing micro-level processes in some dimensions. But is it possible to fully integrate the micro-level into the Uppsala model? By developing a systematic literature review, our article aims to open this black box. Along with methodological contributions, we rediscover the role of individuals, show how the model can integrate them, develop a comprehensive micro-foundational approach and suggest future research paths.

**Keywords:** Uppsala Model; Networks; Individuals; Microfoundations; Literature Review.

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Accepted Article

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### Abstract

For 40 years, the Uppsala model has focused on the internationalization of companies, considering the individual level of analysis as a black box. Recently, the model has been criticized by scholars in that regard, and its authors are consequently introducing micro-level processes in some dimensions. But is it possible to fully integrate the micro-level into the Uppsala model? By developing a systematic literature review, our article aims to open this black box. Along with methodological contributions, we rediscover the role of individuals, show how the model can integrate them, develop a comprehensive micro-foundational approach and suggest future research paths.

**Keywords:** Uppsala Model; Networks; Individuals; Microfoundations; Literature Review.



## Retour aux Origines : Une Redécouverte du Rôle des Individus dans le Modèle d'Uppsala

### Extrait

Pendant 40 ans, le modèle d'Uppsala s'est focalisé sur l'internationalisation des entreprises, considérant le niveau d'analyse individuel comme une boîte noire. Récemment, le modèle a été critiqué à cet égard par plusieurs chercheurs, incitant ses auteurs à introduire le niveau micro dans certaines dimensions analysées. Mais est-il vraiment possible d'intégrer pleinement le niveau individuel dans le modèle d'Uppsala ? Notre article a pour objectif de formuler une réponse à cette question en s'appuyant sur une revue systématique de la littérature. Au-delà de ses apports méthodologiques, cette recherche redécouvre le rôle des individus, montre comment le modèle peut les intégrer en développant une approche micro-fondamentale complète, et suggère des nouvelles pistes de recherche.

**Mots-clés:** Modèle d'Uppsala; Réseaux; Individus; Micro-fondations; Revue de littérature.

## De vuelta a los Orígenes: Redescubriendo el Papel de los Individuos en el Modelo de Uppsala

### Resumen

Durante 40 años, el modelo de Uppsala se ha centrado en la internacionalización de empresas, considerando el análisis a nivel individual como un campo inexplorado. Recientemente, el modelo ha sido criticado en ese aspecto por académicos, provocando a sus autores introducir procesos a nivel micro en algunas de sus dimensiones. Pero ¿es posible integrar completamente el nivel micro en el modelo de Uppsala? Mediante el desarrollo de una revisión sistemática de la literatura, nuestro artículo tiene como objetivo abrir este campo inexplorado. Junto con contribuciones metodológicas, redescubrimos el papel de los individuos, mostramos cómo el modelo puede integrarlos, desarrollamos un enfoque microfundacional completo y sugerimos futuras direcciones de investigación.

**Palabras clave:** Modelo de Uppsala; Redes; Individuos; Microfundaciones; Revisión de la literatura.

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## Introduction

The Uppsala model is one of the most prominent models in International Business (IB). Created by Johanson and Vahlne more than 45 years ago to describe the international development of companies, it evolved over time moving its focus from internationalization to evolution in networks (Vahlne & Johanson, 2017). Today, the Uppsala model faces a new challenge: integrating the individual dimension into the evolution process (Coviello et al., 2017; Vahlne & Johanson, 2020). This dimension, here labeled as the micro-level, focuses on individuals, viewing them as key actors of meso-level (i.e., organizational) processes.

A growing number of scholars point out that the micro-level is considered as a “black box” (Vahlne & Johanson, 2017, p. 1087) in the Uppsala model, and are calling for a multilevel approach to enhance the model’s explanatory power. Galkina & Chetty (2015, p. 671) propose “*that future studies on entrepreneurial networking during internationalization could concentrate on individual entrepreneurs as the unit of analysis. [...] entrepreneur’s networks at the individual level often overlap with the networks of their ventures*”. Maitland & Sammartino (2015, p. 733) point out that “*despite the cognitive foundations of several key constructs, standard internationalization models do not explicitly incorporate managerial cognition*”. Similarly, Coviello et al. (2017, p. 1160), referring to the Uppsala model, propose that “*future research might investigate how individual-level characteristics impact state and change variables of the MBE [multinational business enterprise]*”. Moreover, it is suggested that “*reflecting on micro-level assumptions can enhance actionable managerial implications of IB theory*” (Kano & Verbeke, 2019, p. 117), particularly because, according to microfoundations theory (Contractor et al., 2019), individuals play a key role in the evolution of companies and consequently their international development.

The failure to include the micro-dimension can seriously harm the evolutionary nature of the model itself and hence its explanatory power. The model is based on a deep interplay between state and change variables. The latter constitute the dynamic engine “*where the action takes place*” (Vahlne & Johanson, 2017, p. 12) and are based on individual processes. As Coviello et al. (2017, p. 1156) explain “*the lack of focus on individual relationships [...] makes their evolutionary model of the MBE static. [...] Vahlne and Johanson (2017) do not address the individual in their theorizing. As a result, we lack an understanding of the mechanism of change*”. State variables, on the other hand, measure the level of commitment/performance and capabilities, but currently take no account of the individual. However, it is commonly acknowledged that “*individuals [...] greatly affect the behaviour, evolution, and performance of organizations [...]. From this perspective individuals in organizations serve as microfoundations of routines and capabilities in various ways*” (Felin et al., 2012, p. 1358).

The authors of the Uppsala model note the “*urgent need for studying the interdependency between the nano- and micro-levels of internationalization. We believe this will be a core area in future IB research*” (Vahlne & Schweizer, 2022, p. 1553). Moreover, the adoption of a multilevel approach will help the model to respond to a number of long-standing criticisms: “*We believe that a focus on individuals’ behavior during the internationalization process is necessary to understand that the transition mechanisms of the Uppsala model indeed also incorporate discontinuous and non-linear internationalization patterns*” (Schweizer & Vahlne, 2022, p. 586). In other words, placing greater emphasis on the role of individuals might shift the focus from the speed of internationalization to its deepest mechanisms.

After more than 45 years of evolution, (re)introducing individuals into the model is not an easy process. Our paper aims to rediscover the foundations of the Uppsala evolution model and to discuss the potential for interaction between the micro- and meso- levels of analysis on the one hand and the role of individuals on the other by looking at how the model has developed over time. Our research question can then be formulated as follows. Is it possible for the Uppsala network evolution model to become a multilevel model? This question includes two sub-questions. How does the model currently integrate individuals in its framework? And what theoretical concepts can the Uppsala model use to develop a multilevel approach?

Many studies and reviews of the Uppsala model have been conducted in the past from different angles, and a number of special issues have been dedicated to it (e.g., Meier et al., 2010). These studies variously carry out in-depth analyses of specific concepts mobilized by the model (Forsgren, 2002); look at the internationalization path and analyze entry modes (Cheriet, 2015; Meier et al., 2010); compare progressive and rapid internationalization (Knight, 1997; Oviatt & McDougall, 1997; Tapia Moore & Meschi, 2010); assess the validity of the model for specific contexts such as emerging markets (Angué & Mayrhofer, 2010); compare it with alternative approaches (Meier & Meschi, 2010); and illustrate how the model has shifted its focus from internationalization to evolution (Vahlne, 2020). However, none of these reviews address the role of individuals and how they can be integrated into the Uppsala model.

In a context where the authors themselves are discussing the role individuals can play in the model and are attempting to re-engineer their iconic framework into a multilevel configuration, our paper aims to contribute to the ongoing debate not only by conducting an exhaustive review of recent developments, but also by exploring the foundations and theoretical building blocks of the model. Along with its methodological outcomes, our review makes several contributions to the existing literature. It checks the possibility of introducing individuals into the Uppsala model in accordance with its theoretical underpinnings; explains how and to what degree the micro level can enter the existing framework; identifies which individuals are currently addressed by the model both in internal and external networks; proposes to build a more layered ontology by taking into account intermediate entities and sub-units; and focuses on the characteristics of individuals, including the way they develop networks.

## Methodology

In order to answer our research question, we developed an in-depth, systematic literature review (Petticrew & Roberts, 2008) on the concept of individual networks within the Uppsala model. Although systematic reviews “may not be appropriate when reviewing a broad topic” (Fan et al., 2022, p. 173), a critical approach of this kind is used to highlight the importance of a specific, sometimes niche or emerging topic within an established framework or model (e.g., Forsgren, 2002). This is the case for our study, which is not oriented to look at the Uppsala model in general, but instead focuses on the role of individuals within it. The review process is summarized in Figure 1.

A succession of steps was taken to identify the publications to be included in our review. First, we pre-specified a set of inclusion criteria (Snyder, 2019), with the aim of defining the scope of our review. As implied by its name, the Uppsala model was developed at Uppsala University by Johanson and Vahlne, and has since been improved. Thus, our literature review focuses on the Uppsala model as it was developed by its authors over the years. We decided not to include papers from the authors that do not concern the Uppsala model or the development of its core concepts. Then, since this paper aims to rediscover the microfoundations of the Uppsala model, we maintained a strong focus on individual networks.

Moving on from these considerations, we conducted an advanced search on Business Source Complete/EBSCO combining the term “Uppsala model” with a number of key terms: “individuals”, “individual networks”, “individual level”, “micro level”, “micro-level”, “milli-micro level”, “nano level”, “nano-level”, “micro foundations”, “microfoundations”, “micro-foundations”, “nano foundations”, “nanofoundations” and “nanofoundations”. Indeed, there are several terms indicating the individual level of analysis, which required us to perform multiple searches. We then checked the correspondence to the authors. To better define the focus of our analysis, we first looked at articles in academic journals included in the most recent FNEGE ranking. However, we soon realized that the number of articles obtainable through this technique was very low (only five results), and that they were all quite recent. On reading the articles, however, it became clear that the relation between individuals and networks emerged in many papers that were not included in our EBSCO review.

This discrepancy can be explained by several factors. First, EBSCO, like other aggregators, checks the text of the article to search for specific words, but if the full text is not available, it simply checks the title, keywords and abstract. Some articles advancing the knowledge on the microfoundations of the Uppsala model were excluded because none of the terms relating to individuals were in the title or among the keywords (e.g., Wu & Vahlne, 2022).

Second, several individual features (including networks) were introduced into the Uppsala model from the social sciences. These features were not seen as an outcome of the Uppsala model, but rather as an explanatory tool to introduce the concept in IB. The lack of results could therefore be partially explained by a sort of natural outcome bias (Kahneman, 2011) of the EBSCO review, which highlighted the pattern “Uppsala model → individual” but not the reverse path “individual → Uppsala model”.

Third, the Uppsala model was created more than 45 years ago. Since then, the classification of reviews has emerged, rankings have been developed, and some journals have ceased publication (e.g., *Journal of Market-Focused Management*). Moreover, research books and chapters were more relevant than today, and novel topics were usually published in minor journals (Renwick et al., 2019). Our first review was thus distorted by a sort of ex-post cognitive bias (Kahneman, 2011): many results were excluded because they were either published in journals in other fields, or in journals that no longer exist or whose ranking has changed, or in research books.

In order to solve these problems, we further expanded our literature review (Booth et al., 2016). To make it systematic, we combined an author-based search on EBSCO with a cross-reference check of authors’ publications in their CVs and on Research Gate. We carefully studied each article, summarizing all the sources in a table, including the main features of the article. We then selected publications according to the

previously mentioned criteria. To avoid ex-post cognitive bias, we included academic sources such as books, chapters and journals that are out of print or no longer exist.

Ultimately, we selected 54 academic sources including 46 articles, two research books and six book chapters published over a period of 48 years, from 1975 to 2023. Following the recommendations of Tranfield et al. (2003), we classified the articles, extracting the main topics and elaborating a further synthesis. The classification is presented in the annexes and provides a summary of the academic sources for our literature review by year of publication (Annex 1). It includes the authors, year, title, journal or publisher, the main focus of the paper and a summary of its results.

Our review focuses on a specific topic within an evolving model, and we observed that the link between the model itself and the role of individuals has also changed over the years. To capture this evolution, we structured our review following a linear, longitudinal approach from the origins of the Uppsala model to the present days (Figure 2). This methodology is indicated to present the results of a systematic review and is extensively used in management sciences (Tranfield et al., 2003), as it enables researchers to explain the reality, interpreting events from a longitudinal perspective, avoiding the ex-post confirmation bias (Kahneman, 2011).

According to Vahlne (2021), even though the model was built through an incremental process, its evolution can be divided in three phases: origins, internationalization and globalization in networks, and evolution. In our literature review we stick with this structure but add a fourth phase focusing on the role of individuals.

## Rediscovering the role of individuals within the Uppsala model

### Origins and foundations of the Uppsala model

The Uppsala model was first developed to study internationalization processes. Two milestone articles are at the origin of the model. The first proposes a step-by-step model, known as the “establishment chain” (Johanson & Wiedersheim-Paul, 1975), where the internationalization process goes from the development of non-regular export activities to the establishment of foreign subsidiaries. The second, the actual Uppsala model (Johanson & Vahlne, 1977), focuses on knowledge development and commitment, the true engine of the establishment chain (Figure 3).

Since its origin, the model developed around three main features: a process ontology, a behaviorist approach, and management under uncertainty (Vahlne, 2021). The first feature concerns the goal of the model: explaining how processes evolve over time. The two others concern the way companies and international development are conceived. From the outset, it was clear that this model differed from those based on the dominant neoclassical paradigm. As the authors themselves recall, “*it seemed that Swedish companies did not behave as expected judging from textbooks in international business and economics. [...] none of his four case companies had collected any data on the market before setting up sales subsidiaries. [...] Rather, they tried one alternative mode after the other as knowledge was gained through experience*” (Vahlne & Johanson, 2014, p. 160).

Far from being rational entities provided with complete information, companies focus on reducing risks. The main obstacle they face is psychic distance (Johanson & Vahlne, 1977), resulting in a risky environment where decisions are taken under conditions of uncertainty. Companies overcome psychic distance by increasing their level of commitment and market knowledge (Johanson & Vahlne, 1977) and begin their international development targeting markets with a geographical or cultural proximity with the countries of origin.

The establishment chain and the original Uppsala model were designed without any reference to individuals. However, the model is grounded on behaviorism, a theory of the firm that enabled it to accommodate the concepts of network and individuals (Vahlne, 2021). First developed by the Carnegie School (Cyert & March, 1963), behaviorism supposes that a company behaves, through aggregation mechanisms, as “*a coalition of managers, workers, stockholders, customers and others, each with their own goals. [...] Within the coalition some members exert greater influence and make greater demands for policy commitments than others. Such commitments, once made, become stabilized in the forms of budget allocations*” (Minor, 2006, p. 61).

This approach reflects a micro-foundational perspective where decision making plays a key role, as in the case of individuals “*Decision making is the heart of administration and [...] theory must be derived from the logic of psychology and human choice*” (Simon, 1947, p. XI). Thus, even if the Uppsala School focused on the organizational level, from the outset they developed “*a model of knowledge development and increasing foreign market commitment*” (Johanson & Vahlne, 1977, p. 23) in which companies learn, decide and face risks, in the same way as individuals do.

## Integrating networks within the model

Although the original Uppsala model was a great success, it soon attracted criticism. Some critics argued that the model viewed internationalization as a linear, deterministic process (e.g., Knight, 1997; Meier & Meschi, 2010; Oviatt & McDougall, 1997; Tapia Moore & Meschi, 2010); others emphasized the model's lack of adaptation to service companies and the fact that it did not take networks into consideration (e.g., Coviello & Munro, 1997; Forsgren & Johanson, 1994). In response to these criticisms, the model evolved by developing or integrating new concepts.

The model was extensively transformed by the introduction of the network approach into its theoretical framework (Johanson & Mattsson, 1987). Initially developed in mid-1970s by the IMP (Industrial Marketing and Purchasing) group, an international research network led by the Uppsala scholar Håkan Håkansson, the network approach became very influential in Sweden (Håkansson, 1982). The authors of the model quickly joined the discussion around this concept and contributed to its development.

The network approach is based on various considerations. First, connections between companies are decisive for competitiveness (Johanson & Mattsson, 1987). These connections take the form of an exchange relationship between customers and suppliers where trust, mutual commitment and learning play a key role (Anderson et al., 1994; Blankenburg Holm et al., 1999). Moreover, the network approach considers markets as networks where each company holds a network position (Johanson & Mattsson, 1985).

The concept of network soon became a core element of the model. In an article from 1987, Sharma and Johanson stress the role of networks for successful internationalization of Swedish consulting companies (partially answering criticisms about the lack of adaptation to service companies). From that point onwards, apart from a few exceptions, the goal of the model became to explain internationalization in networks (Forsgren & Johanson, 1994).

In the context of our review, the introduction of the network approach is of primary importance. Indeed the concept of network was developed in the social sciences at the individual level (Cook & Emerson, 1978; Granovetter, 1985), but used at the organizational level as a tool to explain customer-supplier relationship. Johanson & Mattsson (1987, p. 40) explain: "*We have discussed interfirm relationships without explicitly referring to individual actors. However, the mutual orientation among firms is principally a mutual orientation among individual actors in those firms [...]. Correspondingly, the interaction processes are carried out by individuals, though we have discussed them as taking place among firms*". The individual dimension entered the model not as an area of study, but as a tool to transfer the concept of networks into the model through the aggregation principle (March, 1962).

Drawing on the business network view (Forsgren, 2008), the model developed the concept of MBE – Multinational Business Enterprise (Vahlne & Johanson, 2013) – conceived as a network within networks (Håkansson & Johanson, 1993). This theory reinforced the anchoring of the Uppsala model in both the behaviorist theory and the network approach, both of which were originally conceived to study individuals and enabled the authors to develop in various directions. One research stream focuses on dyadic business relationships and adaptation in networks, introducing new concepts such as network position and network power independently of the Uppsala model (Anderson et al., 1994). A second stream uses the concept of network to reshape the model and respond to some of its criticisms. This stream divides the conceptual framework into two parts: on one hand, the establishment chain, on the other, the Uppsala model as an engine explaining the mechanisms of internationalization (Forsgren & Johanson, 1994; Johanson & Vahlne, 2003). In this context, the Uppsala school partially abandoned the establishment chain, refocusing on networks and mechanisms of internationalization such as knowledge development, learning and commitment (Forsgren, 2002; Johanson & Vahlne, 2003, 2006). In this way, they partially answered the critics regarding determinism and the lack of adaptation for explaining the behavior of born global companies.

The model was extensively transformed by the concept of business network, but also by the concept of opportunity, conceived as the result of exploration and exploitation activities and closely linked to knowledge development processes (Hohenthal et al., 2003). Developed separately, this concept was then integrated into the Uppsala model. In 2009, a revised model incorporating all these changes was introduced (Figure 4).

The new model considers that a company entering foreign markets is mainly threatened by the liability of outsidership (Johanson & Vahlne, 2009) – the disadvantage experienced by outsiders facing insiders in a specific network – which is a cornerstone in the evolution of the Uppsala school. By focusing on international network development, the authors were able to describe the behavior of service companies (Sharma & Johanson, 1987), and analyze uncertainty and commitment (Figueira-de-Lemos et al., 2011).

Alongside this, they developed a research stream investigating globalization in networks (Vahlne et al., 2011). This stream describes the tortuous road followed by companies in becoming global, introduces the



concept of network reconfiguration and coordination for addressing issues such as headquarters-subsidary relationships (Vahlne et al., 2012), and develops a “performance” state aspect in the Uppsala model.

To sum up, the concept of network was introduced into the model from the social sciences (individual level) and was turned into an engine to explain internationalization at the organizational level. Although the individual level was occasionally mentioned, the black box remained closed. However, the authors always recognized the existence of this shortcoming and held that “*the company is clearly seen as consisting of a number of sub-units and individuals*” (Johanson & Vahlne, 2006, p. 171).

### Evolution in networks and evolution of the model

In 2013 the Uppsala model shifted its focus from internationalization to evolution in networks for the first time (Vahlne & Johanson, 2013). Since then, this framework has incorporated and enhanced multiple pre-existing features to expand its range of application. For instance, the authors further investigated the relationship between network knowledge and business relationship value (Hohenthal et al., 2014); introduced ambidexterity into the model as a dynamic capability (Teece, 2007; Vahlne & Jonsson, 2017); and extended the scope of the model to explain entrepreneurial processes through the business network view (Forsgren, 2016). Such concepts, deeply embedded in the individual level of analysis, contributed to the emergence of the role of individuals in the model.

The new model (Figure 5) aims to describe evolution processes “*with internationalization and globalization being particular examples*” (Vahlne & Johanson, 2020, p. 6). The term “network” no longer appears because it describes the nature of the MBE. Commitment and knowledge development processes, as well as capabilities (both operational and dynamic) and performance, take place within networks. The model looks back to its origins in conceiving company development as a process, but it is not deterministic: it does not make any reference to the stages to be taken or their speed of deployment but analyzes evolutionary mechanisms.

During the same period, the authors started thinking about the evolution of their model over the years. In summarizing its main applications and clarifying its theoretical positioning (Holm et al., 2015; Vahlne & Johanson, 2014) they underlined the main challenges after 40 years. Among these, they identified the development of a multilevel approach as a major challenge for their model (Vahlne & Johanson, 2020). In this context, Vahlne & Johanson (2017, p. 1089) recall one of the original standpoints of their model, i.e., the aggregation principle, explaining that:

*processes exist on multiple levels. The Uppsala model operates at the level of the individual firm, that is, the micro-level. When we record changes at the micro-level, they are to a large extent the aggregate outcomes of processes at the mille-micro level, i.e., the level of individuals or of subgroups within the organization. We have mostly treated the mille-micro level as a black box [...]. We use the concept of evolution as the sum of changes at the mille-micro level, but aggregated to the level of the firm, where applicable.*

As Vahlne (2020, p. 242) explains: “*we were aware of the potential impact from micro-foundational factors, such as the individual managers, but stayed with studying the [organizational] factors*”. The authors also underline the fact that they had included micro-level assumptions in the model, though without describing the role of individuals in the process (Vahlne & Johanson, 2017). At this point, the black box was ready to be opened.

### Looking for the microfoundations of the Uppsala model

Actually, the black box was occasionally opened before 2017, but then carefully closed again. In 2010 Schweizer et al. (p. 365) proposed that “*the revised Johanson and Vahlne model may be so general that it makes more sense to see it as an explanation of entrepreneurial change. In that case, the change may or may not imply internationalization*”. Such thinking anticipated not only the focus on evolution, but also a new, multilevel approach. Aiming to explain internationalization as an entrepreneurial process, the focus of the paper was, for the first time, on managers (i.e., individuals) deploying dynamic capabilities to identify and develop opportunities. However, Schweizer et al. (2010) did not ultimately develop a multilevel model, but instead used individual features to enrich the Uppsala model. Choi and Johanson (2012) also focused on individuals by exploring the role of expatriates in knowledge transfer between HQs and subsidiaries. The authors concluded that, by developing personal relationships, expatriates enhance knowledge transfer – an important conclusion that was further developed later.

The explicit intention of developing a multilevel model emerged around 2017, following a general call for studies on microfoundations in IB (e.g., Contractor et al., 2019; Galkina & Chetty, 2015; Teece, 2007). The microfoundations theory argue that “*to fully explicate organizational anything – whether identity, learning,*

knowledge or capabilities – one must fundamentally begin with and understand the individuals that compose the whole, specifically their underlying nature, choices, abilities, propensities, heterogeneity, purposes, expectations and motivations” (Felin & Foss, 2005, p. 441).

In particular, several authors invited the Uppsala model to adapt to the modern world by taking into account the role of macro-context and microfoundations (Figure 6), explaining that “ultimately, it is the individual who, through entrepreneurial action, connects various parts of the organization and the environment, and transforms opportunities into outcomes” (Coviello et al., 2017, p. 1156).

To respond to the challenges raised by the academic community, the Uppsala school started working on a multilevel model. On the one hand, they tried to address macro-context issues (Bhatti et al., 2022) and, on the other, they focused on individuals (Vahlne & Schweizer, 2022). An initial article provided a model to describe managerial behaviors under uncertainty (Vahlne et al., 2017). In this paper, the Uppsala model no longer relies on micro-level concepts to explain meso-level phenomena but does exactly the contrary: it focuses on managers to understand how they influence the organization’s commitment decisions, learning, creativity, trust-building, and opportunity development processes. Several concepts used to define the characteristics of managers were already embedded in the model: management under uncertainty, bounded rationality, experiential learning, effectuation processes, opportunity development, network development. Others, such as emotion, vision and risk-taking were new.

The authors reaffirm their focus on managers in introducing the micro-level of analysis into their paradigm: “we foresaw radical change in the original version of our model [...] relating modern psychological findings to the assumptions of the Uppsala model” (Vahlne & Johanson, 2020, p. 8). That same year, they explained how biases and emotions affect decision processes (Vahlne, 2020). The concepts of governance and coordination themselves were reinterpreted as network mechanisms that enable managers to build trust and, through other knowledge development processes as well, reduce uncertainty (Vahlne & Johanson, 2021).

The authors recently summarized their findings on the role of managers. They first show that managers’ capabilities play a key role in a globally shifting environment (Bhatti et al., 2022), then summarize individual characteristics and further explore emotions and biases (Schweizer & Vahlne, 2022). Uncertainty and risk are reduced by managers through knowledge development processes and commitment is adjusted over time. The change variables of the model are reinterpreted through this lens. The authors also underline the fact that thanks to its focus on evolution and individuals, the model can explain rapid internationalization in a non-deterministic way.

The Uppsala model tries to develop a multilevel perspective gradually, starting from change aspects. Knowledge development processes are analyzed from both an individual and an organizational perspective (Jonsson & Vahlne, 2021; Vahlne & Johanson, 2021). Commitment processes, then, are considered as dependent on managerial decisions (Schweizer & Vahlne, 2022). Thus, dynamic capabilities are considered to be an outcome of change aspects processed at a micro-foundational level (Wu & Vahlne, 2022). In our opinion, the change aspects successfully internalized a multilevel approach. The same, however, cannot be said about state aspects. Nevertheless, the authors intend to integrate individuals into every aspect of their model, as Figure 7 shows.

The approach proposed by Vahlne and Schweizer (2022) aims to integrate the micro-level into the model (Vahlne & Johanson, 2017) without changing its structure. Every dimension needs to be analyzed from both an organizational and an individual standpoint. With this project in mind, the authors leave two missions for IB researchers to accomplish: first, to include individuals in state aspects (Vahlne & Schweizer, 2022); second, to take into account different organizational levels such as “the corporation, sub-units, and individual managers and co-workers” (Wu & Vahlne, 2022, p. 670).

## Back to the future: taking innovative research paths

Our review shows that a new orientation of the Uppsala model toward individuals is emerging but is still incomplete. In the following paragraphs, we underline the main contribution of our review and the key points to be included in further research (Table 1).

The first contribution of our review is to go back to origins to determine whether (and how) it is possible to introduce individuals in the Uppsala model. The answer is a resounding yes. Rooted in behaviorism (Cyert & March, 1963), the Uppsala model depicts companies and individuals as actors with bounded rationality, talking decisions under conditions of uncertainty (Vahlne & Johanson, 2014). Individuals aggregate into organizations and play a foundational role in their evolution (Contractor et al., 2019; March, 1962). We believe that, to further develop the Uppsala model, scholars should always adhere to its theoretical standpoints (a process ontology, behaviorism and management under uncertainty), especially

when addressing multilevel topics. This is especially true with regard to the macro-context (Coviello et al., 2017), where the dominant economic theories rely on a very different view of the individual and reject the concept of evolution (Veblen, 1898).

A second contribution concerns the degree of integration of individuals into the model. We propose two alternative paths, in line with the suggestions by Coviello et al. (2017). The first involves integrating individuals into each dimension of the model, as shown in Figure 7. The focus so far, however, has been limited to the change aspects of the model. The authors explain that they have set aside state variables “*hoping they will be the object of future study*” (Vahlne & Schweizer, 2022, p. 1553). Some efforts have been made in this direction (e.g., Valdemarin, 2021), but there is still much to be done.

An alternative approach involves developing a standalone, dynamic model linking multiple levels of analysis that can be combined with the Uppsala model (Figure 8), as happened with the concept of network that was developed separately and then integrated in the Uppsala model. Similarly, it might be interesting to develop a framework focusing on how the micro-level influences the meso-level and vice versa and to integrate this into the Uppsala model. This new construct should be dynamic in order to capture the continuous dialogue between the individual and organizational level and, to be compatible with the Uppsala model, should feature a process ontology and a behaviorist approach. Such a construct would improve not only the Uppsala model but also the microfoundations theory.

A third contribution of this review concerns the identity of individuals. The model currently focuses on a specific group of individuals within companies, namely managers (Schweizer & Vahlne, 2022; Vahlne & Johanson, 2021; Vahlne & Schweizer, 2022). The authors consider that “*Any action or decision undertaken at the firm level develops from individuals that make up the firm (Coviello, 2015). Consequently, understanding the firm’s internationalization behaviour stipulates understanding that it is the entrepreneurial individual driving it*” (Bhatti et al., 2022, p. 2). This restriction, however, reduces corporate action to the decision of a single or few individuals. A company is an association of individuals (March, 1962), including employees, team leaders, shareholders and stakeholders in general. Without the application of the aggregation principle, any micro-foundational approach will be fragile. Thus, we believe that further studies should pay attention to different types of individuals and their roles.

Likewise, our fourth contribution concerns the external network. With few exceptions, the model addresses only customers (mainly conceived as companies). This is quite logic, since the network approach was developed to study customer-supplier relationships (Anderson et al., 1994; Blankenburg Holm et al., 1999). However, a multitude of actors, such as competitors, agents, former employees, and shareholders interact with the MBE and influence its evolution in various ways. What happens, for instance, if a former employee joins a competitor? A complete micro-foundational approach should address the external network, not only the internal network. To this end, future studies could adopt a qualitative and longitudinal approach to focus on external actors.

Similarly, the aggregation principle enables the identification of intermediate units of analysis. At present, the Uppsala model focuses with few exceptions on individuals and companies. Over time – and this is our fifth contribution – it should also include intermediate entities. In the internal network, such entities take the form of teams, business units, departments, etc. In the external network, they may include alliances, trusts, etc. In this way a flourishing field is opened up to IB researchers, with future studies based on a truly layered ontology, shedding light on a variety of topics from the perspective of sub-units and their members.

Our sixth contribution consists of discussing the characteristics of individuals. Drawing on the social sciences, the Uppsala model focuses on managers’ characteristics including bounded rationality, emotions and biases (Kahneman, 2011; Vahlne et al., 2017). Their decisions are taken under uncertainty and depend on their capabilities (Schweizer et al., 2010). However, it is important to detail the characteristics of individuals in the Uppsala model, in the same way that the characteristics of MBEs were extensively portrayed (Vahlne & Johanson, 2014). In this context, recent IB papers suggest that it might be interesting to integrate bounded reliability into the model (Foss & Weber, 2016; Kano & Verbeke, 2015). Deeply embedded in behaviorist theory, this concept could have a major impact on the model, by redefining the concepts of commitment and trust-building. In the same way, “*other nano-level phenomena beyond the characteristics of key individuals of the firm, such as power distribution among different stakeholder groups, should be included in [multilevel] studies*” (Vahlne & Schweizer, 2022, p. 7). Another interesting approach would be to review how individuals are conceived in IB, entrepreneurship and other fields of management and the social sciences. This will result in a better understanding of the behavior of individuals.

Moreover, the way in which individuals develop networks should also be examined in detail. Although the authors implicitly refer to some key concepts from the social sciences, it might be worthwhile developing a multilevel network approach including concepts such as structural holes and network entrepreneurs (Burt, 2009) or strong and weak ties (Granovetter, 1973). How do individuals develop networks? Are they affected by belonging to the company’s network? How does the behavior of individuals in networks influence

companies and organizations? Further studies could focus on multilevel network development processes from a multidisciplinary perspective.

We consider that the rediscovery of the role of individuals would have a strong impact on the Uppsala model. First, it would provide a definitive answer to certain criticisms, shifting the focus from progressive vs rapid internationalization to the mechanism of internationalization (Schweizer & Vahlne, 2022). Second, it would reinforce the orientation of the model toward evolution, of which internationalization is a sub-category. In addition, a stronger focus on individuals would result in the development of additional “managerial” outputs, making the model capable of spanning topics in IB through to international management. In this regard, the scope of the model would expand.

Alongside its theoretical results, our paper offers some methodological recommendations for developing systematic literature reviews. First, it is worth noting that aggregators (such as EBSCO) simply check the article’s title, keywords and abstract if the full text is not available. Thus, some articles may be excluded from the results. Second, it is important to overcome the outcome bias when conducting a systematic review. In our case, individual networks were not initially investigated by the Uppsala model but were used to introduce the concept of network in management sciences. Third, several factors such as the evolution of academic rankings or the closing down of a journal may reduce the number of results. Taken together, these various points led us to propose a set of methodological recommendations. To avoid biases (Kahneman, 2011) it is essential to consider multidirectional paths (e.g., “Uppsala model  $\leftrightarrow$  individuals” rather than “Uppsala model  $\rightarrow$  individuals”) and to pay attention to the previously mentioned contextual elements when developing a systematic review.

## Conclusions

Our paper has aimed to rediscover the roles of individuals within the Uppsala model by developing a systematic literature review from its origin to the present day. Our results show that from the outset the model was based on multilevel standpoints. With the development of the revised model (Johanson & Vahlne, 2009) the authors integrated the network dimension from the social sciences, thus reinforcing the potential for a multilevel approach. In shifting the focus to evolution, the concept of network became a prominent part of the model. Finally, in recent years, the authors have tried to move toward a multilevel approach (Vahlne & Schweizer, 2022). Our analysis shows that, although several steps have already been taken in this direction, there is still much to do.

Our first contribution shows that the theoretical standpoints of the Uppsala model enable it to develop on multiple levels. However, recent papers have only analyzed the change aspects (Schweizer & Vahlne, 2022; Vahlne & Bhatti, 2018; Vahlne & Johanson, 2021; Wu & Vahlne, 2022) and have not addressed state aspects. Our second contribution is to propose two possible solutions to this omission. The first is to conceptualize the role of individuals in every aspect of the model, as proposed by Vahlne and Schweizer (2022); the second is to develop a standalone framework linking multiple levels of analysis that can be combined with the Uppsala model.

Our third contribution is to reaffirm the importance of the aggregation principle for developing a micro-foundational approach. By focusing solely on managers, there is a risk of oversimplifying the model. A similar limitation can be found with regard to the external network, where a micro-foundational approach has been little, if at all, developed. Our fourth contribution lies in providing indications to include individuals in the external network within the Uppsala framework.

Furthermore, the model also ignores intermediate units (departments, teams, etc.) within the company, thus oversimplifying reality. We propose – as our fifth contribution – that new research paths should include those actors in the model, thereby enabling the development of a holistic, comprehensive micro-foundational approach.

Our sixth contribution concerns the characteristics of individuals. The Uppsala model has recently included several characteristics such as emotions, biases and bounded rationality. However, other characteristics such as bounded reliability could be taken into account (Foss & Weber, 2016; Kano & Verbeke, 2015). Likewise, it would be interesting to focus on how individuals develop networks.

Our paper also presents a set of methodological contributions that may help researchers to conduct systematic reviews. We show how aggregators (e.g., EBSCO) check available material only. We point out the risk of incurring in an outcome bias (Kahneman, 2011) when researching new topics. Finally, we offer some considerations concerning the evolution of rankings and the creation and disappearance of journals and role of other academic sources that might be helpful for scholars delving back in time.

Together with contributions, our review has certain limitations. The first is our author-based approach. Although we have investigated other authors’ contributions, our review limits itself to the model developed by Johanson and Vahlne over the years. On the one hand, this model has been adapted by other scholars and

the original authors have internalized the changes suggested (e.g., Coviello et al., 2017; Forsgren, 2016). On the other hand, some concepts that were developed outside the careful control of the authors could reshape the future of the model itself. This possibility leaves unexplored a potentially interesting topic: the evolution of the Uppsala model outside the Uppsala school.

Concerning levels of analysis, we have limited our investigation to the micro-level, setting aside the macro-context (Coviello et al., 2017). We are aware that the Uppsala model is currently trying to address this criticism and become a fully integrated multilevel model (Bhatti et al., 2022). Nevertheless, we believe that integrating the macro context would require an in-depth analysis of the theoretical standpoints of the model to determine with which economic theories it is compatible. A cross-disciplinary approach is recommended to investigate this topic. After 48 years, the Uppsala model is still ready to confront new IB challenges.

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## Annexes

Annex 1: The articles included in our literature review.

N°	Year	Source	Main topic	Results
	1975	Johanson, J., & Wiedersheim-Paul, F. (1975). The Internationalization of the Firm—Four Swedish Cases. <i>Journal of Management Studies</i> , 12(3), 305–322.	International development	<p>Describes and analyses the internationalization of four Swedish firms, proposing a gradual approach to internationalization (the establishment chain). The company passes from (0) being established in its own country only, to (1) progressively developing non-regular export activities, then (2) regular export activities, (3) opening of a sales subsidiary and finally (4) a production subsidiary.</p> <p>Introduce the concept of psychic distance.</p>
	1977	Johanson, J., & Vahlne, J.-E. (1977). The Internationalization Process of the Firm—A Model of Knowledge Development and Increasing Foreign Market Commitments. <i>Journal of International Business Studies</i> , 8(1), 23–32.	International development – Original Uppsala Model	<p>Formalizes the establishment chain and propose the first version of the Uppsala model, with state and change aspects.</p> <p>State aspects include market knowledge and market commitment. Change aspects include commitment decisions and current activities.</p> <p>The basic mechanisms of the model are explained, and the concepts of knowledge development and uncertainty are detailed.</p>
	1982	Hägg, I., & Johanson, J. (1982). <i>Företag i Nätverk: Ny syn på Konkurrenskraft [Firms in Networks: A New View of Competitiveness]</i> . Studieförbundet Näringsliv och Samhälle.	Role of networks and network approach	<p>First developing the concept of network and stressing the fact that in industrial markets, connections between companies (networks) are of decisive importance for competitiveness.</p> <p>This book focuses on dyadic relationships, between customer and supplier.</p> <p>The concept of network was developed from the individual level, but used at the organizational one as a customer-supplier relationship can be both between two individuals and two companies.</p>
	1985	Johanson, J., & Mattsson, L.-G. (1985). Marketing Investments and Market Investments in Industrial	Role of networks and network approach	<p>Analyses marketing activities as investment processes and intertemporal relations.</p> <p>Reinforces the markets-as-networks approach and explain the way companies invest in networks.</p> <p>Distinguishes between marketing</p>

N°	Year	Source	Main topic	Results
		Networks. <i>International Journal of Research in Marketing</i> , 2(3), 185–195.		investments and market investments (authors also refer to it as “market commitment”, as in the Uppsala model). The latter relates to concepts such as resource commitment and network position. The concept of current activities is also approached to analyze the investment process.  No references to the individual level apart from top managers.
	1987	Johanson, J., & Mattsson, L.-G. (1987). Interorganizational Relations in Industrial Systems: A Network Approach Compared with the Transaction-Cost Approach. <i>International Studies of Management &amp; Organization</i> , 17(1), 34–48.	Role of networks and network approach	Underlines the differences between the network approach and the transaction-cost approach.  Specifies some features of interfirm relationships.  Acknowledges the underlying role of individuals in relationships.
	1987	Sharma, D., & Johanson, J. (1987). Technical Consultancy in Internationalisation. <i>International Marketing Review</i> , 4(4), 20–29.	International development in networks	Analyses the international development of Swedish consulting (service) companies and compares it with production companies.  Stresses the role of networks for successful internationalization.  Considers specificities linked to individuals (consultants) and their role in this context.  Explains that service companies are less affected by psychic distance and usually do not follow the establishment chain and develop activities abroad faster.
	1988	Johanson, J., & Mattsson, L.-G. (1988). Internationalisation in Industrial Systems—A Network Approach. In N. Hood & J.-E. Vahlne, <i>Strategies in Global Competition</i> (pp. 287–314). Croom	Role of networks and network approach	Provides a synthesis of the network approach developed by Hägg and Johanson (1982), Hammark-vist, Håkansson and Mattsson (1982) and Johanson and Mattsson (1985).  Analyzes the concept of network position and distinguish between micro-position (relationship with an individual counterpart) and macro-position (relations within a network as a whole).  Proposes a matrix to analyze internationalization based on the degree of internationalization of the firm and the degree of internationalization of the market (product

N°	Year	Source	Main topic	Results
		Helm.		network). This includes four types of companies labeled as: early, lonely, late, international.  Compares the transaction cost theory and the Uppsala Model studying the internationalization process.
	1990	Engwall, L., & Johanson, J. (1990). Banks in Industrial Networks. <i>Scandinavian Journal of Management</i> , 6(3), 231–244.	Role of networks and network approach	Provides details about the nature of networks: they are incontrollable, opaque, and dynamic.  Explains the role of banks in international networks and their relationship with companies, taking in account changes in the macro-context.  Provides more details on the concept of network power and network position.
	1990	Johanson, J., & Vahlne, J.-E. (1990). The Mechanism of Internationalisation. <i>International Marketing Review</i> , 7(4), 11.	International development in networks	Presents the main criticism addressed to the original Uppsala Model: too deterministic, not adapted to multinationals expanding on new markets, do not take in account general orientation in some industry toward international expansion, psychic distance decreased, does not consider interdependencies between countries, not adapted to explain internationalization of service companies.  Compares and contrasts the Uppsala Model and the Eclectic Paradigm.  Progressively integrates the network approach within the Uppsala model to face the previously mentioned criticisms.
	1991	Hallén, L., Johanson, J., & Seyed-Mohamed, N.(1991). Interfirm Adaptation in Business Relationships. <i>Journal of Marketing</i> , 55(2), 29–37.	Role of networks and network approach	Proposes a model of interfirm adaptation based on social exchange and resource dependence.  Details foundational elements of network development from an organizational viewpoint.  Explains the concept of social exchange, its standpoints, key elements (trust and power, time dependency) and gradually moves them from the individual level to the organizational level via the customer-supplier relationship. Also deeply explains the concept of power dependence.  Considers macro-level factors such as technology as having an important impact on interfirm adaptation.
	1992	Johanson, J., & Mattsson, L.-G. (1992). Network Positions and	Role of networks and network	Discusses the link between industrial networks and strategic action.  Specifies the characteristics of the network

N°	Year	Source	Main topic	Results
		Strategic Action-An Analytical Framework. In B. Axelsson & G. Easton, <i>Industrial Networks: A New View of Reality</i> (pp. 205–217). Routledge.	approach	model: networks are sets of interconnected relationships between actors, network positions describe types of links in network structures and strategic actions linked to the position.
	1992	Blankenburg Holm, D., & Johanson, J.(1992). Managing Network Connections in International Business. <i>Scandinavian International Business Review</i> , 1(1), 5–19.	Role of networks and network approach	<p>Illustrates the interaction of companies with their external network.</p> <p>Identifies the indirect links of a company with the external network of its business partner (focal relationship) in the context of a customer-supplier relationship. Explains that relationships are interconnected.</p>
	1993	Håkansson, H., & Johanson, J.(1993). The Network as a Governance Structure. Interfirm Cooperation Beyond Markets and Hierarchies. In G. Grabher, <i>The Embedded Firm: On the Socioeconomics of Industrial Networks</i> (pp. 32–47). Routledge.	Role of networks and network approach	<p>Presents the development and evolution of the concept of markets-as-network from inception to 1993.</p> <p>Stresses the role of networks over markets and hierarchies.</p> <p>Proposes some new research path to further extend the network approach.</p>
	1994	Forsgren, M., & Johanson, J. (1994). Managing Internationalization in Business Networks. In M. Forsgren & J. Johanson, <i>Managing Networks in International Business</i> (pp. 1–16). Gordon and	International development in networks	<p>Discusses the network approach as developed by the Uppsala school.</p> <p>Conceives the international company as composed by different actors with different behaviors and the external environment as a network. The definition of network is taken from Cook &amp; Emerson (1984) and includes major features such as insiders vs outsiders, positive vs negative connections, network position, opaqueness of networks. These elements will be expanded in further articles.</p> <p>Explicitly mentions the micro-level: “as this interaction involves managers on all</p>

N°	Year	Source	Main topic	Results
		Breach.		<p>managerial levels the book lacks the clear top management perspective so dominant in international business literature but focuses on the tasks of middle management in handling the relationships with customers, suppliers, distributors and all kinds of business actors” (p. 2). In a following chapter of the same book, Hallén distinguishes between organization-centered and personal-centered networks.</p> <p>Presents the internationalization process (establishment chain) and the Uppsala model and discusses the main criticisms of the framework. Distinguishes between the two research streams: on one side the establishment chain, on the other side, the Uppsala model itself as an engine explaining the underlying (network) mechanisms of internationalization.</p> <p>Stresses the role of networks for international development and proposes to integrate the concept in the Uppsala model.</p>
	1994	Anderson, J. C., Håkansson, H., & Johanson, J.(1994). Dyadic Business Relationships Within a Business Network Context. <i>Journal of Marketing</i> , 58(4), 1.	Role of networks and network approach	<p>In the context of markets-as-network theory, the paper focuses on dyadic business relationships in the context in which they are embedded. The analysis takes place at the organizational level but acknowledges the role of individuals.</p> <p>It suggests some measures to assess connectedness and provides suggestions for future research on business networks.</p>
	1995	Holm, U., Johanson, J., & Thilenius, P. (1995). Headquarters’ Knowledge of Subsidiary Network Contexts in the Multinational Corporation. <i>International Studies of Management &amp; Organization</i> , 25(1/2), 97–119.	International development in networks	<p>Discusses the role of subsidiaries’ network contexts for the MNC looking on one side, at their position in their local settings and, on the other side, at how this development is linked to the development of the MNC as a whole.</p> <p>Adopts a network approach that is not only reconducted to the Swedish network approach but also opens to other similar theories and concepts. Explicitly refers to the company as an interorganizational network and to the concept of embeddedness as formalized by Ghoshal and Bartlett (1990).</p>
	1995	Forsgren, M., Holm, U., & Johanson, J. (1995). Division	International development	<p>Elaborates a model to understand why division HQs are sometimes based in foreign countries. This is usually the result of a power relation between HQs and subsidiaries: both,</p>

N°	Year	Source	Main topic	Results
		Headquarters Go Abroad—A Step in the Internationalization of the Multinational Corporation. <i>Journal of Management Studies</i> , 32(4), 475–491.		indeed, need to be close to division HQs.  The authors explain that “international product divisions are something other than MNCs. They are parts of MNCs, which provide an important share of the context of the product divisions. Correspondingly, MNCs are not divisions, not even the sum of divisions” (p. 486), thus recognizing a layered structure.  Another critical point is that the authors, in contrast with the assumption of many theories of the MNC that the company is a perfectly rational entity, show that there is an internal bargaining within the MNC, with a contextual (bounded) rationality. This reinforces the position on the behaviorist theory of the firm.
	1996	Johanson, J., Pahlberg, C., & Thilenius, P. (1996). Conflict and Control in MNC New Product Introduction. <i>Journal of Market-Focused Management</i> , 1(3), 249–265.	International development in networks	The paper analyses, in the context of new product introduction, HQs-subsidary relations. Subsidiaries play a business network role in local network and are controlled by HQs.  The authors propose a structural model to illustrate HQs-subsidary relations where dependence, conflict and control play a key role.
	1996	Hadjikhani, A., & Johanson, J. (1996). Facing Foreign Market Turbulence: Three Swedish Multinationals in Iran. <i>Journal of International Marketing</i> , 4(4), 53–74.	International development	Based on a case study of three Swedish companies in Iran, the paper studies the international development of companies during foreign market turbulence.  The concepts of commitment, knowledge and interaction are discussed in a context of turbulence. During the crisis, all the companies analyzed reduced their activities in the country but never gave up (no decline or exit). They even increased their commitment when the crisis was over. The author, thus, confirm the validity of their model.  The concept of network is not explicitly addressed in this paper but seems to be underlying.
	1997	Andersson, U., Johanson, J., & Vahne, J.-E. (1997). Organic Acquisitions in the Internationalization Process of the Business Firm. <i>Management</i>	International development in networks	Analyzes acquisitions in foreign countries within the frameworks of the network approach and internationalization process (establishment chain).  Pays attention to define the characteristics of companies, now labeled as “business firms”, the term used before reshaping it in MBE. Those characteristics are mainly their relational nature and the fact that they are embedded in

N°	Year	Source	Main topic	Results
		<i>International Review</i> , 37(2), 67–84.		both internal and external networks.  The concept of embeddedness is discussed in the paper at an organizational level.  A differentiation between large companies and startups in the development of this process is introduced.
	1997	Eriksson, K., Johanson, J., Majkgard, A., & Sharma, D. D. (1997). Experiential Knowledge and Cost in the Internationalization Process. <i>Journal of International Business Studies</i> , 28(2), 337–360.	International development	The paper aims to analyze the role and features of experiential knowledge in the process of internationalization. This article comes back to the establishment chain and the original Uppsala model without adding the network component developed in recent years. It rather focuses on the cost of acquiring knowledge.  It posits some foundations to the further development of knowledge development processes.  It addresses partially the micro-level by discussing the perceived cost of internationalization for managers.  It stresses the link of the model with the behaviorist theory of the firm.
	1999	Blankenburg Holm, D., Eriksson, K., & Johanson, J. (1999). Creating Value Through Mutual Commitment to Business Network Relationships. <i>Strategic Management Journal</i> , 20(5), 467.	Role of networks and network approach	The authors develop and test a structural model to study business relationship development through the network approach. The model indicates that value creation results from network connections creating mutual commitment first and then mutual dependence then.  Concepts such as network embeddedness commitment are expanded.
	2003	Johanson, J., & Vahlne, J.-E. (2003). Business Relationship Learning and Commitment in the Internationalization Process. <i>Journal of International Entrepreneurship</i> , 1(1), 83–101.	International development in networks	Acknowledges the need for a new model considering various internationalization paths.  Proposes (without visual formalization) a model based on the first version of the internationalization model and the network features developed in previous papers.  Focuses on two driving mechanism of the Uppsala internationalization model – learning and commitment – and transforms them in relationship learning and commitment.  The concept of psychic distance is still used, but the authors distinguish between country-specific psychic distance and

N°	Year	Source	Main topic	Results
				relationship-specific psychic distance.
	2003	Hohenthal, J., Johanson, J., & Johanson, M. (2003). Market Discovery and the International Expansion of the Firm. <i>International Business Review</i> , 12(6), 659–672.	Opportunities in international development	<p>Proposes that, during internationalization, companies make market discoveries as a result of exploration and exploitation activities. However, market discoveries can be exploited only if the company know how to handle the discovered opportunity.</p> <p>Discoveries are made while companies are developing current activities, and learning processes play a key role on that. The internationalization process is influenced by discoveries and the capability to exploit them.</p> <p>For the moment, the authors do not link these concepts to the network approach.</p> <p>Many of these concepts were introduced in the Uppsala model in following years.</p>
	2004	Havila, V., Johanson, J., & Thilenius, P. (2004). International Business-Relationship Triads. <i>International Marketing Review</i> , 21(2), 172–186.	Role of networks and network approach	<p>Challenges the classical customer-supplier view of relationship proposing that, in some cases, the dyadic approach can be turned into a triadic one. This enables to include intermediaries.</p> <p>However, in triads relationships are interlinked and the stronger a dyadic relationship (between A and B for example), the weaker the others (between A and C and B and C).</p> <p>The concepts of trust, commitment and social interaction in business-relationships are expanded. Trust seems to play a more prominent role than commitment.</p>
	2006	Mattsson, L., & Johanson, J. (2006). Discovering Market Networks. <i>European Journal of Marketing</i> , 40(3/4), 259–274.	Role of networks and network approach	<p>Drawing on Hägg &amp; Johanson (1982) and Hammarkvist et al. (1982), the article explains the emergence of the network approach in Sweden.</p> <p>It explains how the concept of “network” conciliates the “dyadic interaction process” (customer-supplier relationships) on one side and the “systems interdependence” (markets as networks) on the other side.</p>
	2006	Johanson, M., & Johanson, J. (2006). Turbulence, Discovery and Foreign Market Entry: A Longitudinal Study of an Entry into the Russian Market.	Opportunities in international development	<p>Discusses the way companies make discoveries by seizing opportunities in turbulent foreign markets (Swedish companies in Russia).</p> <p>Distinguishes between strategic and operative discoveries and point out that both play a key role in foreign market entry.</p>



N°	Year	Source	Main topic	Results
		<i>Management International Review</i> , 46(2), 179–205.		
	2006	Johanson, J., & Vahlne, J.-E. (2006). Commitment and Opportunity Development in the Internationalization Process: A Note on the Uppsala Internationalization Process Model. <i>Management International Review</i> , 46(2), 165–178.	International development in networks – Discussion on the nature of the Uppsala Model	<p>From this paper on, the establishment chain and the Uppsala model are considered as separate framework, which can be, yet, used together. The main focus, then, would be on the Uppsala model.</p> <p>Learning and commitment are now analyzed as drivers of opportunity development (including exploration and exploitation) and not just of uncertainty reduction (criticism of the original model). No visual reconfiguration of the model.</p> <p>Relationship commitment replaces market commitment as the main driver of opportunity development.</p>
	2009	Johanson, J., & Vahlne, J.-E. (2009). The Uppsala Internationalization Process Model Revisited: From Liability of Foreignness to Liability of Outsidership. <i>Journal of International Business Studies</i> , 40(9), 1411–1431.	International development in networks – Reshaping the Uppsala Model	<p>Visually and conceptually reshapes the Uppsala model based on the main criticisms encountered over the years and the advances on the topic, especially the role of networks.</p> <p>The business network view becomes the backbone of the model, which is now “a business network model of the internationalization process” (p. 1423). The concept of liability of foreignness is replaced by the liability of outsidership. The new change aspects are “relationship commitment decisions” and “learning, creating, trust-building”. The new state aspects are “knowledge-opportunities”, where opportunities are considered as a subset of knowledge – yet the most important component – and “network position” rather than market commitment.</p> <p>Suggests a proximity with the revised version of the OLI paradigm.</p>
	2010	Schweizer, R., Vahlne, J.-E., & Johanson, J. (2010). Internationalization as an Entrepreneurial Process. <i>Journal of International Entrepreneurship</i> , 8(4), 343–370.	Role of individuals in the Uppsala model – Reshaping the Uppsala Model	<p>The Uppsala model can be used to study the entrepreneurial process and opportunity development processes conducted by individuals in organizations, such as managers and entrepreneurs. This paper, thus, discusses both organizational and individual features. This is an innovative approach for the authors.</p> <p>Opportunity identification and development as well as effectuation and dynamic capabilities are discussed and internalized in the Uppsala model.</p> <p>At the entrepreneurial (individual) level,</p>

N°	Year	Source	Main topic	Results
				<p>several elements matter: networks and relations, entrepreneurial capabilities, risk taking, uncertainty, affordable loss, trust, opportunity identification, development, and exploitation.</p> <p>An updated version of the model is proposed. The state aspects include “Knowledge – Opportunities - Entrepreneurial capabilities” and “Network position”. The change variables are labeled as “Relationship commitment decisions” and “Learning – Creating - Trust building - Exploiting contingencies”.</p> <p>For the first time the authors claim that “the revised Johanson and Vahlne model may be so general that it makes more sense to see it as an explanation of entrepreneurial change. In that case, the change may or may not imply internationalization” (p. 365). That is, evolution in networks.</p>
	2011	Johanson, J., & Vahlne, J.-E. (2011). Markets as Networks: Implications for Strategy-Making. <i>Journal of the Academy of Marketing Science</i> , 39(4), 484–491.	Role of networks and business network view	<p>Through an empirical study, the article discusses implications for strategy-making of the business network view. This term is used here for the first time in an article (previously mentioned in books) instead of network approach or markets-as-networks.</p> <p>It stresses the differences between the business network view and neo-classical economic theory. It shows the proximity with the strategic change field and focuses on dynamic capabilities.</p> <p>Finally, it suggests seven propositions and a research agenda.</p>
	2011	Vahlne, J.-E., Ivarsson, I., & Johanson, J. (2011). The Tortuous Road to Globalization for Volvo’s Heavy Truck Business: Extending the Scope of the Uppsala Model. <i>International Business Review</i> , 20(1), 1–14.	Globalization in networks – Reshaping the Uppsala Model	<p>The authors adapt the Uppsala model to understand the globalization process which is regarded as tortuous.</p> <p>The authors distinguish between inter- and intra-organizational networks and introduce the concept of network reconfiguration and coordination.</p> <p>The first change aspect is relabeled as “decisions to reconfigure or redesign coordination systems” whereas the second stay unchanged (“learning, creating, trust-building”). The state aspects include an unchanged first variable (“knowledge and opportunities”) but the second variable, which is unchanged (“network position”) now include “internally and externally”, to stress the fact that the network is active in both dimensions.</p>

N°	Year	Source	Main topic	Results
	2011	Figueira-de-Lemos, F., Johanson, J., & Vahlne, J.-E. (2011). Risk Management in the Internationalization Process of the Firm: A Note on the Uppsala Model. <i>Journal of World Business</i> , 46(2), 143–153.	International development in networks	<p>Examines the risk formula of the Uppsala model by looking at two main variables: uncertainty and commitment.</p> <p>During the internationalization process, the risk level evolves, and this depends both on uncertainty and commitment.</p> <p>Stresses the fact that the approach of the model is consistent with the behavioral theory.</p> <p>Proposes a set of hypotheses based on the model.</p>
	2012	Vahlne, J.-E., Schweizer, R., & Johanson, J. (2012). Overcoming the Liability of Outsidership—The Challenge of HQ of the Global Firm. <i>Journal of International Management</i> , 18(3), 224–232.	Globalization in networks – Reshaping the Uppsala Model	<p>Drawing on the alternative version of the Uppsala model (Vahlne et al., 2011) and on management under uncertainty, the authors offer a model that can be used to study headquarters-subsidiary relationships (globalization).</p> <p>The study suggests that there is an internal liability of outsidership, as better communication is required between units in an organization and networks are not always shared.</p> <p>The change aspects are labeled as “relationship commitment decisions” and as “learning, creating, trust-building” (identical to Uppsala 2009). The state aspects include a slightly changed first quadrant (“knowledge, opportunities, entrepreneurial capabilities”) and an unchanged second variable “network position: internally and externally”.</p>
	2012	Choi, S.-G., & Johanson, J. (2012). Knowledge Translation Through Expatriates in International Knowledge Transfer. <i>International Business Review</i> , 21(6), 1148–1157.	Role of individuals in the Uppsala model	<p>The paper focuses on the role specific individuals (expatriates) plays in the knowledge transfer process between HQs and subsidiaries. The expatriation experience and the relationship development capability of these individuals have a positive effect on knowledge transfer.</p> <p>The article refers to the Uppsala model in his version of 1990.</p> <p>This is among the first articles where the focus is on individuals (even though on specific ones).</p>
	2013	Vahlne, J.-E., & Johanson, J. (2013). The Uppsala Model on Evolution of the Multinational	Evolution in networks – Reshaping the Uppsala Model	<p>The study offers a new, more complete version of the revised Uppsala model that integrates concepts such as dynamic capabilities, entrepreneurship, and management under uncertainty.</p>

N°	Year	Source	Main topic	Results
		Business Enterprise – From Internalization to Coordination of Networks. <i>International Marketing Review</i> , 30(3), 189–210.		<p>The focus is at the organizational level on the MBE.</p> <p>The authors explain the research approach of the Uppsala model and illustrate the differences with the eclectic paradigm.</p> <p>The Uppsala model is reshaped in a more complete way. Dynamic aspects include: “Commitment decisions - reconfiguration and change of coordination” and “Inter-organizational processes of learning creating and trust-building”. State aspects include on the upper left quadrant: “Operational capabilities” and “Dynamic capabilities – Opportunity development capability; Internationalization capability; Networking capability”. On the lower left quadrant: “Network position – Inter-organizational network position; Intra-organizational network position; Network power”.</p> <p>The new model moves its focus from internationalization to evolution through coordination of networks, thus becoming a general model explaining a variety of phenomena, including international development. As the authors explain: “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” (p. 205).</p>
	2014	Vahlne, J.-E., & Johanson, J. (2014). Replacing Traditional Economics with Behavioral Assumptions in Constructing the Uppsala Model: Toward a Theory on the Evolution of the Multinational Business Enterprise (MBE). In <i>Multidisciplinary Insights from New AIB Fellows</i> (Vol. 16, pp. 159–176). Emerald Group Publishing	Evolution of the Uppsala model over time – Reshaping the 2013 Uppsala Model	<p>Presents in an intimate and very personal way how the Uppsala model born and evolved, starting from when the authors were doctoral candidates at the Uppsala university.</p> <p>They focus on the realistic assumptions of the model vs neoclassical assumptions. Among them we have: rational behaviour, complete knowledge and information, equilibrium, the distinction between endogeneity and exogeneity, homogeneity and the perfectly competitive market, the firm as a manufacturing unit.</p> <p>Against all these neoclassical assumptions the authors developed the concept of MBE in opposition to MNE (associated with Dunning’s OLI paradigm and neoclassical view). The authors explain that “Our intention has always been to build a descriptive model or maybe now we can name it a theory”. They wanted to investigate international development and, more recently, evolution.</p>

N°	Year	Source	Main topic	Results
		Limited.		<p>The article proposes an updated version of the 2013 model.</p> <p>Change aspects include: “Commitment decisions - reconfiguration and change of coordination” and “Affordable loss” in the upper quadrant and “Inter-organizational processes of learning, creating and trust-building” in the lower. State aspects include on the upper left quadrant: “Operational capabilities” and “Dynamic capabilities –Entrepreneurial capability; Internationalization/globalization; Networking capability, Institutional capability”. On the lower left quadrant: “Network position – Internal network position; External network position; Focal network position”.</p> <p>Orients further studies in IB toward realistic assumptions and longitudinal empirical studies.</p>
	2014	Vahlne, J.-E., & Ivarsson, I. (2014). The Globalization of Swedish MNEs: Empirical Evidence and Theoretical Explanations. <i>Journal of International Business Studies</i> , 45(3), 227–247.	Globalization in networks – Reshaping the Uppsala Model	<p>An empirical analysis of the globalization process of Swedish MNEs is proposed.</p> <p>Globalization, defined as “the geographical dispersion of multinational enterprises (MNEs)' value chain, in combination with increased inter-regional coordination” (p. 227) is confirmed to be a tortuous road for international firms.</p> <p>The paper also focuses on the role of dynamic capabilities in the globalization process. Performance is considered a state aspect that measures the degree of globalization.</p> <p>An updated version of the Uppsala model labeled as “The Uppsala Globalization Process Model” is proposed. It draws from the 2013 model with some changes. Change aspects are identical to the 2013 model and include: “Commitment decisions - reconfiguration and change of coordination” and “Inter-organizational processes of Learning, Creating, Trust-building”. State aspects include on the upper left quadrant: “Operational capabilities” and “Dynamic capabilities – Opportunity development capability; Networking capability; Technology development capability; Globalization capability”. On the lower left quadrant: “Performance – Degree of globalization (geographical configuration and coordination)”.</p> <p>A first micro-foundational approach is introduced but there is an ambiguity concerning the level of analysis (individuals or units (HQs-subsidiary relations)?). However, we refer to individuals in some cases: “opportunity</p>

N°	Year	Source	Main topic	Results
				development capability, the ability to identify and implement opportunities (Teece, Pearce, & Boerner, 2002). An entrepreneurial spirit with numerous individuals engaging in making the firm grow or improve on its effectiveness, wherever such opportunities emerge, or can be created, constitutes such a capability” (p. 244) or “Individuals learn and what is learned is transferred to other organizational members and may be made into routines” (p. 243).
	2014	Hohenthal, J., Johanson, J., & Johanson, M. (2014). Network Knowledge and Business-Relationship Value in the Foreign Market. <i>International Business Review</i> , 23(1), 4–19.	Role of networks and business network view	<p>The study focuses on the relationship between experience and business relationships in foreign markets.</p> <p>After reviewing twenty-nine papers focusing on SMEs and following a business network view, the authors formulate a set of hypotheses. The hypotheses lead to a structural model that is tested.</p> <p>International experiential network knowledge and experience are separate.</p>
	2015	Holm, U., Forsgren, M., & Johanson, J. (2015). <i>Knowledge, Networks and Power: The Uppsala School of International Business</i> . Palgrave Macmillan.	Evolution of the Uppsala model over time.	<p>Reflects on the evolution of the Uppsala school over four decades and on its role introducing concepts and shaping models in the domain of IB.</p> <p>Some of the chapters proposed are reproduction of previously published articles or chapters.</p> <p>The key concepts of the Uppsala school are put into perspective over time.</p>
	2017	Vahlne, J.-E., & Jonsson, A. (2017). Ambidexterity as a Dynamic Capability in the Globalization of the Multinational Business Enterprise (MBE): Case Studies of AB Volvo and IKEA. <i>International Business Review</i> , 26(1), 57–70.	Globalization in networks – Reshaping the Uppsala Model	<p>In this study, ambidexterity becomes part of the Uppsala model as a dynamic capability and a way to explain globalization.</p> <p>With this step, the role of individuals in networks becomes clear: they create, manage, and exploit new opportunities. Ambidexterity is considered a dynamic capability, and performance, in this case, depends on the degree of coordination and profitability.</p> <p>An updated version of the Uppsala globalization model (2014) is proposed. Change aspects are adjusted compared to the 2014 model and include in the upper-right quadrant “Commitment decisions - reconfiguration and change of coordination (exploration)”. In the lower-right quadrant “Organizational processes of Learning, Creating, Trust-building” and “Operations</p>

N°	Year	Source	Main topic	Results
				<p>(exploitation)".</p> <p>State aspects include on the upper left quadrant: "Operational capabilities" and "Dynamic capabilities – Opportunity development capability; Networking capability; Trust-building capability; Globalization capability; Ambidexterity capability". On the lower left quadrant: "Performance – Degree of globalization (geographical configuration and coordination); Profitability".</p> <p>The paper proposes to introduce a multilevel approach, starting with the choice of methodology enabling the authors to "study the interaction between different organizational levels (Junni et al., 2013): the corporation, the sub-units and individual managers and co-workers" (p. 62).</p>
	2017	Vahlne, J.-E., & Johanson, J. (2017). From Internationalization to Evolution: The Uppsala Model at 40 Years. <i>Journal of International Business Studies</i> , 48(9), 1087–1102.	Evolution in networks – Reshaping the Uppsala Model	<p>Based on the 2013 model, the authors present a simplified framework to study evolution of MBEs (not just internationalization). The change aspects include "Commitment processes" and "Knowledge Development Processes".</p> <p>The state aspects are labeled as "Capabilities" and "Commitments/Performance".</p> <p>The paper stresses the differences with competing models such as the OLI paradigm.</p> <p>Although the new outlook is simplified, the model still includes the features developed in previous years.</p> <p>The article specifies that the Uppsala model aims to study evolution at the organizational level and that individuals were treated as a black box.</p> <p>Explains the main characteristics of individuals recalled by the model: realism, bounded rationality, the fact that processes such as knowledge development occur also at the individual level and that shared experience between the organization and individuals generates capabilities and routines.</p> <p>Calls for studies aiming to open the black box and using a longitudinal approach "given the process-based nature of the Uppsala model" (p. 1098).</p>
	2017	Vahlne, J.-E., Hamberg, M., & Schweizer, R. (2017).	Role of individuals in the Uppsala model –	<p>The study stresses the importance of management under uncertainty and shows how individuals and organizations cope with that risk.</p>

N°	Year	Source	Main topic	Results
		Management Under Uncertainty—The Unavoidable Risk-Taking. <i>Multinational Business Review</i> , 25(2), 91–109.	Reshaping the Uppsala Model	<p>The focus is on managers developing relationships for their organization.</p> <p>Acknowledges that commitment decisions and processes of learning, creating, trust-building, and opportunity development are conducted by individuals.</p> <p>A model that can be used to study management under uncertainty is presented as a variant of the Uppsala model. State variables include in the upper-left quadrant “Knowledge - Vision/Opportunity - Emotions/Confidence - Will and role to act - Risk willingness”; in the lower-left quadrant “Degree of project success”. Change variables always have upper-right “Commitment decisions” but the authors detail them explaining that they are “influenced by - Means available - Affordable loss - Ad hoc objectives”. The other change aspect is unchanged (“Learning, Creating, Trust-building”).</p>
	2018	Vahlne, J.-E., & Bhatti, W. A. (2018). Relationship Development: A Micro-Foundation for the Internationalization Process of the Multinational Business Enterprise. <i>Management International Review</i> , 59, 1–26.	International development in networks	<p>By developing two case studies on a MBE and a SME, the article analyzes the interplay between relationship knowledge development and commitment in customer-supplier relationships.</p> <p>Relationship development (through the sub-process of learning, creating and trust-building) enables opportunity identification, thus playing a key role in the evolution of commitment.</p> <p>This article focuses on the organizational level (reminder: the term “micro-foundation” is usually associated to the company level in the Uppsala model, the individual level is labeled milli-micro level). However, many elements on which the relationship development process and its sub-processes are based, are essentially individual features (ex: social exchange). Individuals, such as managers and front employees, are identified as key actors.</p>
	2020	Vahlne, J.-E. (2020). Development of the Uppsala Model of Internationalization Process: From Internationalization to Evolution. <i>Global Strategy Journal</i> , 10(2), 239–250.	Evolution of the Uppsala model over time	<p>Provides an overview of the progress of the Uppsala model from internationalization to evolution.</p> <p>After presenting the context where the model first developed, several phases are identified:</p> <p>The original version of the Uppsala model.</p> <p>Introducing the network view on industrial markets.</p> <p>Expansion to globalization.</p> <p>From internationalization and globalization</p>



N°	Year	Source	Main topic	Results
				<p>to evolution.</p> <p>Underlines several opportunities to further develop the model including developing a micro-foundational approach and analyze the evolutionary process and strategic development of MBEs.</p>
	2020	Vahlne, J.-E., & Johanson, J. (2020). The Uppsala Model: Networks and Micro-Foundations. <i>Journal of International Business Studies</i> , 51(1), 4–10.	Evolution of the Uppsala model over time	<p>Provides an overview of the progress of the Uppsala model over time with a special focus on their JIBS decade award paper (Johanson &amp; Vahlne, 2009) and its influence on the field. Networks.</p> <p>By reflecting on how the model reshaped over time, the authors explain the state of the art to 2020: their model now focuses on evolution “with internationalization and globalization being particular examples” (p. 6).</p> <p>A strong orientation toward micro-foundations is provided in the third section of the article entitled “What more can we do to improve the Uppsala model?”. Following the behaviorist nature of their model, the authors propose to focus on a specific type of individuals in companies: managers. It proposes to further analyze concepts such as bounded rationality, uncertainty avoidance, biases and emotions.</p>
	2021	Vahlne, J.-E., & Johanson, J. (2021). Coping with Complexity by Making Trust an Important Dimension in Governance and Coordination. <i>International Business Review</i> , 30(2), 1–7.	Role of individuals in the Uppsala model	<p>The article focuses on how managers cope with complexity. Governance and coordination are reinterpreted as part of the Uppsala model thanks to the business network view.</p> <p>In a network context, governance is interpreted as a network mechanism. Trust is the oil of the machine and exist at various levels. Trust-building process, together with other knowledge development processes, reduces the uncertainty.</p>
	2021	Vahlne, J.-E. (2021). The Uppsala Model in the Twenty-First Century. In <i>Oxford Research Encyclopedia of Business and Management</i> .	Evolution of the Uppsala model over time	<p>Provides an overview of the progress of the Uppsala model over time and few projections for the future. Recall its three basic premises: a behaviorist approach, a process ontology, and the goal of dealing with uncertainty and complexity.</p> <p>Proposes that further studies adopt a longitudinal approach rather than “static cross-sectional statistical methods”. Underlines the potential extension of the model toward the macro- and micro-levels.</p>
	2021	Johanson, J., & Johanson, M.	International development in	Introduces network entry speed and synchronization in the Uppsala

N°	Year	Source	Main topic	Results
		(2021). Speed and Synchronization in Foreign Market Network Entry: A Note on the Revisited Uppsala Model. <i>Journal of International Business Studies</i> , 52(8), 1628–1645.	networks – Reshaping the Uppsala Model (2009)	<p>internationalization model to provide a temporal dimension to international development.</p> <p>Based on the 2009 revised model, an updated version of the model is formalized. State aspects include, together with “Knowledge-opportunities”, “Network entry speed” (previously “network position”). Change aspects still include “Relationship commitment decisions”, but the second quadrant is changed from “Learning, creating, trust-building” to “Network synchronization”.</p> <p>This version of the model provides more dynamism to the framework (dynamic markets, dynamic networks) and respond to many criticisms linked to the speed of internationalization. The model is not any more predicting slow and incremental internationalization but shows a process where network development is the key to successful internationalization.</p> <p>The level of analysis is the organizational one.</p>
	2021	Jonsson, A., & Vahlne, J.-E. (2021). Complexity Offering Opportunity: Mutual Learning Between Zhejiang Geely Holding Group and Volvo Cars in the Post-Acquisition Process. <i>Global Strategy Journal, Special Issue "Complexity and Multinationals"</i> , 1–32.	Opportunities in international development – Reshaping the Uppsala Model	<p>Focuses on how MBEs manage complexity and opportunities in the context of a post-acquisition integration. The Uppsala model, combined with a deeper introduction of organizational learning can be used to interpret this process as an opportunity to be managed.</p> <p>A new, contextualized version of the model is proposed. The state aspects include in the upper-left quadrant “operational and dynamic capabilities”. Dynamic capabilities include “willingness to learn” and “capability to learn”. The lower-left quadrant is still labeled as “Commitments/performance” and includes “Drive to deliver” on the “Commitments” side and “New R&amp;D skills (Acquiring MBE)” and “New attitude to risk/opportunities (Acquired MBE)” on the “Performance” side.</p> <p>Change aspects include upper right “Commitment processes”, with the sub-categories “Accepting new organizational context (Acquired MBE)” and “Accepting to develop new capabilities (Acquiring MBE)”. On the lower-right quadrant the usual “Knowledge development processes” include “Single-loop, double loop and deuteron-loop learning”, “Trust building” and “Knowledge creation”.</p> <p>Although the paper focuses on the organizational level, a few results on learning seems to be linked to micro-foundations and the authors call for a model enabling the</p>

N°	Year	Source	Main topic	Results
				dialogue between the micro-and meso-levels.
	2022	Schweizer, R., & Vahlne, J.-E. (2022). Non-linear Internationalization and the Uppsala Model – On the Importance of Individuals. <i>Journal of Business Research</i> , 140(1), 583–592.	Role of individuals in the Uppsala model	<p>The paper discusses both the role of individuals and discontinuous internationalization in the Uppsala model.</p> <p>As for non-linear internationalization, the authors summarize the multiple answers the Uppsala model provided over time (the establishment chain is different from the Uppsala model, the role of networks, the fact that some processes are undertaken by entrepreneurs before the creation of the firm and many others). An argument is added to the list: in many cases commitment decisions are incremental and not one-shot decisions. However, it is specified that incremental internationalization is the most common path.</p> <p>As for the role of individuals, the paper specifically focuses on managers and on the change variables of the model (commitment and knowledge development processes). Uncertainty and risk are reduced by managers through knowledge development processes and commitment is adjusted over time. Individuals act according to their personality and their perception of reality (bounded rationality, emotions and biases affect that). The change variables of the model are reinterpreted through this lens.</p>
	2022	Bhatti, W. A., Vahlne, J.-E., Glowik, M., & Larimo, J. A. (2022). The Impact of Industry 4.0 on the 2017 Version of the Uppsala Model. <i>International Business Review</i> , 31(4), 101996.	Macro-context of the Uppsala model (2017)	<p>The paper focuses on the macro-context of the Uppsala model, more specifically Industry 4.0. However, the micro-level is also included by focusing on the founding entrepreneur of the observed company.</p> <p>Again, individuals action affects change aspects and are affected by both the meso-level and the macro-context (industry 4.0 here). The individual capabilities of the manager play a key role in the international development of the company.</p> <p>The article concludes that the 2017 model is still valid, but strongly affected by technological evolution.</p>
	2022	Vahlne, J.-E., & Schweizer, R. (2022). Human Behavior and Judgment: A Critical Nano-foundation for the Uppsala Model and International Business	Role of individuals in the Uppsala model – Reshaping the 2017 Uppsala model	<p>The paper focuses on human behaviour as a key ingredient of international development.</p> <p>The focal individuals are, again, managers, and the paper discusses the elements influencing their behaviours (such as biases, for instance), which is in turn reflecting on company's behaviour.</p> <p>The authors propose a new representation of their 2017 model. The state and change</p>

N°	Year	Source	Main topic	Results
		Studies. <i>Journal of International Business Studies</i> , 53(7), 1–7.		<p>variables are identical, but every case now includes two double-linked boxes linking the individual and organizational level.</p> <p>The role of individuals on change aspects is explained as in previous studies (e.g., Schweizer &amp; Vahlne, 2022). However, there is not an analysis on the role of individuals in state aspects: “We also leave the central state variables aside in this short commentary, hoping they will be the object of future study” (p. 1553).</p> <p>A further call for multi-level studies is formulated.</p>
	2022	Wu, J., & Vahlne, J.-E. (2022). Dynamic Capabilities of Emerging Market Multinational Enterprises and the Uppsala Model. <i>Asian Business &amp; Management</i> , 21(5), 690–714.	Evolution in networks – Reshaping the 2017 Uppsala model	<p>Provides a focus on EMBE’s (Emerging market MBEs) and MMBE’s (Mature market MBEs) internationalization. According to the case study EMBEs act different than MMBEs and, thus, from what may be predicted by the Uppsala model. The company studied internationalized with weak capabilities, was not oriented to minimize risk but rather to acquire capabilities, entered countries with a great cultural distance and strongly leveraged on the entrepreneurial attitude of its manager.</p> <p>The new graphical representation of the Uppsala model is now a hybrid of the 2017 version and previous ones. State aspects are “Capabilities”, both “Dynamic” and “Operational”, and “Commitments/Performance”. Change aspects include “Commitment Processes”, detailed as “Reconfiguration” and “Change of coordination”, and the usual “Knowledge development processes” of “Learning”, “Creating” and “Trust building”.</p> <p>Dynamic capabilities are explored and considered as an outcome of change aspects processed at a micro-foundational level.</p> <p>This paper argues that also different organizational levels should be considered, including “the corporation, sub-units, and individual managers and co-workers” (p. 670).</p>

Source: Elaboration of the author.

## Figures and Tables

Figure 1: The literature review process

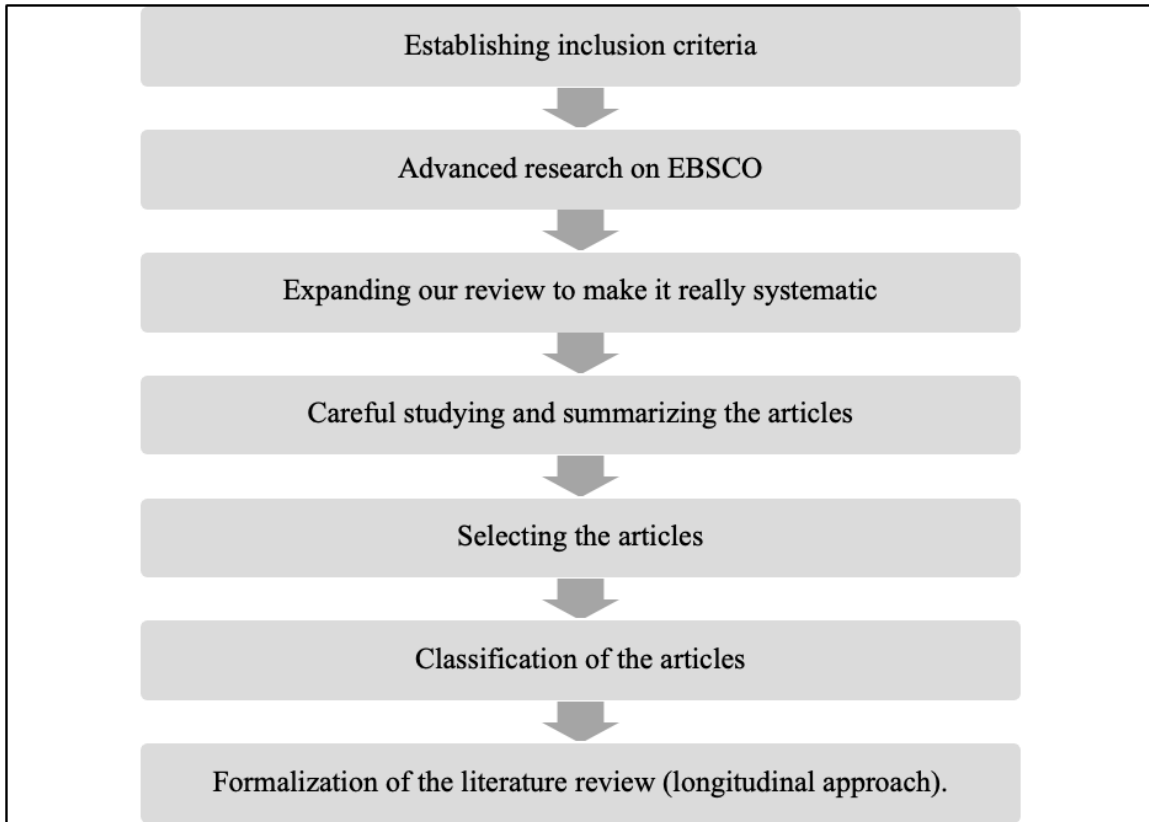
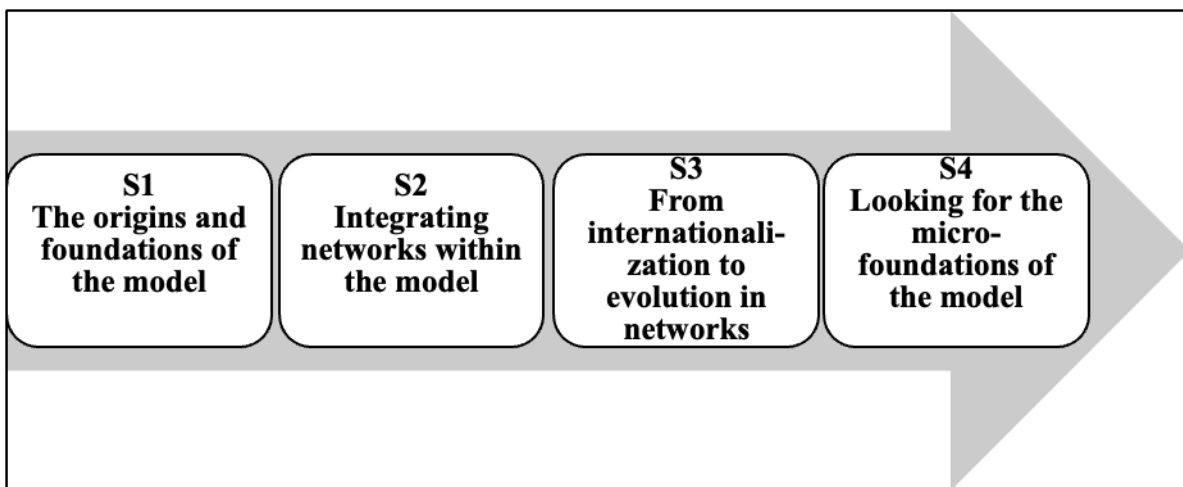
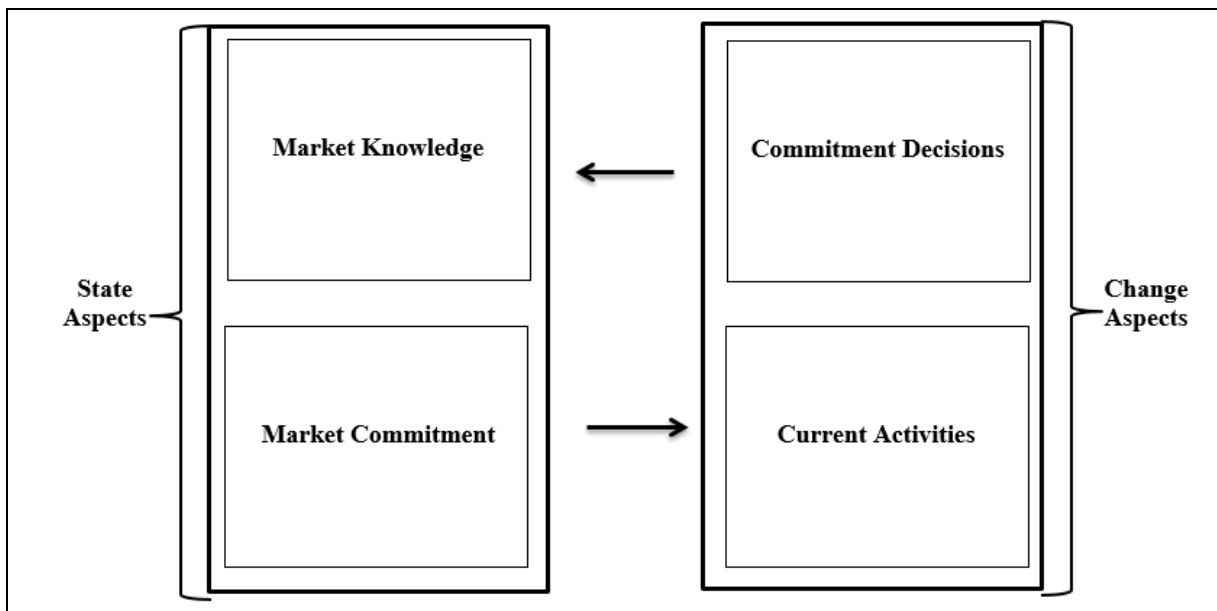


Figure 2: The steps of our review

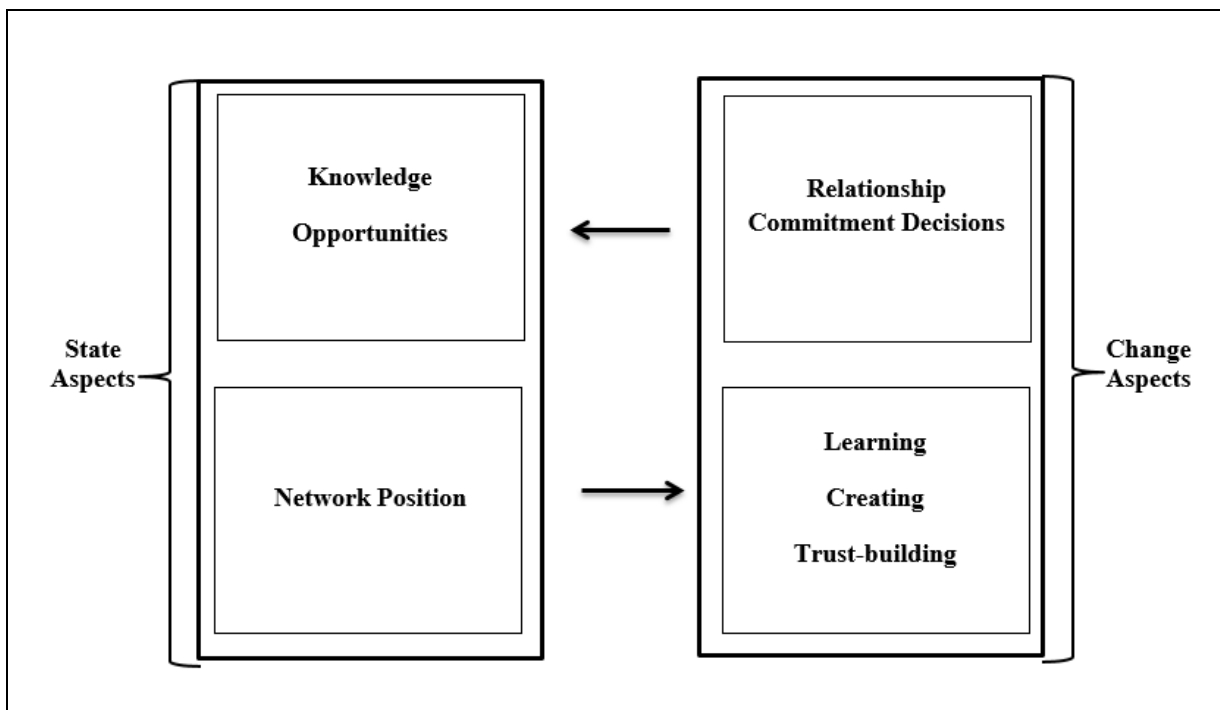


**Figure 3: The Uppsala internationalization process model**



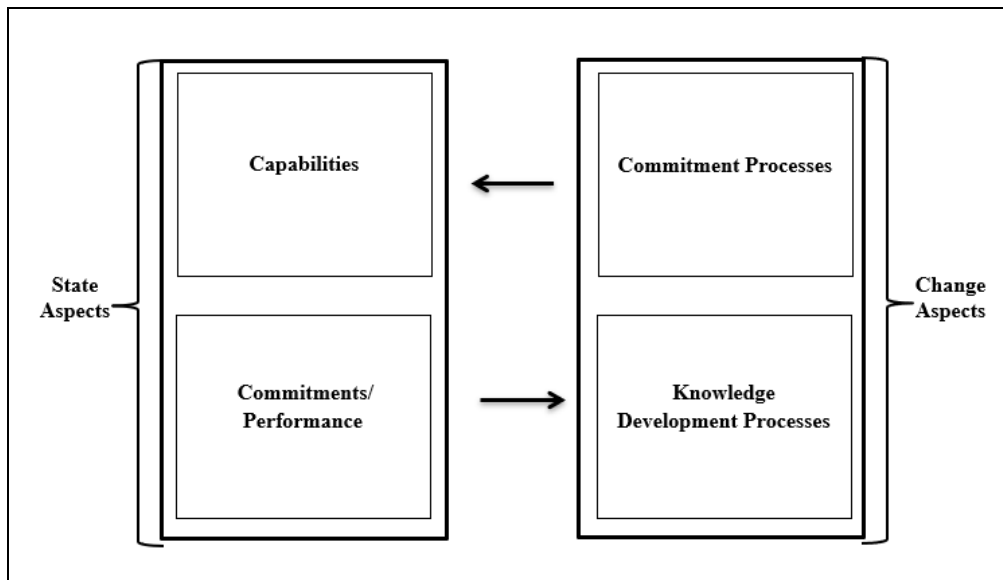
Source: Adapted from Johanson & Vahlne (1977, p. 26).

**Figure 4: The revised Uppsala model**



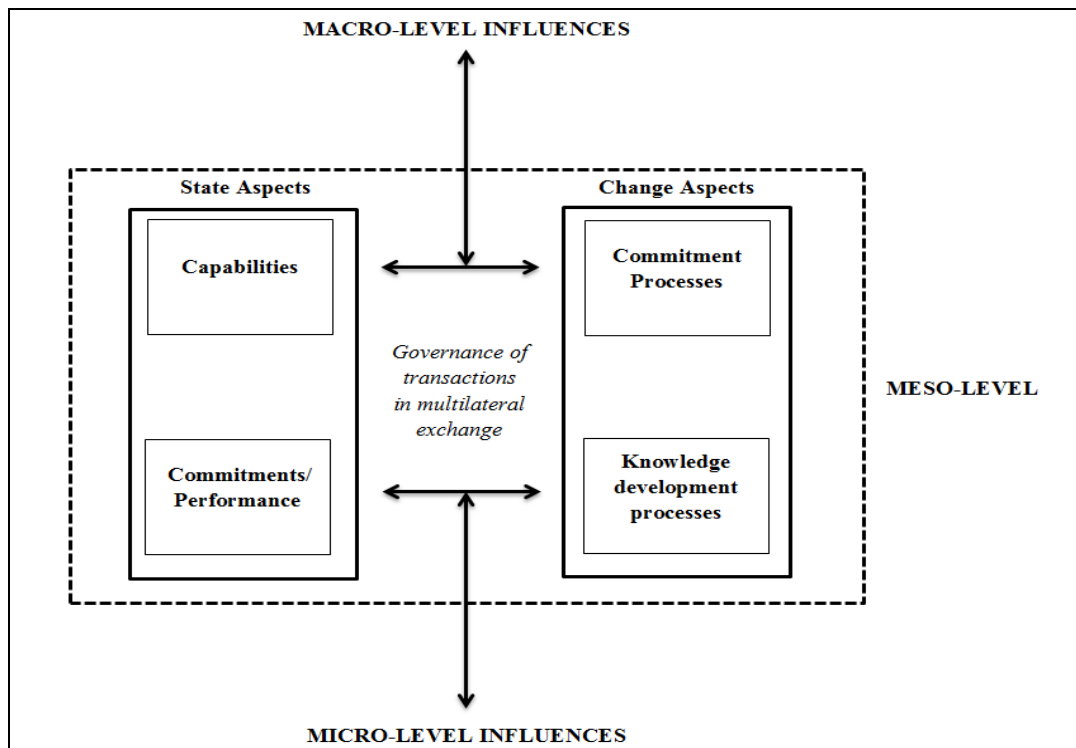
Source: Adapted from Johanson & Vahlne (2009, p. 1424).

**Figure 5: The Uppsala evolution model**



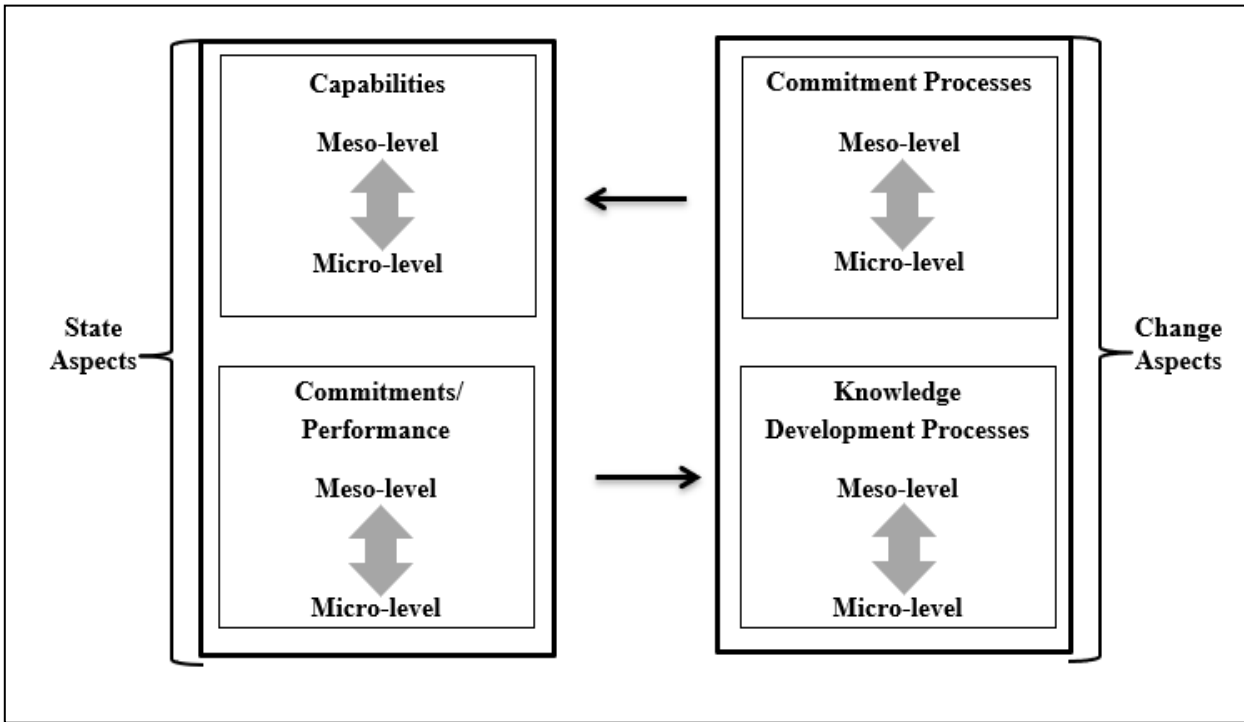
Source: Adapted from Vahlne & Johanson (2017).

**Figure 6: The Uppsala model as a multi-level model**



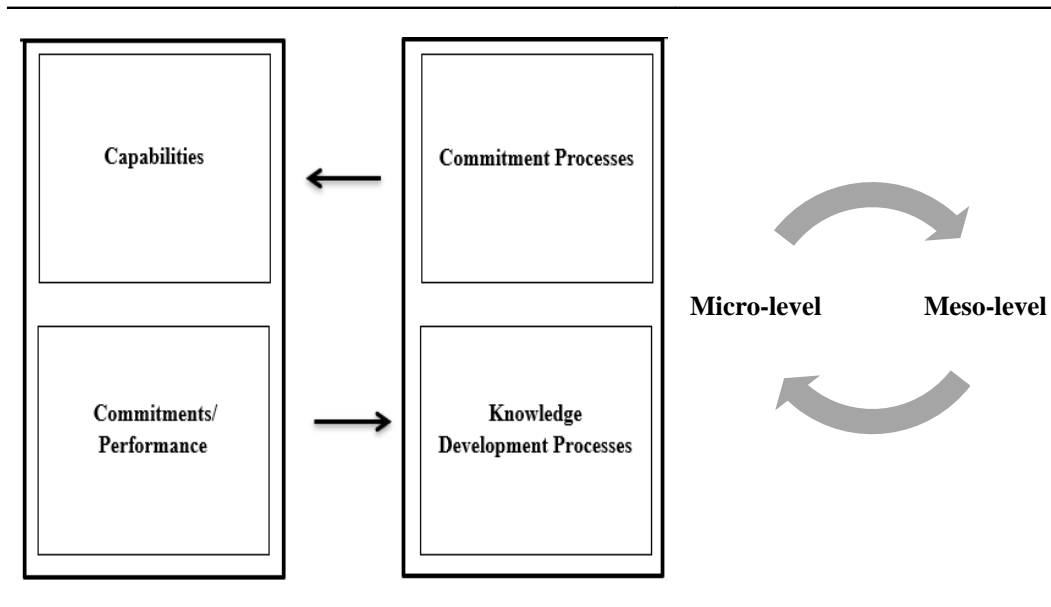
Source: Adapted from Coviello et al. (2017, p. 1156).

Figure 7: The Uppsala model for the meso- and micro-levels of analysis



Source: Adapted from Vahlne & Schweizer (2022, p. 2)

Figure 8: Combining the Uppsala model with a standalone, multilevel model



Source: Elaboration of the author based on Vahlne & Johanson (2017).



**Table 1 : The main contributions of our review and some recommendations for future research**

N°	Contributions of our review
1	Going back to origins to assess the coherence of the model while developing a multilevel approach.
2	Assessing the degree of integration of individuals in the Uppsala model. For the moment only change aspects are addressed.
3	Focusing on the identity of individuals in the model (internal network). Currently, the focus is limited to managers and entrepreneurs (partial application of the aggregation principle).
4	Looking for the micro-foundations in the external network. Currently, the model addresses customers only.
5	Proposing a more layered approach considering sub-units within the internal and external network of the MBEs.
6	Discussing the characteristics of individuals and analyzing the way they develop networks.