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# **Neurodiversity in international entrepreneurship**

Exploring international entrepreneurial journeys of entrepreneurs with ADHD

International Business

Department of Marketing and International Business

Master's thesis

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## Master's thesis

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## Abstract

Contemporary entrepreneurship research has become increasingly interested in the entrepreneurial journeys of marginalised or disadvantaged entrepreneurs. This has led to emergent research streams, such as unconventional and challenge-based entrepreneurship, which explore how individual adversities may translate into beneficial outcomes for entrepreneurship. Literature suggests that entrepreneurs facing cognitive challenges include entrepreneurs on the neurodivergent spectrum, which has been increasingly studied in entrepreneurship research. Estimates indicate that neurodivergent individuals represent 15–20% of the global population, and that some neurodivergent groups are overrepresented in entrepreneurship, such as individuals with attention deficit hyperactivity disorder (ADHD).

Neurodiversity remains insufficiently explored in the context of international entrepreneurship (IE); thus, this thesis seeks to address neurodiversity in IE, focusing specifically on entrepreneurs with ADHD, aiming to explore how these individuals experience their international entrepreneurial journeys. This study is guided by the following research question: *How do entrepreneurs with ADHD experience their international entrepreneurial journeys?* The research approach for this thesis is a qualitative interview study, based on five semi-structured interviews with Finnish entrepreneurs with ADHD. The participating entrepreneurs vary demographically and regarding the field, age and size of business as well as internationalisation experience.

ADHD-related tendencies were perceived as influential in the entrepreneurial journeys and internationalisation of participating entrepreneurs, many attributing their abilities to notice opportunities and put things into action to their ADHD. Challenges stemming directly or indirectly from ADHD emerged strongly in the research data. Overcoming challenges was perceived to contribute to resilience and persistence, which was seen as a resource in the face of inevitable uncertainties and setbacks in entrepreneurship and internationalisation. The accounts of participating entrepreneurs did not imply impulsivity or uninformed decisions in entrepreneurship or IE, and rather highlighted intensive researching, early experimentation, making small investments, and progressing incrementally. Furthermore, an important finding of the study was the role of networks, which seemed to be a key resource securing the continuity of business and compensating for tasks that are challenging for the entrepreneurs, such as repetitive administrative tasks.

The theoretical contribution of this study supports prior literature suggesting that adverse conditions may lead to beneficial outcomes in entrepreneurship, such as strong networks, resilience, persistence, risk tolerance, and creative approaches. International entrepreneurial journeys were shaped using effectual approaches, utilising contingencies and available resources. The practical policy implications include streamlining processes, facilitating networking and early experimentation, organising financial aid, events, and support groups. Additionally, managerial implications seek to support the well-being and retention of neurodiverse employees, emphasising the role of increasing knowledge on neurodiversity, accommodating individual needs, and fostering a curious and open culture at work.

**Keywords:** entrepreneurship, international entrepreneurship, internationalisation, challenge-based entrepreneurship, neurodiversity, ADHD, effectuation, networks, resilience

## Pro gradu -tutkielma

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### Tiivistelmä

Nykyisessä yrittäjyystutkimuksessa on kiinnitetty enenevässä määrin huomiota vähemmistöihin kuuluvien tai epäedullisessa asemassa olevien yrittäjien yrittäjäpolkuihin. Tämä on johtanut uusien tutkimussuuntausten muotoutumiseen, kuten tavanomaisesta poikkeavaan ja haasteisiin pohjautuvan yrittäjyyden tutkimukseen, jossa tarkastellaan, miten yksilölliset vastoinkäymiset voivat johtaa yrittäjyyden kannalta myönteisiin lopputuloksiin. Kirjallisuuden mukaan kognitiivisia haasteita kohtaaviin yrittäjiin kuuluvat neurokirjolla olevat yrittäjät, joita on tutkittu yhä enemmän yrittäjyystutkimuksessa. Neurokirjolla olevat henkilöt edustavat arviolta 15–20 % maailman väestöstä, ja osalla neurokirjolle kuuluvilla ihmisryhmillä, kuten ADHD-diagnosoituilla, yrittäjyys on keskivertoa yleisempää.

Neurokirjoja ei ole vielä tutkittu kattavasti kansainvälisen yrittäjyyden kontekstissa, mihin tämä tutkimus pyrkii vastaamaan, keskittyen erityisesti ADHD-diagnosoituihin yrittäjiin ja siihen, miten he kokevat kansainväliset yrittäjyyspolkunsaa. Tätä tutkimusta ohjaa päättökysymys: *Miten yrittäjät, joilla on ADHD, kokevat kansainväliset yrittäjyyspolkunsaa?* Kyseessä on laadullinen haastattelututkimus, joka pohjautuu viiteen puolistrukturoituun haastatteluun suomalaisten ADHD-diagnosoitujen yrittäjien kanssa. Osallistuvat yrittäjät eroavat toisistaan väestörakenteen, yrityksen toimialan, iän ja koon sekä kansainvälistymiskokemusten suhteen.

Osallistuvat yrittäjät kokivat ADHD:hen liittyvien taipumusten vaikuttavan heidän yrittäjyysmatkoihin ja kansainvälistymiseen, ja moni yhdisti kyvyn huomata mahdollisuuksia ja aloittaa asioita ADHD:hen. ADHD:sta suoraan tai välillisesti johtuvat haasteet nousivat selvästi esiin tutkimusaineistosta. Yrittäjät kokivat, että haasteista ylipääseminen vahvisti heidän resilienssiä ja pitkäjänteisyyttä, mikä nähtiin voimavarana kohdatessa yrittäjyyteen ja kansainvälistymiseen välttämättä kuuluvaa epävarmuutta ja vastoinkäymisiä. Osallistuvien yrittäjien kertomukset eivät viitanneet impulsiivisuuteen tai harkitsemattomiin päätöksiin yrittäjyydessä tai kansainvälisessä yrittäjyydessä, vaan kuvauksissa painottuivat intensiivinen tutkimus, aikaiset kokeilut pienillä investoinneilla ja asteittainen eteneminen. Lisäksi tutkimuksen tärkeä löydös oli verkostojen rooli, joka näyttäytyi keskeisenä voimavarana turvaamassa liiketoiminnan jatkuvuutta ja kompensoimassa tehtävissä, jotka ovat haastavia yrittäjille, kuten toistuvat hallinnolliset tehtävät.

Tutkimuksen teoreettinen kontribuutio tukee aiempaa kirjallisuutta siitä, että haastavien olosuhteiden kohtaaminen voi johtaa hyödyllisiin lopputulemiin yrittäjyydessä, kuten vahvoihin verkostoihin, resilienssiin, pitkäjänteisyyteen, riskiensietokykyyn ja luoviin lähestymistapoihin. Kansainväliset yrittäjyysmatkat muotoutuivat effektuaation kautta, hyödyntäen odottamattomia tilaisuuksia ja käytettävissä olevia resursseja. Tutkimuksen käytännön merkitys yhteiskunnallisten suositusten osalta kannustaa prosessien yksinkertaistamiseen sekä verkostoitumisen ja aikaisen vaiheen kokeilujen helpottamiseen rahallisten tukien, tapahtumien ja tukiryhmien järjestämisen avulla. Lisäksi organisaatioille suunnatut liikkeenjohdolliset suositukset pyrkivät tukemaan neurokirjolla olevien työntekijöiden työhyvinvointia ja pysyvyyttä, korostaen neurokirjioon liittyvän tiedon lisäämisen merkitystä, yksilöllisten tarpeiden huomioimista sekä uteliaan ja avoimen työskentelytutkimuksen tukemista.

**Avainsanat:** yrittäjyys, kansainvälinen yrittäjyys, kansainvälistyminen, haastepohjainen yrittäjyys, neurokirjo, ADHD, effektuaatio, verkostot, resilienssi

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# 1 Introduction

## 1.1 Background of the study

In today's global economy, opportunities can emerge anywhere, in a potential customer's message from another continent, a random online encounter, or an 'aha moment' of creative insight. For entrepreneurs, recognising and seizing international opportunities (IOs) often marks the difference between remaining local and becoming global. Internationality has become an inherent characteristic of the business environment, and even small businesses find themselves navigating global competition and cross-border opportunities (Redien-Collot et al., 2020, 890). Due to globalisation and technological development, foreign markets have become more accessible and international opportunities for smaller companies have increased (Lehtinen et al. 2021, 2), which is especially true for digitally savvy companies (Knight et al. 2025, 2). While internationalisation is an attractive means of growth, it is also highly uncertain and risky in many ways. Indeed, perceived uncertainty has high emphasis on internationalisation decisions (Liesch et al. 2014, 858; Schweizer & Vahlne 2022, 586), and, for example, risk aversion can become a barrier for internationalisation (OECD 2008, 194).

The increasing interest towards entrepreneurship in an international context has resulted in the rise of international entrepreneurship (IE), which emphasises the role of opportunities and cognition (knowledge processing) of decision-makers in internationalisation, combining elements of international business and entrepreneurship (Zucchella 2021, 1). Both internationalisation and entrepreneurship entail high levels of uncertainty (Johanson & Vahlne 2009, 1423) and thus, entrepreneurs already operate in an uncertain environment, whether they engage in international activities or not. For entrepreneurs, embarking on international activities is deeply embedded in their cognitive processes, specifically how well and in what way they cope with the uncertainty the international context entails and identify opportunities within it.

The ability to cope with uncertainty is a necessity in international entrepreneurial endeavours; however, identifying IOs is where the process ultimately starts (Butler et al. 2010, 125). So why do some entrepreneurs recognise opportunities in the international field while others do not? Are some just lucky? Chance events do matter as long as an individual can make something of them (Cunha et al. 2010, 321). Entrepreneurs differ not only in their resources and networks but also in how they think, perceive, and process information, all of which shape how opportunities are recognised. Cognitive approaches to IE have increasingly highlighted that opportunity recognition is not merely

rational but rather imaginative, emotional, and influenced by the entrepreneur's unique mental patterns (Butler et al. 2010; Oyson & Whittaker 2015, 332).

Entrepreneurship research has identified a broad range of characteristics and environmental factors that can explain how successful entrepreneurs are shaped. In the 2010s, a stream of entrepreneurship research began investigating how people who have endured life challenges and adverse conditions are often inclined towards entrepreneurship and are successful in it. Empirical findings highlight the propensity of entrepreneurs among people with adverse life conditions (see Bakker & McMullen 2023), and research has found that they also differ from other entrepreneurs in terms of, for example, risk-taking (Bort & Totterman 2023, 6). Such entrepreneurs are also known in the literature as underdog entrepreneurs, facing socioeconomic, cognitive, and/or health challenges that lead to unfavourable circumstances (Bort & Totterman 2023, 2). Having faced these challenges and adverse life conditions, individuals may end up having several approaches, characteristics, and skills that are beneficial in entrepreneurial endeavours, as proposed by the model of challenge-based entrepreneurship (Miller & Le Breton-Miller 2017).

Within this context, *neurodiversity* offers a particularly intriguing lens. Neurodiversity refers to the natural variations in the human brain that result in people thinking differently (Lanivich, Moore, McIntyre 2024, 979). It is estimated that around 15–20% of the world's population is neurodivergent (Doyle 2020, 112), which is a broad spectrum including conditions such as dyslexia, attention deficit hyperactivity disorder (ADHD), and autism spectrum disorder (Chammas & Hernandez 2025, 512). In addition to these neurodevelopmental conditions, neurodiversity also includes conditions caused partially by the environment, such as mental ill health, neurological illness, or brain injury, which are not necessarily permanent (Doyle 2020, 112). Despite many neurodivergent individuals possessing exceptional and highly sought-after skills (Chammas & Hernandez 2025, 512), they continue to face high unemployment rates (Lippi, Demou, & Riach 2025, A83). Prior research suggests that limited workplace inclusivity may contribute to this disparity (Khan et al. 2023, 1340), while occupational outcomes differ across neurodivergent groups with distinct characteristics.

A particular group of neurodiverse entrepreneurs that has received the interest of both media and research are entrepreneurs with ADHD. Due to the neurological anomalies of individuals with ADHD, they often experience problems with impulsivity, focus, and activity level (Wiklund et al. 2016, 14), resulting in challenges like inattention to detail in routine activities and distractibility (Lerner et al. 2019, 390). While ADHD is known as a clinical neurodevelopmental condition, research has been increasingly keen on exploring how and in what way this condition may affect

entrepreneurship (Sônego et al. 2021, 174). Indeed, having an ADHD diagnosis increases the likelihood of engaging in entrepreneurial action by almost 100%, which is a significant finding, considering its effect compares to having a self-employed parent, for instance (Lerner et al. 2019, 388).

When I was younger, it made studying difficult because I didn't know how to cope with the symptoms. Nowadays, it feels like ADHD is even an advantage. It helps me find and notice things that others might miss. (Yrittäjät 14.2.2023.)

This is how an entrepreneur describes their experience with ADHD. Individuals with ADHD often demonstrate unique cognitive profiles, characterised by hyperfocus, intuitive cognitive style and risk-taking tendencies to name a few (Verheul et al., 2015, 90; Wiklund et al. 2016, 15: 18; Lerner et al., 2019, 390), which appear to both drive and be beneficial for several entrepreneurial actions. Although ADHD has become an increasingly studied topic within entrepreneurship research (e.g., Wiklund et al., 2016; Lerner et al., 2019; Moore et al., 2021; Muûls & Carvajal, 2023), the internationalisation experiences and perceptions of entrepreneurs with cognitive differences remain unexplored. This presents a timely and relevant research gap.

This thesis explores IE from the perspective of entrepreneurs with ADHD who have a neurodiverse cognitive profile and have also faced distinct challenges, which may have resulted in specific outcomes relevant to entrepreneurship. The aim is to understand how they perceive opportunities in entrepreneurship and in the international context. Entrepreneurship research on ADHD has concentrated more on the tendencies and outcomes, whereas this study seeks to contribute to the discussion by focusing on how entrepreneurship and international entrepreneurial journeys are experienced by individuals with ADHD. As ADHD is a highly individual and context-dependent condition, there is a growing call for incorporating the ‘lived experiences’ of individuals with ADHD into research (Jackson-Perry, Bertilsdotter Rosqvist, & Brown 2025, 3). Beyond its theoretical value, the study also holds social significance by advancing inclusivity and diversity in entrepreneurship research. Furthermore, to understand how Finnish entrepreneurs experience their international entrepreneurial journeys also calls for attention to the experiences of diverse entrepreneurial groups, which in turn supports the design of more inclusive and effective entrepreneurship support systems.

## **1.2 Problem setting of the thesis**

This study is guided by the following research question:

*How do entrepreneurs with ADHD experience their international entrepreneurial journeys?*

The main research question is to be answered through the following sub-questions:

1. *How do entrepreneurs with ADHD describe perceiving entrepreneurial opportunities?*
2. *How do entrepreneurs with ADHD describe perceiving international opportunities?*
3. *How do entrepreneurs with ADHD approach challenges in their entrepreneurial journey?*

The empirical scope of the study is limited to Finnish entrepreneurs with ADHD. The study is limited to Finnish entrepreneurs to ensure the comparability and relevance of the results in the entrepreneurial environment of Finland. This thesis focuses specifically on entrepreneurs with ADHD for several reasons. Firstly, ADHD in entrepreneurship has been frequently discussed in Finnish public media in recent years, facilitating the identification of potential interviewees. Secondly, limiting the study to entrepreneurs with clinically diagnosed ADHD provides a clear focus and allows for comparability with previous and future research. This thesis emphasises the individual entrepreneur's experience and subjective understanding of their international entrepreneurial journeys. Opportunity-related processes are iterative and central to shaping these journeys, and this thesis focuses specifically on opportunity recognition, enactment, and evaluation, excluding the phases of exploitation, which are not in the scope of this thesis. While this thesis focuses on entrepreneurs with a formal ADHD diagnosis, it acknowledges the complexity of ADHD as a condition and does not seek to represent all possible experiences of entrepreneurs with ADHD.

### **1.3 Structure of the thesis**

This thesis is structured into seven main chapters, aimed at achieving a thorough understanding of how entrepreneurs with ADHD experience their international entrepreneurial journeys. Chapter 1 consists of an introduction to the study, outlining the background and motivations for the research. Furthermore, the first chapter defines the research gap, the main objectives, and the focus of the study.

Chapters 2 and 3 consist of the literature review of the thesis. Firstly, Chapter 2 explores the international entrepreneurial journey through opportunities in entrepreneurship and IE. The second chapter begins by discussing how the literature proposes EOs are perceived, which is followed by a discussion of the perception of IOs. This chapter presents a conceptual framework of the cyclical IE opportunity-related process, which this thesis understands as the foundation for the experience of the international entrepreneurial journey.

In Chapter 3, the focus is on neurodiversity and entrepreneurship. This chapter introduces ADHD as a neurodevelopmental condition and proceeds to review the extant literature on ADHD and entrepreneurship. The chapter approaches ADHD from two perspectives, how experiencing specific challenges may shape their entrepreneurship and how specific ADHD-related traits and tendencies may shape entrepreneurship. Finally, this chapter integrates the theoretical insights of the literature review by examining how entrepreneurs with ADHD may perceive opportunities, approach challenges, and thus experience their international entrepreneurial journeys.

Accordingly, Chapter 4 introduces the methodological decisions of the thesis. It describes the research approach, data collection and analysis, as well as evaluation of the study. This thesis involves a sensitive research topic, and this thesis has undergone an ethical review. The ethical considerations of this study are elaborated in more detail in this chapter. The empirical results of this study are presented in Chapter 5, which is structured according to the themes of the data analysis.

Chapter 6 presents the discussion and conclusions of this thesis. In this chapter, the findings of the study are reflected on the literature review, concluding the key findings regarding both theoretical contributions as well as presenting practical implications, suggestions for future research, and the limitations of the study. Finally, the thesis concludes with a summary in Chapter 7.

## 2 International entrepreneurial journey

### 2.1 Opportunities in entrepreneurship

#### 2.1.1 Conceptualising entrepreneurial opportunity

The contemporary entrepreneurship literature has concentrated on opportunities and uncertainty (Chrisman et al. 2026, 16). Shane and Venkataraman (2000, 218) define entrepreneurship as the existence, as well as the discovery, evaluation, and exploitation of opportunities, and the individuals who do so. Accordingly, entrepreneurship literature has focused on studying entrepreneurial opportunities (EOs) as a basis of entrepreneurship (Davidsson 2015, 674). Although there is consensus on how entrepreneurship is brought about, clarifying what an EO is appears to be harder to reach a common ground on (McMullen & Plummer 2007, 274; Davidsson 2015, 675). For this reason, the inception of EOs and their pursuit have been approached in literature by several, often contradictory means (McMullen & Plummer 2007, 274; Hansen, Shrader & Monllor 2011, 284).

Opportunity can be understood as the possibility to do something desirable for someone (Ramoglou & McMullen 2024, 279). Some scholars argue that defining EO as an entity is difficult because ‘opportunities’ are a faceted phenomenon, representing a means-ends relationship that concerns the entire entrepreneurial process: an imagined desirable world-state, means to actualise it, and the belief that it is indeed actualisable beyond imagination. (Ramoglou & McMullen 2024, 280–281.) In turn, Buenstorf (2007) proposes that opportunities stem from ‘higher-order opportunities’, such as changes in regulation, which may or may not lead to the opportunity being discovered, exploited, or created. Whether the opportunity is ultimately seized, the actor doing so is not necessarily the creator of the higher-order opportunity. (2007, 334.) This definition emphasises the role of external environment or conditions as enablers, which are also recognised in more recent EO literature (Davidsson 2015; Ramoglou & McMullen 2024).

Yet another proposition to conceptualise opportunities is the three constructs of external enablers, new venture ideas, and opportunity confidence (Davidsson 2015, 674). External enablers are shifts in the circumstances, such as technological breakthroughs, which can be positive or negative for the overall economy, that create room for the establishment of new ventures, similar to the idea of higher-order opportunities (Buenstorf 2007), as discussed above. The effects of the wider environment are also summed by Ramoglou and McMullen (2024, 287), who state that the world creates the frames of what can happen, although what actually will happen is up to the entrepreneur. New venture ideas refer to a cognitive process of envisioning or imagining combinations of products or services,

markets, and means to bring them to market. It is proposed that new venture ideas may be identified or recognised by specific individuals who never actually pursue them, depending on how they evaluate them. (Davidsson 2015, 674.)

Consequently, the last construct of the conceptualisation is opportunity confidence. It is described as an actor's subjective evaluation of the attractiveness and feasibility of a stimulus (in this context, an external enabler or new venture idea) that is decisive for whether the individual feels confident that what they 'see' is an opportunity, and ultimately, whether the entrepreneurial activity is realised or not. (Davidsson 2015, 674.) This is in line with Ramoglou and McMullen (2024, 281), who argue that an opportunity can be considered as such only after an individual is confident that it can be actualised; hence, an opportunity is dependent on the confidence that a desired future can be achieved through specific means. Time is an important factor in all entrepreneurial activities and the uncertainty an entrepreneur perceives within them (Wood, Bakker & Fisher 2021, 147). Timing, as well as individual differences, such as the level of prior knowledge and optimism, may explain the differing levels of opportunity confidence within and between individuals (Davidsson 2015, 685).

Shane and Venkataraman (2000, 221) argue that although opportunities themselves are objective, they are not known to everyone at all times and can only be exploited if it is recognised that they exist and have value. Supporting this, it is argued that opportunities exist objectively, but are perceived subjectively (Buenstorf 2007, 334). In contrast, some scholars propose that opportunities exist only when an individual identifies a means-ends relationship and deems it possible (Ramoglou & McMullen 2024 280–281), which supports a subjective view of existence. However, it is further stated that what is possible in the first place is predetermined by the world (Ramoglou & McMullen 2024, 286), thus, it is the conditions for recognising new means-ends relationships that are objective, not the opportunities themselves.

Literature suggests that rather than seeking a one-size-fits-all solution to defining an EO, the chosen definition should be clearly stated and justified (McMullen et al. 2007, 279; Hansen et al. 2011, 299). Accordingly, this thesis draws on the conceptualisations of Davidsson (2015) and Ramoglou and McMullen (2024), positing that while environmental conditions may enable or constrain opportunity recognition, EOs (or new venture ideas) emerge through the entrepreneur's cognitive processes and evolve through iterative revisions based on feedback (Davidsson, 2015, 687). From this perspective, opportunities are not treated as objective entities waiting to be discovered, but as subjectively interpreted, created, and evaluated possibilities.

Accordingly, this thesis draws on the conceptualisations of Davidsson (2015) and Ramoglou and McMullen (2024), positing that while environmental conditions may enable or constrain opportunity recognition, EOs (or new venture ideas) emerge through their cognitive processes and evolve through iterative revisions based on feedback (Davidsson, 2015, 687). Concluding the insights of entrepreneurship literature (Shane & Venkataraman 2000; Davidsson 2015; Ramoglou & McMullen 2024), this thesis conceptualises EOs as the new means-ends relationships entrepreneurs may identify and act on.

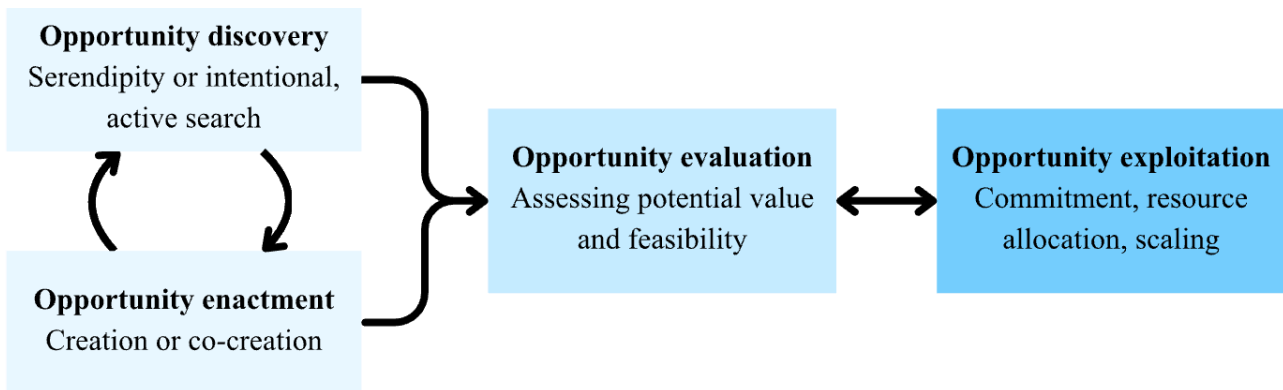
### 2.1.2 Conceptualising international opportunity

The international context introduces additional variables for both entrepreneurship and EOs. In the entrepreneurship literature, the research stream of international entrepreneurship (IE) emerged to study international new ventures and born globals but has since focused more broadly on international entrepreneurial behaviour (Mainela et al. 2014, 2; Zucchella 2021, 2). Studies on international new ventures and born globals have provided interesting insights into how these firms, despite being small and often resource-scarce, can internationalise successfully at a fast speed (Knight et al. 2025, 3). IE is defined by Zahra and George (2002, 261 according to Butler et al. 2010, 122), as a process in which opportunities lying outside a company's domestic markets are creatively discovered and exploited to pursue competitive advantage. Oviatt and MacDougall (2005, 540) have further broadened the definition of IE, which they built upon Shane and Venkataraman's (2000) definition of entrepreneurship. Accordingly, IE is defined as the process of discovering, enacting, evaluating, and exploiting opportunities in an international context to create future products and services (Oviatt & MacDougall 2005, 540). This definition of IE applies across different levels of analysis and does not require the establishment of new organisations, making it suitable for this thesis's individual-level focus on the IE process.

Similar to EO, IO has been defined in varied ways. IO can be viewed as a possibility to combine knowledge or resources into international new ventures, or an opportunity to internationalise utilising networks. On the other hand, it is argued that IOs are created through individuals' cognitive activities in constantly changing social situations, or through entrepreneurial action and cross-border interactions with others. (Mainela et al. 2014, 14–18.) The definition of IOs in this thesis builds on that of EOs, combining insights from entrepreneurship and IE literature (Shane & Venkataraman 2000; Oviatt & MacDougall 2005; Mainela et al. 2013, 120; Gholizadeh & Mohammadkazemi 2022, 235). IOs are defined as the new means-ends relationships entrepreneurs may recognise, evaluate, and exploit that span and integrate elements from multiple national contexts.

IE literature remains divided between discovery-oriented and construction-oriented views of IOs, leading to differing assumptions about whether opportunities exist independently of entrepreneurs or emerge through their cognitive and social processes (Mainela et al. 2014; Oyson & Whittaker 2015; Terán-Yépez et al. 2021). Prior literature has suggested that discovery and creation of IOs can be distinguished (Oyson & Whittaker 2015, 329), and that they are two distinct phenomena that do not occur concurrently (Terán-Yépez et al. 2021, 23). It is argued that discovered opportunities are potential and not ready for exploitation, typically being incomplete, vague, and broad, and emerge as a result of various mental processes, such as recognition, identification, perception, imagination, and knowledge. To exploit a discovered IO and thus achieve internationalisation, a creative and purposeful process, involving cognition and entrepreneurial action, is required to transform the IO into a concrete entrepreneurial international opportunity. (Oyson & Whittaker 2015, 329; 332.) In practice, the 'coming' of opportunities is not straightforward, but rather dynamic, unpredictable, and experimental (Puhakka & Ojala 2021). The literature proposes that IOs develop through iterative processes driven by individuals' cognitive actions, occurring in constantly changing social situations, created in a continuous interaction with the wider context. (Mainela et al. 2013, 118). As Puhakka and Ojala (2021) argue, the concept of opportunity is inevitably ambiguous, complex, and multidimensional, and therefore, should be analysed in a wider context, beyond an individual or a single firm, considering historical conditions and how culture and time regulate the phenomenon.

To understand the iterative nature of IOs, this thesis returns to the definition of IE, which involves several opportunity-related processes, still relevant in contemporary research. Some scholars divide opportunity-related processes in IE into three dimensions: exploration (discovery, creation, and similar concepts), evaluation, and exploitation (Gholizadeh & Mohammadkazemi 2022, 235), while others divide them into four: discovery/recognition/identification, creation/enactment, evaluation, and exploitation (Tabares et al. 2021, 330). In line with the discussion above that argues that discovery and creation can be distinguished, this thesis conceptualises opportunity-related processes in IE according to the model proposed by Tabares et al. (2021) as presented in Figure 1. This model was chosen because it emphasises the iterativeness of the processes and seeks to capture the complexity of opportunity recognition by including both discovery and enactment/creation. Opportunity discovery may happen serendipitously, as a result of chance events such as a customer inquiry, or through active search, where deliberate action is directed at identifying opportunities. They suggest that there may thus be fluctuation between effectuation and causation, depending on the circumstances. (Tabares et al. 2021, 352.)



**Figure 1 Opportunity-related processes in international entrepreneurship (adapted from Tabares et al. 2021)**

Opportunity enactment involves creating opportunities through proactive and imaginative thinking. In this process of creation or co-creation, resources are combined in new and productive ways, and opportunities are created through iterative actions, reactions, and learning-by-doing. The focus in opportunity enactment is on iterative and incremental decision-making, constructing the opportunity through interaction with others, including constant evaluation of information, and employing both effectual and causal decision-making depending on the prevailing conditions. (Tabares et al. 2021, 352.) The arrows in the figure illustrate how discovery and enactment influence each other, and how the later phases in the process are also constantly interacting.

Effectuation is considered particularly relevant in the internationalisation of smaller firms, as they often involve serendipitous events (Balzano 2022, 140). Effectuation and causation are decision-making logics proposed by Sarasvathy (2001). In effectuation, entrepreneurs start from their available means, which are their own traits, preferences, and abilities, the knowledge available to them, and their social networks, and imagine possible effects that can be created with them. By contrast, causation processes are typically associated with rational thinking and planning, setting a specific goal and selecting appropriate means to achieve it, particularly in situations where prior knowledge provides a competitive advantage. (Sarasvathy 2001, 245–259.) Effectuation often involves experimentation, searching, partnerships, and affordable loss (Balzano 2022, 143), and is thus a suitable decision-making logic for uncertain conditions where unexpected contingencies frequently emerge (Sarasvathy 2001, 245–253). Whereas causation relies on rational thinking, effectuation combines both intuition and rationality, depending on the level of uncertainty and knowledge (Zimmermann et al. 2025, 2888). Intuition can be defined as immediate knowing of something,

without consciously using reasoning. Knowing is having information, whereas reasoning is logical and analytical thinking. (Vaghely & Julien 2010, 74.) Rather than pursuing predefined goals through predictive planning, in effectuation, entrepreneurs use contingencies as they arise, changing, shaping, or constructing goals and means as the situation evolves. (Sarasvathy 2001, 262.)

Learning is an important element in IE and in the development of IOs (Peiris et al. 2012, 295). It is proposed that successful entrepreneurs shape opportunities through learning from market dynamics and interactions with partners. For example, experimentation and flexibility in internationalisation are often guided by intuition. As knowledge accumulates, entrepreneurs may become better able to balance intuitive and rational reasoning. (Zimmermann et al. 2025, 2873; 2884–2885.) In a similar vein, Tabares et al. (2021) suggest that as entrepreneurs evaluate opportunities, they may fluctuate between causal and effectual reasoning depending on experience, resources, and contextual conditions. Opportunity evaluation can thus be understood as a continuous process in which entrepreneurs accumulate knowledge and experience, shaping how opportunities are assessed over time. (Tabares et al. 2021, 355.) Opportunity evaluation precedes opportunity exploitation. Like EOs, the exploitation of IOs depends on whether the opportunity is evaluated as viable. Not visible in this figure, although shaping these processes are environmental aspects, which include technological advancement, and formal and informal institutions. (Tabares et al. 2021, 355.)

Taken together, IOs are understood to develop through interactions with constantly changing social contexts. Environmental conditions and timing, together with entrepreneurs' cognitive processing, determine whether, how, and which IOs are recognised and evaluated. As literature suggests, in the IOR process, an entrepreneur revises the opportunity based on intuition, market feedback, and trial-and-error outcomes, leading to a decision whether and how the opportunity should be exploited (Zahra et al. 2015, 139). This is in line with Tabares et al. (2021, 355), who suggest that entrepreneurs move back and forth between discovering and enacting opportunities while interacting with partners, customers, and other actors in the market environment, followed by an evaluative process that is inherently iterative and based on accumulating knowledge and experience.

## **2.2 Opportunity recognition**

### **2.2.1 Conceptualising the process of entrepreneurial opportunity recognition**

To understand the cognitive aspects of how opportunities are perceived, prior research related to opportunity recognition is presented. Studies on EOR and IOR have sought to explain how recognition of opportunities occurs and what factors may act as drivers. First, this chapter introduces

literature on EOR, as the basic principles of opportunity recognition are very similar in both EOR and IOR. However, the two processes are not the same, as recognising IOs is more complex than recognising EOs, and requires different knowledge, skills, and attitudes of entrepreneurs (Terán-Yépez et al. 2021, 25). Having presented the EOR literature and relevant cognitive aspects, the cognitive aspects of IOR that differ from EOR are discussed in more detail.

EOR is widely understood as a cognitive process shaped by prior information and individual cognitive properties, particularly how individuals connect and recombine the information they possess to perceive new means–end relationships (Shane & Venkataraman 2000, 222). EOR integrates processes of perception, discovery, and creation of opportunities (Camelo-Ordaz et al. 2020, 720). Although EOR research focuses on the initial phases of the entrepreneurial process and considers cognitive aspects, the process is embedded in the wider opportunity development process, which is iterative and different phases interact cyclically, for example, evaluations occurring multiple times (Ardichvili et al. 2003, 106). According to Johanson and Vahlne (2009, 1420), EOs develop gradually through the interaction of opportunity recognition and exploitation, where recognition refers to learning about the opportunity and exploitation to committing resources to it.

As previous discussions on EOs suggest, shifts in the external environment, such as regulatory changes, may create conditions that make certain opportunities conceivable. Whether an opportunity is recognised, evaluated as valuable, and ultimately pursued depends on individual cognition, context, and the interaction of different phases in this iterative process. When assessing opportunities or making decisions, entrepreneurs use knowledge processing, also referred to as entrepreneurial cognition in the literature (Mitchell et al. 2000). The psychological stream of research argues that internal factors of an entrepreneur, such as overconfidence, are essential in shaping entrepreneurial cognition. In contrast, the sociological view emphasises the impact and limits of their surrounding context and past experiences. (Zahra et al. 2005, 137.) Most likely, it is not a question of either or, but rather individual differences and contextual factors, as well as experiences, have an intertwined impact on the cognition of an entrepreneur. Individual cognitive abilities are shaped by both genetic factors and life experiences (Redding 2001, 58). Genetic influences may also play a role in shaping the environments individuals select over time, thereby indirectly influencing the experiences and capabilities they develop (Haworth et al. 2010, 1118).

Prior research has identified several cognitive factors that may influence opportunity recognition and development, namely entrepreneurial alertness, creativity, optimism, self-efficacy, social networks, and prior knowledge (Ardichvili et al. 2003, 106; Peiris et al. 2012, 295). Individuals possess different

kinds and amounts of information, thus differ in whether they identify certain EOs (Shane & Venkataraman 2000, 222) and in how they evaluate them (Davidsson 2015, 685). Sigrist (1999 according to Ardichvili et al. 2003, 114) suggests that a special interest together with prior knowledge in a specific field drives the discovery of opportunities. In line with this, other scholars have also found education to be linked to identifying more opportunities (Camelo-Ordaz et al. 2020, 740). Learning and networks are seen as sources of new knowledge that may lead to opportunity recognition (Sigrist 1999 according to Ardichvili et al. 2003, 114). For example, iterative experimentation as a learning capability is found to drive opportunity recognition and help compensate for the lack of prior knowledge (Ohlert et al. 2025, 9).

The early years of Apple exemplify well the process of EOR and the knowledge processing of an individual. The founding of Apple resulted from emerging technological inventions and recognising the need for simpler and user-friendly personal computers (Levy & Montevirgen 2025). Both Steve Jobs and Stephen Wozniak had been immersed in electronics from a young age and benefited from the innovation-encouraging environment of Silicon Valley they grew up in (Mohammed 17.2.2018). Being competent in such technologies at that time was not mainstream, and only with this knowledge was it possible to recognise opportunities or their potential value. On the other hand, not everyone familiar with computers at that time was able to see new and profitable means-ends relationships. What was needed was for the possessed knowledge to be processed in a way that enabled the identification of such a relationship, which can be attributed to their cognitive properties, namely the ability to recombine concepts and information, thereby bringing about new ideas. Wozniak was behind the invention of the Apple I, Apple's first microcomputer, but it was Jobs who recognised the EO and value in Wozniak's invention, which led to the establishment of Apple (Levy & Montevirgen 2025; Forman & Sherman 2023). The evaluation of the recognised EO is again dependent on an individual and, for instance, their self-efficacy beliefs or risk-taking tendencies.

### 2.2.2 Cognitive aspects of entrepreneurial opportunity recognition

Literature has found that entrepreneurial alertness influences the EOR process (Ardichvili et al. 2003, 106). Entrepreneurial alertness has been described as a process through which individuals actively identify entrepreneurial opportunities (Li et al. 2022, 3). Tang et al. (2012, 79–80) propose that entrepreneurial alertness includes scanning and searching, associating and connecting information (i.e. pattern recognition), and evaluating potential opportunities, which are all found to affect EOR positively (Li et al. 2022, 13). Extending this understanding, Brockman (2014, 33) proposes that entrepreneurial alertness is a set of cognitive capabilities, including perception, pattern recognition,

and evaluation, which are influenced by scanning and search, prior knowledge, experience, and creativity. These, in turn, would lead to iterative processes of opportunity identification and development. Brockman suggests that scanning and search are not cognitive capabilities but behaviours, which is why they are considered antecedents, and suggests perception should be considered as part of capabilities instead, as it represents an intuitive cognitive capability of an entrepreneur. (2014, 30–34.) In addition to these process perspectives on entrepreneurial alertness, some scholars suggest that entrepreneurial alertness is the creativity of an entrepreneur (Puhakka 2011, 90). Despite these varying definitions, entrepreneurial alertness is an important aspect of opportunity recognition.

The discussions on entrepreneurial alertness emphasise the role of creativity and an intuitive cognitive style, which has long been acknowledged in entrepreneurship research. As opportunities may emerge unambiguously or irrationally, and new ideas may be triggered by a conversation or accumulated from small and scattered pieces of information over a longer period of time, a synthetic and intuitive information processing is needed for the entrepreneur to become conscious of an opportunity (Olson 1985, 28). The associative theory of creativity (Mednick 1962 according to Kenett 2023) posits that creativity emerges from an individual's ability to broadly activate associations within semantic memory, connecting remote concepts to produce original and contextually appropriate ideas. In other words, the theory suggests that creativity is determined largely by the ability to search one's mind, and that higher creative individuals can connect concepts that are only loosely related to each other (2023, 242–244). Creativity has been identified as a central factor in the entrepreneurial process, explaining why some individuals notice opportunities while others do not (Butler et al. 2010, 131). The study of Gielnik et al. (2012, 571) found that divergent thinking, as one part of creativity, fostered business idea generation, especially when diverse information was available. Divergent thinking has proven to be an indicator of creativity; however, it should not be understood as a synonym of it, as creative thinking requires divergent thinking, that is, original ideas, and evaluation of them, which ensures the development and exploration of these ideas (Runco & Acar 2012, 70–71).

Cunha et al. (2010, 321) argue that intuition is essential for bisociative thinking and thus serendipitous discoveries. Intuition is knowing something without knowing how one knows it, also known as a 'gut feeling' (Kahneman 2011, 235). Intuitive thinking is especially relevant in creative or idea-thinking activities, where new concepts and relationships are sought to be discovered. It contributes to creating early insight or awareness that motivates an entrepreneur to action, but rational information processing is needed for follow-up action to actually start pursuing a creative idea (Olson 1985, 25;

28–29). Kahneman (2011) proposes that the conscious, reasoning part of cognition, which is responsible for rational thought processes, decision-making and deliberate action, is actually driven by the feelings and impressions produced automatically by the unconscious, intuitive part of cognition. Furthermore, according to their findings, creativity and reliance on an intuitive thinking system seem to correlate. (2011, 20–30; 69.) This is in line with previous research, which has found that, on the one hand, intuitive cognitive styles correlate with confidence in opportunity identification, and on the other hand, intuitive individuals often report a lack of confidence in planning and resource management (Kickul et al. 2009, 448). Indeed, research suggests that when intuitive processing dominates, people tend to be more creative, but also less vigilant and more prone to logical errors (Kahneman 2011, 69).

Intuitive decision-making is also proposed to be a process of pattern recognition. The situation provides a cue; the cue gives an expert access to information stored in memory; and the information provides an answer. Intuition may thus be understood to be recognition. (Herbert Simon, according to Kahneman 2011, 237.) In entrepreneurship, pattern recognition is a process where an entrepreneur uses relevant cognitive frameworks to connect seemingly unrelated events or trends and recognises meaningful patterns suggestive of new business opportunities. It is suggested that pattern recognition skills are enhanced through experience, and that well-established pattern recognition channels may be beneficial in recognising new opportunities. (Baron & Ensley 2006, 1332; 1341.) This is consistent with Kahneman (2011, 237; 240), who suggests that expert intuition often relies on the recognition of familiar patterns developed through experience. According to Kahneman, intuitions are more likely to be reliable in environments that are sufficiently regular to be predictable, and there has been an opportunity to learn these regularities through prolonged practice. When cognitive patterns are directed at specific channels, they may inhibit the recognition of opportunities outside them (Baron & Ensley 2006, 1332; 1341). Similarly, Casson and Wadeson (2007, 293) argue that searching for opportunities outside the entrepreneur's expertise or knowledge is often ineffective. These cognitive mechanisms emphasise the role of prior knowledge in opportunity recognition.

Opportunities are often signalled through unfamiliar and unorganised information, making it difficult to plan for them rationally (Olson 1985, 28–29). Therefore, the interplay of intuition and rationality is often discussed together with the theories of effectuation and causation. It is found that effectual entrepreneurs utilise their intuition to seize opportunities, while also employing rational analysis when assessing risks and planning future actions (Zimmermann et al. 2025, 2887). Research suggests that intuitive and rational reasoning are not mutually exclusive but may complement each other in

entrepreneurial decision-making (Zimmermann et al. 2025, 2887). For example, expert intuition often relies on pattern recognition that develops through feedback and practice (Kahneman 2011, 241). As uncertainty decreases, more causal strategies may become relevant (Perry et al. 2012, 838). In line with this, Zimmermann et al. (2025) propose that intuitive and rational reasoning occur in cycles, where intuition often guides the initial recognition of opportunities, while rational analysis supports their evaluation and implementation (2025, 2887). Overall, prior knowledge and experience can therefore support the development of accurate, intuitive judgments.

Other factors linked to EOR include self-efficacy and optimism. Entrepreneurs who trust and believe in their knowledge, skills, and abilities are also more likely to recognise EOs (Camelo-Ordaz et al. 2020, 740). Optimists tend to be resilient in adapting to failures and challenges and are often found among entrepreneurs and inventors. These individuals have ended up in such positions by seeking challenges and taking risks. (Kahneman 2011, 255–256.) Similarly, Davidsson (2015, 685) argues that optimism and prior knowledge may explain why the same opportunity is perceived and evaluated differently by individuals. While fear of failure can lead entrepreneurs to avoid risk and preserve resources (Camelo-Ordaz et al. 2020, 740), optimistic entrepreneurs may be more persistent when faced with challenges, even when receiving discouraging advice (Kahneman 2011, 256–257).

This ‘overoptimism’ some individuals face may also be referred to as optimism bias, which is a cognitive bias that causes individuals to overestimate the likelihood of positive events and underestimate negative ones without sufficient supporting evidence for their expectations (Sharot et al. 2007, 102). Optimism bias may influence how individuals perceive and evaluate risks. Risk takers may underestimate the probability of negative outcomes or give insufficient consideration to them, which may lead to misreading the risks (Kahneman 2011, 256). In line with this, Gudmundsson and Lechner (2013, 289) argue that although optimism and overconfidence may drive venture creation, they may also increase the likelihood of failure, as individuals may take risks they would avoid if they knew the odds (Kahneman 2011, 263). This creates a policy dilemma regarding whether and how governments should support entrepreneurial activity (Kahneman 2011, 259). Another possible cognitive bias contributing to these errors in judgment is confirmation bias, which refers to a tendency to search for, interpret, and evaluate information in ways that confirm existing assumptions or expectations (Gudmundsson & Lechner 2013, 282; Gerber & Sander 2025, 2). This highlights that cognitive factors that facilitate opportunity recognition at one stage of the process may also constrain it at another.

### 2.3 Opportunity recognition in an international context

In an uncertain international context, it is more difficult for entrepreneurs to notice opportunities (Butler et al. 2010, 122). The knowledge that may lead to an entrepreneur recognising an IO can come from various sources, such as networks, prior knowledge of foreign markets, and inquiries from foreign stakeholders (Oyson & Whittaker 2015, 327). Literature understands IOR as a cognitive and interpretive process through which entrepreneurs perceive and assess the potential value of cross-border business opportunities (Zahra et al., 2005; Mainela et al., 2014; Muzychenko & Liesch, 2015), and similar to EOR research, scholars emphasise the relevance of environment and context in cognitive processes and the behaviour of entrepreneurs (e.g. Zahra et al. 2005, 136; Camelo-Ordaz et al. 2020, 721). In this iterative cognitive process, entrepreneurs revise their interpretation of an opportunity based on intuition, emerging information, and trial-and-error learning, which eventually leads to the decision of whether and how the opportunity is exploited (Zahra et al. 2015, 139). Thus, IOR is a decisive, early phase of internationalisation (Oyson & Whittaker 2015, 331; Terán-Yépez et al. 2021, 22).

Literature has found several relevant factors in IOR, such as international experience (McDougall et al. 1994, 479; Tabares et al. 2021, 335), global mindset (Muzychenko & Liesch 2015, 714), linguistic knowledge (Hurmerinta, Nummela, & Paavilainen-Mäntymäki 2015, 1090), and serendipity (Muzychenko and Liesch 2015, 705). In the context of IE, prior international experiences are found to increase entrepreneurs' alertness to opportunities (McDougall et al. 1994, 479; Tabares et al. 2021, 335). For example, positive perceptions of the international environment, experience, competence, and skills in the international context can reduce uncertainty and make internationalisation more likely (Manolova et al. 2002, 22). However, existing cognitive structures may also constrain the recognition of novel opportunities (Butler et al. 2010, 129). Entrepreneurs' prior experiences shape the cognitive frameworks through which opportunities are interpreted, and therefore, extensive international experience may actually impede the recognition of IOs, as it might lead to an excessive focus on familiar clues, missing new information (Zahra et al. 2005, 139).

Closely related to prior international experience is the concept of a *global mindset*. Prior literature has proposed that this cognitive capability is likely to influence IOR (Muzychenko & Liesch 2015, 707) and is found to be connected to internationalisation and pursuing IOs (Tabares et al. 2021, 331; 335). Global mindset is a complex cognitive structure of an individual that involves openness and an understanding of cultural and strategic dynamics both locally and globally (Levy et al. 2007, 248), as well as a positive attitude towards internationalisation and adaptability to new business environments

(Story and Barbuto 2011, 379). It appears to increase the willingness to pursue IOs, handle cultural differences, and build cross-border relationships despite possible risks (Fletcher 2000, 218). Research suggests that a global mindset increases the amount of resources a firm is willing to commit to foreign markets and also how high the objectives they set for it (Nummela, Saarenketo & Puumalainen 2004, 60). Global mindset is a cognitive capability that can be trained and developed over time, and specific conditions, such as job experience abroad, have been found to influence it (Levy et al. 2007, 241). For example, recent research has found that international exposure increases the development of a global mindset (e.g. Gil 2025). However, developing a global mindset in the first place will require some innate propensities (Levy et al. 2007, 241; 249). It is not clear whether individuals develop a global mindset because of international experiences or training, or whether they select these international environments because of their innate traits, such as openness and uncertainty tolerance, which support the development of a global mindset. All in all, being confident, passionate, and competent in cross-cultural encounters increases the chances of recognising IOs (Muzychenko & Liesch 2015, 714) and makes entrepreneurs more willing to pursue IOs despite potential risks (Fletcher 2000, 218).

Similar to EOR, *entrepreneurial alertness* is found to be a decisive factor for IOR (Tabares et al. 2021, 335). As defined in EOR literature, entrepreneurial alertness is a cognitive capability that contributes to the iterative opportunity identification and development and includes perception (intuition or insight), pattern recognition (the ability to creatively associate and connect information), and the ability to evaluate information and assess whether it presents an opportunity (Brockman 2014, 33–34). These dimensions resonate with the uncertainty perspective proposed by Butler et al. (2010, 130), which highlights the role of entrepreneurs' intuitive and creative cognitive processes in absorbing and bearing uncertainty, suggesting that successful international entrepreneurs can notice and recombine information in uncertain environments and act despite it.

According to Butler et al. (2010, 131), the *creativity* of an entrepreneur manifests as integrating and optimising cognitive processes for success and is seen to be a key aspect of opportunity recognition. International entrepreneurs appear to be able to leverage creativity to reduce uncertainty, also subconsciously (Butler et al. 2010, 130). Absorbing uncertainty in opportunity identification refers to the entrepreneur's *intuitive act of seeing and recombining associations* to fill in missing information in uncertain consequences and is necessary to notice the opportunities in the first place (Butler et al. 2010, 124–128). The ability to connect cues from categories that are normally considered separate is also called bisociation, which occurs in the unconscious and can therefore explain some of the

serendipitous discoveries, or the ‘aha’ moments individuals experience (Butler et al. 2010, 129–130; Cunha et al. 2010, 323).

Bearing uncertainty is crucial for IE, as this capability increases the likelihood of successfully pursuing the recognised opportunities (Butler et al. 2010, 131). *The ability to act despite uncertainty* requires that an entrepreneur can tolerate uncertainty, which may be important in affecting the evaluation of opportunities, in terms of perceived feasibility and willingness to take risks and seize the recognised IOs. In line with this, *risk-taking propensity* has been found to drive the pursuit of IOs (Tabares et al. 2021, 335). As Mitchell et al. (2000, 987) note, rather than viewing risk-taking as a personality trait, it could be traced to a set of cognitive patterns aimed at reducing uncertainty, which eventually sparks risk-taking behaviour. Therefore, the entrepreneur’s risk-taking propensities can be understood as related to their unique knowledge processing capabilities. Fear of failure and reluctance to take risks are found as possibly impeding EOR (Camelo-Ordaz et al. 2020, 740), and due to increased uncertainty in the international context, it could be assumed that the effect would be emphasised in IOR. However, recent research provides opposing evidence. Instead of paralysing entrepreneurs, fear seems to lead to preparation and risk assessment in internationalisation, and it was found that risk-tolerant cultures facilitated channelling fear into strategic planning. (Sadraei & Sadeghi 2025, 5–6.)

*Serendipity* is a highly discussed term in opportunity recognition literature, which encompasses many cognitive aspects of individuals, but is also influenced by other factors, such as timing. As the literature suggests, although IOR is a cognitive process, entrepreneurs may increase their chances of serendipitous discoveries by engaging in some entrepreneurial actions, such as meeting with business executives (Oyson & Whittaker 2015, 327–328). In a similar vein, some scholars propose that recognising an opportunity that may lead to internationalisation is a combination of networks, experience, and serendipity (Crick & Spence 2005, 180). Thus, IOR can be both active and passive search of opportunities, as well as intentional opportunity creation (Peiris et al. 2012, 294). This is further supported by Muzychenko and Liesch (2015, 705), who note that although identifying IOs has an intentional nature, it is a combination of intentionality and serendipity. In IOR literature, serendipity has been attributed to the alertness of an entrepreneur (Fiet 2007, 593), and it is often argued that a free flow of knowledge, rather than expertise or structures, facilitates making serendipitous discoveries (Cunha et al. 2010, 324–325). Opposing arguments, like that of Fiet (2007, 606), question the emphasis on alertness and accidental discovery, and rather find that intentional

search within one's specific knowledge domain, or what they call systematic search, can yield more profitable results.

Although serendipity is considered a sort of luck (Balzano 2022, 131) and includes the element of surprise, it requires certain characteristics, capabilities, and organisation of an individual to discover any serendipitous opportunities or be able to seize them, for example, openness, curiosity and preparedness to act and look for possibilities in the world (Cunha et al. 2010, 320–321.) Whether the information about an opportunity appears serendipitously or as a result of conscious, intentional action, it comes down to the entrepreneur's capabilities to process this information, recognise, and seize the opportunity (Crick & Spence 2005, 182). So, despite luck playing its part, it is a matter of the individual, whether something is made from the unexpected (Cunha et al. 2010, 321). The individual dispositions and skills explaining why some people may be more likely to make these 'lucky discoveries' than others include the combination of *intuition*, *imagination*, and *creativity* (Cunha et al. 2010, 325). International context can indeed provide a wider range of possibilities for entrepreneurs who are set to recognise them (Butler et al. 2010, 128).

In this chapter, the concepts of opportunities and their perception have been explored, drawing from extant literature both in entrepreneurship and IE. Regarding opportunity recognition, EOR and IOR share many similar cognitive aspects but as IOR is more complex process, embedded in the uncertain international context, it requires several capabilities and characteristics of entrepreneurs, that are not equally relevant in EOR. These include, for example, international experience, global mindset, linguistic skills, and uncertainty tolerance. The next chapter will concentrate on the topic of neurodiversity and entrepreneurship introducing the model of challenge-based entrepreneurship. More specifically, the discussion will narrow to ADHD and entrepreneurship and finally conclude in a synthesis of international entrepreneurial journey and neurodiversity and entrepreneurship.

## 3 Neurodiversity and entrepreneurship

### 3.1 Background of ADHD

This thesis approaches neurodiversity and entrepreneurship from the perspective of ADHD. Before reviewing the literature in entrepreneurship, the prevalence and possible manifestations of ADHD in individuals are briefly introduced to facilitate understanding of the research topic. ADHD is a neurodevelopmental disorder with symptoms beginning in childhood (Korkeila & Leppämäki 2023). It is caused by a combination of genetic, neurobiological, and environmental factors (Abdelnour, Jansen, & Gold 2022, 468), and estimated to affect 3–5% of the world's population (Issa 2020, 128). Since 2015, the prevalence of ADHD in Finland has seen a significant increase already in the pre-pandemic years, yet the most substantial increase has occurred since 2020 (Auro et al. 2024, 6–7).

ADHD involves long-term difficulties with impulse control, regulating activity, and sustaining attention, which impair functioning (Puustjärvi, Voutilainen, & Pihlakoski 2018; Korkeila & Leppämäki 2023). The main symptoms are related to inattention, hyperactivity, and impulsivity (Auro et al. 2024, 2). ADHD is associated with executive dysfunction, which causes deficits in working memory and self-regulation, thereby affecting the ability to plan and execute goal-directed actions (Barkley 1997, 72–73). In adulthood, hyperactivity is often experienced as constant inner restlessness rather than motor hyperactivity. Inattention, in turn, may manifest as carelessness in action and difficulty concentrating. Impulsivity may appear as a tendency to seek new experiences, yet in some cases, it may lead to addiction problems or risky driving. It may also manifest as impatience in social interactions or making major life changes on the spur of the moment. (Korkeila & Leppämäki 2023.)

The condition is often associated with academic underachievement and social challenges (Cotterill 2019, 152). However, symptoms and the challenges they cause vary considerably between individuals, often change with age (Leppämäki 2018; Korkeila & Leppämäki 2023), and manifest differently across gender (Abdelnour et al. 2022, 472). In addition, compensatory strategies developed over time may significantly shape how symptoms are expressed, particularly among adults who were not diagnosed in childhood (Leppämäki 2018). ADHD symptoms are commonly treated with medication (Abdelnour et al. 2022, 468) as well as therapy and coaching aimed at supporting healthy coping mechanisms and reducing maladaptive patterns (Issa 2020, 129). Despite this, most adults with ADHD do not receive treatment, either because treatment has not continued after a childhood diagnosis or because they remain undiagnosed (Ginsberg et al. 2014, 1). One possible

explanation is that current diagnostic criteria are largely based on research on children and therefore do not fully capture how ADHD manifests in adulthood (Leppämäki 2018).

Studies have found that the delay or lack of diagnosis can cause negative consequences, such as experiencing chronic underachievement and social rejection (Issa 2020, 129), which has been especially studied in women and girls, as their ADHD often remains undiagnosed or is diagnosed later in adulthood (Holden & Kobayashi-Wood 2025, 1). This pattern is also reflected in statistical data from Finland: Auro et al. (2024, 4) found that the increase in new ADHD diagnoses between 2015 and 2022 was most pronounced among young women and girls. Research on women diagnosed with ADHD later in life indicates that prolonged lack of self-understanding and dismissal may lead to maladaptive coping strategies, including self-medication and masking to conform to social expectations (Holden & Kobayashi-Wood 2025, 13). These experiences are reflected in public discourse. For instance, a Finnish media figure described their experiences of living with undiagnosed ADHD in a newspaper interview as follows:

I was extremely frustrated with myself. I could not understand how basic things could be so challenging for me. I wanted an explanation for everything, so I went to a private doctor ... I had lived 27 years without understanding myself and my behaviour.  
(Voutilainen 24.1.2026.)

Receiving a diagnosis may play an important role in fostering self-understanding and facilitating understanding within one's social environment. Individuals with untreated ADHD are also at elevated risk of various negative outcomes, such as substance use and car accidents (Abdelnour et al. 2022, 471). Despite this, the absence of a diagnosis does not inevitably lead to negative outcomes. For example, Michielsen et al. (2018, 597) found that some individuals who remained undiagnosed throughout their lives, despite experiencing adversities, particularly during adolescence, still achieved positive outcomes in education, marriage, and career.

The perceptions of ADHD are often based on unrealistic stereotypes (Wiklund et al. 2016, 15) and misunderstandings stemming from the term 'attention deficit' (Issa 2020, 129). In contrast, symptoms may decrease or even temporarily disappear in situations that involve strong personal interest or novelty (Issa 2020, 129–130). As Leppämäki (2018) portrays, an individual with ADHD may be unable to read a single page in a schoolbook or a short article in a newspaper, yet the same person may sit and concentrate for hours, reading about a topic they find interesting and remembering numerous small details about it. Individuals with ADHD do not lack attention altogether, but rather experience difficulties regulating and sustaining attention, while often being able to focus intensely

on tasks they find engaging (Issa 2020, 130). This intense focus is also known as hyperfocus (Leppämäki 2018).

To conclude, ADHD is a neurodevelopmental condition that manifests in diverse and highly individual ways, and its impact varies across different situations and phases of life. In addition to its clinical symptoms, the experiences associated with ADHD are influenced by environmental factors, social expectations, and whether the condition is recognised and understood. Overall, this highlights that ADHD cannot be viewed solely as a fixed set of deficits, but rather as a condition whose consequences depend on the interaction between individual characteristics and contextual demands. ADHD has far-reaching implications for individuals coping with it, yet its effects are highly context dependent. In the context of employment, there is evidence that ADHD traits, like high hyperactivity and poor attention, may lead to negative outcomes in conventional occupations for some individuals (Bozionelos & Bozionelos 2013; Verheul et al. 2015, 86). Nevertheless, research has found that rather than being a liability, ADHD traits may be considered an advantage in other contexts, such as entrepreneurship (Bozionelos & Bozionelos 2013; Wiklund et al. 2016, 15; Miller & Le-Breton Miller 2017).

In the next subchapters, the entrepreneurship of individuals with ADHD will be discussed. ADHD may influence the entrepreneurial journeys of these individuals in dual ways. Firstly, entrepreneurs with ADHD belong to a group of entrepreneurs that exists outside of the mainstream, which may shape their entrepreneurial journeys, as the challenge-based entrepreneurship model proposes. Secondly, the unique cognitive profiles of entrepreneurs with ADHD, are another significant aspect, that may shape their entrepreneurship. To better understand how coping with ADHD and belonging in a specific group of underdog entrepreneurs may manifest in entrepreneurship, the subsequent chapters will first present the model of challenge-based entrepreneurship, portraying unconventional entrepreneurship, and then present the potential advantages and liabilities of ADHD-related traits in entrepreneurship.

### **3.2 Challenge-based entrepreneurship**

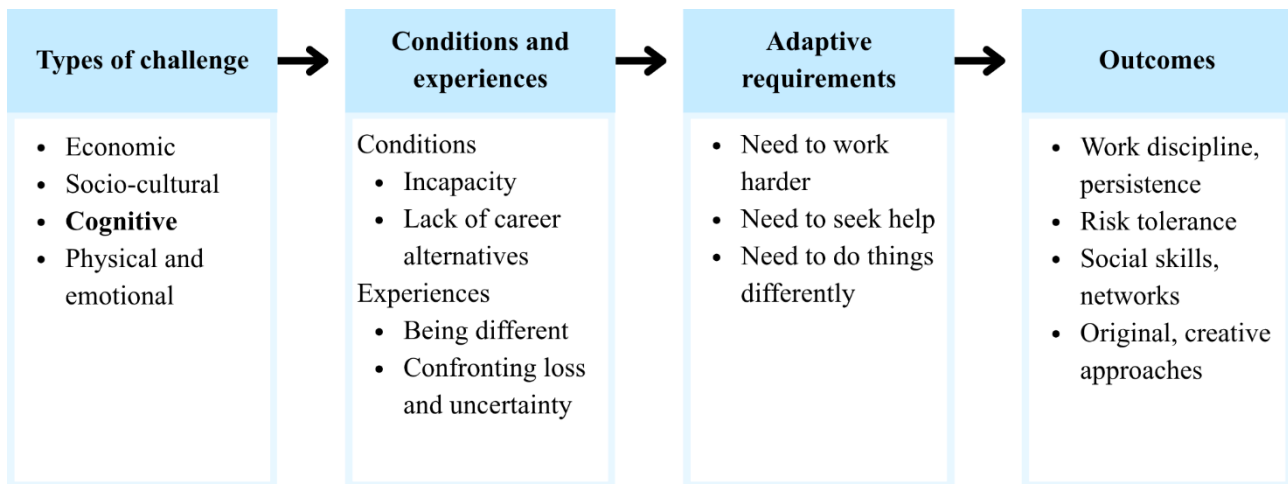
To understand the entrepreneurial journeys of individuals with ADHD, this thesis utilises the model of challenge-based entrepreneurship, which is one way of understanding how individuals facing challenging conditions may develop capabilities beneficial in entrepreneurship. The challenges of the model include economic, socio-cultural, cognitive, and physical and emotional. Hence, the model remains general in nature, as these challenges have their distinctive features and implications

depending on the context. There has been a call for future research to examine specific categories of challenge in greater detail (Miller & Le Breton-Miller 2017, 14), although more recent research has encouraged looking at the phenomenon more broadly, seeking to identify common nominators applying regardless of the type of challenge (Bakker & McMullen 2023, 5).

Research suggests that while each group of underdog entrepreneurs have their distinctive challenges, there may be several shared challenges across all groups of underdog entrepreneurs in the entrepreneurial ecosystem, such as structurally embedded discrimination. It is encouraged that research on underdog entrepreneurs will differentiate between whether the observed advantage or liability is attributable to generally existing outside of the mainstream or whether it is particular to the specific group. (Bakker & McMullen 2023, 5.) This thesis focuses on the group of cognitive challenges, more specifically to entrepreneurs with ADHD, but seeks to differentiate between which outcomes or factors stems from having faced challenges, and which from the traits and tendencies related to ADHD. On that note, it is acknowledged that outside these two perspectives there are many other factors influencing entrepreneurial journeys and experiences, such as national and historical context and individual factors, like personality. This subchapter will concentrate on ADHD from the perspective of challenge-based, unconventional entrepreneurship, and the subsequent subchapter will discuss how ADHD may shape entrepreneurship through the traits and tendencies related to it.

The challenge-based entrepreneurship model is presented in Figure 2 and posits that challenges shape the conditions and experiences of individuals, which motivate specific adaptive requirements that may, in turn, lead to outcomes that are beneficial in entrepreneurial activities. This thesis explores the cognitive challenges aspect of the model, as bolded in Figure 2. Prior literature suggests that coping with a mental adversity may lead to the ability to tolerate challenges and having the energy to persist to overcome them, which is proposed to be essential for succeeding in entrepreneurship (Wiklund et al. 2018, 186). Literature on ADHD and entrepreneurship is discussed in relation to the model, presenting evidence that both supports and challenges the model's propositions. Firstly, the model suggests that the experienced challenges lead to specific conditions and experiences. The conditions are incapacity and a lack of career alternatives. For entrepreneurs with ADHD, incapacity is difficult if not impossible to overcome entirely, as the symptoms are likely to persist into adulthood (Miller & Le Breton-Miller 2017, 9; Pallanti & Salerno 2020, xv). The symptoms of ADHD, like fluctuating attention and deficits in working memory, often cause difficulties in school (Barkley 1997, 65), which may in turn affect educational level (Cotterill 2019, 152; 162). Prior research suggests that generally,

individuals with ADHD complete fewer years in university or college and are more likely to drop out compared to peers without ADHD (Müller, Mellor & Pikó 2024, 1).



**Figure 2 Model of challenge-based entrepreneurship (adapted from Miller & Le Breton-Miller 2017)**

Conventional career options can be unattractive or unavailable due to cognitive disabilities, and the lack of career alternatives may drive different types of employment, such as entrepreneurship (Miller & Le Breton-Miller 2017, 9; Issa 2020, 199). Findings have shown that individuals with ADHD prefer stimulating work environments, which appear to enable them to either alleviate or utilise their symptoms, compensating for the under-arousal (Verheul et al. 2015, 95; Lasky et al. 2016, 8). For example, stressful, challenging, and novel situations at work may override the tendency to be distracted and result in full engagement and focus instead. (Lasky et al. 2016, 8.)

The experiences individuals are proposed to face due to the challenges are being different and confronting loss and uncertainty. Firstly, the experience of being different or misunderstood is evident among individuals with ADHD. Their condition may not be understood in their social circles or even by themselves, which can be even more pronounced if the diagnosis is received later in life (Holden & Kobayashi-Wood 2025, 12). This was also found in the study of Michielsen et al. (2018, 597) where interviewees reported having felt misunderstood because of their ADHD, especially in their adolescence. The model proposes that these experiences, with which these individuals have had to cope more or less their whole lives, have made them perceive struggles as part of life (Miller & Le Breton-Miller 2017, 10).

Second experience, confronting loss and uncertainty, can be related to the feeling of loss that they have to cope with challenges that most people do not, and navigating uncertainty about various aspects of their life, such as education and career. Coping with these uncertainties and challenges

from early on may, in some cases, have positive consequences. For example, resilience in adverse life events is found to be higher among those individuals who have encountered mildly stressful situations early in life (Michielsen et al. 2018, 597). While individuals with ADHD have been found to have more maladaptive coping mechanisms than non-ADHD individuals, they are found to reappraise stressful situations more positively, indicating their ability to bounce back from whatever difficulties they face and being able to adapt (Young 2005, 814). Cognitive reappraisal is an emotion-focused coping technique building resilience, which involves reframing perceptions from negative to positive which may provide individuals a sense of control in challenging conditions (Simarasl et al. 2024, 597–598). Having dealt with uncertainties and coping with limited cognitive resources may contribute to the ability to tolerate and handle uncertainty, which is beneficial in an entrepreneurial career. This is supported by Lerner et al. (2019) who found entrepreneurs with ADHD to be more comfortable with uncertainty.

Moving on from the conditions and experiences, the third block is adaptive requirements. These include working harder than average, seeking help, and doing things differently from others. The need to work harder than others might stem from an attempt to compensate for the cognitive incapacities ADHD includes. Findings, for example, show that children with ADHD learn more slowly than those without the condition (Cotterill 2019, 162), which means they would have to put more effort into achieving the same things others achieve more effortlessly. The need to opt for special measures is well exemplified by an individual with ADHD who reported that they used to retreat to a cold basement to study, as there was nothing to distract them there (Canela et al. 2017, 8). Miller and Le Breton-Miller (2017, 10) propose that facing continuous struggles and subsequently overcoming obstacles may build confidence in surviving challenging situations and optimism about the contribution of one's efforts.

Asking for help is likely familiar to individuals with ADHD, who often have received and presumably also require a lot of support and understanding from others during their lifetime (Hinshaw & Ellison 2015). Prior research has proposed that entrepreneurs who struggle with tasks requiring sustained mental effort, such as detailed negotiations or strategic planning (Wiklund et al. 2018, 191), and may need the help of team members to complete these tasks for them (Lerner & Verheul 2018). In line with this, Lachenmeier (2023, 233) emphasises that the organisational aspects of entrepreneurship, such as accounting, tax returns, and correspondence, that individuals with ADHD are likely to struggle with, ought to be effectively delegated to succeed. In line with this, prior research has found that individuals with ADHD have reported hiring other people to manage the organising, for example,

secretaries (Canela et al. 2017, 6). That said, contrary evidence to this idea exists as well as Young (2005, 814) found that seeking support and advice from others is negatively correlated with attentional problems.

Because their cognitive challenges cause them to be unable to do things the same way others do them, they need to do things differently. This may result in different tactics or altering the task at hand (Miller & Le Breton-Miller 2017, 11). For example, Michielsen et al. (2018, 597) found in their study that individuals with ADHD had developed various tricks and sought to train their memory to cope with forgetfulness. Similarly, Canela et al. (2017, 6–7) found in their study that common strategies to compensate for organisational problems that derive from inattention and impulsivity include checklists and, for example, apps on electronic devices which help in planning and reminding of tasks and appointments, while the importance of structured daily routines for functioning and productivity, and changing tasks was also seen as a means of maintaining attention and productivity. Lachenmeier (2023) suggests that some intelligent individuals with ADHD develop compensatory reasoning strategies early in life, enabling them to draw connections between available pieces of information despite attentional gaps caused by distractibility. This may result in particularly strong reasoning abilities even in the absence of complete information. (2023, 136–137.)

The last block in Figure 2 presents how facing and adapting to the challenge can translate into beneficial outcomes across several contexts, also in entrepreneurship (Wiklund et al. 2018, 186). As Miller and Le Breton Miller (2017, 11) point out, the scale of these outcomes is not a given, but is moderated by personality and environment. It is suggested that work discipline, persistence, and risk tolerance may be higher with those who have encountered recurring setbacks in their lives, making them more tolerant of failure and risks, as well as more optimistic and confident in overcoming challenges. This is in line with Young (2005), who has found that people with ADHD might demonstrate cognitive adaptability that helps them cope in stressful situations through constant assessment, compensation, and adaptation. This capacity to reinterpret challenges and recover from setbacks could explain why traits such as creativity and entrepreneurship are often observed among them. (2005, 814.) As proposed by the model, risk tolerance may be an outcome of enduring challenges in life, and indeed, prior research suggests that individuals that have faced adversities in childhood, may present a risk-taking tendency and higher resilience, although the levels of adversities may exert different influence on entrepreneurship. It is found that adaptive responses can be induced only from low to moderate levels of adversities, and that minimal to high levels of adversities may influence individuals only negatively. (Yu et al. 2022, 42.)

The second category of outcomes concerns social skills and networks, which, according to the model, are essential for business growth (Miller & Le Breton-Miller, 2017, 12). These enhanced social skills and networks are often developed among individuals facing similar challenges (Bakker & McMullen 2023, 5). It is suggested that people with cognitive challenges may, in fact, be socially adept and well-networked, as they are accustomed to seeking help and delegating tasks. (Miller & Le Breton-Miller, 2017, 12.) This view somewhat contradicts with existing research, which has widely associated ADHD with social difficulties (Michielsen et al., 2015, 369; Young 2000, 196). These difficulties may, for example, stem from interrupting conversations or blurting out opinions (Canela et al. 2017, 8). However, social difficulties are more pronounced earlier in life and tend to alleviate in adulthood (Bora & Pantelis, 2015, 711), which could lend support to the model's proposition. One reason may be the strategies these individuals have developed to compensate for their difficulties, such as striving to be punctual, avoiding demanding commitments, or socialising with a larger number of people at once (Canela et al. 2017, 8–9).

Lastly, the model proposes that, as conventional options are often out of reach, things need to be done differently, which may result in original and creative approaches. There are likely as many as examples of such approaches as there are individuals, but to name a few: for instance, in a study by Canela et al. (2017, 11) individuals have reported creating better-suited work arrangements, such as minimising the need to use paper, to avoid it getting lost, and streamlining procedures so that things can be done with just a phone call, to avoid procrastination. Creative approaches may be even more emphasised in individuals with ADHD, who are more creative than those without the condition (White & Shah 2011). Furthermore, prior findings suggest that the disadvantaged entrepreneurs that perceived to be most successful had the greatest self-efficacy and were able to cope with difficulties and find creative solutions when faced with them (Santoro et al. 2020, 729).

### **3.3 ADHD and entrepreneurship**

#### **3.3.1 Potential advantages of ADHD in entrepreneurship**

Although ADHD may be associated with potential advantages for some individuals, such benefits are not universal. Individual differences, contextual factors, and co-occurring characteristics play a significant role in shaping outcomes. For example, although innovativeness is often linked to ADHD, it is a capability that largely depends on intelligence, which is distributed similarly among individuals with ADHD and the general population (Lachenmeier 2023, 131). In recent years, public discourse has increasingly portrayed ADHD as a 'superpower', a narrative often supported by high-profile

individuals who have spoken openly about their cognitive challenges. For instance, Richard Branson has publicly discussed his dyslexia and suggested that he may also have ADHD, attributing aspects of his entrepreneurial success to cognitive differences (Virgin.com 4.10.2019; Dailymotion 2023). Similar claims have been made in public discourse about other prominent figures, such as Bill Gates, who has acknowledged neurodivergent traits in adulthood and suggested that he might have met diagnostic criteria earlier in life (Pasquini, 28.1 2025).

While such narratives may contribute to destigmatisation, they also risk oversimplifying the heterogeneous nature of ADHD and obscuring the structural, contextual, and individual factors that shape entrepreneurial and innovative outcomes. Accordingly, this study does not assume ADHD-related advantages or disadvantages but examines how such traits are experienced and interpreted by entrepreneurs themselves. That said, prior literature does suggest that ADHD traits may have a beneficial influence on firm performance (Yu et al. 2021, 109) and positive entrepreneurial implications (Miller & Le-Breton Miller 2017; Lerner et al. 2019, 381). In empirical entrepreneurship research, ADHD has not consistently been handled as a clinical condition, but rather as a type of behaviour (Verheul et al. 2015; Lerner et al. 2019, 383). However, some studies, such as that of Lerner et al. (2019, 381), have verified the link between ADHD-type behaviour and entrepreneurship also in clinically diagnosed individuals.

Creativity, and closely related divergent thinking, are often reported among individuals with ADHD (Sedgwick et al. 2018, 244). These cognitive factors are clear advantages for entrepreneurs, because they facilitate idea generation and opportunity recognition (Butler et al. 2010, 131; Gielnik et al. 2012, 571). It has been found that individuals with ADHD tend to prefer brainstorming or idea generation over clarifying problems or developing ideas, which has proven to be a predictor of entrepreneurship (White and Shah 2011, 676). The creativity of people with ADHD may be explained by the weak inhibitory control, which can facilitate divergent thinking and exploring ideas and concepts (White & Shah 2011, 673) and is found important in recognising opportunities.

Studies on the cognition of creativity, namely how people are creative, reveal that individuals with ADHD tend to opt for intuition and perception in their information processing, meaning they prefer general and abstract information patterns and situations characterised by flexibility and spontaneity (Issa 2020, 199). Prior research suggests that entrepreneurs with ADHD have more intuitive cognitive styles and higher levels of entrepreneurial alertness than non-ADHD entrepreneurs (Moore et al. 2021, 80–82). As found in Chapter 2, individuals with an intuitive cognitive style are more inclined to scan and search for information, and confident in recognising EOs, which may also be true for

entrepreneurs with ADHD. In their study, Wiklund et al. (2016, 17) conclude that feelings of impatience drive entrepreneurs with ADHD to be constantly alert to new opportunities.

Furthermore, the existing literature suggests that individuals with ADHD present higher curiosity, which may motivate them to learn and acquire more information and enhance adaptability in unpredictable contexts. Recent literature has proposed that individuals with ADHD may have higher levels of novelty-seeking, openness, and exploratory behaviours that are often labelled as distractibility and impulsivity in modern society. (Le Cunff 2024, 284.) The personality trait of openness reflects a preference for novelty, variety, and intellectual curiosity and is found to be associated with the neurocognitive profile of ADHD (Van Dijk et al. 2017, 259), which potentially drives the impulsive information-seeking behaviours seen in some individuals with ADHD (Le Cunff 2024, 284). Curiosity may also stem from higher levels of deprivation sensitivity, which derives from a need to resolve uncertainty and feeling discomfort until information is acquired (Litman & Jimerson, 2004, 148). Curiosity may thus explain the pursuit of new experiences and attending to potentially informative environmental stimuli often associated with ADHD. The literature has proposed a novel concept, 'hypercuriosity', which is defined as a heightened and impulsive desire to know. (Le Cunff 2024, 284–285.) Curiosity, intuitive cognitive style, and entrepreneurial alertness share similar characteristics in that they all contribute to the acquisition of and attending to new information and therefore may be relevant in different opportunity-related processes in entrepreneurship.

To that end, also the way information is acquired and stored has an impact. It is suggested that individuals with ADHD have a different, broader way of learning. It appears slower compared to individuals without ADHD, as attention is not directed only to the important aspects, but also to seemingly unimportant details, because of unfiltered absorption of information. However, in the long run, individuals with ADHD may hold more detailed knowledge in a specific field and are more likely to discover unusual connections, due to less dependence on rigid structures in information storage. (Lachenmeier 2023, 132). The capacity for enthusiasm, or positive hyperfocus, means that when a topic is of strong intrinsic interest, an individual with ADHD can focus on it for longer and better than an individual without ADHD (Lachenmeier 2023, 120; 137). Hyperfocus can manifest as passion, persistence, and time commitment from an individual, potentially leading to expertise (Wiklund et al. 2016, 17).

High impulsivity and consequent sensation seeking and lack of premeditation have been found as drivers for entrepreneurship, as people high on these traits are more drawn towards uncertainty and

not as troubled by the possible negative consequences of entrepreneurship (Wiklund et al. 2017, 642). Impulsivity associated with ADHD may at times lead individuals to act without extensive deliberation (Verheul et al. 2015, 88). Individuals high in impulsivity may therefore rely more strongly on intuitive or heuristic decision-making, often described as ‘acting without thinking’ (Wiklund et al. 2016, 19). Research on ADHD-related decision-making further suggests that individuals with stronger ADHD symptoms do not necessarily perceive risks as lower but may differ in how potential benefits of actions are evaluated and how strongly these perceptions guide behaviour (Shoham et al. 2016, 5).

While impulsive decision-making can entail risks, it may also be productive in uncertain environments by enabling rapid action when complete information is unavailable. Compared to larger firms, smaller ventures often lack established routines and analytical mechanisms to reduce uncertainty, increasing the likelihood of acting on incomplete information. In such contexts, reliance on heuristics and the impulsivity of firm leaders may support timely decision-making and strategic action. (Wiklund et al. 2017, 643.) Prior research has suggested that certain ADHD-related traits may be beneficial in opportunity recognition and entrepreneurial action under conditions of uncertainty (Lerner et al. 2018, 270). From a theoretical perspective, such patterns of action resonate with effectuation logic, which emphasises action under uncertainty and decision-making based on available means rather than predictive analysis. However, existing literature has not explicitly linked effectuation theory to ADHD, and this connection remains to be explored.

### 3.3.2 Potential liabilities of ADHD in entrepreneurship

Although public media has sometimes framed ADHD as a source of exceptional creativity and drive, the ‘superpower’ narrative can obscure the everyday challenges and complexities it entails. While entrepreneurship is pronounced among individuals with ADHD (e.g. Lerner et al. 2019, 381), it does not mean that everyone with ADHD will become an entrepreneur or succeed as one. Each person with ADHD has their own unique experience of living and coping with the condition in their specific sociocultural environments, and again, also timing and finding oneself in the right place in the right time plays its share. That said, ADHD traits can also be a liability in entrepreneurship.

Firstly, inattention, one of the core traits of ADHD, is not related to the beneficial implications for entrepreneurship (Wiklund et al. 2017, 642; Yu et al. 2021, 94). Some studies have found that inattention is associated with urgency, which decreases entrepreneurship preferences, perhaps due to increased anxiety, and impedes intentions to act in the uncertain environment of entrepreneurship (Wiklund et al. 2017, 641–642). Furthermore, it is found that procrastination, closely related to inattention, may cause difficulties in prioritising and initiating tasks and sustaining effort. Although

individuals with ADHD may generate ideas easily and initiate multiple projects, maintaining effort and completing tasks can be particularly challenging due to difficulties with persistence and long-term self-regulation. (Leppämäki 2018.)

Although impulsivity is one of the main traits of ADHD that is deemed advantageous in entrepreneurship, it is a double-edged sword. Findings on impulsivity related to ADHD suggest that opportunities are often explored intuitively among these entrepreneurs, albeit with little information, which can be positive or negative depending on the uncertainty of the situation and the expertise in the area (Wiklund et al. 2016, 18–19). Impulsivity can present as spontaneous, rapid responses to stressful events, which may come across as confrontational or avoidant, rather than more adaptive responses, such as taking the perspective of others or planful problem-solving (Young 2005, 814).

Hyperfocus may also present as negative in that an individual may become so deeply immersed in activities that they neglect other necessary responsibilities, causing also negative outcomes such as missed deadlines or personal neglect (Oroian et al. 2025, 306). Sometimes attention may become directed at a negative stimulus, such as a disappointment or mistake, narrowing down perception and causing strong emotional reactions that can lead to impulsive actions and decisions (Lachenmeier 2023, 183–184). Hyperfocus can thus be a great source of enthusiasm and productivity or result in neglecting responsibilities or escalating situations (Oroian et al. 2025, 306; Lachenmeier 2023, 183–184).

Many scholars have specifically called for a change in the narratives surrounding ADHD, but the current discussion is not seen as a solely positive matter or increasing inclusivity (Jackson-Perry et al. 2025; Meadows 5.7.2021; Chatterjee 2024). For example, Chatterjee (2024) expresses a concern in their essay that an excessive emphasis on the strengths and capabilities related to ADHD entrepreneurship may portray the whole ADHD population as a homogenous group with great strengths and lead to the undermining of the support this group of people is still often very much in need of. While it has been found that some specific traits and circumstances protect individuals from the problematic side of ADHD, such as intelligence and humour, the role of supportive family and peers, building skills for the future, and receiving treatment is even more emphasised (Hinshaw & Ellison 2015). These protective factors are not equally available for all, and even if they were, individual experiences would probably still differ.

While the media has highlighted success stories of several entrepreneurs, it is also evident that these entrepreneurs have not been spared from adversities in life. For instance, Bill Gates has publicly

talked about how their parents put them in therapy due to their difficult behaviour as a child, and how their risk-taking and impulsive behaviour caused troubles in early adulthood, such as getting arrested for reckless behaviour. Their experiences reflect the multifaceted realities of ADHD; it is not simply a superpower or a liability. Gates has stated that their parents and friends were important factors in shaping how their life has unfolded since. (Pasquini 28.1.2025.) This exemplifies how decisive not only the context but also the external support can be for an individual with ADHD. As Hinshaw and Ellison (2015) put it, ADHD requires a great deal of support and management, even in the best cases.

As prior literature proposes, it is vital to approach ADHD in a way that recognises strengths without undermining challenges, and the complex nature of the condition (Jackson-Perry et al. 2025, 4). In entrepreneurship, ADHD traits may indeed benefit the earlier phases of venturing or internationalisation efforts, but moving to more predictable phases of entrepreneurial endeavours, which require processes of planning, attention to detail, consistent and considered communication with stakeholders, to name a few, ADHD traits are likely pose challenges (Lerner et al. 2018, 269). As entrepreneurship literature has found, intuitive thinking has proven important in coming up with novel entrepreneurial ideas or discovering opportunities, but as an entrepreneur moves from generating ideas to implementing them, the role of rational thinking increases (Olson 1985, 28–29). Similarly, effectuation is more suitable for uncertain conditions, such as internationalisation or starting a new business, whereas causal strategies, including more structure and planning, are optimal when in more predictable situations (Perry et al. 2012, 838). Some researchers have thus pondered that although individuals with ADHD may excel at creative idea generation, developing and implementing ideas may feel uninteresting, as it requires patience and delayed gratification (White 2020, 479).

Accordingly, Table 1 summarises this subchapter, listing ADHD-related tendencies that prior research has suggested to have an influence on entrepreneurship, and as can be seen, similar tendencies may be both advantageous and liabilities in entrepreneurship, depending on situation and individual. The left column in Table 1 concludes the findings of extant literature, regarding potential advantages of ADHD-related tendencies in entrepreneurship. In turn, the potential liabilities of ADHD-related tendencies are presented in the right column of the table.

**Table 1 ADHD-related tendencies in entrepreneurship**

<i>Potential advantages of ADHD-related tendencies in entrepreneurship</i>	<i>Potential liabilities of ADHD-related tendencies in entrepreneurship</i>
<p>Impulsivity may manifest as risk-taking tendencies and thriving in uncertainty (Verheul et al., 2015, 90; Wiklund et al. 2016, 15: 18; Lerner et al., 2019, 390), and enable rapid decision-making in uncertainty (Wiklund et al. 2017, 643)</p>	<p>High impulsivity may manifest as rapid responses to stressful events, that may come across as confrontational or avoidant (Young 2005, 814), taking unnecessary risks, and acting without extensive deliberation (Wiklund et al. 2016, 18–19; Verheul et al. 2015, 88)</p>
<p>Higher creativity (White &amp; Shah 2011, 673), divergent thinking (Sedgwick et al. 2018, 244), curiosity (Van Dijk et al. 2017, 259; Le Cunff 2024, 284), novelty-seeking, and openness (Van Dijk et al. 2017, 259), entrepreneurial alertness (Moore et al. 2021, 80–82), and an intuitive cognitive style (Issa 2020, 199; Moore et al. 2021, 80–82) which may facilitate opportunity recognition</p>	<p>Inattention and executive dysfunction may lead to procrastination, difficulties in prioritising, initiating tasks, and sustaining effort (Leppämäki 2018; White 2020, 479), developing ideas may feel uninteresting as they require patience and delayed gratification (White 2020, 479), inattention and feelings of urgency may decrease entrepreneurial preferences (Wiklund et al. 2017, 641–642)</p>
<p>Hyperfocus as a capacity for enthusiasm, productivity, focusing longer and better in topics of interest (Lachenmeier 2023, 120; 137), persistence, time commitment, and potentially resulting in expertise (Wiklund et al. 2016, 17)</p>	<p>Hyperfocus may cause missed deadlines, personal neglect (Oroian et al. 2025, 306), or be directed at a negative stimulus, leading to impulsive actions and decisions (Lachenmeier 2023, 183–184)</p>

Concluding this subchapter, the prior literature suggests that ADHD may shape entrepreneurial journeys in many ways and phases. Although there are likely to be some similarities in the experiences of individuals with ADHD, each experience is unique and affected by a variety of factors, and by no means only neurological ones, which are only one potential influence among many. The next subchapter will synthesise the literature review on neurodiversity and the international entrepreneurial journey. The aim is to explore how the specific group of neurodiverse entrepreneurs, entrepreneurs with ADHD, may experience their international entrepreneurial journeys.

### **3.4 Neurodiversity and the international entrepreneurial journey**

#### **3.4.1 Linking ADHD and opportunity recognition**

This synthesising chapter concludes the literature review of this thesis and discusses how entrepreneurs with ADHD may experience their international entrepreneurial journeys, laying the foundation for the subsequent methodology. As found in Chapter 2, prior research has conceptualised IE primarily through opportunity-related processes, which can also be understood as constitutive elements of the broader international entrepreneurial journey. Research on ADHD and entrepreneurship has highlighted several distinctive cognitive features that may influence how opportunities are recognised and evaluated (Wiklund et al. 2017; White & Shah 2011). On the other hand, the challenges individuals with ADHD have faced may have brought about outcomes beneficial in entrepreneurship, which also shape their international entrepreneurial journeys. Thus, examining how entrepreneurs with ADHD experience their international entrepreneurial journeys provides an opportunity to reflect on the challenge-based entrepreneurship model, particularly its outcomes dimension, and explore how the model resonates with the experiences described by the participants.

The recognition of opportunities happens through a cognitive process, influenced by the external environment, timing, and chance events, which together explain why only some entrepreneurs perceive opportunities and others do not. As discussed in Chapter 2, while recognition of EOs and IOs share similarities, the role of contextual factors is more pronounced in international settings. Consequently, perceiving IOs requires specific knowledge and cognitive capabilities, further shaping how entrepreneurs experience these processes. Thus, both context and cognition influence how opportunities are recognised and evaluated. As prior literature suggests, recognising opportunities is not linear but an iterative process including learning, experimentation, feedback, and rounds of evaluation and refinement. These iterative elements shape how international entrepreneurial journeys are experienced.

Table 2 synthesises literature on cognitive foundations of opportunity recognition as well as ADHD and entrepreneurship, highlighting areas that have emerged in both streams of research. Despite the conceptual overlap, it is not assumed that ADHD leads to superior opportunity recognition, nor are causal relationships implied between ADHD-related cognitive properties and entrepreneurship outcomes. Rather, the synthesis serves as an analytical lens for exploring how certain cognitive characteristics commonly associated with ADHD may shape how entrepreneurs perceive opportunities and thus experience their international entrepreneurial journeys.

**Table 2 Cognitive aspects of opportunity recognition and ADHD**

<i>Cognition in opportunity recognition</i>	<i>Cognitive aspects related to ADHD</i>
Creativity (e.g. Cunha et al. 2010, 323; Oyson & Whittaker 2015, 328), divergent thinking (Gielnik et al. 2012, 571)	Higher creativity (White & Shah 2011, 673), divergent thinking (Sedgwick et al. 2018, 244)
Intuitive thinking (Olson 1985, 28–29; Kickul et al. 2009, 448) and pattern recognition (Baron & Ensley 2006, 1332; 1341; Brockman 2014)	Intuitive cognitive style (Issa 2020, 199; Moore et al. 2021, 80–82)
Uncertainty tolerance (Butler et al. 2010, 130–131)	Risk-taking tendencies and thriving in uncertainty (Verheul et al., 2015, 90; Wiklund et al. 2016, 15: 18; Lerner et al., 2019, 390)
Entrepreneurial alertness (Ardichvili et al. 2003; 106; Tabares et al. 2021, 335; Li et al. 2022, 3) and curiosity (Cunha et al. 2010, 320–321)	Higher entrepreneurial alertness (Moore et al. 2021, 80–82), curiosity (Van Dijk et al. 2017, 259; Le Cunff 2024, 284), novelty-seeking and openness (Van Dijk et al. 2017, 259), impatience and impulsivity (Wiklund et al. 2016, 16–17)

Based on the literature review in this thesis, cognitive aspects essential for recognising opportunities include both the processing of existing knowledge and the acquisition of new information. As presented in the left column of the Table 2, the literature on opportunity recognition has highlighted the following cognitive factors: creativity, divergent thinking, intuitive thinking, pattern recognition, uncertainty tolerance, entrepreneurial alertness, and curiosity. When it comes to acting upon recognised opportunities, impulsivity and risk-taking tendencies become more relevant. Respectively, the right column of Table 2 presents cognitive aspects related to ADHD. Prior research has found that entrepreneurs with ADHD often exhibit higher creativity, divergent thinking, intuitive cognitive styles, risk-taking tendencies, uncertainty tolerance, higher entrepreneurial alertness, curiosity, novelty-seeking and openness, and impatience and impulsivity.

The creativity of an entrepreneur is even assumed to be a central explanatory factor of why opportunities are recognised only by some and not all (Butler et al. 2010, 124; 131). Additionally, it is found that imagination may also drive IOR. *Imagination* and *creativity* are higher when an individual's cognitive properties provide less structure and are less restricted by previous knowledge, a phenomenon observed in individuals with ADHD (White 2018, 474–475; Lachenmeier 2023, 132).

As discussed in Chapter 2, the ability to absorb and bear uncertainty is an important characteristic of a successful international entrepreneur. The uncertainty inherent in international contexts is particularly relevant when examining entrepreneurs with ADHD, as certain ADHD-related traits, such as the *ability to tolerate and act under uncertainty*, may influence their experiences of their international entrepreneurial journey. It seems that acting intuitively under uncertainty is more likely to be productive when an entrepreneur has hyperfocus and expertise in a specific area, and counterproductive when the area is foreign and unrelated to their business activities (Wiklund et al. 2016, 18). That said, exploring also unknown industries and areas is not necessarily detrimental. For instance, in an interview in the public media, one serial entrepreneur with ADHD stated that they started their first business in the real estate industry at age 18, from where they moved on to car rentals, solar panel projects, and even ham export, with success (Fletcher & Vila Rosas 8.11.2025).

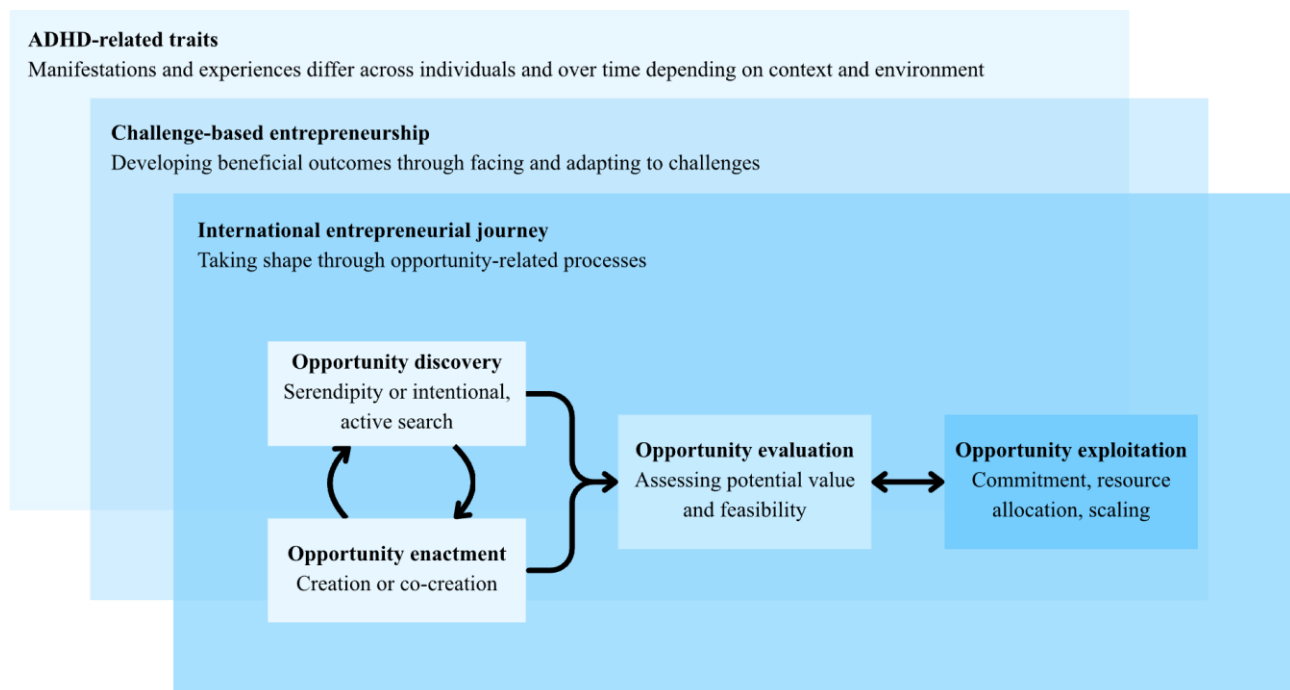
Furthermore, entrepreneurs with ADHD present a higher degree of *entrepreneurial alertness* (Moore et al. 2021, 81), which could be beneficial for IOR, because individuals need to notice opportunities before acting upon them (Butler et al. 2010, 128). Opportunity-related processes in IE are iterative, often based on learning (Tabares et al. 2021, 352), which may be relevant from the perspective of entrepreneurs with ADHD, as individuals with ADHD are proposed to have higher *curiosity*, which in turn drives motivation to explore and acquire new information (Le Cunff 2024, 285). Considering the unfamiliar and unorganised information through which opportunities are signalled (Olson 1985, 28), and the higher entrepreneurial alertness, curiosity, creativity, and intuitive cognitive styles that prior research has associated with entrepreneurs with ADHD, supports the relevance of exploring how entrepreneurs with ADHD perceive opportunities in practice.

In addition to the aspects summarised in Table 2, two further concepts frequently associated to IOR are serendipity and global mindset. *Serendipity* has been widely acknowledged as an important element of internationalisation processes (Crick & Spence 2005, 180; Oyson & Whittaker 2015, 328; Balzano 2022, 140). As discussed in Chapter 2, serendipitous discoveries are not merely a matter of chance, but enabled by individual capabilities, characteristics, and preparedness that allow actors to recognise and seize unexpected opportunities, such as intuition, imagination, and openness (Cunha et al. 2010, 320–321). Accordingly, individuals differ in their ability to capture the value of serendipity, with some being better equipped than others to make productive use of the unexpected (Crick & Spence 2005, 180, 182; Cunha et al. 2010, 321). While the concept of serendipity encompasses several characteristics and capabilities that are included individually in Table 2, it also entails elements related to timing and context that extend beyond these attributes. Therefore, serendipity is

not included as a separate construct in the summary table, although it remains an important theory of explaining how different cognitive capabilities, together with contextual factors, may lead to IOR. *Global mindset* is another key aspect of IOR and evaluation, as discussed in Chapter 2. However, prior research suggests that a global mindset is shaped primarily by experience, exposure, and learning rather than by neurodevelopmental characteristics per se. Consequently, it is not included in Table 2, but its relevance to IOR is acknowledged. Variation in global mindset among entrepreneurs with ADHD is likely to resemble variation observed in the general population. Such variation may partly explain differences in IOR experiences among entrepreneurs with ADHD.

### 3.4.2 Linking ADHD and the international entrepreneurial journey

Drawing on these insights, the theoretical overlap between opportunity recognition and ADHD in entrepreneurship suggests that ADHD-related cognitive properties may shape how entrepreneurs perceive EOs and IOs and thus experience their international entrepreneurial journey. These characteristics may influence not only how opportunities are noticed, but also how their potential value is interpreted, and whether they are eventually seized. Figure 3 is an extended version of Figure 1 and presents the underlying influence of ADHD on the experience of international entrepreneurial journeys.



**Figure 3 ADHD and the international entrepreneurial journey**

The framework of opportunity-related processes in IE represents the international entrepreneurial journey. The layers in Figure 3 suggest that the experience of the international entrepreneurial journey may be shaped through the ADHD-related traits or through the outcomes of challenge-based entrepreneurship. The influence of ADHD and challenge-based entrepreneurship to entrepreneurs' experiences is not to be assumed as certain, but rather potential, depending on various individual, situational, and environmental factors. Furthermore, while this figure focuses on ADHD-related influences, it is acknowledged that experiences of international entrepreneurial journeys are shaped by broader set of factors, including environmental conditions and prior experiences. However, they are not explicitly included in the figure, as the purpose of this study is not to explain all influencing factors, but to examine how ADHD may shape entrepreneurs' experiences within this process.

To conclude this chapter, based on literature review of this thesis, the experiences of international entrepreneurial journeys may be shaped by ADHD-related traits and tendencies, as well as by the outcomes of the challenge-based entrepreneurship. At this point, it is important to emphasise that the same individual characteristics may be perceived as strengths, challenges, or even irrelevant, depending on personal background, experiences, and attitudes. Similarly, some entrepreneurs may attribute a specific tendency to their neurocognitive profile, while another may perceive it to be developed through facing challenges, resonating more with challenge-based entrepreneurship model. Accordingly, this thesis focuses on entrepreneurs' subjective experiences rather than attempting to identify a single, objective reality applicable to all. The subsequent chapter presents the methodology of the thesis, including research approach, data collection and analysis, evaluation of the study, and research ethics.

## 4 Methodology

### 4.1 Research approach

This chapter will present the methodology of the thesis. In qualitative studies, philosophical positioning involves reflecting on ontology and epistemology, the beliefs about the nature of reality and the nature of knowledge. This research follows an interpretive orientation, assuming there is no single observable reality, as a single event can be interpreted in multiple ways, and that knowledge is not discovered, but constructed. (Merriam & Tisdell 2016, 29–30.) Entrepreneurship research has called for an interpretive paradigm that highlights individuals' subjective interpretations and purposes in understanding why innovation or new venture creation is perceived as a preferred course of action, not only concentrating on market pursuits (Packard 2017, 537). Furthermore, the interpretive approach is especially applicable to this study, considering the highly individual and context-dependent nature of ADHD.

Research is a systematic process through which knowledge about a phenomenon is increased (Merriam & Tisdell 2017, 25–26). The research process of this thesis began with an interest in cognitive research in entrepreneurship. The research topic was ultimately narrowed to neurodiversity in IE, focusing especially on entrepreneurs with ADHD. Existing literature lacks an understanding of how entrepreneurs with ADHD experience their international entrepreneurial journey, making qualitative research a relevant choice, as it suits research topics where prior insights are scarce (Eriksson & Kovalainen, 2008, 8). Qualitative research involves interpretation and understanding, as it seeks to understand phenomena from the perspective of the individuals being studied (Agee 2009, 434; Puusa & Juuti, 2020), which is the aim of this thesis. A qualitative research approach was considered most appropriate as the aim is to provide an in-depth understanding of subjective experiences and meanings, rather than measuring predefined variables or testing hypotheses, which are more characteristic of quantitative studies (Eskola & Suoranta, 1998, 14–15).

A thorough review of the relevant literature facilitates the successful formulation of a research problem (Eskola & Suoranta 1998, 36). In line with this, the problem setting of this thesis is grounded in existing research while continuing to evolve throughout the research process, which is a common characteristic of qualitative studies (Eskola & Suoranta, 1998, 15–16). The researcher's personal interest in individuals' subjective experiences further motivated the choice of a qualitative approach, and the research question was deliberately formulated accordingly. The function of sub-questions is

to narrow the broader focus of the research question and lay the foundation for the data collection (Agee 2009, 436).

This thesis aims to explore entrepreneurs' subjective experiences and interpretations of internationalisation and thus is conducted as a qualitative interview study. The research adopts an iterative logic, where theory and empirics interact and develop throughout the research process. Reflexivity is inherent in the iterative analysis and can be ensured through reflecting on what the data are telling me, what it is I want to know, and how these two aspects interact. (Srivastava & Hopwood 2009, 78) As Eriksson and Kovalainen (2016, 6) point out, choosing the suitable methodology for the research question requires knowing the limitations and advantages of different methods. Compared to other methods, such as surveys, a qualitative interview study is considered most suitable, as it enables collecting broad accounts of the experiences and meanings of entrepreneurs, which most accurately addresses the research problem.

## **4.2 Data collection**

The data collection for this thesis consists of qualitative interviews. Qualitative interviews are typically guided by the research topic and research questions, and the research data is generated through interaction (Eriksson & Kovalainen, 2016, 91). The interviews were conducted as semi-structured interviews, in which responses are formulated in the interviewees' own words, allowing aspects to emerge that were not anticipated during question formulation (Puusa & Juuti, 2020). At the same time, semi-structured interviews support comparability across interviews while allowing flexibility, such as probing or revisiting earlier responses when necessary (Farquhar, 2012, 73). This interview approach was adopted in this thesis, as the aim was to understand the experiences and meanings of informants. Table 3 provides further details on interviews and the main companies of participating entrepreneurs, such as company's age as of March 2026 and number of employees, which are based on publicly available company information.

**Table 3 Interview information summary**

<i>Entrepreneur</i>	<i>Company's age in years</i>	<i>Number of employees <sup>1</sup></i>	<i>Date</i>	<i>Duration</i>	<i>Interview mode</i>
A	>10	<5	11.3.2026	1h 11min	On-site
B	<5	1	16.3.2026	40min	Remote
C	>20	>50	17.3.2026	1h 18min	Remote
D	>5	1	20.3.2026	39min	Remote
E	>5	>50	21.3.2026	1h 25min	Remote

The interviews were conducted in Finnish in March 2026, audio-recorded with the participant's consent, and lasted approximately 40–85 minutes each. One interview took place on-site, and the rest were conducted remotely via Zoom. The informants represent entrepreneurs from different industries and at different stages of internationalisation. The informants include entrepreneurs whose main fields of business are in e-commerce, marketing, and consultancy. Some participants have already established international operations, while others are in the early stages of internationalisation or considering expanding internationally.

Interview questions should be aligned with the problem setting, purpose, and aim of the study (Roberts, 2020, 3190), and not equal but related to the research questions (Eriksson & Kovalainen 2008, 79). To ensure coherence, the interview guide was developed through operationalising the research problem and linking the research questions to the relevant theoretical frameworks, as presented in Table 4. Based on the operationalisation, an initial set of interview questions was formulated to reflect the theoretical grounding of the thesis. In line with Roberts (2020, 3190–3192), the questions were designed to be broad, open-ended, free of assumptions, and focused on interviewees' understandings and experiences. The interview guide was subsequently refined to ensure that the questions were clear, non-leading, and directly relevant to the research questions, and can be found in Appendix 2.

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<sup>1</sup> The number of employees in the financial year 2024.

**Table 4 Operationalisation of the research problem**

<i>Research problem</i>	<i>Sub-questions</i>	<i>Theoretical background</i>	<i>Interview themes</i>	<i>Interview questions</i>
How do entrepreneurs with ADHD experience their international entrepreneurial journeys?	How do entrepreneurs with ADHD describe perceiving entrepreneurial opportunities?	EOR Effectuation ADHD in entrepreneurship	Becoming an entrepreneur, recognising and evaluating EOs, perceived role of ADHD	1, 2, 3, 10, 11
	How do entrepreneurs with ADHD describe perceiving international opportunities?	IOR Effectuation ADHD in entrepreneurship	International entrepreneurial experiences, recognising and evaluating IOs, challenges in internationalisation, perceived role of ADHD	6, 7, 8, 9, 10, 11
	How do entrepreneurs with ADHD approach challenges in entrepreneurship?	Challenge-based entrepreneurship ADHD in entrepreneurship	Challenges in entrepreneurship, attitude towards uncertainty and challenges, perceived role of ADHD	4, 5, 10, 11

Additionally, a vignette was included in the interviews to facilitate discussion on the recognition and evaluation of IOs. A vignette is a hypothetical account that reflects a real-life situation, which is presented to individuals, inviting them to respond (Finch 1987, 106). It is a technique that can be used in qualitative data collection, with which individuals' perceptions and responses to social situations may be explored (Jenkins, Ritchie, & Quinn 2021, 976). This technique is commonly used to study situations that may be practically or ethically difficult to study first-hand (Jenkins et al. 2021, 976), and often involves asking third party questions, such as 'What should these people do in this situation?' that do not tell anything about the own actions or potential actions of the respondents (Finch 1987, 113). However, in this thesis, the vignette was aimed at exploring how the respondents would perceive and react to this hypothetical situation, which is why they were posed in relation to the entrepreneurs' own situation.

A vignette was considered a necessary addition to the interviews, as the informants varied in their international experience, with some entrepreneurs having well-established international operations, while others had not yet experienced internationalisation to the extent that they would be able to

reflect on it. Therefore, a short description of a hypothetical international opportunity was formulated and divided into two sections, presenting questions after each. The vignette began with a fictional situation where the entrepreneur would be approached by a company from abroad, suggesting a financially substantial collaboration with them. After discussing the first part, the vignette was continued with a situation, where the entrepreneur would have agreed to the collaboration presented in first part of the vignette, but it would end up failing. The vignette was kept compact and general, so that it would be applicable to all participating entrepreneurs regardless of the field and type of business. The vignette was presented to the informants at the end of the interview, as the 11<sup>th</sup> question in the interview guide.

In this thesis, a preliminary interview was conducted to assess the flow and length of the interview and to evaluate whether the questions elicited sufficiently rich responses. Based on this interview and feedback from the participant, minor adjustments were made to the wording, order, and scope of the interview questions. Additionally, it was found to be of practical relevance to conduct a preliminary interview. Accordingly, methodological literature suggests that such interviews can provide practical insights that support the data collection process, such as establishing an appropriate interview tone and identifying practical considerations related to conducting interviews (Eskola & Suoranta, 1998, 89–90).

The participants for the research were identified purposefully. A selective process is a grounded approach to ensure that the participants for the interviews can provide the information required for the research (Eskola & Suoranta 1998, 18; Farquhar 2012, 74). In addition, snowball selection was used to identify additional participants through referrals (Farquhar 2012, 75). The study focuses on Finnish entrepreneurs with ADHD, and the potential participants were identified among entrepreneurs who had discussed their experiences related to ADHD in public contexts, such as media interviews or public forums. The participation was restricted to individuals with a clinical diagnosis, although the diagnostic information was self-reported, and no medical documentation was required. The decision to narrow the research to entrepreneurs with a diagnosed ADHD ensured theoretical and empirical clarity and comparability across participants, while maintaining a clear boundary for inclusion.

Qualitative studies typically involve a relatively small number of participants, allowing for a detailed and in-depth analysis of individual experiences (Eskola & Suoranta 1998, 18). Recruitment messages were sent via email and private messages on Instagram and LinkedIn, and a total of 17 individuals were directly approached requesting participation. In addition, a public LinkedIn post was published

by the researcher to reach a wider audience and enable voluntary participation. In total, five entrepreneurs participated in the study. Given the specific and relatively hard-to-access nature of the target group, the number of potential participants was limited. However, qualitative research emphasises depth over breadth, and as the aim of this study is not to produce generalisable findings but to explore and interpret entrepreneurs' lived experiences, a sample of five interviews was considered sufficient to generate meaningful insights. Saturation in qualitative research refers to the point where no additional themes emerge from the dataset (Naeem et al. 2024, 1). During the data collection, similar themes and patterns began to emerge across interviews. Despite variation in participants' backgrounds, industries, and stages of internationalisation, several core themes were consistently identified. This provided an indication that the data was sufficiently rich and that additional interviews would have been unlikely to yield substantially new insights.

### **4.3 Data analysis**

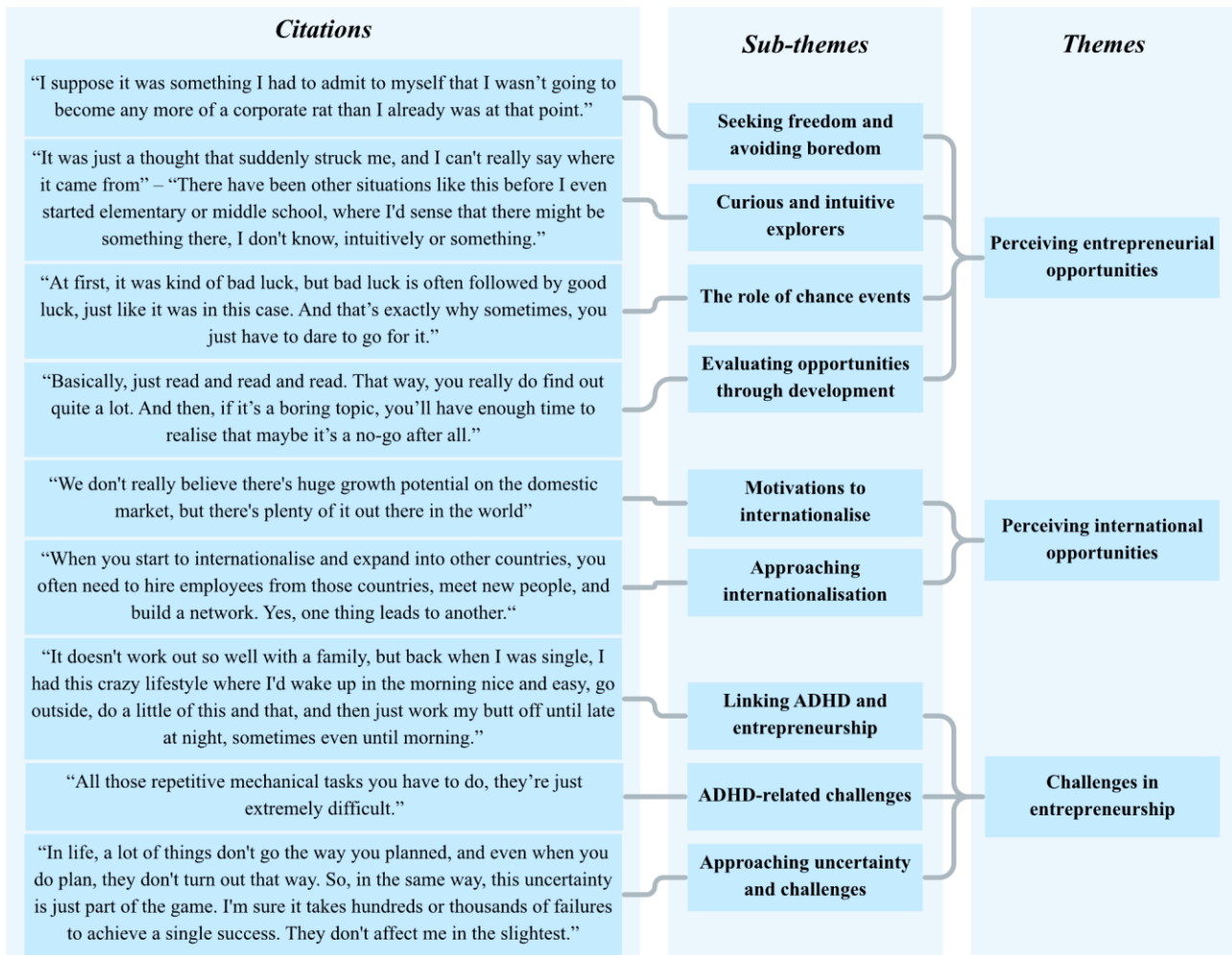
In this thesis, the interview recordings and transcriptions were analysed using thematic analysis, which involves identifying patterns of meaning developed through coding processes (Braun & Clarke 2022, 4). Thematic analysis allows for looking for patterns in empirical data and comparing them with propositions derived from existing theory (Eriksson & Kovalainen 2016, 142). According to Eskola & Suoranta (1998, 157), analysing data is inevitably influenced by the researcher's assumptions and interpretive perspectives, which are shaped by the purpose of the research, prior readings, and previous theories. Also, Eriksson and Kovalainen (2016, 141) note that coding and organising empirical data always include some interpretation. For this reason, this study adopted a reflexive approach to thematic analysis, as outlined by Braun and Clarke (2022), which acknowledges the active role of the researcher in knowledge production. Rather than seeking to eliminate subjectivity, reflexive thematic analysis emphasises the researcher's interpretative engagement with the data and the importance of ongoing critical reflection throughout the research process. (2022, 8; 12.)

The interview data were transcribed using UTU Transcribe, a transcription service provided by the University of Turku. To protect the privacy of the informants, all identifying information in the transcribed data was replaced with pseudonyms, which means that the informants cannot be identified without additional information (ENISA 28.1.2019, 10–11). In the first phase of the analysis, the researcher familiarised themselves with the dataset thoroughly. It is advised to listen to the interview recordings at least once and to read and re-read the transcriptions at different points in time, while making notes to aid the analysis process. (Braun & Clarke 2022, 34.) Certain objectives were

followed in analysing the interview data. In analysing the interviews, the aim was to attend not only to what was said but also to what the interviewee intended to convey, while avoiding imposing meanings derived from the researcher's own assumptions (Yin, 2018, 122). Thus, the data was to be approached critically and analytically, which may be facilitated by self-reflection, such as what underlying ideas may influence the way the researcher interprets the data (Braun & Clarke 2022, 44).

Coding was the second phase of analysis, a systematic and detailed approach to the dataset aimed at deriving various meanings. It includes careful scanning and identifying singular meanings from the data, which ensures that themes are not developed too early, or guided by predetermined ideas, but rather are based on a detailed and analytical interrogation of the data. Initial coding is often semantic, focusing on the explicit expressions, and as the analysis matures, latent coding that captures implicit meanings may develop. (Braun & Clarke 2022, 44; 57.) The coding process in this thesis involved reviewing the recordings and transcriptions multiple times, making notes and colour-coding meanings using the comment box feature in Microsoft Word. Codes can include surprising or repeated insights, as well as observations that are similar to findings reported in previous research (Löfgren 9.5.2013). As anticipated by Braun and Clarke (2022, 68–69), the codes evolved as analytical insight increased and were refined in the process. As advised, two coding rounds of the entire dataset were conducted.

Whereas codes reflect a single facet or idea, themes reflect multiple facets of an idea and bring together different kinds of data that all point to the same underlying idea, explicitly or implicitly (Braun & Clarke 2022, 76–77; 79). By exploring codes and clustering potentially connected ones, the sub-themes were developed. This is also referred to as closed coding, where the number of codes is reduced to a more manageable number (University of Southampton 14.8.2012). In this thesis, the number of these sub-themes was nine. Figure 4 presents the process of how the themes in this thesis were developed, evolving from citations to sub-themes, and finally, to themes.



**Figure 4 Developing themes in data analysis**

The final themes should be exhaustive and reflect the purpose of the research and be sensitive to what is in the data (University of Southampton 14.8.2012). Developing codes into themes for this thesis was an iterative process that evolved along with writing up the results. Analysing the interview data, it was noted that the problem setting of the thesis, as well as information from the literature review, influenced the interpretation and analysis of the interviews. The interview guide was based on the research questions, and in the analysis, the researcher's attention was drawn to the subjects found during the review of existing literature. For this reason, the dataset was reviewed many times, acknowledging these assumptions and perspectives, to remain open to insights beyond initial expectations.

#### 4.4 Evaluation of the study

Trustworthiness is a core principle of scientific research and underpins the production of reliable knowledge. It entails ensuring that research findings are not influenced by random or irrelevant

factors and that the research process is reported transparently, thereby enabling the study's credibility to be critically assessed. (Aaltio & Puusa 2011, 153.) Trustworthiness of this thesis is evaluated through the dimensions of credibility, transferability, dependability, and confirmability (Lincoln & Guba 1985, 301).

*Credibility* in qualitative research is highly dependent upon how accurately the findings reflect the reality of the participants' experiences, which can be increased through prolonged engagement, reflexivity, and triangulation (Ahmed 2024, 1). Prolonged engagement emphasises that to understand a certain phenomenon, its context should be considered (Lincoln & Guba 1985, 302). The background and literature review of this study provide the context for international entrepreneurial journeys and how they may be experienced by entrepreneurs with ADHD. Although the narrower focus of the study is individual, cognitive level, the influence of contextual and environmental factors is acknowledged in analysing and interpreting the findings.

The limitations of restricting the participants to clinically diagnosed ADHD entrepreneurs are acknowledged. Firstly, although an ADHD diagnosis was a prerequisite for participating in the study, no medical verification was required, and the information is based on the self-report of informants, which may affect the reliability of the findings. This approach was adopted to minimise the collection and processing of sensitive personal data and to adhere to the principle of data minimisation. Moreover, as the study focuses on participants lived experiences and subjective interpretations of how ADHD relates to international opportunity recognition, clinical verification of diagnoses was not considered essential. Requiring medical documentation could have introduced unnecessary ethical and practical impediments to participation and potentially excluded relevant experiential insights. Accordingly, self-report was considered an appropriate and proportionate approach within the context of qualitative, experience-based research.

Secondly, limiting the study to diagnosed individuals, although based on self-report, can potentially narrow down the group of potential participants, without necessarily providing an accurate overview of the perceptions of entrepreneurs with ADHD. As Wolfe et al. (2025, 4) state in their research, there is a notable difference between the number of people who would technically meet the clinical diagnostic criteria for ADHD and the number of people who have actually been diagnosed with ADHD. They further elaborate that it is possible that undiagnosed individuals could battle with far more severe symptoms than those with a clinical diagnosis. Previous studies that have included both diagnosed and undiagnosed participants have examined the presence of ADHD traits and symptoms in each participant separately, often using standardised screening instruments and self-report scales

(see Wolfe et al. 2025, 7). While such an approach increases inclusivity and provides detailed comparative insights, it also requires additional methodological steps and resources, which are beyond the scope of a master's thesis in international business. For the sake of clarity and feasibility, this research focuses on entrepreneurs with a formal ADHD diagnosis.

Triangulation is another important aspect of credibility, which may be increased by, for example, employing multiple data sources (Lincoln & Guba 1985, 307). Triangulation in a qualitative interview study may be achieved through complementing interview data with written materials, when this data may be compared (Tynjälä 1991, 392). This thesis uses the conducted interviews as primary data sources, as subjective experiences of individuals are best studied using qualitative interviews. In addition, publicly available materials, such as company websites and prior media interviews of the entrepreneurs, are used to complement and contextualise the interview data. For ethical reasons related to participant pseudonymity, the complementary media interviews and other data are not listed in the references, as they would risk revealing the identities of the entrepreneurs. However, some information from these additional sources is included in the findings, and this is explicitly marked with a footnote to distinguish the data acquired from public sources from the data collected in the interviews for this thesis. These additional sources are referenced in a generalised manner, for example, as 'Company website of entrepreneur A' or 'Interview of entrepreneur B in Finnish public media'.

In terms of credibility, it is important to consider the extent to which the participating entrepreneurs were able to reflect on international entrepreneurial experiences. The interviewed individuals operate in various fields, have diverse entrepreneurial backgrounds, and vary demographically, for example, regarding gender. While this study aimed to explore international entrepreneurial journeys of entrepreneurs with ADHD, not all participants had fully internationalised their businesses. One participant, entrepreneur D, had not engaged in internationalisation, and another, entrepreneur B, was at an early stage of the process. Entrepreneurs A, C, and E had established international operations and years of experience in IE. This may have influenced the depth of experiential accounts related to international operations. However, these accounts still provide valuable insights into how international opportunities are perceived, interpreted, and approached. Through vignettes, participants were invited to reflect on hypothetical and prospective situations, which may reveal underlying beliefs, attitudes, and cognitive tendencies related to international opportunity recognition. These accounts can be contrasted with the experiences of participants who had already engaged in international activities, thereby enriching the overall analysis. Furthermore, it is essential

to ensure both the interviewer and the interviewee understand the used concepts in the same way (Tynjälä 1991, 393), which was sought to achieve through active listening and clarifying meanings with follow-up questions.

This thesis seeks to enable readers to assess *transferability* by describing the research context and methods, such as sampling strategies, in detail (Ahmed 2024, 2). This study employs a qualitative research design to examine a social phenomenon that evolves over time and across contexts. As such, the findings are context-specific and are not intended to be statistically generalised but interpreted in relation to the empirical context in which they were produced. (Eskola & Suoranta 1998, 16; 67.) Additionally, the variation in participants' levels of international experience influences how broadly the findings may be applied. As the methodological literature suggests, complete objectivity is neither achievable nor sought in this thesis. Instead, the researcher's interpretative role throughout the research process is explicitly acknowledged and critically reflected upon. (Eskola & Suoranta, 1998, 67; Braun & Clarke, 2022, 15.) This is in line with Aaltio and Puusa (2011, 154), who note that subjectivity and reflexivity must be made explicit in the study. The researcher does not have personal links to the participating entrepreneurs, however, they do have several individuals diagnosed with ADHD in their immediate circle, which may influence the interpretation and contextualisation of the interview data.

*Dependability* is enhanced through methodological documentation (Ahmed 2024, 2). The methodology chapter aims to provide a transparent and detailed account of the decisions and development of research. Additionally, reflexive journaling was conducted throughout the research process to identify potential personal bias and document the development of interpretations, especially in the data analysis phase. Reflexive journaling and keeping an audit trail are also important means to increase *confirmability* (Lincoln & Guba 1985, 318–319; Ahmed 2024, 2–3). An audit trail for this thesis includes a record of important changes and decisions made through the research process. This is further supported by a reflexive approach throughout the research process, which includes careful self-reflection and the recognition of personal biases (Ahmed 2024, 1). Together, these measures aim to ensure the trustworthiness of the study.

#### **4.5 Research ethics**

This thesis involves a sensitive research topic, as ADHD constitutes sensitive personal data, and the study focuses on a narrowly defined group of participants. For these reasons, the study has undergone ethical review by the Ethics Committee for Human Sciences at the University of Turku to ensure

compliance with established principles of responsible research conduct. Ethical review refers to advance scrutiny and evaluation of research plan guided by the ethical practices generally followed in the particular discipline of science, aimed especially at preventing any harm of the research or its results to the research subject (Finnish National Board on Research Integrity TENK 2024).

The ethical nature of the research is assessed at all stages of the research in accordance with the guidelines of the Finnish National Board on Research Integrity (TENK), concerning non-medical research involving human participants (Finnish National Board on Research Integrity TENK 2019). Before participation, research participants are provided with sufficient and comprehensible information regarding the purpose of the study, its implementation, voluntary participation, potential risks, and the processing of personal data. The potential participants were provided with information sheet and a data protection notice, which include detailed information about the study, its possible benefits and risks, what participation entails, and the participants' rights. The data protection notice can be found in Appendix 3.

Participation in the study is voluntary and based on informed consent, which is essential for obtaining data in qualitative research (Eriksson & Kovalainen 2016, 67; 72). The informed consent is presented in Appendix 5. The lawful basis for the processing of personal data in this study is scientific research carried out in the public interest. The rights of participants to restrict or erase their personal data are limited in this study, as exercising these rights would likely prevent or significantly impede the conduct of the research. This limitation is communicated to participants in the data protection notice.

The target group of the study consists of entrepreneurs with a diagnosed ADHD. Potential participants were identified based on public self-disclosure, for example, in newspaper articles or podcast episodes. Voluntary contact through professional or personal networks was also used as a recruitment method. Participants were not required to provide proof of an ADHD diagnosis. Instead, the study relied on participants' self-disclosure and informed participation, after clearly communicating that an ADHD diagnosis is a prerequisite for participation. This requirement is communicated to participants from the initial point of contact. This approach reduces unnecessary processing of sensitive personal data and adheres to the principle of data minimisation. In reporting the findings, this information will be presented at a general level (e.g. 'all participants were diagnosed with ADHD as adults'). This approach ensures both methodological transparency and the protection of participants' privacy.

The data are pseudonymised during the analysis phase, and identifiable details are removed or generalised. This additional information is stored separately and securely in accordance with data

protection requirements. Pathologising, stigmatising, or individualising interpretations are avoided in the analysis and interpretation of the data. The results are reported at a general level so that individual participants cannot be identified directly or indirectly. The researcher is committed to protecting the participants' privacy throughout the research process. The data management plan can be found in Appendix 4.

All research data are stored securely in SeaFile, a cloud storage service maintained by the University of Turku. The research is conducted within encrypted network environment, and personal devices used in the research process are kept up to date and protected by appropriate security measures. Personal data are retained only for as long as necessary for the purposes of the research. Audio recordings and the key file used for pseudonymisation are permanently deleted upon completion of the study. Pseudonymised data are retained in SeaFile for a period of five years, in accordance with the research data retention policies of the University of Turku. The processing of personal data complies with applicable data protection legislation and good research practice.

Research must not cause harm to participants. Anticipating possible harm is an essential means of protecting participants. (Eriksson & Kovalainen 2016, 73.) Participants are free to respond to interview questions to the extent they wish, decline to answer individual questions, or discontinue the interview at any point. The research method does not involve physical burden and does not require the disclosure of sensitive personal data beyond what is necessary for the thesis. Potential risks are psychological or social in nature and relate to the sensitive research topic and the potential identifiability of participants. Threats to confidentiality and anonymity of research data are essential to be anticipated in advance (Eriksson & Kovalainen 2016, 74). For this thesis, a data processing impact assessment and evaluation of means to reduce and address potential risks is conducted.

The likelihood of these risks materialising is assessed as low. Risk mitigation measures include data minimisation, pseudonymisation, secure data storage, and generalisation. Overall, the potential harms to participants are assessed as minimal and proportionate in relation to the scientific and societal benefits of the study. The research contributes to increased understanding of neurodiversity-related experiences in international entrepreneurship and supports the development of more inclusive support programmes. In accordance with the guidelines of the Finnish National Board on Research Integrity TENK, the balance between potential harms and benefits is considered ethically acceptable. The study is a master's thesis conducted by a single researcher, who is responsible for data control, analysis, and reporting, and no conflicts of interest have been identified. Throughout the research process, this thesis strongly emphasises conscientious and accurate referencing and citing to ensure appropriate

recognition of other researchers' contributions (Eriksson & Kovalainen 2016, 75–76). The use of artificial intelligence in the research process has likewise followed institutional guidelines and ethical standards and is elaborated on in more detail.

I hereby declare that generative artificial intelligence was used as a tool to support the work in this study. In accordance with the policies of the Turku School of Economics, a detailed description of the tools used and their specific application in the research process is provided in Appendix 1. To clarify the use of artificial intelligence in this study, a lifecycle approach is adopted in accordance with the guidelines on the use of AI at the Turku School of Economics. In this study, ChatGPT (version 5.2), Grammarly, and DeepL were used. Additionally, in transcribing the interview recordings, UTU Transcribe, the AI-based transcription service provided by the University of Turku, was utilised. AI tools were employed during the research process to support ideation, refinement, and proofreading. The researcher's native language is not English, which is why AI was used to correct grammar and enhance language. Although AI was used, it functioned solely as a supplementary aid. At all stages of the research process, responsibility for verifying the validity, accuracy, and appropriateness of the content remained with the author. Having introduced the methodology of this thesis, the next chapter presents the findings of this study.

## 5 Findings

### 5.1 Perceiving entrepreneurial opportunities

#### 5.1.1 Seeking freedom and avoiding boredom

The participating entrepreneurs described various ways of perceiving EOs, and nearly all explained having established more than one business since beginning their entrepreneurial journey. The EOs that led to the establishment of their main companies were mostly a combination of identifying an unmet need and a motivation for entrepreneurial action. The participating entrepreneurs described that they are intrinsically motivated to occupy themselves with entrepreneurial action, some viewed it as a way to avoid boredom, while others enjoyed the freedom to think and develop their ideas. On the other hand, the fact that one has many ideas and an interest in entrepreneurship, was seen as resulting in recognising or creating opportunities. Several entrepreneurs shared accounts of how their entrepreneurship was motivated by the need for more freedom and independence than what conventional jobs could provide. For example, entrepreneur A decided to leave their paid job and start their own business when they were offered a higher position within an organisation they worked for. Entrepreneur A explained that although they were grateful for the opportunity, it felt like a prison to them, which is why they ultimately decided not to accept the offer and leave the company.

I suppose it was something I had to admit to myself that I wasn't going to become any more of a corporate rat than I already was at that point. (Entrepreneur A)

After declining the promotion, they continued working for a little while in another company, until they realised they did not want to work for others; they wanted to do it for themselves. Entrepreneur A noted that their entrepreneurial spirit is probably driven by a desire for freedom and freedom of thought, as well as a reluctance to conform to an established system. The accounts of entrepreneur E resembled closely these experiences. They explained that they had their first business already at a young age but had since ended up making a long career working with tasks they enjoyed because they found them so stimulating they did not notice time passing. Despite enjoying their work, they had a business idea and wanted to start a company, but it was not until they were offered a high position in a corporation, they worked for that they finally decided to become an entrepreneur. Entrepreneur E stated that although the corporation was a place of great opportunities, it was not for them after all. After starting their business, entrepreneur E explained they started new businesses as frequently as one per year.

I even started to feel like it was a prison if I stayed there, because there would be no point in staying there unless I was incredibly passionate and wanted to climb up those corporate ladders. Then I realised I had no other choice, now I can finally make it happen. Now I'm going to become an entrepreneur. (Entrepreneur E)

Another theme that emerged in the accounts motivating entrepreneurship was to avoid boredom. Entrepreneur B explained that they decided to start an own business in the field where they were already working so that they could make more versatile use of their already broad range of skills, which would prevent them from getting so clearly bored with their work. Entrepreneur B stated that working in companies in their field, one must choose where they specialise, whereas as an entrepreneur, they are able to do things more broadly. Similarly, entrepreneur C was drawn to entrepreneurship to avoid boredom, and because they enjoy running businesses. Entrepreneur C stated that they have not been bored running their business, because it changes and grows all the time, and there are constantly new challenges. At the time that entrepreneur C started their company, their studies were left on hold, as the company started growing so fast that they did not have time for their studies, and running the business was also much more fun. They stated later in the interview that had they finished their studies, would they probably gotten bored working in that specific field after a while, and eventually started a business. Entrepreneur C stated that thinking of a new business idea and setting up a firm is very interesting and rewarding. Although they state that mostly the ideas for new businesses come from their own life, they would not mind starting a business in a field they know nothing about, because they just enjoy starting a business and learning about new things.

“I could start selling, say, makeup, and for the record, I don't use makeup ... but I could learn how makeup works, what the needs are, and what kinds of needs it fulfils. And then building that makeup company would be an amazing strategy game. If there were the element of earning on top of it, that would only add more enjoyment to the strategy game, making it even more rewarding.” (Entrepreneur C)

The freedom that comes with entrepreneurship emerged clearly in the reflections of entrepreneur C. They stated that one significant thing they enjoy about starting a new business is that when they do not have any employees, they are not responsible to anyone, can do whatever they want, and do not have to commit to anything. This is well exemplified in their account where they explained that as their business grew to the extent that they had many employees, and they themselves were no longer that involved in the operative side of the business, they started to engage in other entrepreneurial activities to ‘get their hands dirty’. When asked, does entrepreneur C perceive that ideas or opportunities come to them spontaneously or through creation, they said that they like to create and develop things. They continued that for them, business ideas tend to come from their own life, from areas in which they are knowledgeable or familiar with. They described several situations in which

they had identified a market or an unmet need that they then set out to fulfil, although their motivation was often simply to keep themselves busy, rather than necessarily to make a profit. Entrepreneur C described their second business, which they run alongside their main company, as a multi-sector business where they have ventured into different things, including consultancy, vehicle rentals, and a café.

### 5.1.2 Curious and intuitive explorers

When the entrepreneurs were asked to describe their perceptions of how they recognise opportunities, their accounts highlighted intuitive insights, as well as curiosity, explaining that as they are interested in many things, and explore them, it often results in recognising EOs. Entrepreneur A stated they have sought to figure out how they perceive opportunities, as they said they have always been that way and seen more possibilities than threats. According to them, receiving their ADD<sup>2</sup> diagnosis in adulthood made them understand retrospectively why they have always been more interested in what is in between the lines. They stated that they have a vivid imagination and an inner world, have been interested in a lot of things without any particular reason, and because of that, they have read a lot. Entrepreneur A continued that, for them, things just connect, which is a characteristic they have always had, but do not know whether it has something to do with their diagnosis or not.

In my head, somehow all these things come together, and I think, ‘Damn, there's a real opportunity there, why hasn't anyone done that?’ I've had a lot of those moments.”  
(Entrepreneur A)

Similarly, entrepreneur E explained that rather than first having an idea and then studying it, they often have something they are interested in, start studying it, and then the idea combines in their heads. Entrepreneur E stated that ideas come from being curious and exploring things. According to them, they may read and think about something for a long time and then the ideas just emerge from their head. They explained that they can connect seemingly foreign concepts and make such connections that others may not necessarily be able to make.

If I study, say, cooking meatballs and the underground music scene in Japan, somehow bridges form between them, at least in the way I visualise and think about it. – I don't know if it's because my thoughts stray a little that they connect in slightly weird ways, but then insights emerge from there, like cross-domain insights. (Entrepreneur E)

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<sup>2</sup> ADD (attention deficit disorder) is one of the three subtypes of ADHD, involving difficulties concentrating without impulsivity and hyperactivity (Puustjärvi 2019, 202).

The accounts of entrepreneurs A and E well exemplify not only how acquiring new knowledge may lead to opportunity recognition. Also, other entrepreneurs shared similar accounts, which highlight the relationship between curiosity towards different things, learning, and creative combination of knowledge. Entrepreneur B noted that they feel they notice and try out things and ideas more than those who do not have ADHD. They explained that it could be due to the fact that, as their mind is constantly racing, they can process eight things in the time it takes someone else to process maybe two. Entrepreneur B said that the desire to always have something new to do, some new project, some new thing, is what drives them to try out different things. Similarly, entrepreneur D explained that they get excited about things in general, they have a lot of thoughts, and are interested in business, which all together contribute to their tendency to start exploring the things that they get interested in. Entrepreneur A stated that they have a strong desire for new things and experiences, but they viewed it as more related to their novelty-seeking personality trait than their diagnosis.

### 5.1.3 The role of chance events

In addition to intrinsic motivation for entrepreneurship, chance events and being able to seize opportunities were drivers for perceiving EOs. For example, entrepreneur D explained that they were initially supposed to start a business on a field which they had studied, but COVID-19 pandemic changed the conditions for making business and they ended up starting a business on another field. When asked whether becoming an entrepreneur was the result of chance events, they replied that, yes, that was more or less the case, because they tend to seize certain moments that seem like good opportunities at the time, even if they weren't always planned. Entrepreneur D explained that the combination of being naturally interested in business and having a lot of thoughts, is what leads them to pursue the things that interest them. Currently, entrepreneur D is employed by another company, but sees that once you are an entrepreneur, you are practically always an entrepreneur; you do not see work the same way anymore, it becomes more of a passion, they explained.

Chance events, intuition, and motivation were also present when entrepreneur A had the idea for their current company in the 2010s. The idea was inspired by an unexpected, and somewhat unfortunate, chain of events (Story from the company's website<sup>3</sup>), through which entrepreneur A recognised an opportunity and a need in the market. They stated that they decided to pursue this idea, because they tended to always have ideas but never act on them, and they did not want to do the same this time.

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<sup>3</sup> More detailed reference would risk revealing the participant's identity.

Entrepreneur A said the idea could have been anything; the most important thing for them was that they would not leave it undone.

In a similar vein, entrepreneur E explained that they get ideas constantly, which may emerge intrinsically with intuition or be stimulated by unexpected events externally. They share a story of the events that eventually led to the establishment of one of the companies. It all started with the identity theft of their employee, which escalated to involve the police. The employee whose identity was stolen began calling and informing firms in the field where the thief had sought to use their identity. Then, one of the people they called started talking about a business idea. The employee told entrepreneur E about this discussion, and they invited this person to their office. Once they talked about the idea, entrepreneur E also invited a person from their network to join the discussion, who was knowledgeable in this specific field. Then, a couple of months later, a company was founded, entrepreneur E explains. Since its establishment circa five years ago, its revenue has reached over 20 million euros, and it has started expanding internationally. In the case of this company, there was a lot of luck involved, they explain.

At first, it was kind of bad luck, but bad luck is often followed by good luck, just like it was in this case. And that's exactly why sometimes, you just have to dare to go for it.  
(Entrepreneur E)

Despite such successes, entrepreneur E emphasised that not every opportunity they have seized has been a success, but there have also been failures. They note that what is important is to be able to discard the failing ones as early as possible. Also, other participating entrepreneurs shared accounts of having seized opportunities which did not turn out to be successes after all, like entrepreneur D stated, they have tried a lot of different things, and although nothing may have come out of these ventures, they have always learned something of them. As entrepreneur E stated success is a combination of having the right idea, the right timing, a little luck, and the right people. They see it is not just as intuition and seizing the moment, but a combination of many factors, varying from small things that can trigger a chain of events, like where one places a coffee mug in the morning, to large external factors, such as the global market economy.

–when you succeed with one business, you start thinking you're some damn Midas, that everything you touch turns to gold, and then you go off and do everything, you might have made a little money from it, but the next ten might all go south, because you have this wrong idea that you've succeeded in this. (Entrepreneur E)

Both entrepreneurs A and E discussed the topic of not seizing the ideas they have had. Entrepreneur A explained that it has happened more than once in their lives, that they have intuitively recognised

an opportunity but not exploited it, only to notice a couple of years later that someone else had. Entrepreneur A explained a situation that occurred in the early 2000s when they still worked in their paid job. At the time, they were developing a campaign to launch a new product. They explained that the product was based on a theory that everyone in the world is linked to one another through a chain of six people, which inspired an idea for an alternative campaign to the more traditional one.

I suggested to our online developers at the time that I'd had an idea, asking if we could create a web service where people could log in and sort of see who they know, to see if this theory could actually work in practice, and they were like, 'Yeah, this is a really good idea, let's do it. (Entrepreneur A)

They continued developing the idea into a demo that worked. Everyone they shared the idea with within the company supported it. However, the managerial team at that time thought the idea was too radical and wanted to launch the product with print ads instead. Entrepreneur A explains they tried to convince them, saying they can do print ads as well, but they still wanted people to sign up to this web service and verify the theory behind the product, but they were faced with a no, so they dropped the idea. Then two years later, Facebook came. Entrepreneur A said in the interview that the environment they were in made it possible to see the opportunities, but also hindered the possibility to follow them through, as such ideas were often suppressed by management. In a previous public interview, entrepreneur E has shared accounts of similar challenges when they were still working in a larger corporation. They explained they felt they did not have enough control and that they had a bunch of ideas they were unable to act on, which then motivated them to leave and start as an entrepreneur. (Podcast published on Spotify<sup>4</sup>.)

When they were younger, they could seize quite a few of them or had channels through which they could advance the ideas or maybe give them to someone else, they explain. They elaborate on how they have been afraid of losing their ability to exploit the ideas that come to them, which they perceive as one reason why they have ended up starting so many businesses.

When ideas come all the time from everywhere, there is that risk, that everybody has, that you don't seize them. And when you go long enough not seizing them, then you never seize them. I have even had such situations where I am forced to seize something because I'm afraid that I'll lose the ability to seize them otherwise. (Entrepreneur E)

Entrepreneur A emphasised that possibilities are endless, and that there will always be another idea, because there are so many parallel realities to draw from. They stated they think everyone has the

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<sup>4</sup> More detailed reference would risk revealing the participant's identity.

same potential, not only neurodivergent people, as long as one opens their own mind. In a similar vein, entrepreneur E explained that they were introduced to the idea of ‘thinking of thinking’ on a lecture, after which they started to develop their thinking skills, and told it has enhanced their ability to process ideas more rationally when they are still at the thought level.

#### 5.1.4 Evaluating opportunities through development

All the interviewed entrepreneurs explained that when they recognise an opportunity, they do not act straight away but engage in some sort of evaluation. Many entrepreneurs explained that their evaluation progresses as they start developing their ideas and receive feedback. Entrepreneur D explained that although they had done some profitability calculations and business plans when they started their business, they had not spent much time evaluating whether something was worthwhile or not; instead, they had just gone for it and then gained an understanding by doing. They stated that they did have some kind of plans, but they did not necessarily follow them, although they should have. Similarly, entrepreneur B stated that they prefer launching the ideas at an early phase and then developing them on. They stated that they seek to acquire the amount of knowledge they need to get started, and then quickly moving to testing, seeing what works, and developing the idea as they go. Entrepreneur E explained that perceiving EOs always involve rounds of refinement, sometimes ending up discarding ideas, sometimes putting them aside for some time, and sometimes persisting with them until they follow through.

The way I see the startup world, for example, very few ideas are the kind where you nail it on the first try, they’re more like you bang your head against a wall and might even go back to that original idea, and then, when the time and place are right, it just falls into place. (Entrepreneur E)

The accounts of entrepreneurs portrayed the interplay of intuitive and rational thinking. As entrepreneur A explained, their evaluation is built on intuition, where it all begins. They stated that before they had relied on the opinions of others but have since put less emphasis on that and instead started to find support from the research literature. They said they use it to find support not only for business ideas but also for developing operations at work, or what kind of products to develop and why. They said they had started looking for credibility or a scientific basis for their ideas from research, because they need more than just an intuition or a good idea.

Like ‘okay guys, here are ten studies that support this, and here are ten studies that oppose it, and I’ve synthesised all of this to and this is why we have to do it.’  
(Entrepreneur A)

They described that the process of having a business idea usually proceeds as follows: first they have an idea, then start looking for information, process this information, and finally involve other people in developing and evaluating the idea further. They explained that they try to discuss the idea with as many people as possible, to explore people's reactions, whether it sparks their interest. The description of how entrepreneur E evaluates their ideas resembles closely the account of entrepreneur A. Entrepreneur E explained that when they evaluate their ideas, it typically involves pen and paper, especially in the early phases, and that they have always had many good people around with whom they have been able to discuss the ideas they have. Another thing they explained they do often, is discussing with AI in the car, which they explained they may do nowadays even more than sketching the ideas on paper.

Pretty much, if I have an idea, I might call 50 people to see what they think. For example, when I started my first company and the second, I called everyone I knew. It didn't matter if it was the owner of a flower shop or whatever, I told them about it and that if they had any thoughts, they could get in touch. (Entrepreneur E)

Similarly, entrepreneur C explained that when they have a new idea, they allow themselves to investigate the idea, and if they are still looking into it a couple of weeks later, the idea may be worth considering. They continued that they do not seize ideas right away, but examine all sides of them, which they said is also a great way of implementing ideas.

Basically, just read and read and read... That way, you really do find out quite a lot. And then, if it's a boring topic, you'll have enough time to realise that maybe it's a no-go after all. (Entrepreneur C)

When asked whether there may be some evaluation based on feelings, they stated that, at least nowadays, they specifically know that it is not worth pursuing things based on emotions, instead, one should investigate and examine them. Continuing this, entrepreneur C said that it may be because they read so much, which is why their general knowledge is so extensive, that it gives them an understanding of where things usually lead. They noted that with pattern recognition, they can sense problems with logic already from afar these days, which they said may be what helps the most.

To conclude, all entrepreneurs described that their entrepreneurship was motivated not only by being eager to seize a good idea, but also because entrepreneurship was seen as a way to avoid boredom and have more freedom. The responses of entrepreneurs suggest that perceiving EOs stems from a strong innate curiosity towards a variety of things, which some considered to be related to their ADHD-tendencies, such as impulsivity. Another thing that emerged often was creative capabilities and the ability to make connections between seemingly distant concepts. Additionally, many

responses highlighted the ability and motivation to start and explore with ideas, although also serendipity, luck, and chance events, were mentioned as influential. Evaluation of EOs was described to be a process that involves both intuitive and rational analysis, networks. Instead of spending a lot of time making thorough plans, the entrepreneurs described evaluating and developing EOs by starting to quickly develop the idea in practice and shaping it according to feedback.

## 5.2 Perceiving international opportunities

### 5.2.1 Motivations to internationalise

All the interviewed entrepreneurs saw that the recognition and evaluation of opportunities domestically or in international contexts was quite similar, although there are more things to consider when doing business internationally. Although entrepreneurs did not perceive there to be a great difference in how they perceive EOs and IOs, the answers of how the IOs emerged were less based on creative combination of knowledge, which was dominant in their responses concerning EOs, and more based on intentional creation or co-creation of international activities. For example, when asked how the internationalisation of the entrepreneurs' businesses began, the answers were to grow, to survive, or both, as opportunities in Finland were seen as limited. Thus, most of the entrepreneurs described that IOs were created intentionally to grow their businesses, some were also motivated to build an international business from the beginning.

We don't really believe there's huge growth potential on the domestic market, but there's plenty of it out there in the world. (Entrepreneur C)

The small size of the domestic market was also reflected in the answers of entrepreneur E. When asked why they have expanded their operations internationally, they said the reason is that Finland is too small, there is not enough money, customers, or market. To illustrate this, they shared a story comparing the opportunities entrepreneurs have when they start in Finland or abroad. Ten years ago, when they started their company, their colleague from London also founded a company. Now, the revenue of their colleague's company has reached 100 million euros, whereas their company's 10 million euros. They add that they do not think they are any different from their previous colleague, and they even think they had a better team. Entrepreneur E theorises that the reason must be that their previous colleague is in England, and there is just a lot more potential there. Therefore, they continue to the point that to grow a company in Finland, an international mindset is a must.

I'm not someone who feels bitter or jealous, but sometimes it does make me wonder that when you're starting here in Finland, just getting your company's revenue up to a million is already a pretty big deal. Let alone 140 million, or even 100 million, but yeah,

in my opinion, Finland demands that you have an international mindset. (Entrepreneur E)

Similarly, entrepreneur C explained that they launched their online store in English after five years of domestic operations, and since then, they have had a great interest in internationalising their company. Entrepreneur C stated that they think they are a particularly good firm to internationalise, as they have found naturally such a niche that is even a little too small for Finland.

### 5.2.2 Approaching internationalisation

The strategies of how the entrepreneurs have approached internationalisation have varied from launching an international online store to acquiring foreign companies, and some were motivated to build an international business from the beginning. Entrepreneur A explained that internationalisation was an aim for their company right from the beginning. They ‘saw’ how the operating environment in retail was changing and e-commerce was becoming more prevalent, instead of physical retail stores. However, they emphasise it was not only their intuition, but also something research supported. This resulted in the decision to do e-commerce from day one, so that they can sell anywhere in the world. Since then, their internationalisation has involved, for example, recognising and seizing unexpected IOs, although entrepreneur A explained that the basic mechanism of recognising IOs and EOs is the same: strong intuition, balanced by scientific research.

In similar vein, entrepreneur E explained that during their international entrepreneurial journey, they have developed strong international networks, which they perceive as one of the greatest resources for seizing or developing opportunities, for example when looking for funding to an idea. Once internationalising, entrepreneur E explained that it is often so, that opportunities start emerging on the way.

When you start to internationalise and expand into other countries, you often need to hire employees from those countries, meet new people, and build a network. Yes, one thing leads to another. (Entrepreneur E)

Several entrepreneurs emphasise testing and experimenting in their internationalisation journeys. For example, entrepreneur C described that their company has internationalised following the best practices of the Agile method, which means they have taken small steps forward with a minimum viable product, which they have started to build on, going through rounds of trying what works, receiving feedback, and proceeding with what does. They have used this approach in testing which international markets work and so decided to continue with the ones that do. In a similar vein, entrepreneur E stated that with IOs, it is essential to first research the market, which they have often

done with the support of Business Finland. They continued that it is essential to start testing at a very early phase, although this often requires a local contact. Similarly, entrepreneur B explained their internationalisation involved a test round, not of different markets, but on similar platform domestically. They explain they had tried launching their products on a Finnish platform but came to the conclusion that the volumes are too low and too dependent on persistent marketing and their own networks. Entrepreneur B said that trying the Finnish platform was sort of a test run before they eventually decided to launch the product on an international platform. They stated that there is already demand on this international platform, which means that, for example, marketing does not require as much effort as it does here in Finland, and that they may be better able to achieve their goal of passive income there.

Seizing serendipitous events were also how the company of entrepreneur C started internationalising on a larger scale. They explained that the process began after foreign social media influencers of the company's target group had visited their website and posted screenshots praising the company on their social media platforms. By coincidence, entrepreneur C's company was about to attend the same trade fair as these influencers, and suggested a meeting, and they decided to collaborate. When they started to internationalise, they did not have any strategy, but rather recognised that there was a great demand there, which they sought to address. They explained that instead of investing 100 000 euros in a campaign and seeing if it works, they invested 100 euros in a campaign and saw whether that worked. In the case of this serendipitous opportunity, they managed to seize it successfully, as after the collaboration, their revenues from this market area alone reached 100 000 euros per month. According to entrepreneur C, they would rather approach internationalisation gradually and in concrete terms, but now that they know what works, it would be time for more substantial investments, which could then start to multiply.

The challenge with taking small steps forward is that the audience you reach is also very small, and the smaller the audience, the less effective it is in terms of generating its own momentum. – If no one has heard about it, the fact that two people have heard about it isn't enough to spread the word; the momentum needs to be set in motion. (Entrepreneur C)

Entrepreneurs did not perceive prior international experience or linguistic skills to have a decisive influence on how they perceive IOs or their decision to internationalise. However, international experience was seen as lowering the threshold to internationalise, or as having the mindset that one can do business abroad, but for example, not having experience from a specific market was not seen as barrier for internationalisation. For instance, entrepreneur B explained that while they are not

planning to do business in the countries, they have international experience in, they think that in general, the mindset that one can have entrepreneurial activities internationally may stem from the international experiences from work and personal life. Similarly, entrepreneur E explained that while it would be preferred that they could do business in English, it is not necessary, and that they have had international operations in multiple markets with which they were not familiar with in advance. They stated that having international experience lowers the threshold to internationalise as one can understand different cultures and people, and that markets are different.

I'm not saying it necessarily has a direct impact on whether you'll succeed, but it does encourage you to give it a try, which is, nonetheless, the first step toward success.  
(Entrepreneur E)

Linguistic skills were neither perceived to hinder internationalisation, but they did have impact on the preference of which markets were targeted. Knowledge in English in the target market was perceived as the minimum requirement, but it was not a prerequisite for doing business either. For example, the greatest international markets for the company of entrepreneur C have been English, and it is also the language they are proficient in in their company. They view that what helps with internationalisation may be the high proficiency in English that people have in Finland, which is why, for them, the language has not been a problem at all.

The challenges entrepreneurs had experienced in internationalisation depended largely on the size, goals, and field of the businesses, but were almost exclusively due to external factors, as opposed to the challenges in entrepreneurship, which were more dependent on individual factors. The exception to this is entrepreneur D who is also the only one of the participating entrepreneurs that had not internationalised their business. When asked why the internationalisation intentions of entrepreneur D were never realised, they said they struggled to balance time and resources as a solo entrepreneur. As entrepreneur D elaborates, in their case, just one good client, even an international one, could have turned their business profitable.

Well, it was probably just that daily grind got in the way. When I did it alone, it basically meant that I'd spend a month selling, and then once I'd made the sales, I had to actually do the work I'd sold. (Entrepreneur D)

Although their internationalisation did not happen, they had an intent to internationalise for the same reason as most of the interviewed entrepreneurs: to seek bigger markets. They state that Finland is quite a small country, where especially entrepreneurial circles are small. Therefore, they figured, it might be easier to get customers who are willing to pay more from international markets.

The external challenges entrepreneurs described to have faced in their internationalisation included a variety of things, for example, entrepreneur E explained that what has been challenging in their international journey has been finding the right partners, sources of knowledge, and being able to test and experiment in the early phases. However, they emphasised that the funding Business Finland provides for discovery activities has been extremely important, in addition to their own networks. Entrepreneur A explained that the challenges in their internationalisation have mostly been linked to cultural differences within their supply chain, which they have overcome through reflecting on what may cause the problems in the cross-cultural interactions, and seeking to address them. Entrepreneur C, in turn, explained that the recent developments in the global economy, such as Brexit and the U.S. tariffs, has posed challenges on the internationalisation as they do not have similar linguistic assets in other potential markets for them. These setbacks in internationalisation have not discouraged them but have instead prompted them to develop different methods and routes to the international market. Entrepreneur C explained that they have, for example, started utilising AI translations on their websites, as well as started outsourcing marketing to local influencers, which has proven a successful approach.

All in all, perceiving IOs was viewed as a combination of intention, serendipity, and being open and quick to explore and experiment in uncertainty. International experience and linguistic skills were seen as facilitating factors lowering the threshold to internationalise in general. What was emphasised, was the role of networks, which was viewed as a source of knowledge and support in enacting, evaluating, and seizing IOs. Perceived challenges in internationalisation varied from a solo-entrepreneur lacking time and resources to internationalise to facing unexpected external barriers, such as tariffs, causing setbacks on already established international operations. Instead of seizing international operations, several entrepreneurs explained staying persistent and taking creative approaches to overcome these challenges.

## **5.3 Challenges in entrepreneurship**

### **5.3.1 Linking ADHD and entrepreneurship**

During the interviews, entrepreneurs described on many occasions how they perceive ADHD has shaped their entrepreneurship and internationalisation, and despite emphasising different things, all entrepreneurs viewed it has had an influence, and it many even saw it as a resource. As discussed in chapter 5.1, the respondents emphasised that they perceive their cognitive traits and tendencies may be where they get their entrepreneurial ideas or spirit in the first place. As entrepreneur D explained

they feel like they tend to do things differently than others, describing it as if everyone else go in one direction, they go in another. According to them, straying from the main path may be where the opportunities are discovered. They explained that they tend to do everything differently from everybody else, describing it as if others go in one direction, they go in another, at least they feel like it. According to them, straying from the main path may be where the opportunities are discovered.

If you imagine walking along a path in the woods, people with ADHD are typically good at picking mushrooms and berries. While everyone else just follows the path, you can see me heading off into the woods, boots on, finding those mushrooms and berries. What I'm saying is that sometimes straying from the main path is exactly where you find those opportunities. (Entrepreneur D)

When the researcher clarified whether this meant having the courage to choose paths that others wouldn't even consider, Entrepreneur D replied that 'daring' is a beautiful way of saying it, as some might call it impulsive behaviour. Entrepreneur B explained that it is easy for them to absorb information. If they get excited about something, they can immerse themselves in it for a whole day and gain a great deal of knowledge and understanding in various areas, which they deem to be beneficial in entrepreneurship. While not coined specifically as 'hyperfocus' the accounts of entrepreneurs A and C reflected how they are able to concentrate and have a lot of energy in things that interest them.

It doesn't work out so well with a family, but back when I was single, I had this crazy lifestyle where I'd wake up in the morning nice and easy, go outside, do a little of this and that, and then just work my butt off until late at night, sometimes even until morning. (Entrepreneur C)

Entrepreneur E explained that they perceive that the influence of ADHD on their entrepreneurship has been huge. They explained that they see their ADHD has developed very well, because they have always been very positive and curious, which they perceive may be due to personality traits as well. They continued that they believe curiosity is one highly valuable trait that comes in part from ADHD. Another thing they mentioned has potentially contributed to their ADHD developing so well is a great upbringing and being surrounded with dependable and supporting people. Similarly, entrepreneur C noted that they think ADHD has shaped their entrepreneurial journey very strongly, and that it is even reflected in their whole company, as it is very neurodiverse. They continued that they perceive neurodiverse individuals are extremely creative, and when they are interested in something, they are really interested in it. For another, they perceived that ADHD has influenced their entrepreneurship in that it makes them open and not afraid of challenges.

We're not afraid of anything here, it's not like, 'God, this is awful, this could lead to disaster or be really difficult or something', but more like, 'Oh yeah, new challenges, let's go there.' (Entrepreneur C)

Another perceived influence of ADHD that emerged in the responses of all entrepreneurs, was that entrepreneurs viewed it to be linked with their ability to start things. For instance, entrepreneur C explained that they enjoy setting up companies and having projects running here and there. This is reflected in their multiple side businesses they run alongside their main business. Similarly, entrepreneur E explained they are very good at starting and putting things into action, but once things reach the point where everything is up and running, and it is time to start optimising processes, it is no longer their area of expertise. Entrepreneur E's abilities in starting things are well verified in their accounts of starting and running several businesses simultaneously. That said, entrepreneur C explained that nowadays they have a lot less unfinished projects, and they said it may be due to ADHD symptoms alleviating with age.

What also emerged in the responses was that entrepreneurship was seen as a way to cope with ADHD. Entrepreneur B stated that entrepreneurship is a way of facilitating their everyday life, because they can fit work better in their lives, as entrepreneurship provides more flexibility in terms of workload, for example. Entrepreneur C, in turn, explained that they perceive entrepreneurship is a great way of coping for individuals with ADHD in general. They stated that school requires one to be diligent and able to concentrate, and if one struggles with that, then one struggles with doing well there. Entrepreneur C explained that once you become an entrepreneur, it turns out you do not have issues concentrating, when you can concentrate on the things that you find interesting, and you do not have problems getting things done, when you can do them your way and with your own vision, getting a lot of things done, positively channelling the hyperactivity. Entrepreneur C noted that once a business becomes larger, someone should come and pick up the strings that fall from their hands, but luckily, they have employees for that. As entrepreneur B explained, although entrepreneurship may sometimes cause anxiety or feel hard, they would still rather choose to battle with the challenges related to their own business, such as lack of customers, than with the challenges when employed elsewhere, such as difficulties with managers.

In total four of the five participating entrepreneurs shared the perceptions of ADHD having a strong, and mainly positive influence on their entrepreneurial journey. Entrepreneur A noted that it is difficult to distinguish what is caused by who they are and what is related to their diagnosis. They continued later in the interview that they believe that what has most shaped their entrepreneurship is who they are and not their diagnosis.

–I believe that’s a more significant factor than the diagnosis itself. Personally, I don’t identify as neurodivergent or as someone with ADD. I recognise it and know what the downsides are. I know there’s probably some benefit to it, too. Those things aren’t necessarily good or bad, they just are. (Entrepreneur A)

To conclude, the participating entrepreneurs perceived that ADHD has had some kind of an influence on their entrepreneurship, and while not all entrepreneurs highlighted the positive influences, they were more emphasised than the negative ones. According to the accounts of entrepreneurs, ADHD seemed to be linked to possessing several tendencies, capabilities, and attitude, which may be beneficial for entrepreneurship, such as opportunity recognition, hyperfocus, and the ability of starting things.

### 5.3.2 ADHD-related challenges

While there was one question in the interview about how they perceive their ADHD has influenced their entrepreneurship, the topic also emerged without being directly asked about it. For example, when asked whether the entrepreneurs had faced challenges in entrepreneurship, many responses highlighted difficulties, which they attributed to their ADHD traits. While the responses of the entrepreneurs varied in whether they perceived specific traits or tendencies to be related to their ADHD or developed over time, but either way, the entrepreneurs described facing similar challenges.

One of the challenges that emerged in the responses of the entrepreneurs were the experiences of being misunderstood by others or themselves. All participating entrepreneurs were diagnosed as adults and their responses collectively emphasised that the process of receiving the diagnosis increased their understanding of themselves and their behaviour, thus, many entrepreneurs explained that the challenges have alleviated since being diagnosed. For example, entrepreneur A stated that looking back, they recognise that their ADD traits have contributed to the challenges they have faced in entrepreneurship, but they noted that they do not think that the traits or tendencies of individuals with ADHD or ADD are innate but rather accumulated over time. They continued that although the traits are still present; after being diagnosed they have been better able to cope with them, as they have more understanding about the tendencies and what causes them. Gaining more understanding through diagnosis was decisive in that entrepreneur B started their business. They explained that although being an entrepreneur was always something they aimed for, for a long time it felt confusing, as they did not know where or what they needed to begin. Once they received the ADHD diagnosis, things began to become clearer.

A lot of things clicked in my head, and I understood what was causing it, why things had maybe felt so complicated before. Then, pretty much in the middle of it all, I was like, well, now I'm going to get started on that too. (Entrepreneur B)

Both entrepreneurs C and E elaborated on their experiences of being misunderstood by others. Entrepreneur C explained that their relationship with the first CEO in their company was really bad when they eventually got their ADHD diagnosis, and they think that it could have been better if they had had a conversation right in the beginning, where entrepreneur C could have explained that they are not like that on purpose. They continue the idea that people who do not have ADHD assume that, as certain things are not difficult for them, the fact that someone leaves them undone is because they are spiteful.

—if you could just have the conversation, that it's not about being a jerk, but that it's just a hell of a lot harder. (Entrepreneur C)

Entrepreneur C explained that, as they had gotten to a point where they were owners of a big company, whenever something got left undone, or someone else had to take care of a big task because of them, it was shameful and upsetting. They explained that receiving the diagnosis relieved them of a great deal of shame, as they realised that certain things are indeed much more difficult for them than for others, and that it is not that they are bad, which is something they had been told so often. They describe that it was some sort of absolution, that it is not just that they are a bad person, but that their brain is actually different, and these things just are difficult.

The difficulties getting boring or repetitive things done emerged in many responses. Elaborating on the challenges they have faced in their entrepreneurship, entrepreneur A stated that before getting a diagnosis, they struggled with things left undone and bills unpaid, not because they did not have money, but because it is simply difficult to get uninteresting things done. Also, entrepreneur E said that they struggle a lot with mechanical, repetitive tasks. They explained that, for example, expense reports may be a massive operation.

All those repetitive mechanical tasks you have to do, they're just extremely difficult. Such as expense reports, you buy something with the company credit card and then have to file the receipts. I often end up having to process a whole year's worth of receipts at the end of the year, and it's a horrific operation. (Entrepreneur E)

In a similar vein, entrepreneur C described that they have difficulties getting the complicated and boring things done. For example, completing financial statements in time has become a problem because it is uninteresting to them. As they explained, their accountant would do it, but they need their help, and if they send an email to entrepreneur C telling 'do these things' and they never read it,

nothing happens. Related to this, another challenging thing is complicated applications. They said that because the financial statements were delayed, one customer refused to pay an invoice until entrepreneur C's company was in the Prepayment Register. They continued that this invoice has been pending for almost six months, because they have not had the energy to check the status of the application.

As far as I know, I've already applied once, but I don't know what's going on with that application. And it's really hard to figure out. I once spent an hour trying to figure it out. And then I realised I needed to get back to doing some actual work. Problems like this come up quite a lot. (Entrepreneur C)

Entrepreneur C explained that although they struggle to get the boring things done, they understand how important it is to do them, and therefore, can force themselves to do them. When the researcher asked them to clarify whether it is especially the bureaucracy related to entrepreneurship that they struggle with, entrepreneur C replied that yes, it is very difficult because it is boring and does not bring anything new. They stated that it is like cleaning up the past things, and they are not good at cleaning either.

Impulsivity was another aspect the entrepreneurs explained had caused difficulties in entrepreneurship. Entrepreneur E explained that before being diagnosed with ADHD, they had problems with impulsivity and struggled with patience, as sometimes one does not need to do anything, but have patience and wait and observe. They explained that they tended to react instantly, which was not always a good thing. Before being diagnosed, impulsive tendencies caused difficulties for entrepreneur A as well, who told that they tended to avoid conflicts, but were also impulsive, which caused problems also for the business.

–I was a very passive communicator, but on the other hand, I was impulsive, even hot-headed, so I just kept quiet, I didn't really say anything in a conversation or anywhere else like, 'This is how I feel about this', I just went along with it until the whole thing somehow went to shit, and then I exploded. (Entrepreneur A)

The tendency to hyperfocus was not only perceived as a positive thing. Entrepreneur E described how they can sink into deep, hyper-focused states and experience prolonged periods of concentration during which they are oblivious to everything except what they are doing. They explained that at one point, they worked around the clock for a couple of years on several major simultaneous projects, which they predict would have ended up in a burnout, if they were not forced to stop after facing a tragic event in their family. As entrepreneur E stated, they perceive it is one of the challenges with

ADHD, that one does not necessarily stop to think, unless something from the environment forces them to.

### 5.3.3 Approaching uncertainty and challenges

When asked how they deal with uncertainty in entrepreneurship, all entrepreneurs said that they either deal with it very well or see it as a neutral thing. For some entrepreneurs, uncertainty was something that motivated them to work harder to reduce it. For example, entrepreneur D stated that although uncertainty has not been a barrier to entrepreneurship in any way, but it is easier to cope when they are more certain about what will happen. Also, entrepreneur B noted that although entrepreneurship involves uncertainty, for example regarding where they get the next customer, they are able to approach uncertainty in entrepreneurship very well, and things have always sorted out eventually.

I feel like I'm a bit of a worrying type who tends to want to control things and get nervous, but when it comes to my business, I often find myself thinking, 'Well, clients will come from somewhere, and something is always happening.' And things have gone pretty well so far. I feel like right at the last minute, when I should have really started thinking about sales and seriously started figuring out what to do, something has just appeared out of nowhere. (Entrepreneur B)

Entrepreneur C explained that uncertainty has never been a problem for them, and they emphasised that they see themselves as a positive human who does not get down on challenges. 'Always eager to face new disappointments', entrepreneur C concluded. They continued that facing financial challenges may stress them, but they think they can stress less about it than others. They stated that if there is no acute worry, they even enjoy seeing what happens. They explained that they do not find stability and long-term plans important, which is why it was not until the current CEO came to their company that three-year plans started to be formed. When asked whether entrepreneur C has this sort of approach, where they adapt to the moment, they answered that yes, seizing opportunities and seeing where they lead. They stated that they find it really enjoyable and liberating to be able to do so.

Several entrepreneurs explained that they respond well to setbacks and challenges, and that failures are something to learn from. Entrepreneur A said they approach challenges as learning experiences. They stated that there will always be uncertainties and challenges in entrepreneurship, and one must be able to tolerate them. They emphasised that it is more about how one responds to them. Their approach is to be present and accepting of what is, rather than ruminating on the situation. As they explained, one can rarely choose what kind of circumstances one has, but one can always choose how one responds to them. Similarly, when entrepreneur D was presented with a vignette and asked about how they would react when an international business opportunity they had seized would end up

failing, they stated that they have encountered so many failures like that in their life that it would not affect them anymore, and although facing it does not feel good in the moment, it is always good in hindsight. Similarly, when entrepreneur E was presented with the vignette and asked whether a seized IO that ended up failing would affect their approach of new opportunities, they stated that failures are part of each success.

In life, a lot of things don't go the way you planned, and even when you do plan, they don't turn out that way. So, in the same way, this uncertainty is just part of the game. I'm sure it takes hundreds or thousands of failures to achieve a single success. They don't affect me in the slightest. (Entrepreneur E)

Entrepreneur D stated that also the diagnosis is something that can cause insecurity, as one may question whether they are as capable as others. They explained that comparing themselves and their skills was more prevalent at the start of their entrepreneurship and has reduced with time. While not talking about insecurity related to ADHD, entrepreneur E talked about insecurity in general and stated that they perceive insecurity as something everyone has, and therefore one just has to accept and acknowledge that one has to deal with it.

–the way I've been thinking about it, it's kind of like, if everyone won, then no one would win. It's exactly the same thing. When everyone has it, then it doesn't exist. It's maybe a bit of a loose comparison, but it's just that if everyone has it, then it doesn't exist. (Entrepreneur E)

When asked whether entrepreneurs had faced challenges in entrepreneurship, most of the responses perceived the challenges to be directly or indirectly caused by their ADHD traits or tendencies. When asked how participants have managed with their ADHD traits in entrepreneurship, the responses included varyingly self-reflection, medication, and support from others. On the other hand, writing up ideas and using a calendar, were also mentioned. Many responses highlighted the importance of other people. Entrepreneur C said that coping with the challenges related to their ADHD in entrepreneurship became a lot easier when they started hiring proactive and capable employees who took on tasks they did not complete. Similarly, entrepreneur C explained that their first CEO wound up as such, as they had started to complete tasks a CEO would, and were eventually appointed as one. Entrepreneur C said they have told many entrepreneurs with ADHD that it is worth hiring a CEO, as an individual with ADHD is not the best possible CEO.

I think I'd be a pretty decent CEO right now. Probably not the best one. But if I had to be that kind of creative CEO who has a pretty strong CFO and a secretary on top of that, I'd be pretty good at it now, because as far as I understand, ADHD is the kind of thing where the symptoms ease with age. (Entrepreneur C)

In a similar vein entrepreneur E explained that for them, a strong and versatile team has been vital in running their several businesses. They explain that they themselves are great at starting and putting things into action, one person in their team is great at handling project management, one in financial matters and sales, and one excels technically. They said that running many businesses was quite a mess at times, but as the other three main owners are all very organised people, they managed to keep everything under control.

Challenges unrelated to ADHD emerged in the responses of the two solo-entrepreneurs, B and D, who explained that they have sometimes struggled with working alone and getting paid. Entrepreneur B stated that sometimes when they do not have a customer or team to work with it may feel difficult to get things done and decide when to do what.

And since you're not really accountable to anyone, that's maybe the kind of thing that can be a bit of a struggle sometimes, as it does make things easier when someone checks in on you, even though at the same time I don't really miss the having a regular job or a boss. But then again, it does have its advantages. (Entrepreneur B)

Entrepreneur B explained that they have started working in a shared office, which has helped to get things done by compensating for the need to be accountable to someone. Additionally, they have attended events to have discussions and get peer support from other people. Similarly, entrepreneur D explained that they have struggled with not having networks, and stated that in the hindsight, they think they should have asked for more help during their entrepreneurship than they did, instead of trying to do everything on their own.

To conclude, the perceived challenges and uncertainties of entrepreneurs varied depending on the size and field of business as well as personal factors. However, common challenges that emerged from the responses the entrepreneurs related to their ADHD, such as difficulties completing boring tasks or experiences of being misunderstood. However, what the findings strongly suggest is that the participating entrepreneurs perceived they handle challenges and uncertainties in entrepreneurship well, which was perceived to be due to having built resilience towards challenges in life, as well as a positive and optimistic attitude.

## 6 Discussion and conclusions

### 6.1 Synthesis of key findings

The aim of this thesis is to explore how entrepreneurs with ADHD experience their international entrepreneurial journeys. The main research question is: *How do entrepreneurs with ADHD experience their international entrepreneurial journeys?* The research problem was sought to be answered through the following sub-questions:

1. *How do entrepreneurs with ADHD describe perceiving entrepreneurial opportunities?*
2. *How do entrepreneurs with ADHD describe perceiving international opportunities?*
3. *How do entrepreneurs with ADHD describe approaching challenges in entrepreneurship?*

The first sub-question of how entrepreneurs with ADHD describe perceiving EOs, was approached through recognition and evaluation. According to what the participants described, they recognise opportunities effortlessly and often, which is in line with the previous literature suggesting entrepreneurs with ADHD have higher entrepreneurial alertness (Moore et al. 2021, 81), found central for both EOR (Ardichvili et al. 2003, 106) and IOR (Tabares et al. 2021, 335). The accounts of entrepreneurs on the preference for novelty seems to support prior research, which proposes that individuals with ADHD present higher levels of novelty-seeking tendencies (Le Cunff 2024, 284), and that there is a link between the personality trait openness, involving preference for novelty, variety, and intellectual curiosity, and the neurocognitive profile of ADHD (Van Dijk et al. 2017, 259). What the entrepreneurs emphasised as an important source of ideas was that knowledge combines in their heads which was described as an automatic or subconscious process, not necessarily intentional, reflecting broad associative capabilities and creativity. These descriptions of combining knowledge and making cross-domain connections, seem to reflect creativity and the ability to use association broadly and subconsciously, connecting concepts that may be loosely related, which are essential in opportunity recognition (Butler et al. 2010). Prior literature has found that creativity and divergent thinking foster opportunity recognition (Gielnik et al. 2012, 571), and that these cognitive capabilities are higher in individuals with ADHD (Sedgwick et al. 2018, 244). The findings of this study seem to support this literature.

Several entrepreneurs described that their curiosity and eagerness to learn new things resulted in these opportunities to emerge, and that they thought of their ability to connect the dots as a strength. Also in previous literature, curiosity has been reported as an advantage by individuals with ADHD

(Sedgwick et al. 2019, 244). Curiosity motivates individuals to acquire new information and learn and is theorised to be potentially higher in individuals with ADHD (Le Cunff 2024, 284). Additionally, curiosity and openness are found to drive opportunity recognition, at least serendipitously (Cunha et al. 2010, 320–321). This is in line with the findings of this study, which reflected that the ideas and opportunities to emerge the tendency to be naturally interested in various things, eager to learn, prefer novelty, and ready to experiment. The entrepreneurs' descriptions of perceiving EOs highlighted several cognitive tendencies and capabilities, namely intuition, learning, curiosity, creativity, association, and bisociation. Entrepreneurs explained that their evaluation often develops by doing and receiving feedback. These results are in line with prior literature suggesting that entrepreneurs employ both effectuation and causation, fluctuating between intuitive and rational thinking, depending on the level of uncertainty and knowledge (Zimmermann et al. 2025, 2888). All in all, these accounts of iterative development and seizing serendipitous events, resonate well with effectual approaches, where entrepreneurs utilise, unexpected occurrences shaping and reconstructing goals and means as the situation evolves (2001, 245–246; 249–250).

The second sub-question, how entrepreneurs with ADHD describe perceiving IOs seemed to be motivated by the intent or openness to internationalise, and take shape through iterative learning and experimentation, involving both effectual and causal reasoning, as well as seizing serendipitous events, such as inquiries from stakeholders. As literature suggests, although luck is important in recognising and seizing opportunities, individual and their capabilities are decisive in whether something is made of the unexpected (Crick & Spence 2005, 182). The findings of this study support previous literature which emphasises that IOR often involves both passive and active search of opportunities and can also be intentional opportunity creation (Peiris et al. 2012, 294). All the participating entrepreneurs had an intent to internationalise, a limited set of means, which they started combining in different ways, experimenting with what they have, and proceeding with that, resonating with effectuation. These findings support prior literature, that has found effectuation to be relevant for internationalisation of smaller firms as it often involves serendipitous events (Balzano 2022, 140).

While perceiving EOs was described to start from having 'eureka' moments of creative insight, and then developed and evaluated with effectual approaches, effectuation seemed to be even more emphasised in perceiving IOs. This is in line with effectuation and IE literature, which proposes that effectuation is suitable in uncertain conditions where unexpected contingencies are frequently emerging (Sarasvathy 2001, 245–253), and that in situations where there are more uncertainty and

less knowledge, effectuation approaches become more relevant (Zimmermann et al. 2025, 2888). The role of networks in creating and evaluating recognised opportunities is emphasised in entrepreneurship and effectuation literature (e.g. Sarasvathy 2001, 245–250; Crick & Spence 2005, 180, 182; Oyson & Whittaker 2015, 327), which the findings of this study support, in that IOs often emerge from the interactions between different stakeholders, and that entrepreneurs tend to involve their networks in developing and evaluating them.

In addition to experimenting, learning, and adapting, the entrepreneurs described that they also utilise rational analysis in evaluating the opportunities as they acquire more knowledge and feedback. How the participating entrepreneurs described evaluating and seizing opportunities did not resonate with impulsive decisions or acting without thinking, which is often associated with ADHD (Verheul et al. 2015, 88; Wiklund et al. 2016, 19). The findings suggest that risks are not ignored and opportunities are assessed from many angles, often involving thorough researching and acquisition of knowledge. However, the risk of missing an opportunity rather than the risk of an opportunity turning out to be a failure appeared more decisive for many entrepreneurs. This seems to be in line with prior research on ADHD-related decision-making, which suggests that individuals with stronger ADHD symptoms do not necessarily perceive risks as lower, but may differ in how they evaluate the potential benefits of actions how strongly these perceptions influence behaviour (Shoham et al. 2016, 5).

The third sub-question, how entrepreneurs with ADHD approach challenges in entrepreneurship reflected persistency. As the findings suggest, the participating entrepreneurs perceived that they respond well to uncertainty and are little or not affected by it, which is crucial for entrepreneurship and IE (e.g. Olson 1985; Butler et al. 2010). Several participants described perceiving challenges as learning experiences and responding to them with persistence. Challenges were perceived as part of normal life, which is also what literature on challenge-based entrepreneurship proposes (Miller & Le Breton-Miller 2017, 10). The responses highlighted that having experienced failures had built up their resilience and persistence in facing challenges in entrepreneurship, which is in line with prior literature, suggesting that individuals that have overcome challenges related to mental adversities have likely an enhanced resilience having developed skills and resources (Wiklund et al. 2018, 186). On the other hand, several entrepreneurs described themselves as optimistic and having a positive attitude, which contributed to handling uncertainty and challenges, and tolerating risks. This resonates also with the outcomes proposed in the challenge-based entrepreneurship model, suggesting that facing specific challenges may lead to outcomes related to persistence, risk tolerance, networks, and creative approaches (Wiklund et al. 2018).

A recurring theme across participants was the challenges of doing repetitive or boring tasks, which is acknowledged as a difficulty among individuals with ADHD (Moore et al. 2021, 68). Other challenges that emerged related to ADHD, were impulsivity and being misunderstood, which caused problems especially socially. Furthermore, some entrepreneurs described several coping mechanisms which they perceived as maladaptive, which they had begun replacing with more adaptive ones since receiving a diagnosis. All in all, receiving a diagnosis was perceived to alleviate symptoms and accumulated adversities, mostly due to increased understanding and knowledge of the condition. As research suggests, the compensatory strategies individuals develop over time influence how ADHD symptoms are expressed, especially among individuals who are diagnosed as adults (Leppämäki 2018), and that lack of diagnosis may lead to negative consequences, such as developing maladaptive coping mechanisms (Holden & Kobayashi-Wood 2025, 13).

The findings of this thesis are in line with research suggesting that individuals with ADHD may excel at idea generation and initiating multiple projects. The literature also suggests that maintaining effort or implementing ideas may feel uninteresting, as it often requires patience, persistence, and delayed gratification. (Leppämäki 2018; White 2020, 479.) While some entrepreneurs did share accounts of unfinished projects, they were mainly related to side-businesses or situated in the time before being diagnosed. Based on publicly available data on the age and size of their companies, as well as the information shared in the interviews, the findings of this study do not support the claim of difficulties maintaining effort, at least regarding the main businesses of the entrepreneurs. There may be many reasons for this, and one is the support from other people and utilising networks. Networks appeared to be an essential factor for entrepreneurship and international entrepreneurial journeys of the participating entrepreneurs. Some entrepreneurs explained that they have used their networks and other people to compensate in areas where they themselves lack and, for example, built versatile teams or started hiring employees. Others explained that their lack of networks and doing everything by themselves had posed challenges in entrepreneurship, which further supports the importance of external support for entrepreneurs with ADHD. Literature has suggested that entrepreneurs facing specific challenges may have developed enhanced social skills and networks, especially among individuals facing similar challenges (e.g. Bakker & McMullen 2023, 5).

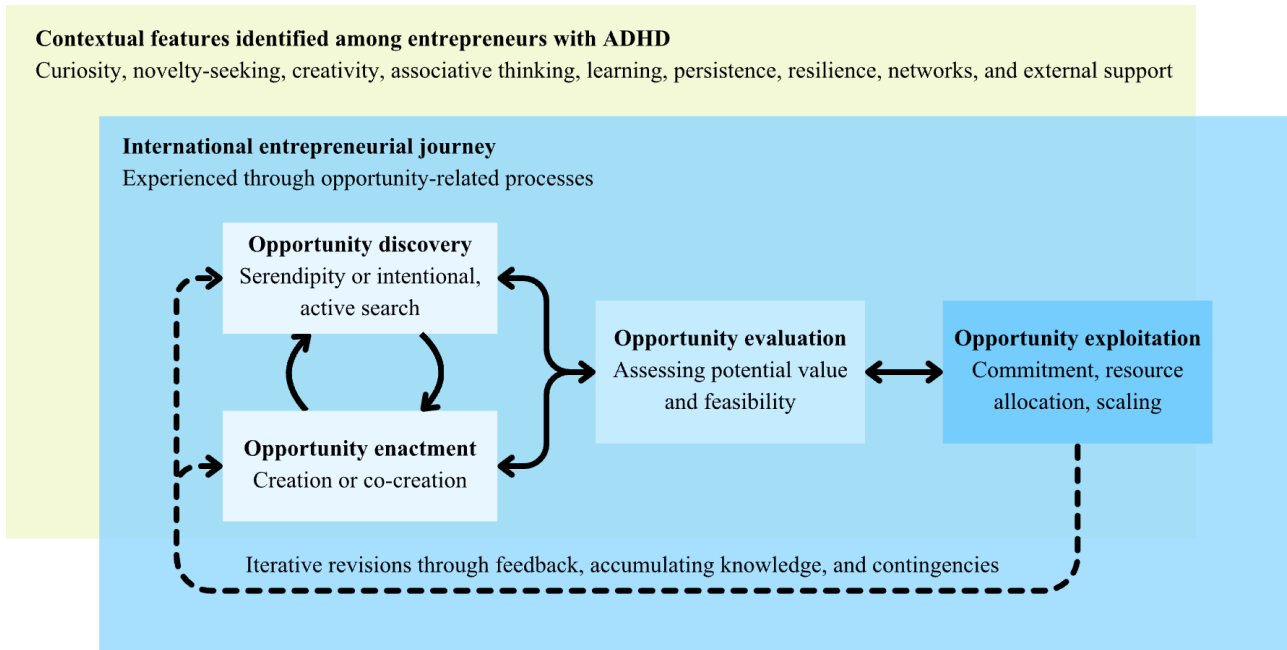
All in all, the findings of this study suggest that the participating entrepreneurs' experiences of their international entrepreneurial journeys resonate with effectuation, which is an approach the participating entrepreneurs use in their entrepreneurship in general: starting with available means, adapting to changing conditions as they arise. Some of the entrepreneurs perceive that the challenges

they have faced in their lives seem to affect the way they approach challenges in entrepreneurship, while others viewed that also their ADHD traits or tendencies themselves have an influence in it. While these influences were not seen only as negative or positive, they were mostly perceived as a strength, and all entrepreneurs acknowledged that they shaped their entrepreneurial, and so their international entrepreneurial journeys in some way or another.

## **6.2 Theoretical contribution**

This thesis focuses on how entrepreneurs with ADHD experience their international entrepreneurial journeys. Despite the growing body of research on neurodiversity and entrepreneurship, prior research has not yet sufficiently addressed neurodiversity in the context of IE. Drawing on Whetten (1989), the theoretical contribution of this study lies not only in applying existing concepts to a new empirical context, but also in explaining how this context may refine understanding of the relationships between opportunity-related processes in IE.

Accordingly, Figure 5 presents a revised model of the international entrepreneurial journey of entrepreneurs with ADHD, accommodated to the findings of this study. The international entrepreneurial journey is experienced through a back-and-forth movement between opportunity-related processes, as illustrated with the arrows. An addition to the model is the arrows from evaluation back to discovery and enactment, as well as the dashed line connecting opportunity exploitation and opportunity discovery and enactment, demonstrating more explicitly the iterative and evolving nature of opportunities, which appeared in the findings of this thesis. Researching and acquiring knowledge from multiple sources appeared to be important for the participating entrepreneurs' international entrepreneurial journeys. Although the participating entrepreneurs' descriptions of opportunity development often resonated with effectual logic, this was accompanied by rational evaluation and causal reasoning, such as acquiring knowledge, assessing feasibility and evaluating risks. This supports prior research suggesting that intuitive and rational reasoning may complement each other in entrepreneurial decision-making.



**Figure 5 Revised model of ADHD and the international entrepreneurial journey**

The foundational layer shown in light green summarises contextual features identified among the participating entrepreneurs with ADHD, including curiosity, novelty-seeking, creativity, associative thinking, learning, persistence, resilience, networks, and external support. These features explain how international entrepreneurial journeys develop and are experienced. In the context of entrepreneurs with ADHD, networks and external support appeared as an essential resource, complementing individual strengths and compensating for areas experienced as challenging. In line with challenge-based entrepreneurship literature, challenges in entrepreneurship were not experienced only as constraints, but also as experiences that had contributed to persistence, resilience and adaptive ways of working.

All in all, the theoretical contribution of this thesis is to explain how ADHD-related traits and tendencies and overcoming challenges, may shape the international entrepreneurial journeys of entrepreneurs with ADHD. Not only does this address a gap in the literature regarding neurodiversity and IE, but it also draws attention to the wider discussion on unconventional and challenge-based entrepreneurship.

### 6.3 Policy implications

In addition to the theoretical contributions, this study also provides practical implications for several actors. Firstly, the findings of this study suggest that international entrepreneurial journeys of neurodiverse entrepreneurs may be shaped by seizing unexpected opportunities as well as early

testing and experimenting, instead of organised strategies or plans. This information is relevant for actors who provide support mechanisms for entrepreneurs, for whom the following policy implications are aimed at. The policy implications for governmental actors as well as entrepreneurship and neurodiversity communities for supporting internationalisation of neurodiverse entrepreneurs are summarised in Figure 6. These implications are suggestions based on the researcher's interpretations of the research data. Thus, they are limited to available data to the researcher, are not exhaustive, nor necessarily represent all possible experiences of the entrepreneurs participating in this study.



**Figure 6 Policy implications for governmental actors and communities**

As summarised in the upper arrow in Figure 6, the policy implications for governmental actors suggest that they may facilitate internationalisation of neurodiverse entrepreneurs through funding market research, early testing, networking, as well as through simplifying application processes for such fundings. Facilitating internationalisation through experimentation, testing markets, and networking may be relevant for all smaller companies, but its influence may be emphasised for neurodiverse entrepreneurs, especially in that they may be more prone to start developing and testing ideas early and seem to benefit from the support and incentives of others. On the other hand, facilitating application processes for funding may especially facilitate the internationalisation

endeavours of entrepreneurs with neurocognitive differences, such as those with ADHD, who often reported struggling with complicated tasks involving bureaucracy. Thus, simplifying application processes for funding for internationalisation efforts, may contribute to more accessible and equal opportunities among diverse set of entrepreneurs.

While this thesis did not analyse internationalisation support mechanisms in detail, unplanned approaches to internationalisation seem to be prominent among participating entrepreneurs. The reasons for this may include many factors, both individual, such as the cognition of entrepreneurs, but also environmental, and the fact that the companies were smaller companies. Smaller companies may internationalise differently than larger enterprises, and at a high speed, despite often being resource-scarce (Knight et al. 2025, 3). Business Finland provides funding that matches internationalisation approaches of experimentation and testing markets, such as Tempo funding (Business Finland 2025). Previously Business Finland has also provided funding facilitating international networking, such as Exhibition Explorer, but this funding is no longer granted from 2026 onwards (Business Finland 2025). Based on the findings of this thesis, such fundings may be especially relevant in supporting networking and alternative paths for internationalisation.

The interviews did not cover whether the participating entrepreneurs had applied for governmental funding for internationalisation, such as that of Business Finland, but the findings suggested, that many times, internationalisation was unplanned, gradual, or serendipitous, which suggests that entrepreneurs have sometimes found alternative ways to international markets that do not require significant investments. The findings of this study support the prior literature on the relevance of networks, which the findings of this study indicate are an important resource in perceiving and seizing IOs. Therefore, facilitating network building both domestically and internationally may be an important means to support a more unconventional and unplanned approaches to internationalisation. Supporting internationalisation through providing funding for networking may be especially relevant for those entrepreneurs who lack broad networks and time to broaden them, such as solo entrepreneurs.

In general, encouraging entrepreneurs to network increases the chances of encountering unexpected opportunities, which may then lead to expanding operations internationally or receiving funding abroad. In addition to governmental bodies, also other organisations providing support for entrepreneurs could facilitate knowledge transfer and seek to connect individuals who could benefit from networking with each other. As presented in the lower arrow in the Figure 6, this thesis suggests various implications for entrepreneurship and neurodiversity communities, which may also be

realised through collaborations between several actors. Concrete measures these actors may support internationalisation of neurodiverse entrepreneurs include organising or funding forums, fairs, and events, where networking with people from Finland and abroad would be possible. By facilitating networking, these actors may support internationalisation on a broader scale without the need to provide funding for individual entrepreneurs.

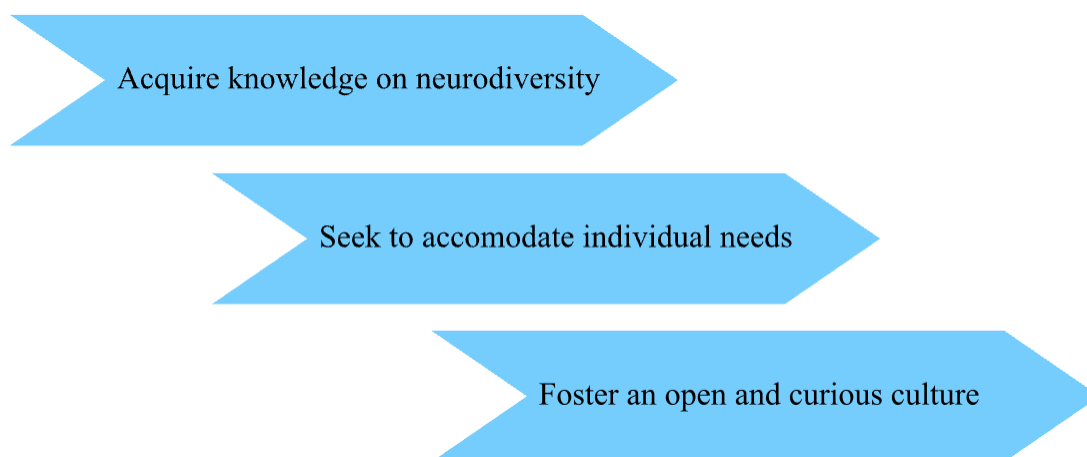
The findings of this thesis suggest that complex and bureaucratic processes may be perceived as challenging for some entrepreneurs, for example those with cognitive differences, like ADHD. Therefore, it is likely that some entrepreneurs could benefit from practical support in funding application processes, especially when an entrepreneur lacks support from employees or networks. Furthermore, the findings of this thesis suggest that the support from others is highly beneficial for entrepreneurs with ADHD, which may apply to also other unconventional entrepreneur groups. Also, prior research has suggested that networking and building relationships with entrepreneurs facing similar mental adversities may be especially relevant for peer support and sharing means to cope with the difficulties and utilise the strengths (Wiklund et al. 2018, 193). Additionally, prior literature suggests that participating in networking activities may foster the self-efficacy and resilience of entrepreneurs (Santoro et al. 2020, 729). Thus, communities and organisations may facilitate entrepreneurs to cope with challenges by providing mentoring and peer support. Additionally, establishing dedicated support groups among entrepreneurs aiming for international growth may facilitate achieving goals through harnessing the power of teamwork and utilising the diversity of individuals. For example, such a support group could be established among solo entrepreneurs in a specific field who intend to internationalise their business and would benefit from brainstorming with fellow entrepreneurs.

#### **6.4 Managerial implications**

In addition to organisations providing support for internationalisation, this thesis provides managerial implications for organisations employing neurodiverse individuals. Prior research has found that neurodiverse individuals may be affected by limited workplace inclusivity (Khan et al. 2023, 1340) which may contribute to higher unemployment rates (Lippi et al. 2025, A83). While entrepreneurship seems to accommodate the needs of individuals with ADHD well, they possess several valuable capabilities for many organisations (Chammas & Hernandez 2025, 512), such as creativity and ability to innovate, which are especially relevant in the uncertain and unpredictable contemporary world and may foster innovation, idea generation, and development in-house.

The findings of this study suggest that conventional jobs in set organisations may feel unpleasant for some neurodivergent individuals. For instance, the participating entrepreneurs explained that they tend to get bored easily, find it hard to fit into set organisational structures, and also appreciate freedom to think, ideate, and do things in their own way. These findings are in line with previous research that has found that individuals with ADHD tend to prefer stimulating work environments that provide challenges, change, and uncertainty, which helps avoid boredom and under-arousal (Lasky et al. 2016, 8). These results indicate that conventional workplaces may not provide individuals enough of a stimulating environment, which may be one motivator to start an own business, whether one has ADHD or similar tendencies.

The managerial implications of this thesis are concluded in Figure 7 and include encouraging managers and organisations to be curious and acquiring knowledge about neurodiversity and each individual specifically, and fostering an open and curious culture at work, which contribute to better meeting individual needs and tapping into the potential of diverse employees. In Figure 7, the first arrow suggests that organisations could acquire more knowledge on neurodiversity. This can be achieved by, for example, inviting neurodiversity communities or specialists to provide training on neurodiversity at work for employees and managers. Such trainings and accumulating knowledge on the matter may contribute in several ways: increase understanding, facilitate working in diverse teams, managing neurodiverse individuals, and reduce misunderstandings and conflicts. Being more informed can contribute to being more understanding and appreciative towards others and their uniqueness within an organisation, fostering a sense of community and belonging.



**Figure 7 Managerial implications for organisations employing neurodiverse individuals**

The second arrow in the figure encourages organisations to seek to accommodate for individual needs. Organisations that have neurodivergent individuals in their workforce and want to improve retention

or would want to attract new employees with such a cognitive profile, acquiring knowledge about neurodiversity and how it is experienced by each individual is essential to be able to accommodate the different needs of individuals and motivate them to stay. In practice, this could mean open and curious conversations about the needs and wants of each employee, seeing whether they are met, and if there is something to be done to better meet them in the future. The findings of this thesis suggest that for individuals with ADHD, these accommodations could include, for example, more flexible working hours, freedom to ideate and experiment, and the opportunity to have a more broad, stimulating, or changing tasks to avoid boredom.

Lastly, the findings of this thesis imply that fostering an open and curious culture at work would benefit both individuals and the organisation. For an organisation to evolve and grow, it would be crucial that innovations or out-of-the-box ideas would not be suppressed at a face value, and that curiosity and openness would rather be fostered within the organisation, contributing to alertness to new opportunities. Because neurodiverse individuals think differently, they can bring new perspectives to organisations in terms of creating or recognising value (Austin & Pisano 2017, 99). What can be learned from the example of entrepreneur A, who conceptualised the idea of a similar platform to Facebook before its emergence, is that organisations may benefit from being more receptive to internal ideas and experimentation, particularly in situations where the potential costs of failure are low. Although this example originates from the early 2000s, the underlying insight remains relevant: valuable innovations may emerge from unexpected sources, and existing organisational structures may limit their recognition and development. Thus, organisations may overlook potentially valuable opportunities due to rigid structures or risk-averse cultures, even when the cost of experimentation would be relatively low. In organisations, it would be valuable to employ practices that would foster creativity and innovation. One means new ideas could be fostered and developed is thinking curiously collectively, looking at the topic from different angles together, which could prevent the clashes of opinion, and provide a more neutral perspective, not directed by biases or tendencies, such as optimism or pessimism.

## **6.5 Limitations and suggestions for future research**

This thesis has several limitations to be acknowledged and provides suggestions for future research. The findings are based on a limited number of participants and their subjective experiences of their international entrepreneurial journeys, which may not reflect the broader population of entrepreneurs with ADHD nor neurodiverse individuals. As this study included only individuals with a formal ADHD diagnosis, potentially a large population of undiagnosed individuals with similar traits and

tendencies was excluded. At the same time, ADHD is a heterogeneous condition, and its manifestations may vary significantly across participants, which may influence the consistency of the findings. Future research may seek to fill this gap by including also individuals without a formal diagnosis, while maintaining boundaries for inclusion, such as utilising screening tools.

Secondly, this study aimed to explore international entrepreneurial journeys of entrepreneurs with ADHD, but not all participants had fully internationalised their businesses, which may have influenced the depth and accuracy of their experiences and perceptions related to IE. Although all entrepreneurs were presented with vignettes to increase comparability between participants, these accounts remain hypothetical, and do not fully capture the realities. Thus, the variation in participants' experience in IE may limit how broadly the findings may be applied.

Although the thesis provides practical implications for various actors supporting entrepreneurship and internationalisation in Finland, participating entrepreneurs' perceptions of existing support systems were not studied explicitly, which future studies may continue. The implications for organisations employing neurodiverse individuals emerged from the researcher's interpretations of the accounts of the participating entrepreneurs. As neurodiversity within organisations was not the focus of this study, these implications provide only preliminary insights and remain to be studied further in future research. Furthermore, future studies could explore the topic of intrapreneurship and neurodiversity, which could potentially facilitate the conventional work paths, foster well-being at work, and enable employing unique cognitive capabilities of in organisational settings.

Finally, the findings of this study are situated in the Finnish entrepreneurial context, which may limit their transferability to other institutional or cultural settings. Therefore, future studies may focus on different entrepreneurial environments, identifying support or contradiction to the results of this thesis. As the interview data was mainly based on retrospective self-reports the findings may be affected by inaccurate recall of events, and the data does not capture how entrepreneurial journeys evolve over time in further detail. Thus, future research could explore entrepreneurial journeys and internationalisation of entrepreneurs with ADHD applying a longitudinal approach.

## 7 Summary

This thesis explores the international entrepreneurial journeys of entrepreneurs with ADHD, focusing on the Finnish entrepreneurial ecosystem. The study is guided by the research problem: *How do entrepreneurs with ADHD experience their international entrepreneurial journeys?* The research problem is approached through three sub-questions, which focuses on exploring how entrepreneurs with ADHD perceive opportunities and approach challenges, thus contributing to an understanding of how they experience their international entrepreneurial journeys.

The first sub-question focuses on how entrepreneurs with ADHD describe perceiving EOs. The findings of this study suggest that perceiving EOs is strongly influenced by curiosity, creativity, and intuition. Furthermore, being able and motivated to start and explore ideas, as well as serendipity, luck, and chance events, emerged as influential factors in the descriptions of perceiving EOs. Evaluation of EOs was described to involve intuitive and rational analysis, networks, and an approach of quickly moving to developing and shaping the idea in practice, resonating with effectuation.

The second sub-question explores how entrepreneurs with ADHD describe perceiving IOs involved intention, serendipity, and early experimentation in uncertainty. Entrepreneurs perceived that international experience and linguistic skills facilitated internationalisation by lowering the threshold to start international endeavours. The role of networks emerged strongly in the results of this study and was seen as a source of knowledge and support in enacting, evaluating, and seizing IOs. Perceived challenges in internationalisation were more depended on the external contingencies, such as unexpected developments in the external environment or lack of networks in the target market and were described to be approached with persistence and taking creative approaches to overcome them. All in all, in line with prior literature, the findings of this thesis suggest that effectuation is even more emphasised in perceiving IOs than EOs.

The third sub-question aims to understand how entrepreneurs approach challenges in entrepreneurship. The perceived challenges and uncertainties in entrepreneurship depended on the size and field of business as well as personal factors. Common challenges for all entrepreneurs were related to ADHD, such as challenges with boring tasks and experiences of being misunderstood. In line with prior literature on entrepreneurs who have faced adversities in their life, the findings suggest that the entrepreneurs perceived handling challenges and uncertainties in entrepreneurship well, which was attributed to having built resilience towards challenges in life and a positive and optimistic attitude.

All in all, the findings suggest that the international entrepreneurial journeys of entrepreneurs with ADHD seem to be shaped by both their ADHD-related traits and tendencies, as well as the mechanisms and strategies developed in response to having faced these adversities in their lives. Furthermore, the role of networks was emphasised in the accounts of entrepreneurs, which also extant literature has acknowledged both regarding entrepreneurship and IE, as well as challenge-based entrepreneurship. The findings suggest that the participating entrepreneurs seem to be able to leverage both their ADHD-related tendencies as well as developed outcomes, such as resilience and networks, to bear and overcome challenges and uncertainty in entrepreneurship and in the international entrepreneurial journeys.

This thesis provides several practical implications. Firstly, the policy implications for governmental actors suggest that entrepreneurs leaning towards effectual approaches would benefit from funding supporting networking, experimentation, and market research, which may open alternative routes to internationalisation, instead of making thorough plans and strategies in advance. To develop more effective and inclusive support mechanisms for internationalisation, the processes of applying for funding should be streamlined, which is one means of mitigating discrimination and providing more equal opportunities for all entrepreneurs.

Secondly, the implications for entrepreneurship and neurodiversity communities suggest that these actors may support neurodiverse and other unconventional entrepreneurs, by facilitating networking, organising events and fairs, providing peer support, and establishing support groups for entrepreneurs, where individuals could benefit from teamwork and build new networks. Furthermore, providing more focused support for entrepreneurs who struggle with bureaucratic processes, such as funding applications, these actors can provide practical assistance in the application processes, contributing to more equitable access to funding applications.

Finally, the managerial implications of this thesis are aimed at increasing workplace inclusivity, benefiting both neurodiverse employees and organisations, for whom the cognitive capabilities of these individuals may present a competitive advantage in the contemporary economy. The implications propose that organisations employing or seeking to employ neurodiverse individuals should acquire more knowledge on neurodiversity and each employee as an individual, after which individual needs should be sought to meet. To enable individuals to reach their full potential in an organisation, the organisational culture should be open and curious of innovative and breakthrough ideas, which may be facilitated through several means, such as collectively fostering curiosity.

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## Appendices

### Appendix 1 Declaration of the use of AI

In this study, generative artificial intelligence was utilized for several support tasks. The tools, their purpose, and measures for verification are detailed below. I confirm that the use of all AI tools has been done responsibly and cautiously, fully disclosed in accordance with university policy, and that I take full responsibility for all content presented in this study.

1. Tool: Open AI ChatGPT (version 5.2)

- Stage of use: Ideation, Literature Review, Editing
- Purpose of use: ChatGPT was used for brainstorming and exploring frameworks in the early phases of the study, as well as in rephrasing sentences.
  - Example prompt (September 28, 2025): “Which internationalisation theories are relevant for smaller companies?”
- Verification: The AI results suggested that opportunities are relevant in smaller firm internationalisation and mentioned the concept of international opportunity recognition. I began looking for literature on international opportunity recognition in Scopus and Volter, which verified the claim that opportunities are often discussed in research on smaller firm internationalisation. Brainstorming and ideating with AI helped me find alternative streams of re-search and refine the focus of my study.

2. Tool: University of Turku Transcribe

- Stage of use: Methodology
- Purpose of use: Transcribe is an AI-based transcription service of the University of Turku. This tool was used to convert audio files of the interviews to text files.
- Verification: The text files generated by AI were carefully proofread and corrected by listening to the audio recording. This procedure ensured the validity and accuracy of the transcriptions.

3. Tool: Grammarly and DeepL

- Stage of use: Composition, editing, and revision

- Purpose of use: AI-based spelling corrections and language improvements were used in this study to enhance grammatic accuracy and readability, as English is not a native language of the researcher.
- Verification: I reviewed all suggested changes and improvements to ensure that the original meanings of the sentences were preserved and that the text remained consistent with used references. The final revision of the text was done personally by the researcher.

## Appendix 2 Semi-structured interview guide

1. How did you become an entrepreneur?
2. How do you usually notice or come up with new business opportunities? Could you share examples?
  - Would you describe that opportunities occur to you more surprisingly or do they emerge gradually through, for example, active searching and developing?
3. Have you encountered challenges in your entrepreneurial journey? Could you tell me about them?
  - How have you approached these challenges? How did you overcome them?
4. When you have recognised a new opportunity, how do you usually evaluate it? In other words, what influences your evaluation of whether the opportunity you have recognised is valuable or not?
  - Is your evaluation based on, for example, knowledge, analysis, prior experience, or something else?
  - Does your decision-making also include intuitive or emotional aspects? If yes, in which situations?
  - Does your understanding of an opportunity sometimes change after you have had time to think about it more closely or acquired more information?
5. How do you typically respond to uncertainty in your entrepreneurial activities?
6. Has your company had international activities?
  - How did your company begin operating in international markets?
  - Can you describe where the opportunity emerged? Did it involve a specific situation, event, or encounter?
  - Can you recall how you evaluated this international opportunity? What made you decide to seize it?
  - Have you encountered more international opportunities during the internationalisation process? How do they usually emerge?

7. Do you have prior experience or knowledge of other countries, cultures, or languages?
  - Do you feel that your previous experiences influence how you recognise or evaluate international opportunities?
8. What factors have the greatest influence when you evaluate whether an international opportunity is worth pursuing?
  - Do you feel that evaluating international opportunities differs from evaluating opportunities in the domestic market? If yes, how?
  - How do you typically act in situations where there is uncertainty around an international opportunity?
  - When you make decisions on international opportunities, do you tend to make decisions alone or involve others?
9. Have you encountered any challenges in your company's international operations? Can you tell me about them?
  - How did you respond in these situations, or how did you try to resolve them?
  - How have these challenges influenced the way your internationalisation has progressed?
  - How have the challenges influenced how you perceive new international opportunities, or your willingness to continue internationalisation?
10. When you think about your entrepreneurship and internationalisation as a whole, do you feel that your ADHD traits have influenced how you recognise or evaluate opportunities? If yes, in what ways?
  - Have you developed any strategies to leverage or compensate these traits in your entrepreneurship? Could you give examples?
11. Vignette: Let's imagine the following situation that could actually happen to you. A foreign company contacts you and proposes a collaboration that could be financially substantial for your business. (1/2)
  - What are your first thoughts when you learn of such an opportunity?
  - How would you proceed in this situation?
  - What in this opportunity feels interesting?

- What in this opportunity feels uncertain?

Vignette: Let's imagine you would seize this opportunity, but it would not proceed or actualise in the way that was planned. (2/2)

- How would you feel about such a situation?
- Would it somehow affect your perception of similar opportunities in the future?

## Appendix 3 Privacy notice

### Neurodiversity in international entrepreneurship -tutkimuksen tietosuojaseloste

Olet ottamassa osaa Turun yliopistossa järjestettävään tieteelliseen tutkimukseen. Tässä tietosuojaselosteessa kerrotaan, miten henkilötietojasi käsitellään tutkimuksessa.

#### 1. Rekisterinpitäjä

Tutkija: Inka-Marie Merikaarto

Yhteyshenkilö tutkimusta koskevissa asioissa:

Nimi: Inka-Marie Merikaarto

Puh.: +358 40 355 6135

E-mail: [immeri@utu.fi](mailto:immeri@utu.fi)

#### 2. Kuvaus tutkimuksesta ja henkilötietojen käsittelystä

Tutkimuksen tarkoituksena on tutkia ADHD-diagnoosin saaneiden yrittäjien kokemuksia kansainvälisten yrittäjyysmahdollisuuksien tunnistamisesta. Tutkimuksen tavoitteena on tuottaa uutta tietoa neurokirjolla olevien yrittäjien kansainvälistymiseen liittyvistä kokemuksista ja tukea yhdenvertaisempien ja tehokkaampien tukijärjestelmien suunnittelua yrittäjille. Tutkimuksessa käsitellään vain tutkimuksen toteuttamiselle välttämättömiä henkilötietoja. Osallistumiskriteerinä tutkimukseen on ADHD-diagnoosi, mutta tutkimukseen osallistuminen ei edellytä todistusta ADHD-diagnoosista. Kokemuksia ADHD:sta yrittäjyydessä käsitellään haastattelussa. Näin ollen tutkimuksessa käsitellään terveyttä koskevaa henkilötietoa. Muita käsiteltäviä henkilötietoja ovat yhteystiedot tutkimuksen käytännön järjestelyjä varten sekä haastatteluaineisto. Henkilötietoja käytetään tutkimuksen toteuttamiseen, aineiston analysointiin ja tutkimustulosten raportointiin.

#### 3. Henkilöt, jotka osallistuvat henkilötietojen käsittelyyn

Henkilötietojen käsittelyyn osallistuu yksinomaan rekisterinpitäjä Inka-Marie Merikaarto.

#### 4. Henkilötietojen käsittelyn kesto

Tutkimuksen haastatteluaineisto pseudonymisoidaan ja tutkimusaineistoa säilytetään SeaFilessa viiden (5) vuoden ajan tutkimuksen valmistumisesta.

#### 5. Henkilötietojen lainmukainen käsittelyperuste

Henkilötietojen käsittely perustuu tietosuoja-asetuksen 6(1) artiklan alakohtaan:

yleistä etua koskeva tehtävä:

tieteellinen tai historiallinen tutkimus tai tilastolliset tarkoitukset

tieteellisten aineistojen tai kulttuuriperinnöllisten materiaalien arkistointi

- rekisteröidyn suostumus
- rekisterinpitäjän lakisääteisen velvoitteen noudattaminen
- rekisterinpitäjän tai kolmannen osapuolen oikeutettu etu

## 6. Tutkimusaineistoon sisältyvät henkilötiedot

- Yhteystiedot (esim. sähköpostiosoite) tutkimukseen osallistumisen ja haastattelujen järjestämiseksi
- Terveystiedot (valintakriteeri, kokemuksia ADHD:sta yrittäjyydessä käsitellään haastattelussa)
- Haastatteluaineisto, mukaan lukien äänitallenne ja litteroitu teksti
- Epäsuorat tunnistetiedot, joita voi sisältyä haastatteluaineistoon, kuten:
  - yrittäjästatus ja yritystoimintaan liittyvät kuvaukset, kansainväliseen toimintaan tai urapolkuun liittyvät kokemukset sekä yleisellä tasolla kuvatut taustatiedot (esim. uravaihe, koulutustausta, toimialan luonne)

## 7. Erityiset henkilötietoryhmät (arkaluontoiset henkilötiedot)

Tutkimuksessa käsitellään seuraavia erityisiin henkilötietoryhmiin kuuluvia henkilötietoja:

terveystiedot

Erityisten henkilötietoryhmien käsittely perustuu tietosuoja-asetuksen 9 artiklan 2 kohdan alakohtaan:

- yleistä etua koskeva tehtävä:
  - tieteellinen tai historiallinen tutkimus tai tilastolliset tarkoitukset
  - tieteellisten aineistojen tai kulttuuriperinnöllisten materiaalien arkistointi
- rekisteröidyn suostumus
- rekisterinpitäjän lakisääteisen velvoitteen noudattaminen

## 8. Henkilötietojen keräämisen lähteet

Tutkittavan yhteystiedot sosiaalisesta mediasta. Muut henkilötiedot suoraan tutkittavalta haastattelussa.

## 9. Henkilötietojen suojaomenpiteet

Tietojärjestelmissä käsiteltäviä tietoja suojataan seuraavilla tavoilla:

- käyttäjätunnus ja salasana
- käytön rekisteröinti/lokitus
- kulunvalvonta
- salaus/kryptaus

kaksivaiheinen tunnistautuminen

muu, mikä:

Suorien tunnistetietojen käsittely:

Aineisto kerätään ilman suoria tunnistetietoja

Suorat tunnistetiedot poistetaan analysointivaiheessa:

Analyysivaiheessa aineisto pseudonymisoidaan ja yksittäisiin haastateltaviin viitataan käyttämällä nimityksiä "Yrittäjä 1", "Yrittäjä 2" ja niin edelleen. Pseudonymisointiin käytetty avaintiedosto säilytetään tietoturvallisesti Turun yliopiston ylläpitämässä SeaFile-pilvitallennuspalvelussa. Kaikki henkilötietoja sisältävä tutkimusaineisto poistetaan pysyvästi tutkimuksen valmistuttua.

Aineisto analysoidaan suoraan tunnistetiedoin, koska:

## 10. Henkilötietojen siirtäminen ja jakaminen kolmansille osapuolille

Henkilötietoja ei siirretä rekisterinpitäjän ulkopuolelle.

## 11. Henkilötietojen siirtäminen EU:n tai ETA:n ulkopuolelle

Henkilötietoja ei siirretä Euroopan unionin tai Euroopan talousalueen ulkopuolelle.

## 12. Henkilötietojen käsittely tutkimuksen päättymisen jälkeen

Tutkimusaineisto poistetaan

Tutkimusaineisto säilytetään tämän tutkimuksen tulosten luotettavuuden arvioimista varten:

ilman suoria tunnistetietoja  tunnistetiedoin

Tutkimusaineisto säilytetään myöhempää, yhteensopivaa tieteellistä tutkimusta varten tietosuojasetuksen vaatimusten mukaisesti:

ilman suoria tunnistetietoja  tunnistetiedoin

Tutkimusaineisto säilytetään Turun yliopiston ylläpitämässä SeaFile-pilvitallennuspalvelussa viisi vuotta tutkimuksen valmistumisen jälkeen 1.6.2031 saakka.

Tutkimusaineiston säilytys perustuu tietosuojasetuksen 5 artiklan 1 kohdan b ja e alakohtiin.

## 13. Rekisteröidyn oikeudet sekä niihin tehtävät poikkeamat

Lisätietoa tietosuojasetuksen mukaisista oikeuksistasi antaa kohdassa 1 mainittu yhteyshenkilö.

### Rekisteröidyn oikeudet

Tietosuoja-asetuksen mukaan rekisteröidyllä on oikeus:

- tarkistaa itseään koskevat tiedot (15 artikla)
- oikaista omia tietoja (16 artikla)
- poistaa tiedot ja tulla unohdetuksi (17 artikla)
- rajoittaa omien tietojen käsittelyä (18 artikla)
- siirtää tiedot rekisterinpitäjältä toiselle (20 artikla)
- vastustaa tietojen käsittelyä (21 artikla)
- olla joutumatta automaattisen päätöksenteon kohteeksi (22 artikla)

Rekisteröity ei kuitenkaan voi käyttää kaikkia oikeuksia kaikissa tilanteissa, riippuen esimerkiksi siitä, mikä on henkilötietojen käsittelyperuste.

### Rekisteröidyn oikeuksiin tehtävät poikkeamat

Tietosuojalainsäädäntö mahdollistaa rekisteröidyn oikeuksista poikkeamisen silloin, kun henkilötietoja käsitellään tieteellisessä tutkimuksessa ja oikeuksien toteuttaminen estäisi tai vaikeuttaisi suuresti käsittelyn tarkoitusten saavuttamista. Tarve tehdä poikkeamia rekisteröityjen oikeuksiin arvioidaan aina tapauskohtaisesti.

Tämän tietosuojaselosteen tutkimuksessa on todennäköisesti tarpeen tehdä poikkeamia seuraaviin rekisteröityjen oikeuksiin:

- Oikeus tarkistaa itseään koskevat tiedot (15 artikla)
- Oikeus oikaista omia tietoja (16 artikla)
- Oikeus poistaa tiedot ja tulla unohdetuksi (17 artikla) Oikeutta poistaa tiedot ja tulla unohdetuksi ei sovelleta tieteellisessä tai historiallisessa tutkimustarkoituksessa silloin, kun oikeuden soveltaminen todennäköisesti estäisi tai vaikeuttaisi tätä käsittelyä suuresti.
- Oikeus rajoittaa omien tietojen käsittelyä (18 artikla)
- Oikeus vastustaa tietojen käsittelyä (21 artikla)

Jos henkilötietojen käsittely tutkimuksessa ei edellytä rekisteröidyn tunnistamista eikä rekisterinpitäjä pysty tunnistamaan rekisteröityä, niin oikeutta tietojen tarkastamiseen, oikaisuun, poistoon, käsittelyn rajoittamiseen, ilmoitusvelvollisuuteen ja siirtämiseen ei sovelleta, ellei rekisteröity pysty antamaan luotettavan tunnistamisen mahdollistavia lisätietoja (11 artikla).

### Valitusoikeus

Sinulla on oikeus tehdä valitus tietosuojavaltuutetulle, jos koet, että henkilötietojasi on käsitelty soveltuvan tietosuojalainsäädännön vastaisesti.

Tietosuojavaltuutetun yhteystiedot:

Tietosuojavaltuutetun toimisto  
 Käyntiosoite: Lintulahdenkuja 4, 00530 Helsinki  
 Postiosoite: PL 800, 00531 Helsinki  
 Puhelinvaihe: 029 566 6700  
 Sähköposti (kirjaamo): tietosuoja(at)om.fi

## Appendix 3 Data management plan

### PLAN OVERVIEW

*A Data Management Plan created using DMPTuuli*

**Title:** Neurodiversity in international entrepreneurship

**Creator:** Inka-Marie Merikaarto

**Affiliation:** University of Turku

**Template:** General data management plan - University of Turku

**Project abstract:**

The purpose of this thesis is to explore how entrepreneurs with attention deficit hyperactivity disorder (ADHD) experience their international entrepreneurial journey. This thesis aims to produce new information about the internationalisation of neurodivergent entrepreneurs and support the design of more inclusive and effective entrepreneurship support systems. This study is conducted as a qualitative interview study with entrepreneurs with ADHD.

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## NEURODIVERSITY IN INTERNATIONAL ENTREPRENEURSHIP

### 1. GENERAL DESCRIPTION OF THE DATA

**1.1 What kinds of data is your research based on? What data will be collected, produced or reused? What file formats will the data be in? Additionally, give a rough estimate of the size of the data produced and collected.**

Type of data	File format	Size of data	Comments
Interview recordings (audio)	.mp4	~500 MB	5–10 semi-structured interviews. Recorded with own password-protected devices and deleted after transcription.
Transcribed data	.docx	~5 MB	Transcribed using UTU Transcribe. Stored in Seafile.
Documentation of research process	.docx / .xlsx	~100 KB	Stored in SeaFile.

**1.2 How will the consistency and quality of data be controlled?**

The quality and consistency of the data could be altered in the transcribing process, which is why the produced transcriptions will be thoroughly inspected and corrected as necessary.

### 2. ETHICAL AND LEGAL COMPLIANCE

**2.1 What legal issues are related to your data management? (For example, GDPR and other legislation affecting data processing.)**

This study focuses on entrepreneurs who self-identify as having ADHD. The amount of personal data collected will be minimised. The interviews will be recorded as voice recordings, which will be destroyed from all devices after

transcription. Transcribed data will be pseudonymised by replacing identifying information with codes. A document linking the codes to individual participants will be stored securely in SeaFile and kept separate from the research data. After the research findings have been reported, the file containing the pseudonymisation codes will be permanently destroyed.

All data will be stored on University-approved, password-protected devices and platforms.

## **2.2 How will you manage the rights of the data you use, produce and share?**

Before participating in the study, the informants are provided with the necessary information about the study, its implementation, and the management and storage of personal and other data. The informants are asked for their informed consent to participate in the study before the interviews begin.

## **3. DOCUMENTATION AND METADATA**

**How will you document your data in order to make it findable, accessible, interoperable and re-usable for you and others? What kind of metadata standards, README files or other documentation will you use to help others to understand and use your data?**

Data will not be published. The researcher uses a separate document to document the main points of the data, such as changes made, stages of analysis, and, for example, the meanings of variables.

## **4. STORAGE AND BACKUP DURING THE RESEARCH PROJECT**

### **4.1 Where will your data be stored, and how will the data be backed up?**

All data will be stored in SeaFile.

### **4.2 Who will be responsible for controlling access to your data, and how will secured access be controlled?**

The researcher, Inka-Marie Merikaarto, is responsible for the thesis study and the only person able to access the data. Data storage is password-protected and requires a university account.

## **5. OPENING, PUBLISHING AND ARCHIVING THE DATA AFTER THE RESEARCH PROJECT**

### **5.1 What part of the data can be made openly available or published? Where and when will the data, or its metadata, be made available?**

Data will not be published because it contains sensitive data, and thus, no metadata will be needed.

### **5.2 Where will data with long-term value be preserved, and for how long?**

Data is pseudonymised during the research process. The file containing the pseudonymisation codes will be destroyed after reporting the findings of the thesis. Pseudonymised interview transcriptions will be stored in SeaFile for a period of five years.

## **6. DATA MANAGEMENT RESPONSIBILITIES AND RESOURCES**

### **6.1 Who (for example role, position, and institution) will be responsible for data management?**

Master's student conducting the thesis (Inka-Marie Merikaarto).

**6.2 What resources will be required for your data management procedures to ensure that the data can be opened and preserved according to FAIR principles (Findable, Accessible, Interoperable, Re-usable)?**

There will be no costs for the master's thesis's data management procedures.

## Appendix 4 Interview consent form

### SUOSTUMUS HAASTATTELUTKIMUKSEEN

Minua on pyydetty osallistumaan *Neurodiversity in international entrepreneurship* -tutkimukseen.

Olen lukenut ja ymmärtänyt saamani tutkimustiedotteen ja tietosuojaselosteen. Olen saanut riittävät tiedot tutkimuksesta ja henkilötietojeni käsittelystä. Minulla on ollut mahdollisuus esittää tutkijalle tarkentavia kysymyksiä. Minulla on ollut riittävästi aikaa harkita tutkimukseen osallistumista.

Ymmärrän, että tähän tutkimukseen osallistuminen on vapaaehtoista. Minulla on oikeus, milloin tahansa tutkimuksen aikana ja syytä ilmoittamatta, keskeyttää tutkimukseen osallistuminen. Suostumuksen peruuttamisesta ei aiheudu minulle kielteisiä seuraamuksia. Olen tietoinen siitä, että suostumuksen peruuttamiseen mennessä kerättyjä tietoja käytetään osana tutkimusaineistoa, anonymisoituna ja luottamuksellisesti.

Suostun siihen, että haastatteluni voidaan äänittää vastausten analysoimista varten, mutta ne on tutkimustuloksissa ja julkaisuissa käsitelty siten, että minua ei voi niistä tunnistaa.

Kyllä       Ei

***Allekirjoituksellani vahvistan, että osallistun Neurodiversity in international entrepreneurship -tutkimustiedotteessa kuvattuun tutkimukseen ja suostun vapaaehtoisesti haastateltavaksi.***

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Allekirjoitus

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Päiväys

\_\_\_\_\_  
Nimenselvennys

\_\_\_\_\_  
Paikka

\_\_\_\_\_  
Email (suostumuksen tallentamista ja mahdollista myöhempää yhteydenottoa varten)

### SUOSTUMUKSEN VASTAANOTTAJA

\_\_\_\_\_  
Allekirjoitus

\_\_\_\_\_  
Päiväys

\_\_\_\_\_  
Nimenselvennys

\_\_\_\_\_  
Paikka

*Suostumusta osallistua tutkimukseen säilytetään tietoturvasyistä niin kauan kuin aineisto on tunnisteellisessa muodossa. Kopio suostumuksesta lähetetään osallistujalle ensisijaisesti sähköpostitse. Tarvittaessa osallistuja voi pyytää paperikopiota.*