



Dynamic improvisation capabilities as a learning mechanism in early internationalizing firms

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ABSTRACT

Our study addresses an inconsistency in the literature on whether a lack of knowledge in early internationalizing firms is an obstacle or an advantage. We integrate learning, capabilities, and improvisation literature to reveal how case firms from New Zealand and Finland internationalize early under uncertainty and time pressure. We develop a process model and propositions to show how firms develop improvisation capabilities and subsequently rapidly acquire the international business knowledge that can explain early internationalization. Improvisation and the associated rapid learning complement the learning advantage of newness with an alternative explanation for early internationalization.

1. Introduction

The dynamic and unpredictable nature of foreign markets (Hilmersson et al., 2022; Johanson & Johanson, 2021) can be exacerbated when the business environment is turbulent and marked by pronounced uncertainty and time pressures, as it is currently. Businesses face momentous challenges, such as the COVID-19 pandemic and its aftermath, the energy crisis, inflation, geopolitical tensions, and supply chain shortages. Such conditions impel firms to adopt improvisation techniques that equip them to adapt quickly to the changing environment (Hilmersson et al., 2022), develop improvisation capabilities, and enhance their learning processes. Acquiring international business knowledge and developing capabilities that transform and renew over time is essential for early internationalizing firms seeking to expand and attain international success (Jie et al., 2021; Kahiya & Warwood, 2022).

Our research problem stems from a discrepancy in the early internationalization literature about whether lack of knowledge is an impediment or an advantage. Some studies consider a lack of knowledge impedes the growth and success of early internationalizing firms (Knight & Cavusgil, 2004; Oviatt & McDougall, 1994). Others see prior knowledge as hindering learning (Autio et al., 2000; Sapienza et al., 2006). Autio et al. (2000) argue that early internationalizing firms can learn more quickly than older experienced firms, which encounter inertia

caused by path dependencies in knowledge accumulation. They call this rapid learning the *learning advantage of newness* (LAN). However, one limitation of the LAN concept is that Autio et al. (2000) do not clarify the mechanism through which learning occurs and how capabilities are developed in early internationalizing firms. Some scholars (Acedo et al., 2021; Schwens et al., 2018; Zahra et al., 2018) argue that the assumptions of LAN contradict the concept of absorptive capacity (Cohen & Levinthal, 1990). This concept posits that early internationalizing firms with prior knowledge can integrate new and accumulated knowledge effectively and thus create valuable competencies.

The literature presenting learning as beneficial for early internationalization emphasizes deliberate learning mechanisms and the role of different types of knowledge acquisition (De Clercq et al., 2012; Zollo & Winter, 2002). While Fletcher et al. (2021) and Pellegrino and McNaughton (2017) report on deliberate learning processes, the studies neglect unintentional learning processes, such as improvisation. This is noteworthy, given that several years ago, Huber (1991) emphasized the need for empirical studies on unintentional learning. Our research addresses that shortcoming by examining improvisation to understand how firms learn unintentionally.

We assume improvisation theory can assist with unpacking early internationalization undertaken in conditions of uncertainty and under time pressure because the circumstances are similar to those

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encountered by improvising firms. Improvisation is appropriate for firms "...facing circumstances of urgency, ambiguity, and uncertainty" (Vera & Crossan, 2005, p. 209). Time pressure and uncertainty are central concepts in both the improvisation literature (Crossan et al., 2005; Cunha et al., 2020; Vera & Crossan, 2004) and early internationalization literature (Autio, 2017; Cavusgil & Knight, 2015). We build on Crossan et al. (2005) insights to define time pressure as circumstances that are sudden, hurried, and urgent and uncertainty as circumstances that are turbulent, ambiguous, and unpredictable. We combine three streams of literature: learning in early internationalization (Fletcher et al., 2021; Pellegrino & McNaughton, 2017; Puthusserry et al., 2020), improvisation (Moorman & Miner, 1998a, and 1998b; Vera & Crossan, 2004, and 2005; Weick, 1998) and dynamic capabilities (De Clercq et al., 2012; Teece, 2014; Zollo & Winter, 2002). We consider foreign market entries to include foreign market selection when the firm determines which country to enter and foreign market execution when it implements that initial foreign market entry.

Based on the above discussion, we aim to answer the following research questions: 1. How do early internationalizing firms develop improvisation capabilities under uncertainty and time pressure? and 2. How does developing improvisation capabilities contribute to early internationalizing firms' learning that fosters international business knowledge?

Our main theoretical contribution is presenting dynamic improvisation capabilities as an important mechanism spurring learning and complementing the LAN (Autio et al., 2000). Our findings indicate that dynamic improvisation capabilities will enable the development of operational improvisation capabilities during foreign market selection and execution, which provides unintentional experiential international business knowledge to aid early internationalization. Notably, firms making deliberate learning efforts to distribute, interpret, and store acquired experiential information in the firm's memory as routines and processes acquire a portfolio of operational improvisation capabilities that can be exploited in subsequent market entries. Exploiting operational improvisation capabilities brings additional unintentional experiential knowledge, initiating a new learning cycle. Accordingly, we can infer that developing improvisation capabilities enables firms to accelerate acquiring international business knowledge to overcome the lack of knowledge hindering early internationalization.

Our second contribution shows that in situations of uncertainty and time pressure, dynamic improvisation capabilities enable the development of operational improvisation capabilities during foreign market selection and execution. We advance earlier research on improvisation during foreign market entry (Bingham, 2009; Evers & O'Gorman, 2011) by scrutinizing how improvisation capabilities are developed during foreign market entries and how they form two specific improvisation capability development patterns over time.

2. Theoretical perspectives

2.1. Learning and early internationalization

The internationalization process model (Johanson & Vahlne, 1977) holds that a firm's gradual acquisition of knowledge during an incremental internationalization process is a critical aspect of foreign market entry. Our study refers to that knowledge as international business knowledge, which encompasses learning about the institutional environment in specific foreign markets, ways of doing business in different cultural and political environments, and forming networks in diverse foreign markets. However, a growing stream of literature focusing on early internationalization challenges that conception of incremental internationalization, recognizing that some firms start internationalizing early. In this context, early refers to within a few years of inception (e.g., Knight & Liesch, 2016; Oviatt & McDougall, 1994). Time is an important dimension in the study of early internationalizing firms because a short period characterizes the firm's age and the earliness of

its internationalization (Zhou & Wu, 2014). Furthermore, the internationalization process occurs under conditions of high uncertainty owing to a lack of information and the unknown aspects of foreign markets (Vedula & Matusik, 2017). The process also becomes complicated because these firms are overloaded with irrelevant and confusing information (Maitland & Sammartino, 2015; Vedula & Matusik, 2017).

While several scholars emphasize the constraints affecting early internationalizing firms, especially lack of international business knowledge, Autio et al. (2000) offer a counter perspective by highlighting the advantages those firms enjoy in the form of the learning advantage of newness (LAN). The ability to learn has an important role in an early internationalizing firm to address early uncertainty and bypass fixed thinking. Consequently, such firms learn quickly from their foreign market activities and at less cost than established firms (Autio et al., 2000; Zhou & Wu, 2014). Younger firms do not have to unlearn old ways of doing things to learn new ones. Autio et al. (2000) contend that the earliness of its internationalization and the speed of the firm's learning influences its subsequent international growth. Older firms' learning becomes constrained as they cannot accumulate new knowledge quickly, which is disadvantageous to a firm seeking to internationalize. Younger firms, in contrast, can apply their flexibility and ability to absorb international business knowledge quickly to their advantage when entering a new foreign market. Several studies offer empirical evidence that firms with a LAN internationalize early—before they have developed their capabilities to internationalize and despite having scarce resources (Schwens et al., 2018). The learning advantage enables those firms to swiftly exploit the opportunities that emerge.

However, recent research focuses on the advantage of not needing to unlearn existing practices. The review article of De Clercq et al. (2012) highlights a shortcoming in the learning and early internationalization literature: LAN has been treated as a black box with no explanation of how these advantages are accomplished. In addition, they highlight the clash between LAN and absorptive capacity regarding the purpose of pre-existing knowledge for early internationalization. Since these firms do not have prior knowledge to test different strategies and to know when to tolerate mistakes and to take small risks, whether all the new learning will be an advantage is questionable.

As a result of these anomalies in the literature, several scholars such as Schwens et al. (2018), Zahra et al. (2018), De Clercq et al. (2012) and Acedo et al. (2021) explore the assumptions and usefulness of LAN and absorptive capacity for early internationalizing firms and regard both perspectives as complementary rather than contradictory. Schwens et al. (2018) note that recent literature lacks a measure of LAN, and analyses of the antecedents and outcomes of LAN. In their critique of the assumptions in the LAN concept, Zahra et al. (2018) question whether LAN is preordained for all new ventures or only appears in specific contexts. They propose that the benefits of LAN for internationalizing new ventures will be contingent on certain conditions, such as industry, organization, and strategy. Similarly, De Clercq et al. (2012) and Acedo et al. (2021) argue that although a firm benefits from LAN during the first foreign market entry, subsequent internationalization efforts benefit from absorptive capacity. While these studies provide interesting insights, we still know little of the mechanism underlying LAN. We offer a complementary perspective by discussing improvisation as a mechanism to expedite gaining international business knowledge.

2.2. Improvisation and capabilities

Drawing on the improvisation literature, we use Vera and Crossan's (2004) definition of improvisation:

The spontaneous and creative process of attempting to achieve an objective in a new way [italics in original]. As a spontaneous process, improvisation is extemporaneous, unpremeditated, and unplanned. As a creative process, improvisation attempts to develop something new and useful to the situation, although it does not always achieve this. (p.733)

Building on Vera and Crossan (2004), we study three different types

of improvisation. First, we use the term *spontaneous improvisation* to refer to improvisation as unplanned, unexpected, quick, impromptu, and breaking existing assumptions (Suarez & Montes, 2019; Vera & Crossan, 2004). Spontaneity incorporates a time dimension, which is relevant when making quick decisions (Vera & Crossan, 2004). Second, we use the term *creative improvisation* to refer to improvisation that “incorporates the search for novelty and usefulness in improvisation actions but acknowledges that a creative process does not always lead to creative outcomes” (Vera & Crossan, 2004, pp. 733–734). Third, we adopt the term *script* as used by Vera and Crossan (2004) and Mangham (1990), who transpose it from a theatrical performance context to a business one. Mangham (1990, p. 107) describes a script as follows: “For the most part actors in the theatre work from a script. Somebody has written a series of lines; this is the basis for the performance that is seen in the theatre.”

We provide an overview of the improvisation in organizations literature based on 23 business journal articles focusing on the topic (see Table A1 in Online Appendix). Only two studies explicitly address improvisation in the context of early internationalizing firms and foreign market entries (Bingham, 2009; Evers & O’Gorman, 2011). Bingham (2009) focused on improvisation and performance in new venture foreign market entry over time by examining the first five countries firms entered. The study’s findings indicate that firms that improvised when selecting opportunities were inefficient and less successful because they followed immediate opportunities rather than other valuable opportunities with longer-term benefits. Evers and O’Gorman (2011) found that internationalizing new ventures used improvisation to a considerable extent when selecting and entering foreign markets. These firms were influenced by their previous knowledge and social and business relationships. Although these new ventures lacked prior foreign market knowledge, they were able to apply idiosyncratic knowledge and improvisation to identify foreign market opportunities and aid entry into those markets.

Vera et al. (2016) studied improvisation in successful R&D teams but neglected internationalization. Interestingly, they proposed that improvisation can be seen as a capability, that is, “as the team’s capacity to act spontaneously in trying to respond to problems or opportunities in a novel way” (Vera et al., 2016, p.1977) and that such capabilities can be divided into operational and dynamic capabilities. Possessing operational capabilities in improvisation enables the founder—or the founding team—to “earn a living” (Winter, 2003, p. 992), while possessing dynamic capabilities enables a firm to change how it currently makes its living (Winter, 2003).

We build on these ideas about improvisation capabilities when investigating foreign market entries. Our research extends knowledge of the nature of improvisation in foreign market entries to open the black box around how early internationalizing firms develop operational and dynamic improvisation capabilities over time and how that fosters acquiring international business knowledge.

2.3. Learning and unintentional learning in early internationalizing firms

Two review articles on learning in early internationalizing firms confirm that capabilities are closely intertwined with learning processes (De Clercq et al., 2012; Kahiya & Warwood, 2022). De Clercq et al.’s (2012) literature review focuses on types of knowledge acquisition and neglects subsequent aspects of the learning process. Although the two review articles provide interesting insights, neither De Clercq et al. (2012) nor Kahiya and Warwood (2022) explicitly mention the development of improvisation capabilities over time and learning. As learning processes and capabilities are intertwined, combining the capabilities literature (Easterby-Smith & Prieto, 2008; Zahra et al., 2006) and learning theory helps clarify how capabilities and learning evolve in early internationalizing firms.

In a review of the organizational learning literature, Huber (1991) presented four constructs representing different aspects of the learning

process: knowledge acquisition, information distribution, information interpretation, and organizational memory. Huber categorized knowledge acquisition as congenital, vicarious, experiential, grafting and search-based. Congenital learning is a combination of the knowledge possessed by the firm prior to the inception of the business idea and new knowledge acquired before it was founded. Vicarious learning occurs when firms learn from others by imitation. Experiential learning is the knowledge firms acquire from direct experience after founding and can be acquired intentionally or unintentionally. Grafting is the learning acquired by forming joint ventures or recruiting an expert with new knowledge the firm requires. Search-based learning can involve systematically scanning the environment, a focused search, or monitoring performance. Huber asserts that organizational memory is an essential part of the organizational learning process because the value of that memory will depend on how the firm uses previous learning in its future actions and accumulates subsequent learning. Our interest in how firms learn unintentionally means we focus mainly on experiential learning; however, we do not neglect other learning modes relating to acquiring international business knowledge.

While Huber’s (1991) organizational learning categories are used in various forms as a framework in the emerging literature on learning and early internationalization, that research tends to focus on knowledge acquisition (De Clercq et al., 2012; Fletcher et al., 2021; Puthusserry et al., 2020; Pellegrino & McNaughton, 2017). Learning processes vary in early internationalizing SMEs and will evolve. The forms of learning might emerge from within the firm or from external sources, and both can be crucial (Fletcher & Harris, 2012; Kusi Appiah, Galkina, & Gabriellson, 2023; Pellegrino & McNaughton, 2017; Puthusserry et al., 2020). Internal sources of learning include previous international experience, trial and error, and experiential learning. External sources include business partners, consultants, suppliers, customers, competitors, network relationships, and trade fairs. External sources enable the firm to learn by exchanging information with others and through vicarious learning by observing what others in the industry do.

Although previous studies have used improvisation to study entrepreneurial intentions (Hmieleski et al., 2013), early internationalization (Autio et al., 2011) and product development (e.g., Miner et al., 2001), there is little research on how improvisation is used as a learning mechanism by early internationalizing firms during a foreign market entry. Similar to firms relying on rapid product development (Moorman & Miner, 1998b), early internationalizing firms use improvisation when facing uncertainty and time pressure. Improvisation is also relevant when survival relies on learning to adapt quickly (Moorman & Miner, 1998b; Suarez & Montes, 2019) and when knowledge is in short supply (Scott, 1987). Early internationalizing firms often face such circumstances. We believe improvisation complements the LAN (Autio et al., 2000) as a theoretical mechanism to explain early internationalization. Unintentional learning often occurs in early internationalizing firms with improvisation. While earlier studies emphasize the structured, systematic, and proactive approach to deliberate learning (Fletcher & Harris, 2012; Puthusserry et al., 2020; Pellegrino & McNaughton, 2017), we know little about how firms learn unintentionally. We address that shortcoming by using the concept of improvisation to provide insight into the dynamic process of unintentional learning, the role of more deliberate learning in early internationalizing firms, and how improvisation capabilities evolve.

3. Research method

We studied nine firms and investigated five foreign market entries for each, meaning this study considers 45 foreign market entries. We use in-depth qualitative research in the form of inductive case studies, an approach consistent with Eisenhardt (1989), Eisenhardt and Graebner (2007), and Yin (2009). Theory building from case studies is useful for studying processes (Eisenhardt, 1989) and is appropriate to examine how early internationalizing firms use improvisation when entering

foreign markets. Case studies explain events and sequences as they evolve over time and thus capture the process behind the phenomenon (Kriz & Welch, 2018). We consider a process-based case study a particularly apt way to study the improvisation process within and across foreign market entries. Process studies help uncover critical events and explain how and why events progress in a particular way (Kriz & Welch, 2018).

3.1. Selection of cases

The research context is early internationalizing firms in the high-tech manufacturing industry. The setting encourages improvisation and is marked by firms having to learn and adapt quickly, which can catalyze early internationalization (Oviatt & McDougall, 1994; Zahra et al., 2000). While high-tech manufacturing firms internationalize early, aspects of the sector also create limitations (Knight & Liesch, 2016), as small firms typically lack resources (Hannan & Freeman, 1984), which could spur improvisation (Evers & O’Gorman, 2011).

We selected our sample for theoretical reasons (Eisenhardt, 1989), that is, to advance our understanding of improvisation as a process during foreign market selection and foreign market entry execution. Our sample involves small firms from Finland and New Zealand, two culturally distinct (Hofstede, 2020) small open economies. Having two countries enables us to study different environments, as suggested by Stake (2013), and increases the robustness of the study. We replicate the findings both across firms and across the two countries. These countries offered an attractive context in which to study internationalization because it is critical for commercial survival and growth for these firms (Chetty et al., 2015). These firms are relatively small in size in terms of the number of employees, with the median being 18. The small size of these firms helped illuminate the focal phenomenon—the development of improvisation capabilities within and across foreign market entries over time. The firms internationalized within five years of inception, which is within the six-year age range applied in prior research (see Verbeke & Ciravegna, 2018). We withhold the real names of these firms to protect their identity. Table 1 presents the firm profiles.

3.2. Data collection

We used multiple investigators and multiple sources of data collection for this study (Bansal & Corley, 2011) to develop a rich and detailed account of the foreign market entries (Chandra, 2017; Chetty et al., 2015). Since the focus of analysis is on the firm level, in each firm, we interviewed at least one of the founding entrepreneurs and/or the chief executive officer (CEO) and the person responsible for marketing or international business (see Tables A2a and A2b in the Online Appendix).

We conducted two rounds of interviews. The first was face-to-face during 2014–2015. The second round of interviews was conducted using Zoom or Teams meeting software and telephone calls between June and August 2020. Since the second-round interviews were held during the COVID-19 pandemic, government restrictions on interpersonal contact made in-person interviews impossible. We met most of the respondents in person during the first round of interviews and established a good rapport with them. That rapport was beneficial because it helped obtain referrals from the round-one respondents to interview new respondents in round two on Zoom/Teams.

The first round of interviews addressed the first three foreign market entries and a later foreign market entry for each firm, so three in sequence and one out of sequence. The second round addressed the most recent foreign market entry and also elicited additional information about the first three foreign market entries and a later foreign market entry. In all cases, we were able to interview the original respondents and any new person responsible for international decision-making if that role had changed.

Since internationalization is important for these firms, we anticipated that respondents would be knowledgeable about these events and would recollect their experiences of the selected foreign market entries effortlessly (Huber & Power, 1985). In addition, the multiple respondents in each firm helped us verify the accuracy of accounts and reduce respondent bias (Miles & Huberman, 1994). The first three foreign market entries occurred within a median period of six years before we started to collect data. A later foreign market entry occurred within a few months before the first round of interviews during 2014–2015. During the second round of interviews in 2020, we obtained information on the most recent foreign market entry during 2016–2019. We expected respondents would remember the first three foreign market entries because they marked periods of major transition in the firm’s history (Cope & Watts, 2000). The latest foreign market entries addressed in the round 1 and round 2 interviews were more recent and could be expected to be fresh in the memory. We identified critical events in each firm’s history by consulting secondary data sources, and we probed for more information on the firm’s foreign market entries during the interviews. Cope and Watts (2000) point out that respondents recall critical events well because they happened in periods that dramatically influenced the firms’ resources and capability building (e.g., Gruber et al., 2008).

There were 21 respondents from the nine firms. Secondary sources of data collection included websites, social media (Twitter, LinkedIn, Facebook), archival data from the firms, and articles about the firms in magazines, newspapers, and industry and business journals. We used the archival data to supplement the data collected during interviews to obtain detailed and trustworthy information on the internationalization

Table 1
Profile of the firms and their first and main foreign markets.

Firm	Year of inception	Number of employees	Product	% of sales in foreign markets	Number of foreign markets entered	Year of first foreign market entry	Main foreign markets
NZ1	1999	50	Industrial cleaning screens	70 %	7	2001	China USA
NZ2	2002	55	Home appliances	65 %	5	2007	Australia
NZ3	2002	12	Electronic equipment and components	90 %	More than 65	2002	Australia
NZ4	2001	10	Environment monitoring device	97 %	More than 50	2003	Middle East/South America
NZ5	2006	15	Specialist tracking devices	85 %	92	2007	USA
FI1	2011	15	Eye surgery laser	98 %	45	2011	Europe, Middle East, Asia
FI2	2005	140	Smart tickets for public transportation and tags for manufacturing companies	99 %	60	2006	Europe, the Americas, China
FI3	2007	50	Interactive display systems, such as iWalls	95 %	50	2007	EMEA, the Americas, and Asia/Australia
FI4	2007	18	Diagnostic elements, such as plates and chelates	80 %	10	2008	Sweden, Denmark, USA

process. Tables A2a and A2b in the Online Appendix detail the respondents, the duration of the interviews, and the secondary sources of data accessed. Before each interview, the research team consulted the company website to gather information about the firms, products, customers, business partnerships, and the like to support respondent recall, which is consistent with retrospective studies (Huber & Power, 1985). In addition, this helped to identify areas that warranted deeper questioning and to obtain the respondents' views on media articles on the firm. Prior knowledge of the firm also helped build rapport with the respondents, encouraging them to address the more probing questions (Chandra, 2017).

The interviews lasted between two and a quarter hours and four hours for each firm for the first round of interviews and between 31 min and one and three-quarter hours for the second round of interviews. Consistent with Yin (2009), we used an interview protocol with open-ended questions covering the main topics of our research to guide the interview. These topics included the formation and growth of the firm; the internationalization approach in the case of each foreign market entry; the first, second, and third foreign market entries (early internationalization); two more recent foreign market entries (later internationalization); foreign market entry decisions; accumulation of experience and capabilities; and opportunities and challenges encountered during the internationalization process. Investigating a total of 45 foreign market entries in our study revealed the development of improvisation capabilities over time.

The interviews were digitally recorded and transcribed. The transcripts were sent to the respondents to check their accuracy and revised to correct minor issues with the names of places, people, or products flagged in the feedback. If there were discrepancies between the interview data and the secondary data, we triangulated through follow-up emails and telephone calls to the respondents. This form of triangulation of data from multiple sources enhanced the accuracy of the data (Eisenhardt, 1989).

3.3. Data analysis

We combined the transcripts and private documents supplied by the firms with the secondary data retrieved to produce detailed case studies of each firm. The process reflects the advice of Pettigrew (1990) that researchers conducting case studies should put disorderly information from various sources into a more coherent form for data analysis. Langley et al. (2013) asserted that process research considers outcomes as inputs for further activity rather than as a fixed ending. We used Langley's (1999) techniques to analyze process data to reveal the patterns of how improvisation capabilities in foreign market entries evolve. Specifically, we use a temporal bracketing strategy to identify the linear sequence of foreign market entries and how the consequences of previous foreign market entries allow firms to develop their dynamic improvisation capabilities over time. Hence, we looked for patterns to discern how the consequences of one market entry influence how the firm improvises in subsequent entries. In addition, this method allowed us to take an inductive approach by interpreting the data to reveal how the development of improvisation capabilities evolves.

The transcripts and case studies were coded and analyzed systematically by three members of the team to cross-check and avoid bias in the interpretation of data. In addition, we enhanced the trustworthiness of the interview data by triangulating them with information from secondary sources (Eisenhardt & Graebner, 2007; Yin, 2009). We analyzed the data for the nine firms to identify the nature of creative improvisation, spontaneous improvisation, script, and patterns of improvisation capabilities evolving in the 45 foreign market entries. We analyzed the events, activities, and choices to explain how the firms developed their improvisation capabilities over time and how learning occurred.

4. Findings and discussion

4.1. Cross-case description of two emerging patterns of improvisation capability development and respective learning

Our empirical analysis revealed three dynamic improvisation capabilities complementing existing definitions. Those capabilities enable a firm to change how it currently makes its living (Winter, 2003, p.991). In our context, this represents how a firm changes the operational improvisation capabilities in foreign market entries by building, modifying, and/or extending them. Table 2 defines dynamic improvisation capabilities and provides illustrative interview excerpts.

Furthermore, our analysis revealed that employing such dynamic capabilities supports the development of three main types of operational improvisation capabilities and their subcategories of capabilities that vary in the foreign market selection and execution. Possessing one of these three main operational improvisation capabilities enables the founder, or the founding team, to "earn a living" (Winter, 2003, p.992) or, in our case, enter a foreign market. The first operational capability is the spontaneous form. It includes two subcategories: a capability for *extemporaneous* improvisation (e.g., spur-of-the-moment initiatives) and a capability for *unpremeditated* improvisation (e.g., a rapid reaction to unsolicited opportunities). The second form, creative operational improvisation capability, contains two subcategories: a capability for *developing something new* (e.g., co-creation of offerings with external partners) and a capability for *applying a useful approach* to the situation (e.g., combining information with intuition). The third form, the script operational improvisation capability, comprises two subcategories: a capability to determine an intention (e.g., acting purposefully) and a capability to conduct analysis and set goals (e.g., doing calculations). Table 2 presents definitions of operational improvisation capabilities and illustrative quotations.

We now illustrate how the building, modifying, and extension types of dynamic improvisation capabilities fostered the development of operational improvisation capabilities. First, we have ample evidence that the firms built operational improvisation capabilities over time. For instance, FI2's second entry into Australia required the firm to build *unpremeditated* operational improvisation capability. Equally, operational improvisation capabilities were built in all the other firms. Second, we also observed that firms modified their operational improvisation capabilities within the spontaneous, creative, and script types and their respective subcategories (See Table 2 for definitions). For instance, NZ5 employed a *developing-something-new* (creative) improvisation capability when executing the first foreign market entry into Australia but a *useful-to-the-situation* (creative) improvisation capability during the subsequent foreign market entry into the United States. In addition, NZ2, NZ3, FI1, FI2, and FI4 modified their operational improvisation capabilities during internationalization. Finally, we observed that firms extended their operational improvisation capabilities in a subsequent entry. For example, a market selection mode could progress to entry execution or vice versa, as when FI4 utilized the *developing-something-new* improvisation capability in its third entry and later entry in execution but extended that usage to market selection when entering the Indian market in its most recent entry. Similar extensions of operational capabilities occurred in all the firms.

Our data analysis also revealed two different patterns related to employing dynamic capabilities to develop operational improvisation capabilities. Pattern one shows that firms NZ1, NZ4, FI2, and FI4 built or modified operational improvisational capabilities during their early market entries but not the later ones. Pattern two shows that firms NZ2, NZ3, NZ5, FI1, and FI3 built or modified operational capabilities in their early and later market entries. We describe those two patterns using two of our firms, FI2 and NZ2 (see Fig. 1), and details on the others appear in Tables A3a, A3b, and A4 in the Online Appendix. We present the first three foreign market entries and two subsequent ones for each firm.

Table 2
Definitions of operational and dynamic improvisation capabilities.

Main improvisation capability ¹	Subcategory	Definition	Illustrative quotes
Creative operational improvisation capability	Developing-something-new	A capability for developing something new, which calls for openness in the development of new markets, sharing of information, and co-creation of offerings with external partners.	“We have a reasonably strong, ongoing process [technical support for customers and product adaptation] where the customer is brought into the company and nurtured, and ... they’ll tell you what their problems are, and then you can find more solutions to their problems” [NZ5, first interview]
	Useful approach to the situation	A capability for <i>applying a useful approach</i> to the situation, such as listening to customers, combining information with intuition, and adapting to different customer needs.	“There has been a logic that we just go there [to co-operate with foreign customers] and start to paddle and see how it will go...sometimes we have been successful [useful], sometimes not...We have been combining certain types of basic knowledge and intuition and perspective formed through different factors.” [F12, first interview]
Spontaneous operational improvisation capability	Extemporaneous improvisation	A capability for extemporaneous improvisation initiated by the entrepreneur, which includes out-of-the-box thinking, spur-of-the-moment initiatives, and the ability to act instantaneously.	“We do not select countries, but we typically come to think of some customer contact that we try to acquire as a customer and which just happens to be in a particular country” [F14, first interview]
	Unpremeditated improvisation	A capability for unpremeditated improvisation based on external stimulus, such as rapid reactions to unsolicited opportunities and chance encounters, and also acting with little forethought or following specific rules.	“We were very responsive to customers’ requests, actually, which is a good thing because it meant we learned very quickly about the market...We certainly were very open to getting feedback from customers, and we were responsive to that...you become very, very good at assimilating information quickly and then applying it to a situation and making a decision.” [NZ4, second interview]
Script operational improvisation capability	Intentional	A capability to determine an intention, act purposefully, and have a thoughtful focus	“So, we have a plan that includes probably ten new sales offices all around the world... of course, it takes a bit of money to create those, but the plan is there, ...then we are closer to the market” [F13, second interview]
	Analysis and setting goals	A capability to conduct analysis and set goals, such as scenario development, making calculations, and detailed analyses and plans	“We calculate how much it costs us to enter the market versus how much we can get from the market.” [F11]
Dynamic improvisation capability ²	Build	A capability to build new operational improvisation capabilities over time	“So, of course, when you become more professional, and the whole operation becomes more international and refined, you have to [learn to] be much more thoughtful and careful in all planning and the strategies. So, I would say it’s a complete turnaround from the beginning – the way we are now” [F11, second interview].
	Modify	A capability to modify operational improvisation capabilities with a different subcategory of improvisation added in time.	So, we’re experimenting and learning very quickly and then acting on the results. So, we’re generally not making really big decisions. We’re making lots of small decisions very quickly [modifying capabilities], and they add up to shifting the business. [NZ4, second interview]
	Extend	A capability to extend operational improvisation capabilities to a new application area in a subsequent entry, such as from market selection to execution or vice versa.	“So, let’s say, we can duplicate it, and so we sort of had all the resources available so we could just pick that up and move it to [a new application area]. Basically, we had like a template and the manuals on how to do things” [NZ1, second interview]

Note: ¹ Operational improvisation capability: Possessing operational capabilities in improvisation enables the founder—or the founding team—to “earn a living” (Winter, 2003, p. 992) or, in this case, enter a foreign market. ² Dynamic improvisation capabilities: Possessing dynamic capabilities enables a firm to change how it presently makes its living (Winter, 2003) or, in our context, how it changes the operational improvisation capabilities with regard to making foreign market entries by building new operational capabilities, modifying existing ones or extending these to new application areas during internationalization (Winter, 2003).

4.1.1. From building and modifying operational improvisation capabilities toward exploiting them across foreign markets (pattern one)

When firms internationalize, they often lack improvisation capabilities and international business knowledge. However, they can develop improvisation capabilities during the market selection and execution of their first foreign market entry and also acquire international business knowledge. The account of F12’s progression in foreign markets exemplifies how a firm conforming to pattern one developed its improvisation capabilities and accumulated international business knowledge. The firm improvised when exploring different country options and identified a new market opportunity during negotiations with a large potential customer. The firm chose China as its first market, and the founder explained the rationale for that choice:

In the beginning, it was, let’s say, creative...We started to discuss how [the customer] needs to have a low-cost ticket solution ... It was really new, not existing. I would say our value proposition was really to create a new type of product, the manufacturing process, and manufacturing technology, and actually all of those...The customers said to us, “You need to produce in Guangzhou in South China.” Then we

went [to China].

China was a useful market for the firm. It offered an opportunity to introduce a technological innovation using radio frequency identification train tickets to a huge market and build a production facility. That first foreign market entry led to the firm developing a particular type of creative operational capability that we call *applying a useful approach to a situation* (see Table 2 for the definition). Regarding execution of the market entry, the founder explained: “Of course, we made very simple project calculations...this is our cost, and this is the selling price, and... compared the factory investment, and of course, that was a very straightforward calculation.” The process indicates the emergence of an operational capability in the execution called *analysis and goal-setting* (script).

F12’s subsequent foreign market also involved developing operational capabilities and further learning. The firm’s second foreign market entry into Australia resulted from a request from an Australian service provider who had heard of F12’s new factory in China. The founder explained: “Every now and then, we receive requests for quotations with a very short response time.” Hence, market selection

involves improvisation when considering how to respond rapidly to external requests for quotations. We label the spontaneous operational capability *unpremeditated*. The founder explained the execution of the market entry into Australia: “It was a straightforward request for a quotation process. So, the product was first qualified, then the delivery process negotiated, and finally, it was just about starting to deliver.” Therefore, the execution required the firm to modify its existing (script) operational capabilities of *analysis and goal-setting* to form another subcategory we have called *intentional*.

The third market entry by FI2 involved Turkey and required an extension of the firm’s existing script based on operational capabilities to suit a new foreign market. The firm’s acquired learning about *analysis and goal-setting* (script) during the execution of a foreign market entry in China extended to its next foreign market selection, Turkey. Furthermore, the firm’s learning about *unpremeditated* (spontaneous) improvisation in foreign market selection in Australia was extended to foreign market execution in Turkey. The later entry to Japan and the firm’s most recent entry into Canada show signs of the firm exploiting earlier learning connected with *analysis and goal-setting* operational capabilities.

The same pattern of operational improvisation capabilities development in early entries and then exploiting them in later entries is visible in NZ1, NZ4, and FI4 (see Table A3a in the Online Appendix).

We provide a detailed description of the relevant aspects of learning based on the FI2 case below. Table 3 presents the definition of learning processes, and Table A4 in the Online Appendix presents the details of other firms. FI2 exemplifies a firm acquiring international business knowledge through experiential learning while developing its improvisation capabilities during foreign market entries. This learning was mainly unintentional and based on improvisation during foreign market selection and entry execution. For example, the founder commented about learning based on improvisation during entry into Australia as follows, “With this type of project, there is always learning. Perhaps one learning was that there is always a political risk, and there are issues you cannot affect yourself.”

Furthermore, FI2 used search-based learning to identify new markets, such as Canada, as the founder explains, “We are following the market, and there are different tools for tender alerting... We are using a service which basically follows public tenders, and then they [new tender requests] come up.” FI2 distributed the international business knowledge it had acquired within the firm. The founder commented, “We have various steering groups for the different business segments that have meetings and share information. Then, we also have information databases from where the required information can be fetched.”

FI2 was also very skilled in evaluating international business information and making decisions based on it, which the founder explained as follows, “Well, through experience, our ability to estimate the potential of a customer from a new country and its value has improved. The key decision-making criterion is whether we can implement [the entry] with our abilities and technologies.”

Finally, the firm also learned over time to store international business knowledge in the firm’s memory by forming routines and establishing international market entry processes, as the founder explained:

In the beginning, everyone was involved with everything...it was a form of chaos. When the firm had grown, and we had sales offices around the world and production in China, we had to establish business processes and adhere to them...Yes, the processes have developed over the years and now include roles, responsibilities, and practices.

FI2 used unintentional learning alongside more deliberate learning efforts, such as distributing, interpreting, and storing information in the form of processes to expand the organizational memory. The case provided examples of building creative, spontaneous, and script operational improvisation capabilities. However, FI2 did not develop improvisation capabilities in later foreign market entries. A broad application of all learning-related processes seems beneficial because FI2 had successfully exploited the operational improvisation capabilities it had developed in

the subsequent international markets. That was mainly a result of FI2 exploiting the analysis and goal-setting capabilities developed during earlier foreign market entries. The founder of FI2 provided a comment that captures that pattern:

In the early years, we just entered a market because there were some opportunities...some prospects, let’s go there...We have now grown to such a point that we make a more structured analysis [of foreign markets]...That is less based on intuition than it was during the early years.

4.1.2. *Constantly building and modifying operational improvisation capabilities but failing to exploit them in foreign markets (pattern two)*

NZ2 is an example of a firm conforming to pattern two. It developed its improvisation capabilities and acquired international business knowledge in this process. The firm had intended to do business in Australia since its inception. The managing director explained:

So, we first went to Australia in 2007, and the logic there was quite simple: we knew that we would hit the glass ceiling of market size quite quickly in New Zealand. It is a small country. So, Australia was the obvious place to look for growth in our planning.

This first market selection taught NZ2 to act purposefully; the situation exemplifies a capability termed *intention* (script). Once the firm had decided to enter Australia, it searched websites to identify distributors who could help it execute the entry. The execution of the market entry provided NZ2 with experience in conducting analysis under various scenarios. The firm then modified its previous operational capabilities to incorporate an *analysis and goal-setting* capability.

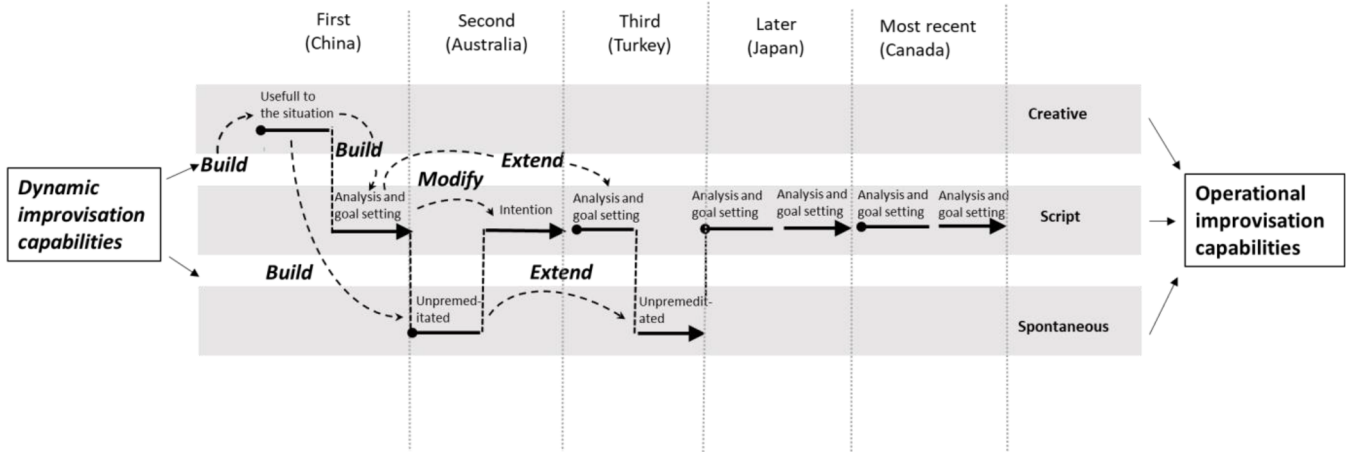
The second foreign market entry of NZ2 involved exploiting what it had learned about purposeful market selection in Australia and applying the learning to the context of the USA. The managing director states: “We turned up at trade shows, we hired booths and exhibited, and then found people that came to the booth and tried to build distributor relationships.” NZ2 met its first US distributor at a trade show. The execution required new product development to comply with US product standards and to meet a local requirement to use the product outdoors rather than indoors as originally intended. We observed the emergence of a *useful-to-the-situation* operational improvisation capability. The marketing manager explains how the firm dealt with new product requirements:

We had to prioritize by balancing our initial plan and the changes. We are pretty agile in what we do. When an opportunity arises, we do research to insert it into our product development plan, marketing plan, our product launches.

Attending trade shows in the USA led to opportunities in the UK when NZ2 met its future UK distributor unexpectedly while presenting at a US trade show. Initial discussions were productive, and NZ2 decided to enter the UK (the third market entry), with the distributor providing sales and technical support. The rapid reaction of NZ2’s management to this chance encounter demonstrates the emergence of *unpremeditated* operational improvisation capability. The firm executed the UK foreign market entry by redesigning the product to meet UK specifications and satisfy the customer’s requirements: “We had to redesign [the product] to suit the compliance [rules] in that country” (managing director). We observed how NZ2 built an *unpremeditated* operational improvisation capability.

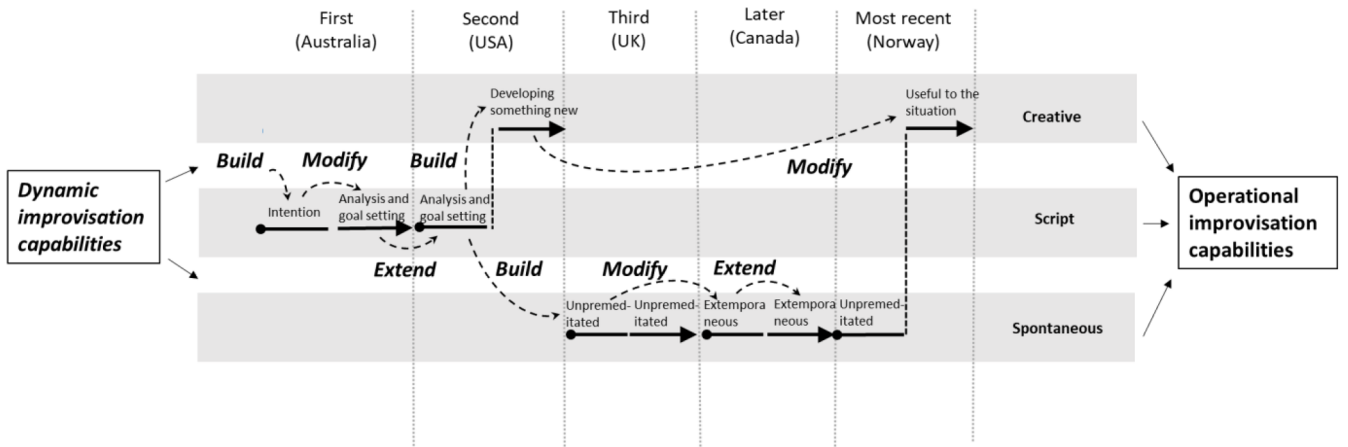
We noticed that NZ2 continued to develop its spontaneous improvisation capabilities in later foreign market entries. The managing director reflected on his earlier spontaneous approach to foreign market entry: “My slightly erratic traveling around the world, trying lots of things...was needed to give me the wisdom to end up with [this more focused] country strategy.” A US distributor provided unexpected information that prompted NZ2 to enter the Canadian market on the spur of the moment. The move required the firm to modify the *unpremeditated improvisation capability* developed in the UK entry into an *extemporaneous* form. In NZ2’s most recent foreign market entry into Norway, the firm exploited what it had learned about *unpremeditated* market selection but had to build *useful-to-the-situation* operational improvisation

FI2 Foreign market entries



Pattern 1/Case example FI2: From building and modifying operational improvisation capabilities toward exploiting them across foreign markets.

NZ2 Foreign market entries



Pattern 2/Case example NZ2: Constantly building and modifying operational improvisation capabilities but lacking in their exploitation across foreign markets.

Fig. 1. Case examples of two patterns of developing improvisation capabilities in foreign market entries during internationalization.

capabilities to progress the execution of the market entry. Overall, NZ2 remains dynamic in its foreign market entries and constantly develops its operational capabilities. The managing director stated, “At the end of the day, if you’re not improving your business...you’re standing still... We are hungry to improve.”

The same pattern of constantly building and modifying operational improvisation capabilities but falling short in terms of exploitation across foreign markets is visible in other firms conforming to pattern two (NZ3, NZ5, FI1, FI3). Details appear in Table A3b in the Online Appendix.

We provide an in-depth description of the learning based on NZ2 below, and details of the others are shown in Table A4 in the Online Appendix. NZ2 demonstrates acquiring international business knowledge through unintentional experiential learning while developing improvisation capabilities during foreign market entries. Notably, the acquisition of international business information was mainly unintentional and based on improvisation in the foreign market selections and

executions. NZ2’s founder commented on the firm’s entry into the UK: “We’re learning by doing...the only way to learn about a market is to trade in a market.” However, during later foreign market entries, the firm also used grafting. That took the form of recruiting a digital technology specialist as their customer service manager. The appointee collated vital international market knowledge using digital tools.

However, with regard to distributing acquired international business information, NZ2’s customer service manager confirmed the firm relied on compiling annual plans: “We plan annually as a company and by departments. We have a three-to-five-year plan.” The firm followed its plans diligently without often interpreting new information, as the founder states: “We just followed the plan; the plan said we should go to Australia first, and the plan said we should have a look at America second, and that’s exactly what we did.” Finally, NZ2 lacked international market entry routines or processes.

In sum, NZ2’s learning was mainly unintentional, and the firm made little effort to proactively enhance learning by distributing and

Table 3
Definitions of international business knowledge learning processes.

Learning process	Sub-process/modes	Definition ¹	Illustrative quotes
International business knowledge acquisition		International business knowledge acquisition is the process by which international business knowledge is acquired.	(See examples of each sub-process below.)
	Congenital learning	An organization's congenital knowledge is a blend of the international knowledge inherited at its conception and the additional international business knowledge acquired prior to its foundation.	"Well, I started three or four start-up companies before, so I had been through...I knew what was involved in [international business]" [NZ3]
	Experiential learning	After its foundation, the organization acquires its international business knowledge through direct experience. This can be based on deliberate or unintentional efforts.	"We did not have previous international business knowledge. We have learned everything by doing. Particularly, we learned about international customer needs." [FI4] (unintentional experiential learning)
	Vicarious learning	Organizations learn about international business from other organizations.	"We're hungry to see how other people do it [in other companies]; we're hungry for that feedback, and we're quite proactive at implementing." [NZ2]
	Grafting learning	Organizations gain international business knowledge by acquiring new members with knowledge not previously available within the organization.	"We've just hired a guy in Chile, and we sought his advice on what the market looks like, whether we should be going there." [NZ5]
	Searching	Organizational international business information acquisition through search by scanning, focused search, or performance monitoring.	"We're now doing trips ourselves with one English-speaking person and one Spanish-speaking Mexican down to Mexico and visiting the trade shows there [to gather information]." [NZ5]
International business-related information distribution		International business-related information distribution is the process by which international business-related information from different sources is shared, which leads to new information or understanding.	"We have different steering groups that get together and share information [about international business]." [FI2]
International business-related information interpretation		International business-related information interpretation is the process by which one or more commonly understood interpretations are applied to distributed international business-related information.	"You need that analytical side; you need the numbers, but you also need just that intuition... And often, there is some ambiguity, but you tend to focus on what's the most important facts. [NZ4]
Organizational memory of international business knowledge		Organizational memory of international business knowledge is how international business knowledge is stored for future use.	"The larger the organization grows, the more there must be decision-making processes that are followed; otherwise, it would not be manageable." [FI2]

Note: ¹ Definitions from Huber (1991:10) adapted to suit the international business context.

interpreting acquired international business information or storing it as processes to supplement the organizational memory. This approach has hampered NZ2's ability to exploit operational improvisation capabilities subsequently developed in international markets.

As mentioned previously, Tables A3a and A3b in the Online Appendix illustrate the development of improvisation capabilities among all the firms. Figures A1a and A1b in the Online Appendix provide a separate figure for each firm and are complemented by detailed descriptions of improvisation capability development. We also provide illustrative quotations in Table 3 and details of the learning concerning international business knowledge in the foreign market entries in Table A4 in the Online Appendix. Below, we explain the development of our propositions and conceptual process model based on cross-case analysis.

4.2. Development of propositions and a model

4.2.1. Triggers related to foreign market selection and execution

Our data revealed that foreign market uncertainty and time pressure are triggers for applying dynamic improvisation capabilities, which foster the development of operational improvisation capabilities. For instance, FI2 faced high uncertainty during its first market selection—China— which the founder explained: "In China, we had to accept that [market entry] always carries a high country risk. The country is centrally led; you never know how the legislation, custom practices, or taxation will change." To address that uncertainty, FI2 engaged in a creative process of identifying the market opportunity we term *useful to the situation*. The firm held productive talks with China Railways, which prompted the selection of China as the firm's first foreign market entry. The high levels of uncertainty meant that the firm applied improvisation and accumulated useful experience in selecting foreign markets. The outcome was a *useful-to-the-situation* capability that was available to assist future market entries. Similarly, foreign market uncertainty affected the firms during the execution of foreign market

entries. The founder of NZ4 explained why it was necessary to diverge from a script during the foreign market execution of the firm's second entry in the UK:

There's just so much time wasted on trying to be specific about things that you can't be specific about [due to uncertainty] and that aren't actually going to help you. So, you're better off putting more effort into engaging with the marketplace and with partners and customers [creatively solving their technical problems].

The presence of high levels of uncertainty in the execution prompted the firm to explore a new improvisation approach by collaborating with a local partner, leading to a *useful-to-the-situation* capability at the execution stage.

Another example of foreign market uncertainty spurring the development of creative improvisation capability during a foreign market entry was FI4's most recent market entry into India. The opportunity emerged when FI4 participated in a research and development project with other partners. The firm had no specific target market at that stage. The project crystallized the need to produce an entirely new product, which required research and development co-creation in the execution phase. That requirement drove the selection of India as a market. The founder emphasized the high level of foreign market uncertainty prevailing at the time of the foreign market entry: "The potential is huge, but the requirements [imposed by the environment] on us are unreasonable." The situation necessitated exploring a new way to select and execute a foreign market entry in a highly uncertain environment, which prompted the development of a creative operation improvisation capability, *developing something new*.

Similarly, NZ1's third entry—into the USA—involved significant foreign market uncertainty because the new product was subject to strict US conformity requirements. The CEO reported improvising by using the customer to solve compliance issues: "He was instrumental in helping us get through all the regulatory barriers...and super well-connected with everyone, and so he was quite an important guy,

actually.” The issues convinced the entrepreneur of the value of collaborating with a partner to meet country-specific requirements. Such learning also supports a *developing-something-new* capability.

The cases provide evidence for employing dynamic capabilities triggered by foreign market uncertainty to build, modify, or extend operational capabilities. Tables A3a and A3b in the Online Appendix summarize how foreign market uncertainty can spur a firm to develop operational improvisation capabilities in the form of *developing something new* or *applying a useful approach* to the situation. We developed the following proposition to emphasize that entrepreneurs’ perceived foreign market uncertainty triggers creative improvisation in foreign market selection and the execution of an entry, spawning creative improvisation capabilities. Hence, we propose:

Proposition 1a. Improvisation triggered by foreign market uncertainty during market selection and execution leads to the development of creative operational improvisation capabilities in early internationalizing firms.

Second, our case analysis reveals that time pressure experienced from the outset of internationalization encourages firms to apply spontaneous improvisation in their foreign market entry. The triggering effect is illustrated well by the case of FI4, where the firm had to respond at short notice to a serendipitous contact from Denmark (the second entry). The firm had to modify the spontaneous capability it had developed in one subcategory to fit another. The founder of FI4 explained, “All three of us were busy making the product; it was more like people were calling us and saying, ‘Okay, we hear that you’re doing this, so will you do it for us, too?’”

Similarly, NZ1 faced time pressure during the execution of its first foreign market entry, South Korea. The founder explained how a serendipitous contact triggered the firm using spontaneous improvisation: “Actually, what happened was that we got involved through a company in Korea...Our buyer said, ‘My friend is quite interested in buying some,’ so we said, ‘Okay, we’ll talk to her.’...this was all by chance.” This type of spontaneous improvisation based on an unexpected contact encourages management to consider its response to chance encounters, which, in turn, spurs building an *unpremeditated* operational improvisation capability.

Furthermore, the same triggering effect is illustrated by FI1, where the entrepreneur identified a business opportunity in Sweden (the third market entry), which demanded immediate improvisation. The market selection and execution were conducted spontaneously with little thought. The FI1 entrepreneur explains: “I knew the guy, and he sold the largest amount of equipment in Sweden, so it was a very fast decision.” The decision required modifying the *unpremeditated* capability developed previously during the UK market entry to become an *extemporaneous* capability that was appropriate when selecting the Swedish market and then extending the capability during the execution.

Similarly, the co-founder of NZ3 alluded to time pressure when the firm recognized an unexpected opportunity to enter the US market (the second entry) on a trip to Canada, “Okay, so we hopped on a plane and arrived down there [the United States]; this wasn’t planned on that trip to Canada.” The improvised market exploitation involved further modification of the *unpremeditated* capability learned previously into an *extemporaneous* one. In these cases, the firms learned to be open to surprises and pursue opportunities on the spur of the moment, an important aspect of extemporaneous capabilities.

The cases illustrate firms employing dynamic capabilities triggered by time pressure to build, modify, or extend operational capabilities. Tables A3a and A3b in the Online Appendix summarize how the time pressure underpinning a foreign market entry triggers the development of operational improvisation capabilities, whether in *extemporaneous* or *unpremeditated* form. We developed the following proposition to emphasize that time pressure during an entry decision triggers spontaneous improvisation in foreign market selection and execution, leading to spontaneous improvisation capabilities. Hence, we propose:

Proposition 1b. Improvisation triggered by time pressure during

foreign market selection and execution leads to the development of spontaneous operational improvisation capabilities in early internationalizing firms.

4.2.2. International business knowledge acquisition mode

We next explore the learning process of the two capability development patterns identified, starting with the applied international business knowledge acquisition modes. Table 3 provides definitions and illustrative quotes, and Table A4 in the Online Appendix summarizes the international business knowledge learning process in the two patterns. Firms grouped under pattern one built and modified operational improvisation capabilities during early market entries and exploited them in subsequent entries. The main knowledge acquisition mode involved was experiential learning, often based on unintentional learning from improvisation during foreign market selection or execution. For instance, FI2 learned about political risks, and NZ1 learned to test the feasibility of a market entry, as exemplified in the interview excerpt, “Let’s just sort of start work on a handshake for a few months until we sort of get to a point where we see if there’s any life in it.” Firm NZ4’s unintentional experiential knowledge came from traveling and “had become a key part of [the firm’s] DNA.” The respondent from FI4 admitted the firm “learned everything by doing.” These learning modes were supported by congenital learning for firms with previous experience, such as NZ3. The other firms in this pattern utilized vicarious learning, and a few firms used grafting (e.g., NZ1 and NZ4) when they employed people with valuable experience.

We now examine the learning processes in firms conforming to pattern two. These firms built and modified operational improvisation capabilities in both early and later entries but had fewer options available for exploitation. Similar to firms in pattern one, these firms mainly relied on experiential learning to acquire knowledge. Unintentional learning acquired from improvisation in market selection or execution was particularly useful. For instance, as described earlier, NZ2 learned about a market by trading, and NZ3 learned from its customers: “A lot of the features that are now coming into the products are because customers have said, ‘Oh, why don’t you do this?’” Firm NZ5 accessed its experiential learning to determine the optimal operation mode: “We tried various things [product, marketing, and modes] in the USA and then decided that it is a big enough market to have a [sales] subsidiary.” Firm FI1 learned to make its market selection more discriminating: “One thing we learned was that we started to distinguish all sorts of piffle from real commitment.” Finally, FI3 acquired experiential learning on “leadership the hard way.”

The pattern two firms (e.g., NZ2, NZ3, NZ5) also used grafting, in that they acquired experienced staff members and some vicarious learning from other firms to support their experiential learning.

We can conclude that the main knowledge acquisition mode utilized by all firms following patterns one and two during improvisation in the foreign market selection and market entry executions was unintentional experiential learning. In addition, congenital, searching, grafting, and vicarious learning modes were used occasionally but not homogeneously in the case firms. Based on this discussion, we can propose:

Proposition 2. Early internationalizing firms unintentionally acquire experiential international business knowledge while improvising during the selection and execution of foreign market entries.

4.2.3. International business knowledge distribution, interpretation, and storage into firm memory

We now discuss early internationalizing firms distributing, interpreting, and storing business-related information in their memories. First, the firms conforming to pattern one distributed the acquired information within their firms intensively. For instance, NZ1 used the information systems of its distributors to disseminate information on market development within the firm:

One of the major things that [the wholesaler] has is...an IT system that allows it to monitor and control all sites all over America.” Firm NZ4

adopted a similar approach, “We also have support tools for distributors around training systems and information, and those sorts of things.” Firm FI2 established steering groups in addition to information systems, similar to FI4, which had a board sharing information: “Even today, they have a board meeting and will check our current status and monitor what we are doing.”

The firms conforming to pattern one also skillfully evaluated information to determine its relevance and then based their decisions on the results. For instance, the entrepreneur of NZ4 said, “We are very good at assimilating information quickly and then applying it to a situation and making a decision.”

Furthermore, the firms conforming to pattern one were able to store learned knowledge in the firm’s memory. For instance, they had formed international market entry routines that were useful in subsequent entries:

Nowadays, there are practices that we each follow. For example, we categorize sales leads based on certain priorities. Marketing takes care of it to a certain point, then based on the lead, it comes either to me in my room or to my colleague in the next room, and then we continue from there (FI2).

In order to grow the company sustainably, you have to take a more structured approach at a certain point, and then line up your processes behind that so you start to get a scalable business that you can grow quickly (NZ4).

We can conclude from the review of the pattern one firms that the often unintended experiential international business-related information acquired through improvisation during foreign market selection and execution was distributed within the firms, and when its usefulness had been interpreted, it was adopted for use. The relevant information could then be stored in the firm’s memory as a routine or, sometimes, as a written international market entry process. The process permitted the firms to exploit the acquired operational improvisation capabilities in subsequent entries.

Second, information distribution in pattern two firms was less frequent and offered fewer options for interaction between team members. For instance, NZ2 relied on annual plans for information distribution, while NZ5 had official board meetings, but they served administrative purposes more than information sharing. Firm FI1 organized team meetings to distribute information, but the firm’s rapid growth meant information settled in silos: “When we grew to over 20 staff, there was a big risk that only certain people had [certain bits of] knowledge. New faces came almost every week or so.” Firm FI3 lacked forums for information distribution and did not organize inductions for new employees; as our informant admitted, “I do not remember that we had any kind of handover for new people...We did not hold their hands...very low training from my perspective...we just said, ‘you are now in charge of sales...good luck!’”

The pattern two firms all struggled to synthesize and evaluate the relevance of information and then act on it. NZ2 rigidly followed an information distribution plan without interpreting new information, while the NZ3 informant admitted the firm struggled to interpret new information and comprehend “the difference between a run-of-the-mill phone call and something that could have something behind it.” Firms NZ5, FI, and FI3 followed rather rigid strategic planning processes that hindered interactive learning.

With regard to ensuring new knowledge entered the firm’s memory, the firms conforming to pattern two were less successful than their pattern one counterparts. Firms NZ2 and NZ3 had been able to establish manufacturing and quality processes but lacked international market entry routines or processes. Firm NZ5 had established technical support processes but lacked international market entry routines or processes. Firm FI1 also lacked essential international market entry skills and associated routines and processes and tried to resolve the situation by hiring new personnel with appropriate skills: “We did not have specific processes to develop our capabilities...We tried to find people who could directly jump into the work.” Similarly, FI3 lacked the necessary

international market entry routines and processes: “We had very different ways to handle things...One person handled certain situations in one way and another person in another way.”

The review of pattern two firms establishes that the experiential international business information they gained through improvisation was distributed less effectively within the firms than in pattern one firms. Interaction options for the staff were fewer and less frequent. Consequently, the management struggled to interpret the usefulness of the information, and the firm did not synthesize and evaluate new information optimally. That shortcoming, in turn, impaired the ability to operationalize the best practices that could lead to establishing routines governing international market entries. One outcome was to constrain the emergence of operational improvisational capabilities suitable for international markets that could be readily applied in subsequent entries.

To summarize, firms conforming to pattern one invested more effort into following the learning process steps than firms conforming to pattern two (see Table A4 in the Online Appendix). While both types of firms have acquired unintentional experiential learning, pattern one firms put more effort into the remaining learning process steps, which helped them develop dynamic operational improvisation capabilities readily available for exploitation during subsequent market entries. Pattern two firms, in contrast, did not exploit the improvisational capabilities they had acquired to the same extent.

Constructively utilizing experiential international business information acquired unintentionally to smooth subsequent foreign market entries requires more than accumulating it from improvising during the foreign market selection and execution stages. Success relies on deliberate learning efforts to distribute new international business information within the organization, interpret its usefulness, and formulate international market entry-related routines and processes. That process spurs operational improvisation capabilities readily available for exploitation in subsequent entries, provided that the uncertainty and time pressure are similar in those market entries. Therefore, we postulate as follows:

Proposition 3a. Early internationalizing firms that put deliberate learning effort to gain international business knowledge are likely to be able to exploit the developed operational improvisation capabilities in subsequent foreign market entries (Pattern one).

Proposition 3b. Early internationalizing firms that do not put deliberate learning effort to gain international business knowledge may not be able to exploit the constant development of operational improvisation capabilities in subsequent foreign entries (Pattern two).

4.2.4. A process model of improvisation capability development and gaining international business knowledge during foreign market entries

Fig. 2 presents our conceptual process model. Starting the process from the left-hand side of the figure illustrates how foreign market uncertainty and time pressure trigger the application of dynamic improvisation capabilities during foreign market selection and execution. That is achieved by building, modifying, or extending operational improvisation capabilities. Furthermore, improvisation occurring in foreign market entry selection and execution delivers unintentional experiential international business-related knowledge. Such knowledge can take the form of an understanding of local institutional or market settings or more general internationalization knowledge of managing international operations. Some firms strove to make deliberate learning efforts to acquire international business knowledge (see Table A4 in the Online Appendix), enhancing the development of a portfolio of operational improvisation capabilities available for exploitation in subsequent foreign market entries. We observed that early internationalizing firms that invest in deliberate learning efforts move from building and modifying operational improvisation capabilities to exploiting them across foreign markets (pattern one). In contrast, while firms that do not invest sufficiently in learning efforts constantly build and modify operational improvisation capabilities, they fail to exploit them across

foreign markets (pattern two). Two patterns of firms undertaking foreign market entries over time emerge (see Table A3a and Table A3b in the Online Appendix), which are also shown in Fig. 2.

Furthermore, the arrow from right to left in Fig. 2 depicts the exploitation of accumulated operational improvisation capabilities in the firm's portfolio in subsequent foreign market selections and executions. Exploiting operational improvisation capabilities in different country contexts brings additional unintentional experiential learning relating to international business knowledge to the firm that initiates a new learning cycle. Existing operational improvisation capabilities may also form the basis for modification or extension during the subsequent foreign market entry if foreign market uncertainty and time pressure differ in the new foreign market entry. Early internationalizing firms may thus achieve a LAN based on developing improvisation capabilities that enable smooth foreign market entry and the firm rapidly accumulating international business knowledge.

5. Conclusions and implications

Our study reveals that early internationalizing firms derive unintentional experiential international business knowledge through the application of dynamic improvisation capabilities. However, the firm requires deliberate learning efforts to develop operational improvisation capabilities that are readily available for exploitation in subsequent foreign market entries. Since a lack of knowledge can become an impediment for early internationalization, through developing improvisation capabilities, the early internationalizing firm can accelerate acquiring international business knowledge to overcome this hurdle. We unveil dynamic improvisation capabilities acting as a learning mechanism supporting early internationalization and complementing the LAN.

5.1. Main theoretical contribution

We offer three theoretical contributions. First, we contribute to unraveling the theoretical tensions in the early internationalization literature over whether a lack of knowledge is an impediment (Knight & Cavusgil, 2004; Knight & Liesch, 2016; Kusi Appiah, Galkina, & Gabrielson, 2023; Oviatt & McDougall, 1994) or an advantage for international growth (Autio et al., 2000; Sapienza et al. 2006). We present a theoretical mechanism to understand how firms lacking knowledge of foreign markets internationalize early. We show that dynamic improvisation capabilities are learning mechanisms underlying early internationalization. Our study offers a complementary perspective to that of Autio et al. (2000) on LAN for early internationalizing firms. However, we find no evidence that prior knowledge hinders learning, as postulated in this earlier research.

Our findings indicate that possessing dynamic improvisation capabilities during foreign market entries supports the development of unintentional experiential knowledge. That form of knowledge is an important mechanism for fostering learning in early internationalizing firms. We acknowledge Autio et al.'s (2000) standpoint that it is not what firms know when they start to internationalize that is most important but how quickly they learn. Our research complements that view by describing the mechanism relating to how they learn quickly to gain unintentional experiential knowledge from improvisation in foreign market entries. Accordingly, our study contributes to a research trend indicating the emergence of less deterministic theories dealing with foreign market entry by explaining the mechanism related to unintentional learning in early internationalizing firms through improvisation. We extend the path running through the work on experiential learning and change (Gruber et al., 2008, 2013).

Second, our study demonstrates how having dynamic improvisation capabilities in situations of uncertainty and under time pressure enables the development of operational improvisation capabilities during the selection and execution of foreign market entry. We also reveal two distinct operational improvisation capability development patterns that

firms conform to while undertaking foreign market entries. Pattern one encapsulates firms that build and modify their operational improvisation capabilities during their early market entries, which are available for exploitation in later entries if the decision-making context remains similar. Pattern two firms build and modify operational improvisation capabilities in both early and later entries and have fewer options for exploitation.

Our study shows that deliberate learning efforts shape the learning process in the two improvisation capability patterns. The firms that invested in learning to distribute the acquired information, interpret it, and store it in the firms' memory as international market entry routines and processes were more often able to exploit their operational improvisation capabilities in subsequent market entries. The finding supports the view that early internationalizing firms must also develop absorptive capacity (Acedo et al., 2021; Schwens et al., 2018; Zahra et al., 2018). Our study also indicates that firms would benefit from new internationalization knowledge acquired through developing improvisation capabilities. The finding complements the work of Vera et al. (2016) reporting that improvisation is a process that allows learning to occur and spurs the development of further capabilities. While earlier research has discussed learning related to early internationalizing firms (De Clercq et al., 2012), we show how improvisation capabilities are associated with the learning processes.

The third contribution is a conceptual process model (Fig. 2) that illustrates the importance of dynamic capabilities to build, modify, and extend operational improvisation capabilities that harness the acquisition of unintentional experiential learning. An important notion in the model is the triggering effect of perceived foreign market uncertainty and time pressure. Developing these operational improvisation capabilities is subject to the firms also investing in deliberate learning efforts, which enables them to sustain a portfolio of capabilities that can be exploited in subsequent foreign market entries. Exploiting this portfolio of operational improvisation capabilities in foreign markets brings the firm additional unintentional experiential learning of international business knowledge, which initiates a new learning cycle. Accordingly, our model presents how early internationalizing firms can achieve a learning advantage of newness by developing improvisation capabilities when faced with uncertainty and time pressure during foreign market entries. That learning advantage, in turn, fosters the rapid accumulation of international business knowledge.

5.2. Practitioner and policy relevance

Our research provides useful insights for practitioners on how to use improvisation capabilities to enter foreign markets quickly when facing uncertainty and time pressure. The exogenous shocks firms must currently address—including the aftermath of the COVID-19 pandemic, geopolitical tensions, supply chain shortages, and climate change—create a fertile environment for developing improvisation capabilities and gaining unintentional experiential learning. Accordingly, we present three implications for practitioners. First, practitioners must be aware that improvisation enables firms to respond quickly to unexpected turbulence and emerging opportunities even when they lack knowledge. The type of improvisation a firm uses will depend on the time pressure and uncertainty in the foreign market.

Second, firms can benefit from using dynamic improvisation capabilities that enable the acquisition of unintentional experiential knowledge and the development of operational improvisation capabilities during foreign market selections or entry. Instead of taking an ad-hoc approach to improvisation, practitioners should pay particular attention to building operational improvisation capabilities, either from scratch or by modifying existing ones.

Third, the firm might extensively deploy dynamic capabilities during early-stage internationalization or throughout the process. Investing in deliberate learning efforts, such as organizing formal and informal meetings and developing information systems for distributing acquired

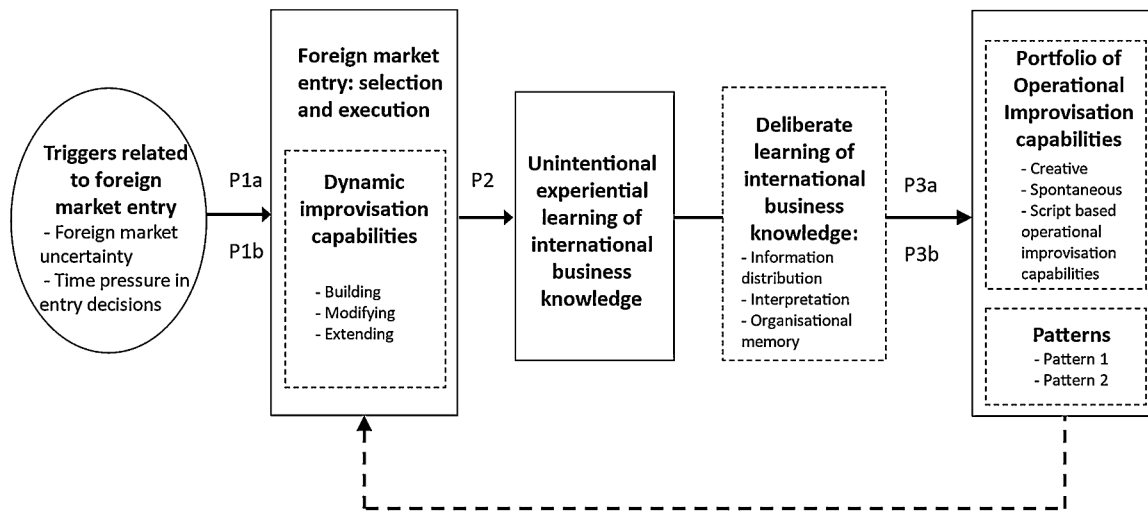


Fig. 2. Developing improvisation capabilities in foreign market entries during internationalization and gaining international business knowledge.

experiential knowledge, could support making information available for interpretation and determining its usefulness.

We present three implications for policymakers. First, policymakers should understand that firms have different ways of learning. Furthermore, the learning process should not be confined to the knowledge acquisition phase because knowledge must be distributed and interpreted within the organization and stored in the organization's memory. Second, given that improvisation can be important for learning (Vera & Crossan, 2005), supporting institutions, such as export promotion programs, could organize improvisation workshops for practitioners to acquire the skill. Furthermore, firms should be encouraged to challenge traditional mindsets and adopt new ways of thinking to develop improvisation capabilities over time. Third, policymakers should abandon the requirement that internationalizing firms present rigid plans before they can access financial resources or promotional support.

5.3. Limitations and future research direction

The exploratory nature of our study is a limitation, as we cannot make a statistical generalization from qualitative research. Nevertheless, that limitation opens several avenues for future research. First, as we studied firms from Finland and New Zealand, which are both small and open economies, it would also be useful to study larger economies, for example, the USA, Germany, or emerging economies like Brazil or India. Moreover, our key findings and propositions could be tested in a large quantitative survey, preferably of a longitudinal nature, to include firms of varying sizes and at various stages of development, from several types of industries, and operating in different countries. Another limitation is our focus on early and later entries, which provides the opportunity for future studies to consider how firms develop their improvisation capabilities over the entire internationalization process. Foreign market entry operational and dynamic improvisation capabilities and internationalization-related constructs (e.g., uncertainty, time pressure, and learning) could be operationalized and measured using a survey instrument.

Second, more research is required on the performance implications of our two improvisation capability patterns on internationalization speed and firm performance. It would be interesting to study whether the exploration costs associated with the constant renewal of operational improvisation capabilities can be recovered or whether exploiting those capabilities earlier is more profitable for a firm.

Third, it would be worthwhile to extend the scope of the study from early internationalizing firms to more mature ones. Researchers might then address the interesting questions of how and why mature firms

develop improvisation capabilities and whether early internationalizing firms can sustain their dynamic improvisation capability as they mature and become large multinationals.

CRedit authorship contribution statement

Sylvie Chetty: Conceptualization, Data curation, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Peter Gabriellsson:** Conceptualization, Data curation, Formal analysis, Investigation, Visualization, Writing – original draft, Writing – review & editing. **Mika Gabriellsson:** Conceptualization, Data curation, Formal analysis, Investigation, Visualization, Writing – original draft, Writing – review & editing.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.jwb.2024.101531](https://doi.org/10.1016/j.jwb.2024.101531).

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