



From one to many: education, diversity, and international experience in habitual vs. one-time founders

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Abstract What sets apart entrepreneurs who continuously start new businesses from those who stick with their first venture? This paper delves into the characteristics that distinguish habitual founders from one-time founders. Analyzing a dataset of over 5000 individuals, we combine the concepts of cognitive entrenchment and human capital theory to uncover the general and specific traits that increase the likelihood of becoming a habitual founder. Our findings suggest that a higher level of education, diverse professional backgrounds, and international experience increase the chances of becoming a habitual founder. By exploring the backgrounds of habitual entrepreneurs, this study provides valuable insights for supporting and promoting an entrepreneurial career.

Plain English Summary What factors influence entrepreneurs to venture into multiple businesses, while some remain dedicated to a single enterprise? Our study, based on a sample of over 5000 entrepreneurs, reveals that those who repeatedly start new ventures—habitual founders—often have higher education levels, more diverse professional experiences, and greater international exposure than those who stick to a single enterprise—one-time founders. These diverse experiences help habitual entrepreneurs identify new opportunities and navigate the complexities of starting multiple businesses. Promoting educational diversity, varied career experiences, and international exposure can thus support the growth of habitual entrepreneurship. This has important implications for both research and practice, suggesting that fostering a broad-based education and encouraging diverse professional experiences can be key strategies in nurturing habitual entrepreneurs and understanding the factors that drive them.

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1 Introduction

Entrepreneurs play a crucial role in the economic landscape by identifying and seizing opportunities to create new ventures (Dyer et al., 2009). However, the concept of habitual entrepreneurship, where individuals engage in multiple entrepreneurial projects over time, suggests that entrepreneurship is an ongoing process and that entrepreneurial careers exist (Ucbasaran et al., 2008). This process has been associated with more and better funding (Kaplan & Stromberg, 2003) and the pursuit of more ambitious ventures (Gimeno et al., 1997). It appears that the majority of unicorn founders were not first-time founders (Tamaseb, 2021). However, the outcome of habitual entrepreneurship is not straightforward, as overconfident founders might continue with unsuccessful ventures (Nielsen & Sarasvathy, 2016) or successful entrepreneurs might outperform their peers in an upward spiral of habitual entrepreneurship (Gompers et al., 2010).

Most existing literature has focused on the dichotomy between novice and habitual¹ entrepreneurs, analyzing the unique attributes and advantages that prior entrepreneurial experience confers (Westhead et al., 2003, 2005a; Wiklund & Shepherd, 2008). It appears relatively obvious that entrepreneurs with previous venture creation experience—whether through serial (creating or buying multiple firms at different times) or portfolio (managing different firms simultaneously) entrepreneurship—possess a higher preparedness and propensity for new entrepreneurial endeavors (Wiklund & Shepherd, 2008) compared to their novice counterparts (MacMillan, 1986).

However, this paper seeks to refine this binary classification by examining a more nuanced distinction within the realm of experienced entrepreneurs: the contrast between habitual founders, who embark on multiple entrepreneurial ventures, and one-time founders, who dedicate their efforts to a single venture over an extended period. This distinction is critical, as it contributes to the literature by exploring why certain entrepreneurs choose to remain with their initial venture, despite possessing the experience

that could facilitate further entrepreneurial activities. By investigating the underlying motivations and cognitive processes that lead some entrepreneurs to diversify their entrepreneurial endeavors while others focus on a singular venture, we can gain insights into the pathways of entrepreneurial development and the factors influencing venture sustainability and growth. Moreover, research on the subjectivist theory of entrepreneurship (Linder et al., 2020) and necessity conditions (Linder et al., 2023) suggests that the development potential of a new venture might be constrained due to limited stakeholder support (Crawford et al., 2024). For instance, Hsu et al. (2007) show that entrepreneurs who found just one firm tend to receive less funding, which in turn may limit their growth potential, whereas habitual entrepreneurs are able to develop more ambitious ventures. From this perspective, having the option to create subsequent ventures is beneficial for an entrepreneurial career, and therefore, understanding factors that distinguish one-time founders from habitual founders can give valuable insights.

Thus, starting a new venture after having gone (at least) once through the venturing process should give more experienced entrepreneurs an advantage over first-timers (MacMillan, 1986). Prior studies suggest that entrepreneurs are more inclined to start new companies based on learnings from prior ventures (Hayes & Clark, 1985). However, in reality, not all entrepreneurs leverage the knowledge gained from past experiences to launch new ventures (Kirschenhofer & Lechner, 2012) and become habitual founders. Some prefer to dedicate their efforts to nurturing and managing their initial venture, prompting us to question: *why do some founders (over a reasonably long period) choose to remain one-time entrepreneurs, while others opt to become habitual in founding ventures?*

By concentrating our analysis exclusively on founders—habitual and one-time—and intentionally excluding acquirers, we aim to provide a clearer, more concentrated examination of founding entrepreneurship. This approach allows us to delve deeper into the motivations, cognitive processes, and human capital dynamics unique to founders. This deliberate scope narrows our study but enriches our understanding of the entrepreneurial process from the perspective of venture creation, rather than acquisition.

¹ Habitual is sometimes also defined “experienced” (Baron, 2006; Ucbasaran, Westhead, & Wright, 2009). In this paper, we use the most common term habitual.

In elucidating this distinction, we delve into the cognitive processes underlying opportunity identification and exploitation. The identification of opportunities, the attempt to exploit them, and the realization of their exploitation are distinct phases in the entrepreneurial journey, each with its unique challenges and implications (Shane & Venkataraman, 2000). This paper, therefore, distinguishes between the mere recognition of potential opportunities and the actualized creation of multiple ventures (Linder et al., 2020), thereby setting clear boundaries for our study.

This paper posits that the breadth of an entrepreneur's general and diverse human capital (HC), acquired both within and outside the entrepreneurship domain, plays a pivotal role in creating multiple ventures. While specific human capital may be beneficial for launching an initial venture, a general and diverse human capital base supports a sustained entrepreneurial career. Additionally, we discuss the phenomenon of cognitive entrenchment, wherein an entrepreneur's deepening expertise in a specific domain may inadvertently narrow their perspective, potentially hindering the identification of new opportunities (Dane, 2010; DiMaggio, 1997). Diversity in experience can mitigate the effects of cognitive entrenchment, enhancing the ability to recognize and pursue various entrepreneurial opportunities (Amaral et al., 2009; Foss et al., 2008).

Our study significantly contributes to the entrepreneurship literature. First, by integrating HC theory (Amaral et al., 2009; Marvel et al., 2016) with the cognitive entrenchment perspective (Dane, 2010), we identify a set of general and specific factors that promote habitual founding entrepreneurship. Our empirical setting allows us to determine which factors encourage multiple founding over a one-time founding experience. We find that the two phenomena are linked but do not overlap, and an independent examination of each yields deeper insights. Second, we contribute to the ongoing discussion on the role of HC in entrepreneurship studies. Human capital theory suggests that a higher level of HC enhances an individual's ability to spot and exploit business opportunities (Kato et al., 2015; Ganotakis, et al., 2021). However, not all entrepreneurs venture into new areas after the establishment of their first firm, as some prefer to manage their initial business. Our study identifies which aspects of HC enable entrepreneurs to overcome barriers in order to apply their existing

knowledge to new ventures. Third, our research values the variety of experiences made by the founders that are distinct from considering specific vs. general human capital as drivers of entrepreneurial outcomes (Unger et al., 2011) and takes into account the role of international experience. Our research reveals that various factors enable entrepreneurs to nurture different ventures and help to identify which specific knowledge, gained prior to their initial venture, is crucial for the entire process in mitigating cognitive entrenchment effects.

The remainder of the paper is organized as follows. In the next section, we review the existing literature on habitual entrepreneurship and human capital theory to develop our hypotheses. We then test these hypotheses using a database of 5229 founders and their firms based on Crunchbase data and information. The sample, data collection, and measurements are presented in Sect. 3, while the analysis and results are to be found in Sect. 4. We dedicate the final part of the manuscript to discussion, limitations, and hints for future related research.

2 Theoretical framework and hypotheses development

2.1 Habitual or one-time entrepreneurs: the founder's roles

Research on entrepreneurship has increasingly recognized the significance of the "habitual entrepreneurship" phenomenon (MacMillan, 1986). However, defining these entrepreneurs has proven to be challenging, leading to controversial results and hard-to-compare analyses (Ucbasaran et al., 2008; Westhead & Wright, 1998). On the one hand, the business landscape is rich in habitual entrepreneurs (Birley & Westhead, 1994), often celebrated in business news and mass media. A seminal example of a habitual founder is Elon Musk, who started in 1995 his first company, the web software company Zip2, and continued with many others, such as X.com, PayPal, and Tesla.

Studies on habitual entrepreneurship have typically focused on the core characteristics of serial and portfolio entrepreneurs (Carbonara et al., 2020). Some researchers have examined the psychological processes that may influence the decision to engage

in entrepreneurship again (Hsu et al., 2017), sometimes leading to a sort of addiction to entrepreneurship or, alternatively, to a shift toward different career paths (Marshall, 2016). Others have investigated entrepreneurs' demographics, personal backgrounds, and acquired human capital, as well as their behaviors in identifying new opportunities (Westhead et al., 2005a, 2005b).

On the other hand, there are one-time founders who, in theory, had the time to find additional new ventures since launching their first (and only) company but chose to focus solely on that business. An example of a one-time entrepreneur in our dataset is Henry Sichel, one of the three founders of Caffeina, an Italian digital agency founded in 2012. After nearly 10 years, Henry Sichel is still at the helm of the company but did not launch any new venture. The comparison of the difference in HC characteristics between habitual and one-time founders is the focus of our study.

2.2 Human capital theory and the entrenchment perspective

Human capital theory suggests that individuals develop their HC, a valuable resource that enhances their ability to achieve good results for specific tasks (Becker, 1975). In the entrepreneurship-specific context, HC theory helps to understand which type of knowledge and skills promote firm founding activities and firm growth and success. One major proposition is that differentiation in HC leads to differential insights into specific opportunities and differential capacity to exploit those opportunities (Linder et al., 2020).

When applied to habitual entrepreneurship, HC theory is leveraged to explain the accumulation of experience, expertise, and learning throughout an entrepreneur's career and choices (i.e., Amaral et al., 2009; Ucbasaran et al., 2010). Previous research shows that habitual entrepreneurs accumulate a great deal of entrepreneurial experience and knowledge of the market and environment (Zhang, 2011). Furthermore, experiential learning facilitates resource acquisition (Cope & Watts, 2000; Paik, 2013). It seems that previous firm ownership leads to higher survival rates (Headd, 2003). However, this literature describes how the creation of multiple ventures leads to the accumulation of HC but does not explain how pre-existing

HC increases the likelihood of becoming a habitual entrepreneur.

If we apply the subjectivist view of entrepreneurship, not as the idiosyncratic fit between a specific entrepreneur and a specific new venture opportunity but to the likelihood of an entrepreneurial career based on exploiting multiple opportunities across multiple ventures, we can better understand which conditions lead an entrepreneur to the presumably favorable position of becoming a habitual entrepreneur.

The cognitive entrenchment perspective investigates the drawbacks of increasing domain expertise (Dane, 2010). Expertise is generally considered a positive quality that leads to high task performance and effective decision-making (Dreyfus & Dreyfus, 2005). Experts have superior pattern recognition. They solve problems faster with fewer errors, have better short-term and long-term memory, and see problems at a deeper level (novices have superficial problem understanding) in their specific domain (Chi et al., 1988). For entrepreneurs, perceived specialization increases their legitimacy (Navis & Glynn, 2011). However, increasing expertise has limitations and is associated with difficulties in taking different perspectives, adapting to new conditions, and finding innovative solutions (Sternberg & Frensch, 1992). Cognitive entrenchment is defined as a "high level of stability in one's domain schema" (Dane, 2010, p. 579). Knowledge is represented by schemas, which are knowledge structures necessary to interpret phenomena (through pattern recognition) and consist of "knowledge about a concept or type of stimulus, including its attributes and the relations among those attributes" (Fiske & Taylor, 1991, p. 98).

Therefore, increasing expertise leads to lower levels of flexibility. Domain schemas become more complex and detailed than those of novices due to increasing knowledge and, thus, are more stable. Indeed, experts are less likely to interpret and integrate new information (Furr et al., 2012). Experience is thus regarded as detrimental to new opportunity identification (Gielnik et al., 2014). Gottschalk et al. (2017), for example, discovered in a German study that habitual and novice founders exhibit comparable probabilities of bankruptcy in subsequent ventures. These findings suggest that "there are instances where experience is a poor teacher" (Gottschalk et al., 2017, p. 304). While previous entrepreneurial experience

is surely important, it is not an essential prerequisite for launching new successful ventures. Such experience can also serve to enhance the likelihood of success for the first and sole company founded. Expertise increases through the accumulation of knowledge and experiential learning, which is also typical in entrepreneurship. Thus, we argue that entrepreneurs develop increasing expertise in running their ventures and are likely to become susceptible to cognitive entrenchment.

However, which factors might modify cognitive entrenchment? Cognitive entrenchment can be related to HC development, and the differentiation between general and specific HC (Amaral et al., 2009; Becker, 1993) offers some insights. General HC is, as the word suggests, more generic to different types of economic activities (Castanias & Helfat, 2001) and generalizable across contexts (Wiklund & Shepherd, 2008). The specific HC is, instead, peculiar to a precise and definite domain (Gimeno et al., 1997). In the context of entrepreneurship, it influences how individuals seek information (Cooper et al., 1995) or discover and exploit entrepreneurial opportunities (Shane & Venkataraman, 2000).

General HC is typically associated with demographic characteristics, such as age, gender, and family background, as well as education level (Becker, 1975; Cooper et al., 1995). Education can serve as a source of knowledge, skills enhancement, motivation, and self-confidence (Cooper et al., 1995), which can be easily transferable across contexts (Wiklund & Shepherd, 2008). Specific HC, on the other hand, is related to experience, particularly entrepreneurial, managerial, or founding experience (Amaral et al., 2009). Prior experience in specific fields or job roles can provide entrepreneurs with task-related knowledge (Amaral et al., 2009, p. 3) that can assist in the identification and exploitation of alternative business opportunities (Robson et al., 2012).

However, from a cognitive entrenchment perspective, specific knowledge as a form of narrow knowledge may be more prone to entrenchment effects. Research on star performers in sports suggests that early specialization in a discipline can be detrimental and that a wider range of early activities is beneficial as it increases the options to react to unforeseen circumstances (Epstein, 2019). In other words, variety beats specialization. Variety means that individuals have a larger range of schemas they can

draw upon and, as a result, develop more—and different—analogs that help them detect more innovative and diverse opportunities (Bingham & Kahl, 2013). Specialization, on the other hand, may increase the likelihood of remaining with the first venture, while variety may promote habitual founders' entrepreneurship. Therefore, while we recognize that business-oriented specific knowledge is crucial for identifying and exploiting business opportunities, we argue that entrepreneurs with more diverse and diversified experiences will have more articulated specific knowledge, enabling them to spot a greater number of business opportunities and launch more firms.

2.3 Hypotheses development

2.3.1 *General human capital*

General human capital encompasses the knowledge, skills, and abilities that individuals possess, which are not specific to any particular job or task. This includes attributes such as years of schooling, formal education, and overall work experience (Rauch & Rijdsdijk, 2013). Distinct from task-related human capital, which is specific to a particular role or industry (Unger et al., 2011), general human capital applies more broadly across various contexts (Martin et al., 2013). Among the key components of human capital, formal education, adult education, training, migration, and health contribute to an individual's general human capital (Hatak & Zhou, 2021). The concept underscores the value of transferable knowledge and skills that enhance individuals' adaptability and potential for success in different roles and settings (Coff & Raffiee, 2015).

Previous studies have shown that higher education, whether in terms of years of schooling or levels of education (Eggers & Song, 2015), can help individuals develop skills, knowledge, and self-confidence (Cooper et al., 1995). In the long run, even if not readily available or operational, a higher education level can support the entrepreneur in better coping with various problems (Dimov, 2010). Thus, education appears to play an important role. Higher educational levels allow entrepreneurs to access different capabilities and increase their ability to create new ventures over time and in various contexts (Wiklund & Shepherd, 2008).

However, the cost of this general HC is that it may take longer to adapt to specific situations and transform them into functional skills (Unger et al., 2011). General HC has longer decay times and is thus more useful in the long term for entrepreneurs than specific HC (Reuber & Fischer, 1999). As entrepreneurs, particularly those who work across multiple ventures, are in a substantial learning situation (Gibb & Ritchie, 1982), a higher education level may also indicate learning ability. However, some studies that compare habitual entrepreneurs to novice entrepreneurs have found no significant differences in education levels between the two groups (Westhead et al., 2005b). Others have found that habitual entrepreneurs have higher education qualifications (Donckels et al., 1987). Additionally, higher-educated entrepreneurs appear to be positively associated with an increased ability and tendency to become portfolio entrepreneurs (Wiklund & Shepherd, 2008), a specific subgroup of habitual entrepreneurs. Therefore, it seems that the entrenchment effect is lower for higher-educated entrepreneurs. Still, most findings show controversial results.

Entrepreneurs tend to identify business opportunities that are directly related to their general knowledge (Venkatamaran, 1997). General HC allows entrepreneurs to leverage their competencies in many different situations, providing “entrepreneurs with a greater variety of opportunities from which to draw upon” (Marvel et al., 2020, p.3). This is because knowledge related to one field can be used in other business domains, allowing individuals to identify business opportunities that entrepreneurs with very specific knowledge and a more limited vision might not even see. As a result, individuals with broader knowledge can identify a larger number of entrepreneurial opportunities that can be exploited (Ucbasaran et al., 2008).

Therefore, general HC, as expressed through education level, should give entrepreneurs more options to deal with future events over time. Thus

Hypothesis 1 (H1) The higher the founder’s education level, the higher the probability of being a habitual founder compared to a one-time founder.

2.3.2 *Specific human capital*

Specific HC is more task-related than general HC, and such task-related HC is associated with the performance of a new venture (Unger et al., 2009). Therefore, specific, task-related HC is likely to be more beneficial for the initial venture, equipping entrepreneurs with unique insights and competencies. However, this alignment between specific HC and the new venture might only offer value if subsequent ventures are highly similar to the first one (Kirschenhofer & Lechner, 2012; Linder et al., 2020). Consequently, specific HC will be most affected by cognitive entrenchment effects.

On the other hand, the diversity of experiences and competencies allows entrepreneurs to have a more comprehensive knowledge of different aspects of the business, identifying opportunities in fields that other entrepreneurs with more specific and targeted knowledge cannot spot. While we do not underestimate the role of the stock of knowledge, we argue that variety is important as it mitigates the cognitive entrenchment effects of increasing expertise and gives the entrepreneur a wider range of options. A more articulated and diversified knowledge allows entrepreneurs to connect various business opportunities, linking different sectors and contexts or identifying market needs that those founders with a similar amount of but more focused knowledge may not be able to identify. Entrepreneurial activity has various dimensions (Zhang, 2011), and the capacity to establish multiple firms necessitates distinct skills, wherein the entrepreneur assumes significantly different roles. Moreover, if an entrepreneur with general HC launches a second venture, this entrepreneur has acquired, on the job, valuable task-related HC (Unger et al., 2009).

Prior experiences in various industries, sectors, job positions, and firms with different characteristics can constitute a portfolio of competencies that might lead to multiple entrepreneurial experiences (Millán et al., 2012). Such a wide range of experiences allows individuals to foresee more opportunities (Westhead & Wright, 1998). Getting in contact with various environments, cases, and situations creates the experiential knowledge needed to grasp more opportunities compared to those individuals who specialize in a specific task or industry. Variety should increase the solution space of the entrepreneur. While variety as a complementary competence has been considered

predominantly on an interpersonal level (Harrison & Klein, 2007), we apply it at an intra-personal level. Therefore, we argue that, at the founders' level, experience should be seen as the diverse experiences the entrepreneur has with respect to the different industries they worked in, the various job positions they engaged in, and the diverse sizes of the firms owned, leading to variety in specific HC. We thus divide specific HC into three main categories: (i) diverse industry experience, (ii) diverse job position experience, and (iii) diverse firm size experience.

First, diverse industry experience refers to an entrepreneur's prior experience in various industries. Previous literature has shown that habitual entrepreneurs, in general, can develop and gain more specific HC than novice entrepreneurs by owning more businesses in the same sector (Ucbasaran Wright, & Westhead, 2003). However, while targeting the habitual founders' group and looking to one-time founders as a reference, we argue that habitual founders will have a more diverse specific HC than the reference group. Different sectors may influence an individual's decision to transition into entrepreneurship (Amaral et al., 2009; Hyytinen & Ilmakunnas, 2007), and diverse industry experience may provide entrepreneurs with the knowledge and skills needed to identify opportunities in a variety of sectors (Shane, 2003; Westhead & Wright, 1998). Also, different industries can play an important role in shaping an entrepreneur's behavior and more diverse networks to draw from (Gimeno et al., 1997).

By operating in different industries and sectors, habitual founders may develop new, broader tasks to overcome the liability of newness (Stinchcombe, 1965) in various markets. At the same time, it can increase their social networks while also increasing the likelihood of identifying new business opportunities (Lechner et al., 2016). Therefore, an entrepreneur with experience in different sectors may have learned resource-acquisition skills across contexts and better understand the requirements needed to attract financial institutions than one-time entrepreneurs—more variety in industry experience and less cognitive entrenchment effects. This aspect of entrepreneurial experience contributes to opportunity identification by exposing entrepreneurs to various industry-specific practices, customer needs, and market dynamics. The cross-pollination of ideas from different sectors can foster innovative thinking and the application of

unique solutions to problems, thereby enhancing the entrepreneur's ability to identify new opportunities across diverse industries.

Based on these arguments, we posit.

Hypothesis 2 (H2) The more diverse the founder's industry sector experience, the higher the probability of being a habitual founder compared to a one-time founder.

The impact of prior work experience is a source of debate in the literature. Some research has found no statistically significant differences among serial, portfolio, and novice entrepreneurs (e.g., Westhead & Wright, 1998). Other studies have revealed that serial and portfolio entrepreneurs often have a more diverse background, particularly in managerial roles, across various organizations prior to engaging in entrepreneurship (Donckels et al., 1987; Ucbasaran et al., 2008; Westhead & Wright, 1998). From a diversity viewpoint, it is not the amount of work experience that is important, but rather the degree of diversity. Founders with diverse work experiences bring a wider range of knowledge and skills related to different positions within companies (Gimeno et al., 1997). This diverse knowledge enables individuals to broaden their perspectives and recognize and take advantage of opportunities that entrepreneurs with a limited set of job experiences might miss or overlook. For instance, individuals with experience switching between consultant roles or specialized roles (i.e., as an IT specialist) and managerial positions can combine technical and managerial knowledge and experience to spot specific opportunities in their area of expertise and effectively seize them.

There is some evidence that film directors who have a diverse range of experiences across different roles within the industry tend to produce a larger number of films over their careers than those with extensive but narrow experience (Lechner & Gudmundsson, 2014). This variety in experience could be linked to enhanced pattern recognition skills or the capacity to draw connections between disparate pieces of information, which is crucial for opportunity recognition and exploitation (Baron & Ensley, 2006). It contributes also to developing a comprehensive skill set that includes strategic thinking, operational management, and customer relations. The breadth of experiences across different job

positions enhances cognitive flexibility, enabling the entrepreneur to perceive opportunities from multiple perspectives and contexts. Therefore, a diverse background can increase an entrepreneur's ability to identify and exploit various opportunities, while also mitigating cognitive entrenchment effects. Thus, we posit

Hypothesis 3 (H3) The more diverse the past job positions covered, the higher the probability of being a habitual founder compared to a one-time founder.

Finally, we examine the diversity of the size of firms in which the entrepreneurs have worked prior to starting their first business. Previous research in the field of human resource management (HRM) shows that HRM practices and manager roles vary between small and medium-sized enterprises (SMEs) and large firms. Large firms benefit from economies of scale, enabling deep specialization (Klaas et al., 2000), with managers typically working in teams with tightly defined tasks. Working in large firms, especially at the beginning of a career, enables individuals to acquire specialized knowledge. On the other hand, managerial roles are less specialized in SMEs as they are less likely to implement advanced HRM practices (Bacon & Hoque, 2005). However, relationships are much more personal and direct in SMEs, allowing employees to have direct access to the entrepreneur, CEO, and top management team.

This suggests that the knowledge gained in SMEs complements the knowledge acquired in large firms. Working in diverse contexts, including firms of varying sizes, helps individuals develop complementary skills and expand their knowledge base, potentially supporting future entrepreneurial endeavors. This kind of diverse experience is hypothesized to enhance the entrepreneur's specific HC. The more diverse the firms in which an individual has worked in terms of size, the more perspectives they are able to consider, reducing the likelihood of cognitive entrenchment effects. Experience in firms of varying sizes equips entrepreneurs with insights into different organizational structures, resource constraints, and growth strategies. This diversity in perspective can enhance the entrepreneur's ability to recognize opportunities that are scalable and adaptable to different business sizes and stages of growth. Thus, our fourth hypothesis is as follows:

Hypothesis 4 (H4) The more diverse the size of the firms in which they have worked, the higher the probability of being a habitual founder compared to a one-time founder.

2.3.3 *International lens*

Despite prior research on international experience and entrepreneurship (e.g., Kuemmerle, 2002; McDougall et al., 2003), the specific influence of international experience on habitual entrepreneurship remains largely unexplored. This may be attributed to several factors. Historically, the field of entrepreneurship research has predominantly focused on the genesis of firms, often emphasizing the transition from non-entrepreneur to first-time founder. This emphasis has inadvertently overshadowed the nuanced pathways of serial and portfolio entrepreneurship, where international experience might play a more significant role.

Indeed, international experience can substantially impact the development of HC (Ahmed & Brennan, 2019) by offering diverse perspectives on opportunities that may elude local entrepreneurs without such global insights. Research in the field of international entrepreneurship (e.g., Ahmed & Brennan, 2019; Kuemmerle, 2002; McDougall et al., 2003) has shown that exposure to different cultures, markets, and business practices through international work, study, or living abroad leads to a broader and more internationally oriented outlook on potential opportunities.

This literature suggests that international experience allows founders to be more internationally oriented and effectively enter foreign markets (McDougall et al., 2003). Internationally experienced entrepreneurs are more likely to consider opportunities others might miss (Crawford et al., 2017). A more profound knowledge of foreign markets can help entrepreneurs identify new business opportunities worldwide, which in turn offers a greater number of chances to be developed. Entrepreneurs with international experience have a wider lens for opportunities not only because the range of opportunities encompasses many different markets, but also because foreign experience allows the entrepreneur to replicate successful experiences from abroad in the domestic context. This broader lens in seeing and understanding phenomena has the potential to reduce cognitive entrenchment effects.

Consequently, we expect that more internationally experienced entrepreneurs, all else being equal, will tend to start multiple companies rather than limiting their entrepreneurial activity to just one. Given the impact of international experience on developing the entrepreneur's HC, it should increase their options for founding new firms.

Therefore

Hypothesis 5 (H5) The higher the founder's international experience, the higher the probability of being a habitual founder compared to a one-time founder.

3 Methods

3.1 Research design and sample

To collect data, we used Crunchbase (www.crunchbase.com), an online database developed and launched in 2007 by TechCrunch (www.techcrunch.com). Crunchbase has been widely used in entrepreneurial research (for example, Cumming et al., 2019; Signori & Vismara, 2018; Vismara, 2018; Wang et al., 2022) and is considered a reliable and comprehensive source of information on both founders' characteristics and their firms (Rossi et al., 2023). It is important to note that although Crunchbase officially launched in 2007, it aggregates historical data from earlier periods, capturing relevant experiences and events that predate its establishment.

The data provided by Crunchbase has a global scope and covers five main areas: people, organizations, investment activities, exits, and public events. One of the benefits of using the Crunchbase database is that it allows us to track the professional history of each founder. By merging different datasets, Crunchbase enables us to identify the number and timing of firms founded, any exits made by the founders, and their previous and current job positions.

Our sample included 7630 founders, for whom we collected personal information such as gender, country of residence, and educational level. We also gathered information on their previous job positions, the size of the firms they worked for, and whether they had international experience. We included information on the year and industry sector of the firms they founded in the period (Zhang, 2011). Other studies

have used Crunchbase for the longitudinal investigation of entrepreneurial behavior (Rossi et al., 2023).

Based on our definition of *one-time* founders (those who had the opportunity to start additional ventures but chose to focus solely on their first firm), we removed all observations where the available information covered a period of less than 5 years. For example, if a founder started their first company in 2015, we would have excluded the related observation because we could only track their entrepreneurial activity for a shorter period (we collected data in June 2019). We chose a 5-year threshold as the minimum amount of time we believed an entrepreneur would remain with a company before moving on to a new venture (i.e., after the startup phase). This allowed us to highlight the unique characteristics of one-time founders, who tend to stay with their first-founded firm for a longer period and thus distinguishing them from *novice* entrepreneurs who could have just founded their very first venture. Our final sample included 5229 observations of founders. All the variables refer specifically to this unit of analysis.

In our analysis, we specifically exclude investors to focus exclusively on individuals who have played active roles in the conceptualization, establishment, and operational management of their ventures. This includes founders and co-founders who are directly involved in the strategic and daily management decisions of their businesses. By doing so, we ensure that our sample does not include wealthy angel investors or passive owners who may have multiple business affiliations but do not actively engage in the management of these ventures. This distinction is crucial for our study's aim to examine the human capital and entrepreneurial behavior of individuals who are actively involved in the entrepreneurship process.

3.2 Variables and measures

3.2.1 Dependent variable

The dependent variable in our study is a dummy variable indicating whether a founder is habitual or not. A founder is considered *habitual* if they have founded more than one company, either sequentially (serial entrepreneur) or simultaneously (portfolio entrepreneur), at the time of data collection, which was in June 2019. A *one-time* founder is defined as an individual who has only founded one company and

remained with it for over 5 years without starting a second one.

As an illustration, consider the following examples: an individual who founded a company in 2010 but had not started any additional ventures by June 2019 would be classified as a *one-time* founder (dependent variable = 0). If another individual founded a company in 2015, the observation would be dropped because the entrepreneurial activity at the time of data collection (June 2019) would be shorter than the 5-year threshold. Conversely, if an individual founded multiple companies between 2010 and June 2019 (e.g., one in 2010, one in 2013, and one in 2018), they would be classified as a *habitual* founder (dependent variable = 1).

Following prior research in the field (Bluedorn & Martin, 2008), we chose a 5-year window as a reasonable amount of time for promoting new ventures. To validate our results, we also test our hypotheses using alternative time windows (see Sect. 4.2).

3.2.2 Independent variables

We define five main independent variables to test our hypotheses. The first independent variable is *education*. Following prior literature, we decided to measure general HC in terms of the number of years of schooling (Amaral et al., 2009; Baù et al., 2017; Parker, 2013).

The next three independent variables measure the diversity of founders' experiences within specific categories (i.e., sectors, firm sizes, and job positions) before founding their first—or only—venture. Based on this information, we calculate three diversity indices using Blau's (1977) diversity index formula ($1 - \sum x_i^2$), where x represents the proportion of each category within the total number of categories in which the founders have experience.

Thus, the second independent variable is *sector diversity*. It measures the variety of sectors in which founders have worked. We coded each sector using the standard European Union NACE classification and calculated the sector diversity index by applying Blau's formula. The index ranges from 0 (when the founders have only worked in one sector) to 1 (when the founders have equally worked in all nine sectors considered).

The third independent variable, *job position diversity*, reflects the variety of job positions held by

founders throughout their careers, emphasizing roles undertaken prior to or independently of their entrepreneurial ventures. This diversity is quantified using Blau's (1977) Index ($1 - \sum x_i^2$) where x denotes the proportion of each job position, categorized according to the International Standard Classification of Occupations (ISCO), within the total job positions held by the founders. The index equals zero, the minimum value, when there is no variety and, thus, when the founders only held one job position.

The fourth independent variable considered is *firm size diversity*. Again, we use Blau's (1977) diversity index to identify the effects that having experience in working in firms of different dimensions has on the individuals' specific HC. The number of employees measures the firm size, and firms are categorized following prior literature (van Teeffelen & Uhlaner, 2013). Therefore, we have classified the firms as micro (1–10 employees), small (11–50 employees), medium (51–249 employees), large (250–500 employees), and x-large (> 500 employees). The firm size diversity index is then calculated using Blau's formula, with x representing each experience in a firm of different dimensions on the total number of types of firms the founders have worked in. The minimum value, zero, represents no variety meaning that the founders have only worked in firms of one size.

The fifth independent variable is *international experience*, which is a dummy variable taking a value of 1 if the founders have studied in a country different from their current residence or if their firms are located in a different country. Otherwise, the variable equals 0.

Overall, all our independent variables refer to the period before individuals founded their first—and eventually only—ventures. This approach aims to ensure that the professional experience of habitual founders does not also include experience gained while leading a self-established venture reducing the issue of simultaneity (Spanos et al., 2004).

3.2.3 Control variables

As is common in similar studies, we included a parsimonious number of control variables to account for potential variance in our analysis (Cuervo-Cazurra et al., 2016).

First, we included the founder's gender as prior research has shown that a small percentage

of habitual entrepreneurs are women (Bönte & Piegeler, 2013). Gender is a dummy variable taking a value of 1 for male founders and 0 for female founders. We also controlled for contextual and geographical factors by including a categorical variable representing the continent of residence. Given that the majority of our sample is from North America, we created a binary variable indicating whether the founders reside in the USA or Canada (1) or elsewhere (0).

To measure the founder experience in the business sector, we included the variable *entrepreneurial maturity* which represents the number of years since the founders founded their first firm. This was calculated by subtracting the year the entrepreneur founded their first firm from the year of data collection (2019).

Moreover, to measure the number of founders for each founded firm, we control for the number of *team members* (Ucbasaran et al., 2009). Such a variable measures the ability of the founder to include other entrepreneurs in the team and is important to control for potential diversity supplied by co-founders. Having gathered data on each firm's founding team members, we used the total number of team members with whom the founder created the venture.

A summary of the constructs and measurements of the variables is presented in Table 1.

3.3 Descriptive statistics

Forty-five percent (2354) of our sample consists of habitual founders, while the remaining fifty-five percent (2875) are one-time founders. This proportion is similar to that found in previous research on both habitual founders and acquirers (Westhead et al., 2005b).

Approximately 49% of the entrepreneurs in our sample have a bachelor's degree or higher. The diversity measures show a wider variety in terms of job positions compared to sector and firm size diversity. On average, individuals in our sample have a sector diversity index of 0.09, a firm size diversity index of 0.11, and a job position diversity index of 0.28. This suggests that the sample is less diversified in terms of sector and firm size but more diversified in terms of job positions. In addition, 22% of the entrepreneurs in the sample have international experience at the education or work level.

A large majority (94%) of our sample consists of male entrepreneurs, which is consistent with prior findings showing a lower presence of female entrepreneurs and their tendency to remain with their first-founded venture (Kuppuswamy & Mollick, 2016).

Seventy-two percent (3761) of the sample comes from North America, which may be due to the origin of the Crunchbase database (initially founded by an American online publisher, TechCrunch). However, this proportion also reflects the current global

Table 1 Variables constructs and measures

Variable	Description	Measures
Habitual (founder)	Dependent variable Habitual or one-time founder	One-time—> habitual = 0 if firms founded = 1 & overall tenure > = 5 Habitual—> habitual = 1 if firms founded > 1
Education (H1)	Education level	Number of years to get the degree (diploma, bachelor, master, EMBA, PhD)
Sector diversity (H2)	Sector diversity	Blau's diversity index
Job position diversity (H3)	Job position diversity	Blau's diversity index
Firm size diversity (H4)	Firm size diversity	Blau's diversity index
International experience (H5)	International experience	International experience = 1 if international experience at education level = 1 or international experience at work level = 1; International experience = 0 otherwise
Gender (CV)	Gender	Female = 0; male = 1
Continent of residence (CV)	Continent of residence	(USA + Canada) = 1; others = 0
Entrepreneurial maturity (ln) (CV)	Years from the first-founded firm	EM = 2019 (year of the first-founded venture)
Team members (CV)	Team members	Total number of founding team members

entrepreneurship landscape, as North American countries are known for their flexible institutional environment that supports entrepreneurship (see, among others, Dilli et al., 2018).

On average, the entrepreneurs in our sample have an entrepreneurial maturity of 14 years, and 49% are solo founders. Twenty percent started with a team of three or more individuals.

Table 2 presents summary statistics of the two groups: habitual and one-time founders. Table 3 reports the summary statistics and the correlations among the variables included in our analysis. The matrix shows low values, indicating that multicollinearity is not an issue. This conclusion is further supported by the average variance inflation factor (VIF) value of 1.19, with a maximum of 1.46, which is well below the conventional threshold of 5 (Yandell & Ryan, 1998).

However, in examining the correlations among our measures of entrepreneurial experience diversity—sector diversity, firm size diversity, and job position diversity—we observed correlations that suggest a moderate level of association. Yet they are not sufficiently high to indicate that these variables are merely reflective indicators of a single underlying construct. Instead, these correlations can be interpreted as indicating complementary but distinct dimensions of entrepreneurial experience, each contributing uniquely to the broadening of an entrepreneur's opportunity horizon.

These findings support the conceptualization of sector diversity, firm size diversity, and job position diversity as distinct, albeit interrelated, constructs within our study. Each measure captures a different

facet of the diverse experiences that contribute to an entrepreneur's ability to identify new opportunities, justifying their separate inclusion and analysis in our research model.

4 Results

4.1 The model

Given the dichotomous form of our dependent variable, *habitual founders*, we use logistic regression to test our hypotheses. The following table (Table 4) shows the results of the analysis.

Results show stable and significant explanatory power across all models, with a high percentage of correctly classified observations. *Model 1* serves as the baseline, including only control variables. The following models add the five independent variables to test our hypotheses. Since the results are consistent across all models, to discuss our findings we focus on the full model (*model 6*), which includes all variables. Moreover, given the nonlinear nature of the coefficients in logistic regressions, in the last column of the table, we report the marginal effects of the full model (*model 6*) to show the predicted probability of being a habitual founder, holding all other variables in the model at their means.

Our first hypothesis posits that individuals with higher education levels are more likely to become habitual founders. The logistic regression supports this hypothesis, as the coefficient for education level is positive and significant ($\beta = 0.0156$; $p = 0.0000$).

Table 2 Summary statistics of the two groups—habitual and one-time founders

Habitual founders ($N = 2354$)				One-time founders ($N = 2875$)					
	Mean	s.d	Min	Max		Mean	s.d	Min	Max
Education	10.56	7.99	0	23	Education	8.045	8.36	0	23
Sector Div	.1358	.2189	0	.75	Sector Div	.0534	.15366	0	.75
Job position Div	.3747	.2548	0	.8333	Job position Div	.1968	.2591	0	.8163
Firm size Div	.1579	.2387	0	.75	Firm size Div	.0706	.1789	0	.75
Int. experience	.2475	.4316	0	1	Int. experience	.1945	.3958	0	1
Gender	.9539	.2097	0	1	Gender	.9215	.269	0	1
Residence	.7556	.4298	0	1	Residence	.6839	.465	0	1
Entrepreneurial maturity	14.17	8.5	1	133	Entrepreneurial maturity	13.26	8.693	5	166
Team members	2.84	3.697	0	43	Team members	2.002	2.276	0	44

Table 3 Summary statistics and correlation matrix

	Mean	s.d	Min	Max	VIF	1	2	3	4	5	6	7	8	9	10
1. Habitual	.45	.49	0	1	1	1									
2. Education	9.2	8.3	0	23	1.16	0.152*	1								
3. Sector Div	.092	.19	0	.75	1.42	0.2144*	0.1439*	1							
4. Job position Div	.277	.27	0	.83	1.26	0.3266*	0.2548*	0.3184*	1						
5. Firm size Div	.11	.21	0	.75	1.46	0.204*	0.14*	0.5084*	0.3436*	1					
6. Int. experience	.22	.42	0	1	1.15	0.0639*	0.2188*	0.0255*	0.0706*	0.0233*	1				
7. Gender	.94	.245	0	1	1.01	0.0656*	-0.0344*	0.0392*	0.0566*	0.0371*	0.0065	1			
8. Residence	.719	.5	0	1	1.15	0.0863*	0.1387*	0.1054*	0.1710*	0.1186*	-0.2414*	-0.0296*	1		
9. Entrepreneurial maturity	13.81	7.79	1	70	1.01	0.1039*	0.0122	0.0866*	0.0818*	0.0480*	0.0109	0.0390*	0.0909*	1	
10. Team members	2.51	3.08	0	44	1.12	0.1794*	0.0822*	0.2541*	0.1884*	0.2822*	0.0405*	0.0401*	0.0748*	-0.0104	1

Note: N = 5229 observations. The significance level of each correlation coefficient is in parentheses

* p < 0.05

Table 4 Logistic regression results. Dependent variable: habitual

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Marginal effects (model 6)
Education (H1)		0.0345*** (.00340)	0.0302*** (.00345)	0.0180*** (.00363)	0.0178*** (.00363)	0.0156*** (.00374)	0.00388*** (.000955)
Sector diversity (H2)			1.871*** (.158)	1.192*** (.166)	0.965*** (.181)	0.967*** (.182)	0.228*** (.0459)
Job position diversity (H3)				2.041*** (.115)	1.976*** (.117)	1.965*** (.117)	0.471*** (.0299)
Firm size diversity (H4)					0.495*** (.164)	0.499*** (.164)	0.122*** (.0415)
International experience (H5)						0.175*** (.0749)	0.0594*** (.0191)
Gender (CV)	0.544*** (.118)	0.594*** (.119)	0.549*** (.120)	0.451*** (.124)	0.448*** (.124)	0.449*** (.124)	0.107*** (.0317)
Continent of residence (CV)	0.310*** (.0617)	0.226*** (.0628)	0.176*** (.0637)	0.0472 (.0661)	0.0397* (.0662)	0.0856 (.0692)	0.0301* (.0178)
Entrepreneurial maturity (CV)	0.0112*** (.00328)	0.0117*** (.00331)	0.00949*** (.00331)	0.00841** (.00341)	0.00853** (.00341)	0.00829** (.00387)	0.00470*** (.000959)
Team members (CV)	0.104*** (.0116)	0.0986*** (.0117)	0.0703*** (.0117)	0.0542*** (.0118)	0.0486*** (.0118)	0.0476*** (.0118)	0.0225*** (.00342)
Constant	-1.237*** (.132)	-1.540*** (.137)	-1.492*** (.138)	-1.664*** (.142)	-1.658*** (.142)	-1.702*** (.144)	
LR chi2	277.78	376.91	507.20	790.57	799.12	808.85	
Correctly classified	59.33%	62.9%	64.91%	66.65%	66.32%	66.78%	
Pseudo R ²	.0386	.0524	.0705	.1098	.1110	.1124	
Obs	5229	5229	5229	5229	5229	5229	5229

Note: standard errors in parenthesis. Marginal Effects with all variables set to their means

CV control variable

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

To examine the three hypotheses on diversity of experiences, we introduced three diversity indexes: sector, job position, and firm size. All three variables show positive and statistically significant coefficients in every model. Specifically, our second hypothesis proposes that a diverse working background across different sectors increases the probability of being a habitual founder. This hypothesis is supported by the significant positive coefficient ($\beta = 0.967$, $p = 0.000$). Similarly, our third hypothesis states that a diverse range of previous job positions increases the likelihood of becoming a habitual founder, and this is also supported by a significant positive coefficient ($\beta = 1.965$, $p = 0.000$). Finally, our fourth hypothesis suggests that diverse experience in firms of various sizes increases the probability of being a habitual founder compared

to a one-time founder. This hypothesis is supported by a significant and positive coefficient ($\beta = 0.499$, $p = 0.003$). The marginal effects of the diversity indexes (ranging from 0.12 to 0.47) indicate that these variables have a considerable impact on the probability of being a habitual founder.

Therefore, the more diverse experiences, in terms of sectors and sizes of the firms in which they worked and in terms of the job position covered during their lifetimes, the higher the probability for a founder to become habitual in founding firms. The positive and very significant coefficients suggest that we cannot reject the three hypotheses related to the diversity measures. It is also worth noticing that the inclusion of the variables accounting for the diversity of experiences at the sector, job position, and firm size levels significantly improved the model fit.

Our final hypothesis posits that international experience is associated with a higher probability of being a habitual founder. This hypothesis cannot be rejected because of the significant positive coefficient ($\beta=0.175$; $p<0.05$), with the margin indicating that international experience increases the probability of being a habitual founder by approximately 6%. Concretely, these results suggest that founders with international experience are more likely to become habitual founders compared to those without such experience, holding all other variables constant.

Thus, the outcomes of our model reveal intriguing insights regarding the influence of various factors on the probability of individuals becoming habitual in founding firms. Notably, diverse previous experiences in terms of job positions and sectors appear more strongly associated with the likelihood of becoming a habitual founder compared to the other independent variables examined.

Overall, our empirical analysis confirms all five hypotheses.

4.2 Robustness tests and supplemental analysis

In order to endorse whether our results are robust enough, we run a battery of checks using different regression methodologies, measurements, and sample data,²

First, we use our dependent variable (*habitual*) as a continuous variable counting the number of firms founded instead of using the dichotomous variable used in our main model. With this new dependent, we tested the model using both a standard OLS and a Poisson regression methodology, usually used for count data. Both models confirm our results. Additionally, we reran the analysis through the *probit* methodology instead of the logit regression, and again, the results were largely unchanged.

Next, we explored alternative measures for our variables. First, we use a different measure of education. Following prior research (Thorgren & Wincent, 2015), we use a binary variable instead of our continuous variable. The new education variable is coded one if the individual had a university education and zeroed otherwise. Then, we employ another

measurement for the variable *entrepreneurial maturity* using different transformations of the variable and dropping all those habitual founders with an entrepreneurial maturity lower than 5 years. Moreover, we use the average and the maximum number of team members instead of the total number. The results remained consistent across all these modifications.

To further examine the sample definition, we also used more restrictive cut-offs of 7 and 10 years to define one-time founders as individuals who have founded only one firm after at least 5, 7, or 10 years. Our independent variables remained consistent in both sign and significance levels across these different definitions.

We also conducted an additional control to address the geographical distribution of the sample, which is primarily from the USA and Canada. Therefore, we controlled for the Continent of residence of the founder and tested our model on two sub-samples (Newbert et al., 2022). The first sub-sample comprises founders from North America (which includes the United States and Canada). The second one is of founders residing in the rest of the world (i.e., Europe, Asia, Oceania). Overall, the results held for both sub-samples. However, we noticed that the size diversity measure lost significance in the sub-sample from the rest of the world, suggesting that experience in companies of different sizes might be more relevant for entrepreneurs in North America than in other regions, a finding that warrants further investigation.

5 Discussion

Entrepreneurship is an inherently risky endeavor, and getting it right the first time may be more the exception than the rule. Sticking to the first venture can be the unlikely outcome of a first-time success, the persistence of an underperforming venture due to lower expectations, or lacking alternative venture opportunities (Gimeno et al., 1997). In all these scenarios, founding a new venture could appear as a more appealing choice, potentially leading to increased stakeholder support and opportunities with higher success potentials (Gompers et al., 2010). So, why not?

In our study, we take an entrepreneurial career perspective, contrasting two typologies of entrepreneurs: habitual founders, who initiate more than one firm,

² Results are not reported here to save space but are available in the supplementary material or upon request from the authors.

and one-time founders, who remain with the first firm they have established. Unlike previous literature (Westhead & Wright, 1998), which typically contrasts *habitual* entrepreneurs to *novice* entrepreneurs, our research gives insights into the post-start-up phase of entrepreneurship. This shift in focus is relevant as entrepreneurship is inherently fraught with risks, with the likelihood of success in the initial venture being less than that of a significant accomplishment over an entrepreneurial career (Kirschenhofer & Lechner, 2012).

Our research investigates the differences between the two groups. Habitual founders leverage a variety of previous experiences to spot new business opportunities and establish new firms. In contrast, one-time entrepreneurs primarily channel their efforts into their existing company, transitioning more into managerial roles. This distinction underscores the significance of prior experiences not only for entering entrepreneurship (Eesley & Roberts, 2012), but also for sustaining habitual entrepreneurship. However, while specific knowledge and insight may be necessary to identify and act on opportunities (Linder et al., 2020), excessive specialization might result in cognitive inflexibility, prompting entrepreneurs to stick with their initial venture, thereby underscoring the importance of a variety of previous experiences.

By integrating HC theory with the cognitive entrenchment perspective, we identify factors influencing the likelihood of becoming a habitual founder. Our research extends the literature (Colquitt & Zapata-Phelan, 2007) on HC in entrepreneurship by investigating the antecedents of habitual entrepreneurship rather than the impact on HC as a consequence of habitual entrepreneurship. Our research goes also beyond the notion that habitual entrepreneurship drives further habitual entrepreneurship (Wiklund & Shepherd, 2008).

While specialized HC may ease entry into entrepreneurship (Fan et al., 2021), it is less likely to influence venture growth (Rauch & Rijdsdijk, 2013) and a habitual entrepreneurial career. Our findings highlight that entrepreneurs with broad educational backgrounds, diverse professional experiences, and international exposure possess a more extensive portfolio of HC resources. This diversity helps them reduce cognitive entrenchment effects and identify multiple entrepreneurial opportunities that founders with more narrow experiences may not recognize.

As those experiences and the more general HC are less task-related, they might, on one hand, increase the failure probability of the venture but, on the other hand, create the option for habitual entrepreneurship. In this sense, those one-time entrepreneurs with general HC and varied experiences start with an initial handicap compared to entrepreneurs with more task-related HC. Yet, as they navigate their first venture, these entrepreneurs are better positioned to learn on the job and acquire the task-related HC necessary for growth and a transition to habitual entrepreneurship (Unger et al., 2009). Indeed, we find that entrepreneurs who create multiple firms leverage the variety of HC in education, international knowledge, and diversified work experiences (in terms of sector, firm characteristics, and job positions held). This suggests that variety better prepares for habitual entrepreneurship.

We have extended the theoretical discourse on the role of previous entrepreneurial experiences. While earlier research argues that prior entrepreneurial experience promotes success in future ventures (i.e., Westhead et al., 2005a), we propose that it is not just the quantity but also the variety of experience that is key to habitual entrepreneurship. Our results show that drawing from different areas of education and business experience, along with international exposure, enables founders to seize multiple entrepreneurial opportunities.

We shed light on how diversity of experiences influences the likelihood of becoming a habitual founder. The greater the variety in an individual's experience in managing firms across sectors, the more likely it is for them to establish a new venture after their initial one. Likewise, experience in working for firms of varying sizes increases the likelihood of habitual entrepreneurship. While most of the literature has highlighted the role of diversity at the founding team level (Forbes et al., 2006) we show that diversity is relevant also at the individual level. One could argue that founders with more specific HC could complement with a diverse team the necessary HC in order to develop more options for growth or habitual entrepreneurship. However, research suggests that habitual founders are better at building diverse teams (Kirschenhofer & Lechner, 2012) but also better at effectively managing diverse teams (Linder et al., 2024). Therefore, the likely beneficiaries of diverse teams are habitual entrepreneurs.

We also contribute to the ongoing discussion on founders' education levels by highlighting that while varying levels of education may not impact the likelihood of founding a specific firm, they do affect the founding of multiple ventures. Policymakers might find this shift in focus—from a specific venture to an entrepreneurial career—valuable, reinforcing the positive effects of entrepreneurship training (Martin et al., 2013).

Additionally, we show that international experience enhances an entrepreneur's general HC, offering a wider perspective for evaluating options and opportunities. Although a significant body of research has investigated the factors driving international entrepreneurship (Oviatt & McDougall, 1994), the impact of international experience on habitual entrepreneurship—a distinct concept from diaspora entrepreneurship (e.g., Elo et al., 2018)—has not received substantial attention. The broader viewpoint afforded by international experience facilitates the identification and exploitation of diverse opportunities, indicating a promising direction for future research into how international experience influences habitual entrepreneurship.

In conclusion, our research provides significant contributions to the cognitive entrenchment perspective by applying its logic to entrepreneurship and by linking these effects to variety in HC. The finding that expanding the knowledge base and perspective favors habitual founders is particularly pertinent, given the pivotal role habitual entrepreneurs play in driving the economy (Gompers et al., 2010).

6 Conclusions and limitations

Our contribution to the entrepreneurship field is four-fold. First, from a methodological perspective, we focus on a specific group of habitual entrepreneurs—*habitual founders*, who have established multiple firms either simultaneously or sequentially (Ucbasaran et al., 2003). We employ *one-time founders* as a reference group, separating our research from prior studies that primarily use novice entrepreneurs as a point of comparison. Our use of secondary data for hypothesis testing further distinguishes our work from studies typically reliant on survey-based samples.

Second, from a theoretical perspective, we contribute to the human capital (HC) theory and

cognitive entrenchment narrative by proposing that a diverse range of HC can mitigate cognitive entrenchment. While existing research highlights the benefits of specialized HC during the early stages of a new venture (Unger et al., 2011), our study underscores the importance of a varied HC in the growth of multiple ventures over an entrepreneurial career. Our findings contribute to the extant literature by indicating that habitual entrepreneurs leverage a broad spectrum of experiences, which can be complemented by specialists on their teams.

Third, one advantage of habitual entrepreneurs lies in their ability to build broader and more effective networks compared to novice entrepreneurs, due to their repeated venture experiences (Kirschenhofer & Lechner, 2012). However, the same argument cannot be made for one-time founders with substantial venture experience. Therefore, the underlying mechanism is not clear. The variety of experiences of an entrepreneur, on the other hand, increases the likelihood of being connected to different networks and acting as boundary spanners (Burt, 2005). Consequently, such characteristics are likely to foster wider and more diverse networks initially, which in turn facilitate habitual entrepreneurship.

Lastly, we factor in the role of international experience in broadening the HC variety. Based on international entrepreneurship research (e.g., Ahmed & Brennan, 2019; Kuemmerle, 2002), we propose that international experience cultivates an entrepreneurial attitude conducive to creating multiple firms. We suggest that this type of experience may serve as an additional predictor of general HC at both the educational and professional levels. In line with the literature on diversity in entrepreneurial teams (Bouncken, 2004; Zhou & Rosini, 2015), we also highlight the importance of diverse experience in entrepreneurial training and demonstrate that it is not simply the quantity of prior entrepreneurial experience, but rather the diversity of that experience that is meaningful (Newbert et al., 2022).

Like any study, our paper also has limitations. Our analysis of the contextual factors is limited to regional characteristics. However, entrepreneurial activities are surely also affected by more local factors (Fu et al., 2018). Founding firms in Silicon Valley or a remote area of the US, Europe, and Asia is undoubtedly different. An analysis including the locational

variables that impact the habitual vs. lifetime choice is a promising research avenue.

Moreover, we did not include other types of habitual entrepreneurs in our analysis. We acknowledge that some entrepreneurs may both acquire and find companies throughout their entrepreneurial lifetime. We limited our analysis to the straightforward classification between acquirers and founders, focusing on the latter group. If this helps us to focus on the entrepreneurs' founding abilities, it also opens interesting new research opportunities. Our analysis' logic follow-up could include studying the differences among habitual founders, acquirers, and one-time entrepreneurs. Further developing the study targeting serial founders, serial acquirers, portfolio founders, and portfolio acquirers could help take an additional step to understand better this specific group of individuals—the habitual entrepreneurs.

Additionally, our analysis does not account for experiences gained while being founders, where individuals might have also held positions in companies they did not establish. Therefore, while we investigated several important factors, there may be other variables that we did not consider, which could influence our results. These include aspects like the availability of different opportunities, maintaining a role in firms they did not establish, the specific characteristics of teams supporting founders, and detailed information on the success and profitability of founded ventures (Parker, 2014). Santamaria (2021) suggests that ventures by portfolio entrepreneurs are less likely to survive. Therefore, it would be interesting to test if this holds also for habitual compared to one-time founders. These areas present opportunities for future research.

This includes the setup of new ventures as an organizing mode for exploiting new opportunities, where we cannot control whether one-time founders exploit new opportunities within their existing organization (Wiklund & Shepherd, 2008). On the one hand, research has explored that certain factors like being at ease with running different smaller firms or the use of different social networks can drive entrepreneurs to become habitual (Lechner & Leyronas, 2009). On the other hand, organizing the exploitation of a new activity within the existing organization might limit substantially the attraction of both crucial human and financial resources (Lechner & Leyronas, 2009; Lechner et al., 2016). This limitation might

inspire future research to explore the potentially different growth potential that arises from choosing one organizational mode over the other for exploiting new opportunities.

The data available to us did not include the detailed information required to compare individuals who founded new ventures and continue to lead them with those who, despite having the option to stay, chose to exit relatively successful companies and start anew. Thus, an area ripe for further investigation is the nuanced paths of habitual founders, including the interplay between successive failures, successful exits, and the combination thereof. While our dataset constraints limit a detailed exploration of the reasons behind founders' exits and the success metrics of the companies they depart from, this aspect represents a compelling direction for future research. Understanding the diverse trajectories of habitual entrepreneurship, including the motivations and outcomes associated with exiting a relatively successful venture to embark on new entrepreneurial pursuits, could unveil important insights into the strategic decisions of experienced entrepreneurs.

While we acknowledge the significance of diverse experiences in shaping an entrepreneur's human capital, we also recognize the limitations inherent in using education level as the primary proxy for general human capital. Education, although a critical and quantifiable component, represents only one facet of the multifaceted concept of human capital, which includes a range of skills, knowledge, and experiences beyond formal schooling (Coff & Raffiee, 2015; Hatak & Zhou, 2021). Future research could enrich this understanding by incorporating a wider array of human capital components, thereby offering a more nuanced view of its influence on entrepreneurial success. This would not only address the current study's limitations but also contribute to a more comprehensive exploration of the factors that drive habitual entrepreneurship.

In addition to the individual-level factors examined in this study, we recognize the growing importance of team dynamics in entrepreneurship. The increasing prevalence of ventures started by teams rather than individual entrepreneurs suggests that the diversity of skills within a team can significantly impact a venture's success. While our study includes a control variable for the total number of team members involved in founding the venture, we acknowledge

that this does not fully capture the diversity of skills within these teams. However, research on habitual entrepreneurs suggests that those founders are better at building effective and diverse teams (Kirschenhofer & Lechner, 2012; Linder et al., 2024). Therefore, one-time founders might be also restricted in their choices by developing less effective diverse teams. This limitation points to a fruitful avenue for future research, where the focus could shift toward understanding how the combination of diverse skills and experiences within entrepreneurial teams contributes to venture creation and success in the presence of more or less experienced lead founders (Linder et al., 2024). Such an inquiry would complement the insights provided by our study on the individual entrepreneur's human capital and offer a more holistic view of the factors influencing entrepreneurial trajectories.

Another interesting study on the topic could dig more into the effects of the founder's international experience on the different choices within the habitual entrepreneur's group and lead toward an analysis that targets a better understanding of similarities and dissimilarities across countries. Variety appears to matter by increasing the options and the solution space of the entrepreneur, but we do not know enough about the costs of variety. Consequently, studies investigating time to market might shed light on the new venture process.

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Data availability The dataset generated and analyzed during the current study is gathered from the Crunchbase repository, <https://data.crunchbase.com/docs>.

Declarations

Competing interests The authors declare no competing interests.

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