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Noticing and Capturing Growth Opportunities in International Markets: A Real Options Perspective

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Introduction

Entering international markets provide growth opportunities for firms, as different geographies offer divergent growth opportunities and strategies (Tong et al. 2008). To take advantage of such growth opportunities, however, firms face formidable challenges, as aggregated effects of globalization, deregulation, and shortened technology cycles result in an uncertain environment for investment (Krychowski and Quelin 2010). To face such an uncertainty and, at the same time, take these opportunities, real options reasoning (ROR) has proved to be a useful lens (McGrath et al. 2004). According to ROR, opportunities can be considered as options—the firm has the right but not the obligation to decide whether or not to invest in them (Myers 1977). In order to create such growth options, firms often make strategic decisions to invest in international markets with high uncertainty (Kester 1984). The outcome of such decisions is investment in a foreign market in the form of an entry mode. Therefore, ROR is a fruitful lens to study entry mode choice (e.g., Brouthers and Dikova 2010) within the domain of international business (IB), a lens that can advance the growth frontiers in international markets by helping firms to turn potential investment opportunities to real options—as entry modes.

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Critics, however, have questioned the usefulness and applicability of ROR (e.g., Adner and Levinthal 2004b; Garud et al. 1998). For example, in the IB literature, an entry mode has been considered as an option-like form of investment (see, e.g., Brouthers and Dikova 2010; Cuypers and Martin 2010; Jiang et al. 2009). However, as Adner and Levinthal (2004b) argue, such investment decisions are not real options if they are not integrated within the firm's organizational activities. Therefore, they may not provide growth opportunities. If an entry mode offers the firm with an option-like investment, it requires firm's *ex ante* intentionality as to how this mode will provide future value (Adner and Levinthal 2004a). Decision makers in a firm need to be aware that, for example, an international joint venture (IJV) will provide a growth option in the future prior to initiating the IJV. Only then can we consider the IJV as a real option. But where does such awareness come from? How do firms, prior to choosing an entry mode, notice that the mode offers them a real option for further growth? What capabilities should they possess to exercise that option—that is, turn it into real option, taking the opportunity?

We extend the boundaries of ROR in IB to answer the above questions. We suggest that an entry mode chosen by a firm should not be regarded as a real option unless the attention structure of the firm and its capability to notice and exercise that option have been considered. Building on the attention-based view (ABV) of the firm (Ocasio 1997), we argue that noticing a growth option as an entry mode in global markets is dependent on the attention structure of the firm, while the ability to exercise options is rooted in the firm's entrepreneurial orientation (EO)—the decision-making activities leading to new entry (Lumpkin and Dess 1996). Thus, we address an important gap in the literature by encouraging IB researchers to consider organizational factors leading to an option-like entry mode, instead of merely treating the entry mode itself as a real option (see, e.g., Brouthers et al. 2008; Brouthers and Dikova 2010; Cuypers and Martin 2010). Furthermore, the extant literature remains unclear about the performance implications of ROR. Some suggest positive effects (Brouthers and Dikova 2010), while others do not (Reuer and Leiblein 2000). We, however, discuss that an entry opportunity that has been recognized as an option *ex ante* and has been exercised *ex post* as a real option leads to positive performance implication, because it provides upside advantage from the growth opportunity which has been noticed and taken previously.

To explicate our argument further, we also provide examples of two companies' entry approach toward international markets. By comparing these two companies, we show how following the premise of ROR can lead to future growth. Generally, our study enhances the firm's strategic decisions to capture growth opportunities in global markets, specifically markets with high uncertainty.

Background

ROR and Entry Modes as Shadow Options

Real options are specific investments with uncertain payoffs (McGrath et al. 2004). They provide the firm with a right, but no obligation, to scale up or down the investment at a future point in time (Dixit and Pindyck 1994). International investments have option-like properties in which the value is inherent in choices that become available to the firm in the future (McGrath et al. 2004). This provides the firm with the flexibility to decide for a future action, for example, to defer, expand, or abandon the investment (Li and Li 2010). In IB, "option-like entry modes" such as IJVs (e.g., Cuypers and Martin 2010; Kogut 1991), exporting (Lee and Makhija 2009), partial acquisition (Chari and Chang 2009), and greenfield investment (Brouthers and Dikova 2010) have been suggested as offering option-like investment, and thereby future growth opportunities in host markets.

These studies, however, consider entry modes as real options without examining the firm's attention structure and capability to notice and use entry modes as real options prior to making the investment. To a firm, any possible entry mode is a "shadow option", a growth opportunity for strategic choices awaiting recognition (Bowman and Hurry 1993), which turns to a real option, once, and if, it is recognized and later exercised by the firm; only then can it provide a real option (Barnett 2008; Bowman and Hurry 1993). Choosing an entry mode may, or may not, be based on ROR. This can be explained by the distinction between effective versus illusionary real options (Driouchi and Bennett 2012; Garud et al. 1998). While effective real options as entry modes are recognized by the firm prior to being selected, illusionary ones may be chosen, say, based on past experiences (Benito et al. 2009).

On the other hand, ROR does not assign a particular organizational form to the firm (McGrath et al. 2004). Opportunities for growth are available, but remain unnoticed by the firm's decision makers (Barnett 2008). Prior to identifying the available courses of action, managers need to "make sense" of such opportunities as shadow options (Bowman and Hurry 1993). If the firm does not recognize a shadow option as a potential investment opportunity in a foreign market—be it in the form of an initial entry mode or an opportunity to increase investment—it is not following ROR. But how do firms notice shadow options as potential international investment?

Attention Structure of the Firm to Notice Shadow Options

Building on ABV of the firm, Ocasio (1997) suggests that to explain how firms behave, we need to understand how they distribute and regulate the attention of their decision makers. Barnett (2008) argues that the attention structure of the firm plays an important role in enabling it to notice and exercise shadow options. Attention structures, Ocasio (1997, 195) suggests, are “the social, economic, and cultural structures that govern the allocation of time, effort, and attentional focus of organizational decision-makers”.

The ABV of the firm holds that organizations are systems wherein attention is processed and distributed (Ocasio 1997). Therefore, the ABV does not treat the firm as a “monolithic” entity, and thus, as suggested by Adner and Levinthal (2004b), addresses one of the major shortcomings of previous empirical ROR research, specifically in IB where the outcome of the firm’s decision as an entry mode—dominantly a JV—has been regarded as an option-like choice. Rather, the ABV of the firm sees the organization as more than merely the senior managers (Ocasio 2011); it views organizational attention as a process involving “application of time, energy, and effort” which creates a “pattern or perspective” that becomes the firm’s strategy (Ocasio 2011, 1290).

The discussion above sheds light only on the “contextual structure” of the firm’s attention, through which the firm defines the boundaries of a wide range of opportunities in global markets (Ocasio 1997). A relevant question, however, is how a firm puts a set of structures which enable it to draw the attention of its decision makers toward new entry in international markets.

Firm’s Capability to Exercise Shadow Options

Having noticed a shadow option as a potential investment opportunity in a foreign market, firms need to possess specific capabilities to exercise that option (Garud et al. 1998). EO, which is an internal capability of the firm (Lee et al. 2001), can provide the firm with such important ability. EO refers to “the firm’s processes, practices, and the decision-making activities leading to new entry” (Lumpkin and Dess 1996, 136). Entrepreneurially oriented firms focus more heavily on new ventures by supporting related activities such as venturing into unknown markets and introducing new products (Lumpkin and Dess 1996). In an international context, a "new entry" refers to entering to a new market with new or established goods or services (Knight and Cavusgil 2004). Such an EO capability enables the firm to exercise shadow options, boosting firms' growth in global markets (Knight and Cavusgil 2004). Building on EO of the firm, we explain this further.

Noticing and Exercising Shadow Options: The Role of Entrepreneurial Orientation

Noticing Shadow Options in International Markets

What decision makers in a firm do is dependent on where they focus their attention on (Ocasio 1997). Similarly, in order to notice an investment opportunity the firm first needs to focus its attention on it. For instance, when the top management of a firm focuses its attention on searching for new knowledge and information, the overall firm innovativeness is influenced (Li et al. 2013).

The internal and external orientation of a firm's attention structure can be the firm's strategy to explore opportunities for new entry into international markets. For instance, Bouquet et al. (2009) suggest that focusing attention on activities such as global scanning and overseas communications improves the multinational enterprises' understanding of international markets. Such firms generate international attention, enabling them to pursue opportunities in international markets (Bouquet et al. 2009). They possess external attention structure which enables them to spot opportunities as shadow options in these markets as their attention is often distributed and regulated toward international investments (Barnett 2008). In other words, decision makers in these firms direct their attention toward entry into new markets, thus, are more likely to notice shadow options as a new entry mode.

P1: *Firms with international attention are quicker in noticing shadow options in global markets compared to those without international attention.*

Exercising Options in International Markets

Once shadow options are noticed, then they should be exercised (Bowman and Hurry 1993). Only then can we regard them as real options. However, exercising options is dependent on the firm's organizational capabilities (Garud et al. 1998). Therefore, much as it is important to examine the attention structure of the firm to notice shadow options, it is also important to consider the capability of the firm to exercise them.

EO is considered to be an important organizational capability (Knight and Cavusgil 2004; Lee et al. 2001), and firms differ in their capability regarding when and how to exercise available options (Adner and Levinthal 2004b; Kogut and Kulatilaka 2001). To further clarify this, we distinguish between two strands of EO: Kirznerian and Schumpeterian entrepreneurship-oriented behaviour (EOB) (Dutta and Crossan 2005; Shane 2012). Though both reflect the EO of the firm, they are different in a number of aspects (Dahlqvist and Wiklund 2012). As Sundqvist et al. (2012) argue, such differences provide a suitable basis for investigating different firms' behaviour under varying market conditions. Below we detail these differences and their implications on how firms exercise shadow options in global markets.

Kirzner views entrepreneurship as a process in which opportunities are discovered by acting as an *arbitrageur* (Dutta and Crossan 2005). Competitive-oriented activities and entrepreneurial alertness to realize and exploit opportunities are integral elements of this process (Kirzner 1997). Kirznerian firms are market driven and can be characterized as being proactive and competitively aggressive (Sundqvist et al. 2012). Schumpeterian firms, on the other hand, are market-driving firms which disrupt the market equilibration by creating new combinations (Schumpeter 1934; Sundqvist et al. 2012). According to Schumpeter, the entrepreneur, through a discovery process, creates opportunities (Dutta and Crossan 2005). Among the activities on which Schumpeterian firms focus are the firm's ability to launch new products and opening up new markets (Ripsas 1998). This requires innovativeness and risk-taking. Firms with Schumpeterian EOB should also have autonomy to be able to put their innovative ideas into practice (Lumpkin and Dess 2001).

March's (1991) distinction between exploitation and exploration can also be used to distinguish between Kirznerian and Schumpeterian entrepreneurship (Sundqvist et al. 2012). While Kirznerian firms exploit opportunities in their existing markets, Schumpeterian firms explore them in new markets. Kirznerian firms compete aggressively with their rivals, are proactive, and their attention structure is more oriented toward its existing markets. Schumpeterian firms are risk-taking and innovative, and they focus their attention on their external markets, thereby directing their attention toward new markets. Such an attention structure can explain a firm's decision to notice shadow options in existing markets versus new ones (Barnett 2008). This affects how these firms exercise options in different markets.

P2: *Compared to their counterparts with Schumpeterian EOB, firms with Kirznerian EOB are more likely to exercise options in their existing international markets.*

P3: *Compared to their counterparts with Kirznerian EOB, firms with Schumpeterian EOB are more likely to exercise options in new international markets.*

Uncertainty and Shadow Options in International Markets

Operating in international markets is associated with high uncertainty (Kedia and Bhagat 1988). Hence, exercising options in a foreign market is affected by the nature of uncertainty existing in that market. According to ROR, firms face two types of uncertainty in international markets: endogenous and exogenous uncertainty (Chi 2000; Cuypers and Martin 2010). The former can be reduced by the actions of the firm over time and can be resolved by learning through, for example, undertaking a sequential project, while the latter is independent of the firm's action (Folta 1998). For example, demand uncertainty (Brouthers and Dikova 2010), which can be reduced by learning about the market over time, is an endogenous uncertainty, while uncertainty about the exchange rate, over which the firm does not have control, is exogenous to the firm (Cuypers and Martin 2010).

Firms need to be proactive and possess learning capabilities to be able to resolve endogenous uncertainty (see, e.g., Cuypers and Martin 2010). They need to take actions to learn about the market to be able to ultimately resolve the uncertainty (Folta 1998). This can be the result of "proactive" behaviour combined with "aggressively" competing with rival firms in the host market, thereby reflecting the characteristics of Kirznerian EOB. Having noticed a shadow option in a foreign market, such firms are likely to *proactively* exercise the option as a *growth* opportunity in the market, as opposed to wait for the right time to take action. Therefore, Kirznerian firms are more likely to exercise shadow options in markets associated with high level of endogenous uncertainty. This will provide growth options—high commitment mode of entry—offering avenues for further growth.

P4a: *When endogenous uncertainty in a foreign market is high, firms with Kirznerian EOB are more likely to exercise shadow options in that market.*

P4b: *When firms with Kirznerian EOB decide to exercise a shadow option in a foreign market with high endogenous uncertainty, they are more likely to create growth options as opposed to wait-and-see options.*

As Dutta and Crossan (2005, 429) argue, Schumpeter views the entrepreneur as "the innovator who 'shocks' and disturbs the economic equilibrium during times of uncertainty, change, and technological upheaval". Therefore, when exogenous uncertainty, which is independent of the firm's action and cannot be predicted, is high, Schumpeterian firms are more likely to exercise shadow options. Such firms have autonomy—that is, independent actions to initiate and complete a business concept or vision (Lumpkin and Dess 2001)—to create an act-and-see option (Adner and Levinthal 2004b). As opposed to merely wait-and-see, an act-and-see option is a more proactive type of option which must be designed and planned (Kogut and Kulatilaka 1994). In an international context, this occurs through making a small investment—for example, export operation or licensing—and wait for the right time to strengthen presence in the market. Due to irreversibility of investment in a foreign market (Brouthers et al. 2008) and high costs of withdrawal (Benito and Welch 1997), it is reasonable to create an act-and-see option, which requires lesser commitment, as opposed to growth option, which needs more commitment and is more investment intensive.

P5a: *When exogenous uncertainty in a foreign market is high, firms with Schumpeterian EOB are more likely to exercise shadow options in that market.*

P5b: *When firms with Schumpeterian EOB decide to exercise a shadow option in a foreign market with high exogenous uncertainty, they are more likely to create act-and-see options as opposed to growth options.*

ROR and Performance

Generally, whether following ROR will lead to the firm's desirable performance is still a subject of debate (Klingebiel and Adner 2015). For instance, Brouthers et al. (2008) and Brouthers and Dikova (2010) suggest that ROR leads to positive effects, while Reuer and Leiblein (2000) remain doubtful. One of the main reasons for these contradictory results in empirical studies may be the failure to consider the attention structure of the firm to notice, and the capability of the firm to exercise, shadow options. In other words, previous empirical work has viewed the firm as a "monolithic" actor or a "unitary" entity (Adner and

Levinthal 2004b), wherein the decisions to exercise options are made regardless of underlying differences in firms' capabilities and structure. As Garud et al. (1998) argue, a failure to consider the organizational design of the firm will lead to potential underestimation of the value of real options for firms which possess the required organizational culture and capability, compared to those which do not possess such attributes. Adner and Levinthal (2004b) also suggest that organizational factors such as the opportunity structure of the firm are important in determining the applicability of ROR.

We respond by discussing that firms differ in their attention structure, thereby differing in their ability to notice shadow options. Moreover, we delineate that firms are different in their capabilities to exercise shadow options noticed *ex ante*. For example, an IJV can be a "false" consideration of option-like investment, if the capability of the firm to exercise that option is not considered. Therefore, we assert that the true performance implications of ROR in firms' decision to enter a market and choose an entry mode can be achieved only when organizational factors are considered.

P6a: *The realistic performance implications of ROR on the firm's decision to enter a foreign market and choose an entry mode can be achieved when the capability of the firm to notice and exercise potential shadow options in the host market is considered.*

As explicated above, once firms follow the premise of ROR in their entry strategy, they avoid downside risk by minimizing the initial investment, but maintain an option for future reallocation of resources, thereby gaining upside potential (Brouthers et al. 2008). However, an entry mode in a foreign market results in the desirable performance provided that the firm notices it *ex ante* as an option-like investment and possesses certain capabilities to exercise the option. Thus:

P6b: *Firms following ROR to choose their entry modes, such that they notice ex ante the entry mode as an option and exercise it ex post based on their capability, achieve positive performance outcomes in international markets.*

Two Contrasting Examples from Business Practice

To elucidate our argument further, we conducted five in-depth interviews—lasting up to two hours—with the top managers of two international companies during 2014–2015. We compare the two companies to investigate how they noticed opportunities of entry into international markets and how they pursued those opportunities—exercised them as real options. We give one example of their entry, argue the differences, and consider the performance implications. We show how this advanced their growth in international markets. Both companies are based in Finland (see Table 11.1 for more details). They were deliberately chosen as they offer contrasting situations in their market entry approach, enabling theoretical replication (Yin 2009).

Company A is active in a niche market offering dual-use products with application in the military. They are "a well-known brand" in their business area (chemical detectors), therefore, are not actively engaged in entering new markets. "We let the customers come to us […] they will find us", as one of the managers said. Given their limited human resources, it is costly for them to systematically search for potential markets: "this just doesn't work that way. We don't search for new markets to enter; rather, customers will find us", noted another manager. They focus on product development and innovation, but to a lesser degree on new market entries. This shows they focus their attention internally as opposed to focusing on external opportunities in global markets.

In the late 2000s, they entered the USA using a sales subsidiary but experienced big losses after a few years. A manager in the company commented that "if we knew that this would be so costly we would have used a partner [e.g., a sales agent or a distributor]". Making decisions in such a way seems to be at odds with ROR, according to which, firms start from sequential and small commitment, and later decide whether or not to reallocate their resources to the investment in the host markets (Klingebiel and Adner 2015). This means that after the initial small investment, they observe the market, and should the uncertainty decrease, they scale up the investment. Or else, there is no obligation to do so.

Company B operates in the mining industry, manufacturing products related to rock and ground drilling. It is not active in a niche market, thus

Table 11.1 Description of the cases

Company	Establish-ment year	No. employees	No. markets	Product type/ industry	Foreign sales/ total sales (%)	Years of international experience
Company A	1987	58	80	Chemical	90	24
Company B	1985	90	104	Mining	80	28

faces competition globally. Therefore, the management puts effort and spends time to find opportunities to enter international markets. They are also concerned about choosing an appropriate market entry mode. "We are more market-oriented than product-oriented [compared to similar companies in this business]", said one of the managers. They actively analyze international markets, look for possibilities of entry, and examine the risk and uncertainty of a particular entry mode. Therefore, they have an externally oriented attention structure by focusing on external opportunities in international markets.

They entered South Korea via a sales subsidiary when the future was uncertain to them (the manager claimed that at the time of entry, the late 1990s, Korea was an uncertain market to them). Though they encountered minimal losses, they gained market-specific information. Two decades later, they acquired a company in Korea, active in the same industry—mining and drilling. As noted by the manager, "the market was promising [...] and we were looking for the most advanced company in the market for a while, and we [finally] acquired one". As Kogut and Kulatilaka (2001) mention, this is a good example of options logic: invest in a sales operation, lose money, but learn the environment to be able to expand in the future should the market grow. ROR seems to be established in Company B and options are intentionally generated and exercised (Barnett 2008). As a manager observed, "we got to know about the mining industry [...] and about the market in general, so we knew what would happen if we changed operation mode [before acquiring a firm in the market]".

Company A did not follow ROR when it entered the US market. It entered the market with a big investment, but failed to consider future uncertainties. They were not prepared to go through losses. Company B, on the other hand, chose an entry mode based on the premise of ROR—that is, small initial entry and sequential resource allocation. Therefore, they generated future growth opportunities in the host market and were prepared for uncertainties. They first noticed the opportunity in the market, and then using their resources, they captured the opportunity. Stated otherwise, they turned a potential opportunity into a real option—a real investment with future value—providing future growth frontiers. "We thought of exporting to nearby markets from Korea [before increasing their presence in the market]", the manager told us. They have now made their Korean company a regional hub and currently export to emerging markets in East Asia from their Korean manufacturer. The manager said that they currently even export to markets as far as West Asia; for instance, Iran is a market to which they export regularly from their Korean hub. Following ROR, which allows for long term thinking, Company B first entered one market as a platform for growth in other markets that are still uncertain to them.

Discussion

In this chapter, we examined the application of ROR in the IB literature by showing how the attention structure of the firm as well as its capability can help in noticing—and later taking—growth opportunities as international entry modes. ROR has recently gained popularity in explaining entry mode choice decisions (Cuypers and Martin 2010; Xu et al. 2010). Critics, however, argue that ROR must be integrated within the firm's organizational structure (Adner and Levinthal 2004b) and the firm must be capable to recognize the value of a real option (Garud et al. 1998). This is because a myriad of opportunities as entry modes exist within global markets, but not all are recognized as real options (Barnett 2008). We used ABV and the notion of EO to address the above challenges regarding the applicability of ROR. As entering into international markets is a focal phenomenon in IB that brings future growth, we have also advanced the growth frontiers of IB by showing how firms can turn potential entry opportunities into real market ventures.

We also suggested six propositions. The first argues that firms with international attention are quicker in noticing potential investment opportunities in global markets. This is important as a firm's decision makers, in order to capture upside potential, must quickly notice shadow options throughout their surrounding environment and act upon them—exercise them and turn them into real options (Barnett 2008; Bowman and Hurry 1993). We further argue that firms with EO have the capability to exercise the already recognized shadow options. A firm with an EO capability is more confident in its ability to exploit potential opportunities as shadow options in the international environment (Covin and Slevin 1991). This leads us to propositions 2 and 3 in which we distinguish between Kirznerian and Schumpeterian EOBs. We suggest that Kirznerian firms are quicker in exploiting opportunities (Sundqvist et al. 2012) and are more likely to exercise a shadow option in their existing markets, while Schumpeterian firms explore opportunities (Sundqvist et al. 2012), and therefore are more likely to exercise options in new markets.

Propositions 4 and 5 discuss the effect of the nature of uncertainty on noticing and taking growth opportunities as entry modes. Distinguishing between Kirznerian and Schumpeterian EOBs (Dutta and Crossan 2005; Shane 2012), we argue that Kirznerian firms are more likely to grasp opportunities as real options in environments with endogenous uncertainty as they can proactively take actions to decrease the uncertainty. Schumpeterian firms, however, are more likely to do so when there is exogenous uncertainty in the host markets as they are more risk-taking. Kirznerian and Schumpeterian EOBs provide a framework which fits well into ROR and can provide guidance on how to notice and convert potential opportunities into real options when facing different types of uncertainty. Finally, we argue that following ROR to notice and exercise available options as entry modes bring positive performance implications (proposition 6). In Table 11.2, we summarize our propositions, providing detailed information on how to measure them. Future researchers are encouraged to test our propositions using firms of different sizes and in different industries.

We also provided two illustrative examples to show how firms differ from each other in noticing and exercising growth opportunities as entry modes. A similar entry mode may, and equally may not, be based on ROR. Both Companies A and B used a sales subsidiary as their entry mode, but only one of them had entered with the intention of reallocating resources after actively gaining information about the market, thereby using ROR (Adner and Levinthal 2004a) and achieving the desirable result. Company B had *noticed* the opportunity of expanding its business before entering into the market. Intriguingly, Company B had entered a more uncertain market. As Garud et al. (1998) suggest, it is the perspective of the decision makers which makes the difference. This shows that not only could ROR explain the entry mode decision-making, but it also elucidates the general internationalization strategy and market choice. As in the case of Company B, an initial entry may provide a company with a regional bridgehead. This area can provide further research opportunities for ROR, including how ROR can help firms to spot the opportunities which lead to international growth.

Naturally, our research has limitations. We have applied ROR at the level of the firm, but the decisions to enter a market are made by individuals who are affected by their personal experience, knowledge, and tolerance of uncertainty (Aharoni et al. 2011). Future research can consider these individual characteristics when studying firm's decision-making for noticing and taking opportunities in global markets. Also, the dynamism of EO as a capability could be studied in a more detailed manner.

Table 11.2 Summary of the propositions

Propositions	Analytical themes	Implications	Possible measurement methods
1	Noticing options	International attention boosts noticing of shadow options in global markets	Examining the mindset of top management regarding global markets (Bouquet et al. 2009; Knight and Cavusgil 2004).
2, 3	Exercising options in new vs. existing ones	Kirznerian (Schumpeterian) firms have internal (external) attention structure and more likely to exercise options in existing (new) markets.	Examining proactiveness and competitive aggressiveness for Kirznerian EOB, and autonomy, risk-taking, and innovativeness for Schumpeterian EOB (Jambulingam et al. 2005; Sundqvist et al. 2012)
4 (a & b)	Endogenous uncertainty and Kirznerian EOB	In markets with high endogenous uncertainty, Kirznerian firms are more likely to take advantage of shadow options.	Endogenous uncertainties, among others, are demand (see Brouthers and Dikova 2010), behaviour (see Anderson and Gatignon 1986), and culture uncertainties (see Cuypers and Martin 2010).
5 (a & b)	Exogenous uncertainty and Schumpeterian EOB	In markets with high exogenous uncertainty, Schumpeterian firms are more likely to take advantage of shadow options.	Exogenous uncertainties, among others, are political (see Delios and Henisz 2003), exchange rate (see Cuypers and Martin 2010), and institutional uncertainties (see Brouthers 2002).
6	ROR and performance	Following ROR by considering firm's attention structure to notice and its capability to exercise options lead to positive performance implications.	Measuring the consistency of resource allocation regimes in entry strategy of firms with ROR (see Klingebiel and Adner 2015). Then compare this with the overall satisfaction of managers with their operations abroad.

Conclusion

In this study, we added to the IB literature by arguing that the ability of the firm to notice and exercise potential opportunities—shadow options—depends on its attention structure as well as its EO. Accordingly, we discussed how to avoid misapplication of ROR in IB. ROR is not applicable to all entry mode decisions unless the required organizational factors for its implementation have been considered. Put differently, entry modes as potential growth opportunities in international markets are available, but not all firms possess the attention structure and the capability to notice and exercise them. Building on ABV and EO, we discussed this further. We also showed how this has positive performance implications for the firm. Our research ultimately advances growth frontiers in IB. This, too, will help practitioners to enhance their presence in international markets, especially those with high uncertainty.

References

Adner, R., & Levinthal, D. A. (2004a). Real options and real tradeoffs. *Academy of Management Review, 29*(1), 120–126.

Adner, R., & Levinthal, D. A. (2004b). What is not a real option: Considering boundaries for the application of real options to business strategy. *Academy of Management Review, 29*(1), 74.

Aharoni, Y., Tihanyi, L., & Connelly, B. L. (2011). Managerial decision-making in international business: A forty-five-year retrospective. *Journal of World Business, 46*(2), 135–142.

Anderson, E., & Gatignon, H. (1986). Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies, 18*(3), 1–26.

Barnett, M. L. (2008). An attention-based view of real options reasoning. *Academy of Management Review, 33*(3), 606–628.

Benito, G. R. G., Petersen, B., & Welch, L. S. (2009). Towards more realistic conceptualisations of foreign operation modes. *Journal of International Business Studies, 40*(9), 1455–1470.

Benito, G. R. G., & Welch, L. S. (1997). De-internationalization. *Management International Review, 37*(2), 7–25.

Bouquet, C., Morrison, A., & Birkinshaw, J. (2009). International attention and multinational enterprise performance. *Journal of International Business Studies, 40*(1), 108–131.

Bowman, E. H., & Hurry, D. (1993). Strategy through the options lens: An integrated view of resource investments and the incremental-choice process. *Academy of Management Review, 18*(4), 760–782.

Brouthers, K. D. (2002). Institutional, cultural and transaction cost influences on entry mode choice and performance. *Journal of International Business Studies, 33*(2), 203–221.

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2008). Real options, international entry mode choice and performance. *Journal of Management Studies, 45*(5), 936–960.

Brouthers, K. D., & Dikova, D. (2010). Acquisitions and real options: The greenfield alternative. *Journal of Management Studies, 47*(6), 1048–1071.

Chari, M. D. R., & Chang, K. (2009). Determinants of the share of equity sought in cross-border acquisitions. *Journal of International Business Studies, 40*(8), 1277–1297.

Chi, T. (2000). Option to acquire or divest a joint venture. *Strategic Management Journal, 21*(6), 665–687.

Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. In Norris F. Krueger (Ed.). *Entrepreneurship: Critical perspectives on business and management* (Volume III, pp. 7–25). London and New York: Routledge.

Cuypers, I. R. P., & Martin, X. (2010). What makes and what does not make a real option? A study of equity shares in international joint ventures. *Journal of International Business Studies, 41*(1), 47–69.

Dahlqvist, J., & Wiklund, J. (2012). Measuring the market newness of new ventures. *Journal of Business Venturing, 27*(2), 185–196.

Delios, A., & Henisz, W. J. (2003). Policy uncertainty and the sequence of entry by Japanese firms, 1980–1998. *Journal of International Business Studies, 34*(3), 227–241.

Dixit, A. K., & Pindyck, R. S. (1994). *Investment under uncertainty*. Princeton, NJ: Princeton University Press.

Driouchi, T., & Bennett, D. J. (2012). Real options in management and organizational strategy: A review of decision-making and performance implications. *International Journal of Management Reviews, 14*(1), 39–62.

Dutta, D. K., & Crossan, M. M. (2005). The nature of entrepreneurial opportunities: Understanding the process using the 4I organizational learning framework. *Entrepreneurship: Theory and Practice, 29*(4), 425–449.

Folta, T. B. (1998). Governance and uncertainty: The trade-off between administrative control and commitment. *Strategic Management Journal, 19*(11), 1007–1028.

Garud, R., Kumaraswamy, A., & Nayyar, P. (1998). Real options or fool's gold? Perspective makes the difference. *Academy of Management Review, 23*(2), 212–214.

Jambulingam, T., Kathuria, R., & Doucette, W. R. (2005). Entrepreneurial orientation as a basis for classification within a service industry: The case of retail pharmacy industry. *Journal of Operations Management, 23*(1), 23–42.

Jiang, M. S., Aulakh, P. S., & Pan, Y. (2009). Licensing duration in foreign markets: A real options perspective. *Journal of International Business Studies, 40*(4), 559–577.

Kedia, B. L., & Bhagat, R. S. (1988). Cultural constraints on transfer of technology across nations: Implications for research in international and comparative management. *Academy of Management Review, 13*(4), 559–571.

Kester, C. (1984). Today's options for tomorrow's growth. *Harvard Business Review, 62*(2), 153–160.
Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature, 35*(1), 90–85.
Klingebiel, R., & Adner, R. (2015). Real options logic revisited: The performance effects of alternative resource allocation regimes. *Academy of Management Journal, 58*(1), 221–241.
Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies, 35*(2), 124–141.
Kogut, B. (1991). Joint ventures and the option to expand and acquire. *Management Science, 37*(1), 19–33.
Kogut, B., & Kulatilaka, N. (1994). Options thinking and platform investments investing in opportunity. *California Management Review, 36*(2), 52–71.
Kogut, B., & Kulatilaka, N. (2001). Capabilities as real options. *Organization Science, 12*(6), 744–758.
Krychowski, C., & Quelin, B. V. (2010). Real options and strategic investment decisions: Can they be of use to scholars? *Academy of Management Perspectives, 24*(2), 65–78.
Lee, C., Lee, K., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal, 22*(6–7), 615–640.
Lee, S.-H., & Makhija, M. (2009). Flexibility in internationalization: Is it valuable during an economic crisis? *Strategic Management Journal, 30*(5), 537–555.
Li, J., & Li, Y. (2010). Flexibility versus commitment: MNEs' ownership strategy in China. *Journal of International Business Studies, 41*(9), 1550–1571.
Li, Q., Maggitti, P. G., Smith, K. G., Tesluk, P. E., & Katila, R. (2013). Top management attention to innovation: The role of search selection and intensity in new product introductions. *Academy of Management Journal, 56*(3), 893–916.
Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review, 21*(1), 135–172.
Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing, 16*(5), 429–451.
March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71–87.
McGrath, R. G., Ferrier, W. J., & Mendelow, A. L. (2004). Real options as engines of choice and heterogeneity. *Academy of Management Review, 29*(1), 86–101.
Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics, 5*, 147–175.
Ocasio, W. (1997). Towards an attention-based view of the firm. *Strategic Management Journal, 18*, 187–206.
Ocasio, W. (2011). Attention to attention. *Organization Science, 22*(5), 1286–1296.

Reuer, J. J., & Leiblein, M. J. (2000). Downside risk implications of multinationality and international joint ventures. *Academy of Management Journal, 43*(2), 203–214.

Ripsas, S. (1998). Towards an interdisciplinary theory of entrepreneurship. *Small Business Economics, 10*(2), 103–115.

Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. London: Transaction Publishers.

Shane, S. (2012). Reflections on the 2010 AMR decade award: Delivering on the promise of entrepreneurship as a field of research. *Academy of Management Review, 37*(1), 10–20.

Sundqvist, S., Kyläheiko, K., Kuivalainen, O., & Cadogan, J. W. (2012). Kirznerian and Schumpeterian entrepreneurial-oriented behavior in turbulent export markets. *International Marketing Review, 29*(2), 203–219.

Tong, T. W., Todd, M., Reuer, J. J., & Chintakananda, A. (2008). How much does country matter? An analysis of firms' growth options. *Journal of International Business Studies, 39*(3), 387–405.

Xu, D., Zhou, C., & Phan, P. H. (2010). A real options perspective on sequential acquisitions in China. *Journal of International Business Studies, 41*(1), 166–174.

Yin, R. K. (2009). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.