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Polychronicity and Entrepreneurial Intentions: Exploring Cognitive Flexibility and Adaptability in Potential Entrepreneurs

Abstract

Understanding the temporal dimensions of entrepreneurial intentions (EI) has been a longstanding challenge in entrepreneurship research. However, we still know relatively little about how temporally oriented constructs, such as cognitive flexibility and adaptability, influence these intentions. This study explores how preferences toward time utilization influence the formation of EI, applying a person-vocation fit perspective to develop a cognitive model. Our findings show that both cognitive flexibility and cognitive adaptability are positively related to polychronicity. Also, we show that the relationship between polychronicity and EI is moderated by gender, with results more pronounced among men. Our multiple-wave empirical analyses provide robust support for these hypotheses, underscoring the significant positive impact of polychronic tendencies on EI. This research contributes to the broader literature on EI by offering new insights into the cognitive and temporal factors influencing entrepreneurial intentions.

Keywords: cognitive adaptability, cognitive flexibility, entrepreneurial intentions, gender, polychronicity

Polychronicity and Entrepreneurial Intentions: Exploring Cognitive Flexibility and Adaptability in Potential Entrepreneurs

Although entrepreneurship is a crucial function in most modern economies, only a relatively small fraction of individuals opt for the vocational path of entrepreneurship (Kelley et al., 2016). Recognizing that entrepreneurship as a vocation may be best *fit* for certain individuals, our research focuses on how preferences for time utilization (Bluedorn et al., 1999) **can influence entrepreneurial intentions (EI). In particular, we investigate how individuals' cognitive dispositions for flexibility and adaptability impact how their time is used as a resource, and how these preferences help shape their EI. To our knowledge, this study represents one of the first attempts to explore the relationship between polychronicity, a preference for engaging in multiple tasks at once, and EI. We extend literature on polychronicity beyond current understanding,** wherein polychronicity is commonly framed to investigate relationships between approaches to time management and organizing behaviors within the workplace (e.g., Conte et al., 1999; Kaufman-Scarborough & Lindquist, 1999) or educational context (e.g., Capdeferro et al., 2014). Such research has resulted in implications regarding polychronicity for job specific performance and education-based outcomes (e.g., Conte & Gintoft, 2005; Slocombe & Bluedorn, 1999). Our research takes a different approach by investigating polychronicity as it relates to intention for entrepreneurship as vocation.

Intentions refer to individuals' determination to execute a plan or make predetermined choices (Conner & Armitage, 1998). Understanding EI is crucial for entrepreneurship research. A recent review identified more than 70 distinctive variables investigated as EI antecedents (Alferaih, 2017). Additionally, Donaldson's (2019) review covered more than 160 peer-reviewed publications on EI between 2014 and 2018, and Batista-Canino et al. (2024) provided a comprehensive review of nearly 2,000 papers on the topic published over the last 50 years. These reviews highlight that while psychological constructs and personality attributes are well-represented in the literature, the interactions between cognitive and time-related variables, like

polychronicity, remain underexplored. This gap is concerning considering that the theoretical foundations of EI frame the construct as a cognitive antecedent to the action of launching a business venture (Bird, 1988) and that intent is necessarily temporally embedded (Donaldson, 2019).

Polychronicity, or the preference for engaging in multiple tasks at once (Hall, 1959; 1966), is a relatively new concept in organizational research (Kirchberg et al., 2015). Scholars have demonstrated that polychronic traits of firm leaders have meaningful implications for business functions (Chen, 2020; Souitaris & Maestro, 2010), such as venture performance (Franczak et al., 2024). Despite time being a critical component in the entrepreneurial journey (Levasseur et al., 2024), there is limited application and investigation into polychronicity within the entrepreneurship domain (Bluedorn & Martin, 2008; Leunbach et al., 2020; Sirén et al., 2020), particularly regarding the way entrepreneurs think during in the earliest stages of entrepreneurship. Cognitive flexibility and cognitive adaptability are two critical cognitive attributes that enable individuals to adjust their thinking and behavior in response to changing environments (Laureiro-Martínez, & Brusoni, 2018). These attributes are essential for entrepreneurs who often operate in dynamic and uncertain conditions (Haynie et al., 2012). Despite their importance, the influence of these cognitive attributes on EI remains largely unexplored. While the lack of investigation into the way cognitive attributes and preference for polychronicity can affect entrepreneurial intentions is concerning, and certainly a gap in the literature, failure to understand how preference for engaging in multiple tasks facilitates connection of cognitive attributes to entrepreneurial intention limits pathways for recognizing people who might believe they fit the entrepreneurship profile – a problem for managers and recruiters looking to identify potential entrepreneurs and for institutions of higher learning aiming to cater to individuals of potential entrepreneurial persuasion.

The Person-Environment (P-E) fit theory posits that individuals seek environments that complement their characteristics, and this congruence can explain intentions and behavior

(Kristof-Brown et al., 2005). A subdimension of P-E fit, Person-Vocation (P-V) fit, refers to the alignment between an individual's interests, abilities, and the requirements and features of a vocation (Guan et al., 2021; Holland, 1985; Vogel & Feldman, 2009). Our study utilizes the P-V fit theoretical framework to explore how cognitive flexibility, cognitive adaptability, and polychronicity influence entrepreneurial intentions. By doing so, this study addresses significant gaps in the literature and provides empirical evidence for understanding of how cognitive and temporal factors influence entrepreneurial intentions. First, we formulate and test a cognitive-based model for predicting EI, transcending traditional personality and psychological proxies. Second, we introduce polychronicity as a crucial factor connecting cognitive abilities to EI, providing a novel perspective on time utilization in entrepreneurship. Third, we identify gender as a boundary condition influencing the interaction between cognitive abilities and polychronicity in shaping EI. Policymakers, organizational leaders, and entrepreneurs can benefit from these insights, enabling them to better support and foster entrepreneurial activity, ultimately contributing to economic growth and innovation.

Literature Review

Polychronicity

Through anthropological studies, Hall (1959; 1966) developed the concepts of monochronic and polychronic time, which provide an understanding of the complexities of temporally infused behaviors. A monochronic orientation represents the inclination to complete one task before engaging in another, whereas a polychronic orientation is hallmarked by preference for engaging multiple tasks simultaneously. Monochronic and polychronic orientations represent the extremes of a continuum. Bluedorn and colleagues (1992) posited a scenario wherein two individuals work on multiple projects during the same time frame; one individual may proceed by engaging in one project until completion and then shift to the next project, whereas the other individual may choose to switch back and forth among these projects before completing either. Switching consists of the simultaneous interspersing or merging of numerous tasks as individuals transition

from one task to another (Chen et al., 2021). The individual who switches back and forth between multiple projects is considered more polychronic of the two¹.

Research reveals potential positive effects for entrepreneurs that exhibit a preference for polychronicity. These benefits vary, with most attributable to the dynamism and uncertainty unique to the entrepreneurial context. For instance, research has linked polychronicity to enhanced communication (Bouncken, 2004), faster work pace (Bluedorn & Martin, 2008), continuous venture and product improvement, improved utilization of time and energy in response to unforeseen or unpredictable events (Leunbach et al., 2020), and even improved performance and firm growth in dynamic environments (Carmeli et al 2021; Franczak et al., 2024; Souitaris & Maestro, 2010). Recent findings also suggest a positive relationship between polychronicity and the formation of entrepreneurial self-efficacy (Lin et al., 2022). However, while existing findings are generally positive in terms of impact, recent evidence suggests the importance of contextual characteristics. For example, Chen (2020) discovered that CEO polychronicity had a positive association with innovation only within large firms in dynamic contexts and, conversely, had a negative relationship with innovation for small firms within a stable context. Similarly, Sirén and colleagues' (2020) study of SMEs found that low levels of polychronicity (i.e., promoting monochronicity or focus) and high levels of polychronicity were both positively related to performance, whereas moderate levels were not.

Entrepreneurial Intention

Entrepreneurial intention is widely recognized as the most significant predictor of entrepreneurial activity—a focal outcome variable in contemporary entrepreneurship research (Krueger et al., 2000). Entrepreneurial intentions refer to a conscious state of mind guiding an individual's attention, experience, and behavior toward planned entrepreneurial behaviors and

¹ ***Polychronicity vs. Ambidexterity***

Polychronicity is defined as the preference for engaging in multiple tasks simultaneously. It emphasizes an individual's ability to switch between tasks and manage multiple activities at the same time, reflecting a trait-like preference for engaging in multiple tasks. Ambidexterity, on the other hand, refers to the ability to balance and manage both exploratory and exploitative activities effectively. It is commonly used in organizational behavior to describe an organization's or individual's capacity to simultaneously pursue innovation (exploration) and efficiency (exploitation).

actions (Bird, 1988), often brought about by appreciation for entrepreneurial behaviors and actions (Krueger et al., 2000). Hence, entrepreneurship is not a career path stumbled upon by chance, but a deliberate choice for individuals (Krueger, 2000). This does not discount the idea that some individuals have limited choices for vocation (e.g., necessity or sustainability entrepreneurship) because such individuals must still choose entrepreneurship over other alternatives, including non-action. Indeed, individuals with entrepreneurial intentions perceive fit between their abilities and phenomena that commonly permeate entrepreneurship, such as enduring risks, gathering resources, and navigating uncertainty in the pursuit of establishing their ventures (Lanivich, 2015). Accordingly, EI represents an individual's aim to choose entrepreneurship (Obschonka et al., 2010).

Several recent comprehensive reviews explicitly focus on research conducted on EI (e.g., Alferaih, 2017; Bird, 2015; Donaldson, 2019; Línán & Fayolle, 2015). However, further contextual investigation is needed (Sun et al., 2020; Wu et al., 2022). Our intention is not to replicate the expansive findings presented in the preceding reviews but to establish explicit links between prior work relevant to the current study. Specifically, since the inception of research focused on EI, the construct has predominantly been positioned in a cognitive context (e.g., Bird, 1988; Katz & Gartner, 1988; Krueger, 1993; Shapero, 1982). This positioning is appropriate given conceptualizations of EI are squarely situated in cognitive processes and subsequent decision-making.

Within the literature regarding cognition, two distinct but related approaches are evident. One approach focuses on cognitive structures, while the other emphasizes cognitive processes. Concerning cognitive structures, scholars have identified the frameworks entrepreneurs employ to make evaluations, judgments, and decisions (Gaglio & Katz, 2001). On the other hand, research on cognitive processes suggests entrepreneurs manage information differently compared to non-entrepreneurs (Baron, 1998), and understanding these differences is valuable for assessing who becomes an entrepreneur (Baron & Markman, 1999). Both approaches have been highly

useful for successfully identifying and predicting antecedents to EI. Some of the most commonly researched and validated constructs include self-efficacy (Bacq & Alt, 2018, Ciuchta & Finch, 2019; Tantawy et al., 2021), entrepreneurial self-efficacy (Bullough et al., 2014; Schmutzler et al., 2019), scripts (Hayton et al., 2002; Siu & Lo, 2013), cognitive styles (Douglas, 2013; Kickul et al., 2009), decision-making heuristics (Meoli et al., 2020; Simon et al., 2000, Townsend et al., 2010), volition (Nyock Ilouga et al., 2014), and biases (Hietschold & Voegtlin, 2021; Simon et al., 2000; Zellweger et al., 2011).

Bird (1988; 1992) considered the implications of time in formulating entrepreneurial intentions, suggesting: “ventures take time to create, with many interrelated events and processes, each with different time demands, weaving together during organization emergence. The entrepreneur's intention behind these events and processes aims to sense and direct the pace, sequence, and synchronization of activities... the entrepreneur needs to understand the time requirements of the different events and processes” (Bird, 1992: p. 2). Time is predominantly conceptualized as irreversible movement along a forward trajectory, and entrepreneurs are believed to have a distinct emphasis on the present and the future aspects of time, rather than a focus on the past (Barreto et al., 2022). Further, entrepreneurs’ time differs considerably compared to individuals in specific roles within organizations because entrepreneurs engage in a wide array of activities and complex roles (Bird, 1988; Dyer, 1995). Yet, much of the existing research considering the role of temporality has focused on the strength and long-term stability of EI in relation to different contexts and/or stages of the entrepreneurial process (Caliendo et al., 2014; Giotopoulos et al., 2017; Hirschi, 2013; Kessler & Frank, 2009; Stenholm, 2011; Van Gelderen et al., 2015, 2018; Zhang & Acs, 2018). The findings largely reflect consistent results (e.g., Kautonen et al. 2013; Kolvereid & Isaksen, 2006), suggesting EI predicts entrepreneurship (Schoon & Duckworth 2012).

Theory Development

Prior studies have delved into the diverse working preferences of entrepreneurs based on

temporal variables (e.g., Bluedorn & Martin, 2008). However, studies concerning temporality largely reflect the effects of passing through time, and explicit research into how polychronicity helps predict entrepreneurial intentions is lacking. Hence, our focus is specifically on how individuals' cognitive dispositions for flexibility and adaptability influence how they choose to utilize their time as a resource, and how these preferences are likely to influence EI. To our knowledge, our paper represents an inaugural study investigating the relationship between polychronicity and entrepreneurial intentions.

To elucidate our model, we integrate cognitive flexibility and adaptability within the P-V fit framework, providing explanations and evidence for how these cognitive attributes work with polychronicity to influence EI. Cognitive flexibility and cognitive adaptability enable individuals to adjust their thinking and behavior in response to changing environments, essential qualities for entrepreneurs who often operate in dynamic and uncertain conditions. In doing so, we parallel others who have applied a *fit-based* theoretical approach to explaining cognitive determinants of entrepreneurship phenomena (Baron, 1998), like intentionality (e.g., Brigham et al., 2007). Therefore, we rely on tenets of the person-environment fit framework from the person-vocation fit perspective.

[Insert Figure 1 about here]

Person-Vocation (P-V) Fit

As the overarching premise for our primary explanatory framework, P-V fit, P-E fit theory assumes that individuals have a natural inclination to seek out environments that complement or supplement their own characteristics (Muchinsky & Monahan, 1987; Van Vianen, 2018). P-E fit theory relies on a foundation of three fundamental premises: (1) fit is a more powerful predictor of individual outcomes than its components alone, (2) outcomes are more optimal when personal attributes and environmental attributes are compatible regardless of the level of these attributes, and (3) discrepancies between person and environmental attributes (i.e., misfits) reduce positive outcomes irrespective of the directionality of the discrepancy (Kristof-Brown et al., 2005).

Person-Vocation fit, as an extension of P-E fit, posits that individuals will actively seek, choose, and excel in work environments that align with and complement their inherent characteristics (Holland, 1996; Parsons, 1909). The P-V fit framework delineates a process where individuals articulate preferences for specific activities, leading to an interest in work environments facilitate, encourage, and reward the engagement of those activities (Holland, 1985). Put differently, people search for and create environments that enable behavior trait manifestation which, depending on fit, have important impacts or relevant outcomes (Rounds & Tracey, 1996). Indeed, individuals reap benefits from a high degree of alignment between their personal characteristics and the attributes of their working environment (Edwards, 2008). Research offer evidence that this congruence positively correlates with significant outcomes, including job satisfaction (Hoff et al., 2020; Rounds & Tracey, 1996; Tsabari et al., 2005), performance (Nye et al., 2018), and persistence in work contexts (Holland, 1996; Nye et al., 2012).

Herein, we adhere to the cognitive perspective approach to expand the application of P-V fit theory beyond basic personality types to the cognitive processes that more directly influence decisions related to EI. Within this framework, there are two major, distinctive types of fit: supplementary and complementary (Muchinsky & Monahan, 1987). Complementary fit refers to circumstances where environmental needs or challenges are fulfilled or offset by characteristics of an individual. Put differently, the demands of the environment may be met by the capabilities of certain individuals (Kristof, 1996). **We focus on complementary fit in the development of our proposed model because individuals are often aware of the key demands and challenges of entrepreneurship prior to committing to entrepreneurial activities. This awareness allows them to evaluate whether their personal attributes, such as cognitive flexibility and adaptability, align with the dynamic and uncertain conditions inherent in entrepreneurial ventures.** Hence, they can judge how well their abilities align with known demands of an entrepreneurial vocation. In the following sections, we provide arguments based on P-V fit tenets for a model of cognition-based

EI.

Cognitive Flexibility and Polychronicity

Cognitive flexibility encompasses three core components: confidence, awareness of options, and willingness to adapt (Martin & Rubin, 1995). Cognitive flexibility empowers individuals to adjust cognitive processing strategies to unforeseen and unfamiliar conditions (Cañas et al. 2003). It has been suggested to foster creativity and innovation (Hennessey, 2010), and is a fundamental attribute that enables individuals to pursue complex tasks by uncovering novel and adaptable solutions to diverse demands (Ionescu, 2012) – essential prerequisites to entrepreneurship (Cantillon, 1931; Kirtley & O'Mahony, 2020). Indeed, studies have demonstrated that cognitive flexibility tends to enhance problem solving abilities, ideation, and innovativeness (Barbey et al., 2013; Nijstad et al., 2010). Relatedly, individuals with strong cognitive flexibility can competently shift between different cognitive processing styles, which improves decision making in highly complex and uncertain contexts (Laureiro-Martínez & Brusoni, 2018). We stress that this ability to shift thinking represents a crucial aspect of the entrepreneurship vocation, which also lends itself to preference for polychronicity.

Cognitive flexibility studies (e.g., Spiro et al., 2003) suggest that existing beliefs and knowledge shape the cognitive resources utilized to address issues and solve problems. Moreover, cognitive flexibility affects embracing uncertainty, ambiguity, and unstructured environments (Nijstad et al., 2010) In these situations, cognitive flexibility increases the extent to which people can acknowledge diverse knowledge and viewpoints that contradict their own beliefs (De Dreu et al., 2008); allowing them to move back and forth between perspectives. Yet, in entrepreneurial contexts, problem solving often contends with day-to-day operations and other roles played by the entrepreneur. Bhattacharyya and colleagues (2015) and Stachowski (2011) argue that cognitive flexibility can indicate a preference for shifting between tasks, an important characteristic for entrepreneurs who inherently juggle multiple responsibilities in their vocation. Indeed, evidence exists to show many aspects of cognitive flexibility are associated with

increased inclination to adopt polychronicity (Haase et al., 1979). Thus, our theorizing begins with the linkage between cognitive flexibility and polychronicity.

Hypothesis 1a: Cognitive flexibility is positively associated with polychronicity

Cognitive Adaptability and Polychronicity

Cognitive adaptability refers to the capacity to effectively and appropriately evolve or adapt decision-making policies in response to feedback from the environmental context in which cognitive processing is embedded (Haynie et al., 2010). Cognitive adaptability is particularly crucial in the entrepreneurial context due to the significant, rapid, and discontinuous changes that characterize entrepreneurship's environment (Ireland & Hitt, 1999). Further, cognitive adaptability is considered one of the primary components associated with an entrepreneurial vocation wherein individuals must rapidly sense, act, and mobilize even under uncertain conditions (Ireland et al., 2003). Taken as whole, it becomes evident that cognitive adaptability may help enable polychronic time usage and approach to task completion.

Since the initial emergence and development of polychronicity, there has been some consensus that it is strongly rooted in and related to cognitive and perceptual styles and abilities (Hall, 1966). For instance, the facets of cognitive adaptability linked to the capacity to absorb, understand, evaluate, and adapt to new information, followed by making decisions and responding appropriately to evolving environmental conditions, can foster polychronicity. This is because many tasks associated with performing cognitive adaptations necessitate the division of attention among multiple factors simultaneously (Shepherd & Patzelt, 2022), such as paying attention to an environmental shift or shock while contemplating new information and evaluating options. In simple terms, the attribute of cognitive adaptability enables a polychronic approach to time management and task completion because individuals must think both about the way they have previously thought about something while also considering the change they may make in the future—effectively creating time demands for both past and future paradigms that, at least for some time before a final decision to change is made, must be considered together. Though

intuitive, we posit this initial connection to comprehensively elucidate our model.

Hypothesis 1b: Cognitive adaptability is positively related to polychronicity

Polychronicity and Entrepreneurial Intentions

Polychronicity is “an individual’s preference for shifting attention among ongoing tasks, rather than focusing on one task until completion and then switching to another task” (Poposki & Oswald, 2010: p. 9). It is essential to note that some researchers have considered polychronicity and multitasking (simultaneously attempting more than one task) as synonyms (e.g., Bluedorn & Martin, 2008; Dilli et al., 2018; Spink et al., 2008) because polychronicity implies a certain level of multitasking. In contrast, other studies have revealed significant conceptual differences between polychronicity and multitasking (Kirchberg et al. 2015; König & Waller, 2010; Poposki & Oswald, 2010). As an example, Kirchberg and colleagues (2015) proposed that polychronicity can frequently serve as an antecedent of multitasking. Most notably, researchers have claimed that polychronicity is a trait-like preference, unlike multitasking, which is a behavior that tends to alter with task demands, varying work conditions, and an individual’s psychophysiological state (Kirchberg et al., 2015; Mohammed & Harrison, 2013). Indeed, based on high test-retest reliability coefficients for relevant measures (Bluedorn et al., 1992), researchers note that polychronicity has been more indicative of a trait than a state (Conte & Jacobs, 2003).

The classification of polychronicity as a trait is a crucial assumption in our theoretical framework. In terms of applying the P-V fit framework, individuals will seek to align their traits and abilities with vocational demands or requirements (Kristof-Brown et al., 2005; van Vianen, 2018), and task switching is a major demand of entrepreneurship-based work. Research has indicated that flexibility in working attitude associated with polychronic behavior is relevant to entrepreneurship, as it can result in “the exploitation of an unanticipated opportunity” in some situations or “unproductive dithering” in others (Bluedorn et al. 1992, p. 23).

Considering the unique context of entrepreneurship, shaped by uncertainty and dynamic environmental conditions (Shane & Venkataraman, 2000), it is easy to see how individuals

contemplating entrepreneurship as a vocation might consider polychronicity an asset in alignment with the demands of business startup. Indeed, entrepreneurship often requires quickly transitioning between roles in different functional areas of the business. These characteristics are well described in the initial conceptual depiction of entrepreneurial intention, as Bird (1988) explains:

The entrepreneurial role does not fit neatly into the functional or hierarchical aspects of organizations. Entrepreneurs' functions are a mix of operations, management, promotion, and leadership activities, ranging from stuffing envelopes to running a machine, making sales calls, analyzing competition, meeting with bankers, and forming strategic alliances. In addition, the hierarchical position of the entrepreneur is less well established than that of traditional executives. Entrepreneurs, their partners, investors, and employees organize themselves, often in an ad hoc way, into "teams" that can be described as having flat or star-shaped configurations, reflecting the centrality of the entrepreneur as well as his or her status. Because of their complex roles, entrepreneurs experience and manage time differently than those who have more specialized roles. As a result, they also experience temporal tension differently, in ways that uniquely energize them, color their perceptions, and cue their search for information. Likewise, entrepreneurs are characterized by a higher need for control, they feel more responsible as the future unfolds into the present. (p. 446)

Hence, to some extent, an entrepreneurial vocation not only invites, but also requires, a polychronic inclination because entrepreneurs must concurrently handle myriad tasks and swiftly transition from one to another. Because this is a well-known aspect of entrepreneurship, individuals must consider the alignment of their traits and abilities with such demands of the vocation. Support for this idea comes from the argument made by Schein (1985, 1992), asserting that polychronic values are most suitable for small organizations and particularly during “the early stages of an organization” (Schein, 1992, p.108). This forms the cornerstone of our arguments supporting the applicability of P-V fit to the relationships with entrepreneurial intent investigated in this study.

Considering the P-V fit framework, individuals seek work environments that align with their characteristics (Holland, 1996). Accordingly, individuals express preferences for certain activities, and these preferences drive their interest in specific work environments where these activities are facilitated and rewarded (Holland, 1985). Thus, individuals search for and/or create

environments that will enable their abilities and resources to have important impacts on relevant outcomes (Edwards, 2008; Rounds & Tracey, 1996), like the development of intentions.

Entrepreneurship demands the identification, evaluation, and exploitation of opportunities (Shane & Venkataraman, 2000) amidst conditions of uncertainty (Knight, 1921) – an inability to predict future outcomes (Alvarez & Barney, 2007; McMullen & Shepherd, 2006). Consequently, it is often unclear which behavior, task, or decision is most pressing. Moreover, entrepreneurs must simultaneously handle many diverse tasks under these conditions (Baron & Markman, 1999). Understanding these prerequisites for entrepreneurship enables individuals to assess their fit within the entrepreneurial context and how their abilities align with the known demands of an entrepreneurial career.

Polychronicity is uniquely well-suited for aiding individuals in making decisions about their fit within the vocational context of entrepreneurship. Indeed, findings suggest that polychronicity is particularly beneficial in decision-making tasks involving innovative creations, solving problems, and conducting effective negotiation (Mohammed & Harrison, 2013). Furthermore, those who have a polychronic orientation tend to be highly competent at contemplating multiple alternatives concurrently, which is one of the hallmarks of effective decision making (Nutt, 2002) and a fundamental skill for an effective entrepreneur. Moreover, the capacity to maintain multiple and competing streams of thought is a critical skill needed to effectively complete complex cognitive tasks (Mohammed & Harrison, 2013). In summary, the ability to switch back and forth between ideas and tasks enhances opportunities for interchange and further consideration of additional unique alternatives, facilitating information integration (Bluedorn, 2002, Souitaris & Maestro, 2010) and intensifying the portability of effective problem solving (Mohammed & Harrison, 2013). Thus, we propose that polychronic individuals are likely drawn to entrepreneurship given their trait-like affinity for task-switching and likelihood of such ability to be integral to the potential success of launching a new venture.

Hypothesis 2: Polychronicity is positively associated with entrepreneurial intentions

Polychronicity as Mediator

We posit that preferences toward time-usage, activities, and task completion are aspects of fit for a vocation in entrepreneurship and independently important in determining how higher-order trait-based cognitive attributes influence the formation of EI. Research suggests that both cognitive and metacognitive factors play pivotal roles in the formation of EI (Bird, 1988; Siu & Lo, 2013). For example, Hsu and colleagues (2019), found that fit plays a crucial role in determining the relationship between entrepreneurial self-efficacy and EI. Evidence suggests that higher order metacognitive mechanisms, such as cognitive adaptability, may promote or support the formation of EI (Botha & Bignotti, 2017). However, results are inconsistent when considering cognitive adaptability and its relationship to EI. Other related research suggests that context may have a central role in determining the nature of these complex relationships.

To establish rationale and theoretical arguments supporting our proposed mediated relationships, we once again rely on the application of fit theory to illustrate how the conceptualization of each construct has clear implications for EI. For instance, the capabilities associated with cognitive flexibility are of utmost importance in an entrepreneurial vocation context because these skills amplify innovative thinking and ideation, simultaneously equipping an entrepreneur with the ability to grapple with uncertainty. Indeed, the importance of cognitive flexibility has been widely recognized by scholars in entrepreneurship. For example, Foo and colleagues (2015) found that cognitive flexibility enables the development of robust schemas and the discovery of entrepreneurial opportunities. Similarly, Baron and colleagues (2012) and Shepherd (2015) found that cognitive flexibility can lead to venture initiation and encourages progress of entrepreneurial activities. In fact, Miller and colleagues (2012) noted that cognitive flexibility can strengthen entrepreneurs' innovative ideas and potential solutions to problems. Cognitive flexibility enables entrepreneurs to transform unexpected contingencies into meaningful opportunities (Osiyevskyy & Dewald, 2015) by evaluating multiple perspectives of an idea to devise problem solutions (Roberts et al., 2017).

Similarly, cognitive adaptability has clear implications for entrepreneurial tasks (Haynie et al., 2012). It has been suggested that cognitive adaptability serves as one of the more fundamental origins of an entrepreneurial mindset (Haynie et al., 2010) and that it may also contribute to the discovery of entrepreneurial opportunities (Mishra & Zachary, 2015). Further, in the entrepreneurial context, cognitive adaptability may enhance decision making (Xing et al., 2022) and contribute positively to overall performance (Lanivich et al., 2014). Indeed, research suggests that the attribute of cognitive adaptability is uniquely suited for complex, dynamic, and inherently uncertain environments that characterize entrepreneurship. Naturally, this has led some to consider what role cognitive adaptability may have regarding the formation of entrepreneurial intentions (Botha & Bignotti, 2017).

Neurologically, there is some evidence that cognitive adaptability and cognitive flexibility are linked to weakened levels of latent inhibition (i.e., information that is disregarded due to lack of familiarity; Nijstad et al., 2010) and effective performance of the working memory (De Dreu et al., 2008). The reduction of latent inhibition resulting from cognitive flexibility leads to ideation, ultimately yielding original responses (Nijstad et al., 2010). Furthermore, individuals with an efficient working memory and high cognitive adaptability and/or cognitive flexibility are inclined to be open to unfamiliar experiences and adept at learning new information (Star & Seifert, 2006). Engaging in these cognitive processes makes individuals comfortable with change and improves their perceptions towards change, fostering an appreciation for alterations (Ionescu, 2012). Notably, research has established the necessity of cognitive flexibility and adaptability capabilities for successful entrepreneurial careers (Schumpeter, 2013), indicating that these skills often lead people to pursue entrepreneurial careers (Biraglia & Kadile, 2017).

While the outcomes of cognitive flexibility and cognitive adaptability can support the argument that they predict entrepreneurial intent, research establishing the link to entrepreneurial intentions is limited. We believe this is due to the episodic nature of both cognitive flexibility and cognitive adaptability, which limits a process orientation for considering either attribute as a

proximal antecedent to entrepreneurship intentions, in general. In other words, although both constructs are undoubtedly important for successful entrepreneurship, the benefits of these skills are only realized when problems arise wherein cognitive shifts are required. However, from the context of career choice, these attributes become part of the calculus for determining individuals' fit with an entrepreneurship as vocation.

Studies on cognitive flexibility suggest an individual's ability to apply knowledge and form decisions are often hindered by confirmatory biases (e.g., Dajani & Uddin, 2015; Spiro, 1988), which may lead them to approach complex tasks based on preexisting cognitive schema (Leung et al., 2014). Preestablished beliefs also limit individuals' ability to acknowledge new information (Spiro, 1988). Cognitive flexibility allows individuals to break previously learned cognitive schema to overcome functional fixedness (i.e., reliance on familiarity to operate) and make innovative links between concepts (Guilford, 1967). Simply put, without cognitive flexibility, decisions based on existing biases can be rigid and may impede efficient and effective decision-making and problem-solving (Spiro et al., 2003). This can be detrimental to early conceptualizations of entrepreneurial ideas because, as information regarding idea feasibility is gathered, individuals must often reorient their perspective (i.e., pivot) in a way that aligns with their environment and resources (Sarasvathy, 2001). We believe this ability is noteworthy for understanding the link between cognitive flexibility and entrepreneurial intent through polychronicity because potential entrepreneurs must be able to cognitively think about many potential pathways for actualizing their ideas, often with a limited window of opportunity. Thus, we posit entrepreneurial intent is affected by cognitive flexibility through polychronicity as potential entrepreneurs must continually monitor for entry points, resource availability, and other perils or possibilities while also constructing contingencies.

Hypothesis 3a: Polychronicity mediates the relationship between cognitive flexibility and entrepreneurial intentions

Furthermore, research indicates that individuals who are comfortable with change,

appreciate unfamiliar information, and possess an efficient working memory can adeptly select and apply new information when engaged in ideation and problem-solving (Barbey et al., 2013; De Dreu et al., 2008). Given the P-V fit framework, individuals are motivated to pursue a career that enables them to employ and exercise their skillset (Jansen & Kristof-Brown, 2006).

However, the application of cognitive adaptability in the consideration of an entrepreneurship vocation choice requires the activation mechanism of polychronicity as alternatives are considered and compared. In this way, polychronicity is an indicator for individuals considering entrepreneurship as vocation that their cognitive adaptability resources will have an impact on their profession—if, at very least, to consider alternatives to entrepreneurship as vocation, but also as gauge for considering entrepreneurial pivots that will likely arise during entrepreneurs' tenure with a venture.

Hypothesis 3b: Polychronicity mediates the relationship between cognitive adaptability and entrepreneurial intentions

Gender as Moderator

Díaz-García and Jiménez-Moreno (2010) argue that gender plays a pivotal role in influencing and predicting entrepreneurial intentions. Their research reveals that while men are more inclined to contemplate the possibilities of establishing a firm, their commitment to taking decisive action is comparatively lower. Interestingly, men who perceive higher alignment with entrepreneurial attributes and masculinity exhibit firmer entrepreneurial intentions. Additionally, both men and women with robust entrepreneurial intentions associate successful entrepreneurial traits with femininity (Díaz-García & Jiménez-Moreno, 2010). Gender is also associated with polychronic tendency, with women typically exhibiting higher polychronicity than men when juggling diverse work-related activities alongside personal life stressors (Manrai & Manrai, 1995). According to Evans et al. (2014), women often demonstrate greater competency in prioritization compared to men balancing responsibilities in both household management and professional roles. While some studies find no gender differences in time use preference (Palmer

& Schoorman, 1999) or multitasking productivity (Offer & Schneider, 2011), others highlight gender distinctions in “time allocation, time conflict, and perceptions of work versus leisure” (Cotte & Ratneshwar, 1999, p. 190). In a study of dual-career couples, women reported engaging in more polychronic activities and behaviors, both personally and professionally, than their male partners (Offer & Schneider, 2011).

Despite female proficiency in polychronicity, research indicates that gender does not significantly correlate with polychronicity preference (Bluedorn & Martin, 2008). We draw on the P-V fit framework to propose that the alignment between necessary attributes for entrepreneurship and an individual’s characteristics influence intentions toward a specific occupation, entrepreneurship. However, despite the compatibility of polychronicity with entrepreneurial demands, other vocational indicators, such as gender, may override perceptions of ability congruence. Scholars argue that the perceived superior polychronicity level among females, compared to males, might be a myth, as entrepreneurship and social science literature have examined the work-family roles of women (Brush, 1992; Brush et al., 2009). From the perspective of gender studies and diversity scholarship in management (Perrigino et al., 2018), women may be compelled to exhibit more polychronic behavior, considering the historical burden of balancing social and career roles predominantly falling on women (DeMartino & Barbato, 2003).

However, entrepreneurship rates are significantly lower for adult women than men in most countries (Belitski & Desai, 2021; Hindle et al., 2009). Santos and colleagues (2016) argue that this gender gap results from differing cognitions and self-perceptions between men and women, leading to distinct interpretations of their surroundings. For instance, given the uncertainty, complexity, and challenges associated with the entrepreneurial vocation, studies indicate that women encounter higher financial barriers, perceive fewer opportunities, and have a greater fear of failure than men (Langowitz & Minniti 2007). Additionally, perceptions of femininity and masculinity in the context of entrepreneurship may dissuade women from

pursuing entrepreneurial intentions, despite their polychronic abilities (Wallace & Boyd, 2017). Finally, sociocultural factors, experiences, and knowledge (Engle et al., 2011) have been shown to diminish the relationships between entrepreneurial intentions and other factors that would typically promote entrepreneurship among women (e.g., Matherne et al., 2020). Collectively, these factors suggest that women may perceive entrepreneurship as a vocational misfit, while it appears as an optimal fit for men, creating variance between the sexes in how polychronicity influences entrepreneurial intentions.

Hypothesis 4: The positive link between polychronicity and entrepreneurial intentions is moderated by gender such that the relationship is stronger for men than women

Methodology

Sample and Data Collection Procedures

The sample consisted of part-time MBA students in three AACSB accredited business schools in Taiwan. Our student sample was selected because they received a semester of training in entrepreneurship and small business management. Wherein they were introduced to specific entrepreneurial competencies and skills needed to spot opportunities and launch their own ventures. As such, we targeted part-time MBA students because we wanted to investigate the factors that could drive their intention to start a business early in their career path deliberations. Students are appropriate subjects for understanding entrepreneurial intentions, as evidenced by previous research indicating specific career intentions are critical for students enrolled in university programs (Douglas, 2013; Gottfredson, 2002).

Our survey was designed and implemented in English, which is a primary language of instruction at the universities where the students were enrolled. The survey was administered using a face-to-face approach. To reduce potential common method bias (Podsakoff et al., 2003), we obtained data in two waves where data on the independent and dependent variables were collected six months apart. In addition, the respondents were promised anonymity of their responses. Moreover, a pilot study was conducted using 13 students to ensure understanding and

adequate psychometric properties of our multi-item measures.

In the first wave, questionnaires were distributed to 260. The Wave 1 survey was designed to capture cognitive flexibility, cognitive adaptability, gender, polychronicity and the control variables. We received 252 responses of which two were discarded due to missing information. Wave 2 was implemented 6 months after Wave 1. In Wave 2, we captured only the entrepreneurial intentions construct. Accordingly, the survey was distributed to the 250 respondents; we received 246 responses. We eliminated three surveys due to missing values. Overall, we used 243 matched responses across Waves 1 and 2. The average age of respondents was 38 years with most respondents being married (52.7%), male (62.6%), and employed full-time (78.2%).

Measures

Unless otherwise stated, all items were captured using established, validated scales on a seven-point, Likert-type scale with anchors ranging from one (1) for strongly disagree to seven (7) for strongly agree.

Cognitive flexibility. The eight items measuring cognitive flexibility were taken from Martin and Rubin (1995). The original scale contained twelve items. However, due to cross-loadings, we disregarded four items. The Cronbach's alpha value for the eight items for measuring cognitive flexibility was 0.92. This supports the internal reliability of the eight items.

Cognitive adaptability. We used four items from Haynie and Shepherd (2009) to capture cognitive adaptability. The Cronbach's alpha value of the four items was 0.79.

Gender. We measured gender as dichotomous variable (female = 0, male = 1).

Polychronicity. We used the five-item scale developed by Bluedorn and colleagues (1999). This scale has shown strong validity and reliability in extant studies (Chen, 2020; Souitaris & Maestro, 2010). The Cronbach's alpha was 0.82.

Entrepreneurial intention. Five items from Liñán and Chen (2009) were used to capture entrepreneurial intentions. This scale is robust for student samples (Dheer & Lenartowicz, 2019;

Liñán & Chen, 2009; Shirokova et al., 2016). The Cronbach's alpha for the five items was 0.86.

Control Variables. We controlled for entrepreneur age, education, marital status, employment status, and entrepreneurial experience because these variables have been shown to influence entrepreneurial intentions in previous studies (Douglas, 2013). Age could influence entrepreneurial intentions because young people are more likely to start new ventures (Liñán, & Chen, 2009). Thus, we used a continuous measure of age (Dheer & Lenartowicz, 2019). Individuals who are married could face resource constraints and this could attenuate ambitions to start a new business (Renzulli et al., 2000). Hence, we control for marital status of the respondents (0 = single, 1 = married). Previous studies show that educational attainment represents human capital, and this could enhance the likelihood to start a new business (Dheer & Lenartowicz, 2019; Lofstrom et al., 2014). It has been established that individuals without employment may think of starting their own businesses (Bullough et al., 2014). As such, we controlled for the effect of employment (0 = unemployed, 1 = employed). Given that prior entrepreneurial experience relates to entrepreneurial intentions (Zhao et al., 2005), we controlled for this by asking if respondents had started previous business ventures (0 = no, 1 = yes).

Results

Analytical Strategy

Structural equation modelling (SEM) is an advanced methodology used to evaluate and validate both predictive and causal hypotheses (Bagozzi & Yi, 2012). SEM was suitable for data analysis, buttressed by two-wave data obtained from 243 participants, because of its ability to simultaneously estimate the hypothesised linkages between the latent constructs (i.e., cognitive flexibility, cognitive adaptability, polychronicity, and entrepreneurial intention) in our model while accounting for measurement errors (Byrne, 1998; Kline, 2016). As such, we followed prior research (Ooi, 2014) by estimating the assumptions of normality, multicollinearity and sample adequacy with Kaiser-Meyer-Olkin (KMO; Kaiser, 1974) test, prior to utilizing SEM to estimate our confirmatory factor analysis and structural model. Precisely, we employed covariance-based

structural equation modelling (CB-SEM) to test our hypotheses, opting against partial least squares structural equation modelling (PLS-SEM) or ordinary least squares (OLS) regression. For instance, Zhang and colleagues (2021) noted that CB-SEM integrates several multivariate techniques such as regression analysis, confirmatory factor analysis and path analysis. Further, CB-SEM accounts for the measurement errors which results in more accurate model estimation (Cheung & Lau, 2008). Additionally, CB-SEM allows for nested model comparison which is appropriate for examining theoretical models (Williams et al., 2009). Consequently, we utilised LISREL 8.80 (Joreskog & Sorbom, 2014) with the maximum likelihood (ML) and covariance matrix (CM) technique to estimate our CFA and SEM models.

Table 1 presents the reliability and validity assessment for each of the constructs. As presented, all variable scales exhibited acceptable levels of reliability; all composite reliability scores exceeded 0.80. Additionally, the average variance extracted from each construct was also sufficient as were the alpha values associated with each construct. Finally, the fit indices for the overall CFA model with all multi-item constructs combined was acceptable ($\chi^2(df) = 452.395(203)$; $\chi^2/df = 2.249$; RMSEA = 0.0718; SRMR = 0.0469; NNFI = 0.908; CFI = 0.919).

[Insert Table 1 about here]

Table 2 presents the results of the common methods bias assessment procedure. When compared with the Harman's single-factor model ($\chi^2(df) = 1013.091(209)$; $\chi^2/df = 4.847$; RMSEA = 0.0718; NNFI = 0.908; CFI = 0.919), the hypothesized four-factor model provided an acceptable fit to the data ($\chi^2(df) = 452.395(203)$; $\chi^2/df = 2.249$; RMSEA = 0.142; NNFI = 0.712; CFI = 0.740). This signifies common methods bias was not an issue in our data. The descriptive statistics and correlations associated with all variables and constructs are presented in Table 3.

[Insert Tables 2 & 3 about here]

Results from the hypothesized model are presented in Table 4. As shown in Table 4, the results support both Hypotheses 1a and 1b which proposed that cognitive flexibility ($\beta = 0.43$, $t =$

6.32) and cognitive adaptability ($\beta = 0.32, t = 4.99$) are positively related to polychronicity, respectively. Both relationships were found statistically significant ($p < 0.001$). Hypothesis 2 proposed that polychronicity is positively related to EI. Again, as shown in Table 4, we find statistically significant support for Hypothesis 2 with a positive relationship between polychronicity and EI ($\beta = 0.12, t = 2.08, p < 0.05$). Hypotheses 3a and 3b proposed that the relationships between EI and cognitive flexibility, and EI and cognitive adaptability, are mediated by polychronicity, respectively. As shown in Table 4, we find mixed results. We find support that the relationship between cognitive flexibility and EI is mediated by polychronicity because the path from cognitive flexibility to polychronicity ($\beta = 0.43, t = 6.32$) and polychronicity to EI ($\beta = 0.12, t = 2.08$) are significant at $p < 0.001$ and $p < 0.05$, respectively. Further, as shown in Table 4, because the direct effect of cognitive flexibility on EI ($\beta = 0.72, t = 10.45$) was also significant ($p < 0.001$), our results convey partial mediation effect. However, we do not find support for the mediation of the relationship between cognitive adaptability and EI.

[Insert Table 4 about here]

Hypothesis 4 proposed that the relationship between polychronicity and EI would be moderated by gender. The relevant findings are presented in Table 4 (Model 6), showing support for Hypothesis 4 ($\beta = 0.16, t = 2.34, p < 0.05$). Figure 2 presents a graphical depiction of the interaction effects of polychronicity and gender on EI.

[Insert Figure 2 about here]

In terms of the overall model fit, various fit indices are reported in Table 4 for each model. As a robustness check for the mediation analysis, we conducted a comparison of the hypothesized model with nested models through structural equation modelling (Iacobucci et al., 2007). The results of this analysis are presented in Table 5. Our partial mediation model showing the path from cognitive flexibility to entrepreneurial intention had the lowest Model CAIC (769.166) (Bozdogan, 1987) with indices of acceptable model fit to the data ($G^2(df) = 451.006(204); G^2/df = 2.211$; NNFI = 0.912; CFI = 0.922; RMSEA = 0.071; SRMR = 0.047).

[Insert Table 5 about here]

Discussion

Our study offers a cognitive model for predicting entrepreneurial intentions, extending the entrepreneurial cognition perspective. Through an exploration of cognitive flexibility and cognitive adaptability, and their influence through polychronicity, we provide nuanced insights into the prediction of entrepreneurial intentions. By emphasizing the link through polychronicity and recognizing the moderating role of gender, we hope to stimulate further research that delves into the intricate interplay of cognitive factors, time preferences, and gender dynamics in the entrepreneurial domain. Accordingly, our findings indicate that the relationship between cognitive flexibility and entrepreneurial intent was mediated by polychronicity, as hypothesized. This supports the notion that individuals with cognitive flexibility are equipped to engage in polychronic activities, which align with the demands of an entrepreneurial vocation and provide a positive influence on EI.

Our results are consistent with the work of Bird (1988, 1992), who emphasized the importance of temporal aspects in the formation of EI. Additionally, our work extends the understanding of cognitive factors influencing EI as highlighted by Krueger and colleagues (2000) and Grégoire and colleagues (2011). Relatedly, the entrepreneurial mindset literature provides valuable insights into how cognitive and behavioral processes shape entrepreneurial intentions. Kuratko and colleagues (2021) examined the entrepreneurial cognitive, behavioral, and emotional aspects, emphasizing how entrepreneurs use mental models, engage in opportunities, and experience emotions in entrepreneurship. These aspects are critical for understanding the entrepreneurial mindset and how cognition influences EI. Naumann (2017) provided a comprehensive review of the entrepreneurial mindset literature, identifying its core and meta-cognitive attributes and highlighting the need for further research across different cultures and contexts. By incorporating these insights, we enrich the entrepreneurial mindset, emphasizing the importance of cognitive and emotional processes in shaping EI. This integration

provides a more holistic understanding of how polychronicity and cognitive attributes interact to influence entrepreneurial intentions. By integrating these theoretical perspectives within the P-V fit framework and incorporating the entrepreneurial cognition literature, we provide a comprehensive and cohesive understanding of the cognitive and temporal factors influencing EI, addressing significant gaps in the literature and offering valuable insights for future research.

However, contrary to our expectations, the hypothesized relationship between cognitive adaptability and EI, mediated by polychronicity, did not receive empirical support. This intriguing result suggests that additional elusive factors might intervene in the specified relationships. Future research should explore other metacognitive factors that may influence this relationship. This finding adds complexity to the cognitive framework and suggests that cognitive adaptability might operate through different mechanisms not captured in our model, necessitating further investigation (Dheer & Lenartowicz, 2018, 2019).

The second stage of our model confirmed the positive relationship between polychronicity and EI, and explored the boundary condition of gender, providing comprehensive support for our overall model. This finding aligns with previous research suggesting the importance of temporal preferences in entrepreneurial activity (Barreto et al., 2022; Bluedorn & Martin, 2008; Levasseur et al., 2024; Souitaris & Maestro, 2010). Our study contributes to the broader literature by demonstrating that polychronicity, a trait-like preference for engaging in multiple tasks simultaneously, significantly influences EI.

Our consideration of gender impact on the relationship between polychronicity and EI contributes to the broader literature on gender and entrepreneurship (Nikou et al., 2019; Santos et al., 2016). Additionally, we add perspective to the conversation surrounding social construction of entrepreneurial intent (e.g., Liguori et al., 2018). Specifically, our finding that gender moderates the relationship between polychronicity and EI highlights an area ripe for future research. Comparative studies focused on gender differences in cognitive processing and time management could expand our current understanding of these dynamics in entrepreneurial

contexts (Arshad et al., 2015).

Our contribution extends beyond the model itself, as we developed and tested a cognitively-situated framework for EI, aligning with the prevalent entrepreneurial cognition perspective in contemporary entrepreneurship scholarship. In doing so, we build upon recent research that delves into novel constructs and their roles in shaping EI (Bazzy et al., 2019). Additionally, our study resonates with broader scholarly investigations into how various constructs interact with cognitive factors, such as emotion and passion (Karimi, 2020; Li et al., 2014), environmental factors like munificence (Bacq et al., 2017), and institutional factors linked to cognition in the context of EI (Fini & Toschi, 2016).

By focusing on polychronicity as a bridge between distal cognitive change factors—cognitive flexibility and cognitive adaptability—to influence EI, our work contributes to a more granular and nuanced understanding of the mechanisms underlying the formation of entrepreneurial intentions. We intentionally elevated polychronicity in the context of EI formation for several compelling reasons. Foremost, the implications of temporality and preferences in time usage directly align with the earliest conceptualizations of EI (Bird, 1988, 1992). Despite this, the temporal dimension of EI has been largely overlooked in recent discussions (Donaldson, 2019; Liñán & Fayolle, 2015). By explicitly highlighting the significance of preferences related to time usage and task completion, via polychronicity, we help to rectify this gap. As scholars continue to address this deficiency and provide evidence regarding the implications of time-related preferences, we anticipate that polychronicity will emerge as a valuable addition to future EI research.

Our findings have practical implications for entrepreneurship education and training programs as well. Understanding the role of cognitive flexibility, adaptability, and polychronicity in shaping EI can help educators design more effective curricula that enhance these cognitive attributes and temporal preferences among aspiring entrepreneurs. Furthermore, our research highlights the importance of considering gender dynamics in such programs, ensuring that both

men and women are equally supported in developing the skills and attributes necessary for developing entrepreneurial intentions.

Additionally, our study offers valuable insights for policymakers and organizational leaders. As work environments continue to evolve with increasing flexibility and remote work options, leveraging polychronicity can enhance individual and organizational performance. Entrepreneurs and managers can benefit from understanding how time management preferences align with vocational demands, leading to better job satisfaction, reduced stress, and lower turnover rates.

Limitations and Future research

Our study has several limitations that present opportunities for future research. First, our investigation utilized a Taiwanese sample, which may limit the generalizability of our findings across different cultural contexts. Cultural, cross-cultural, and multi-cultural factors can significantly influence the formation of EI (Dheer & Lenartowicz, 2018), and some cultures may inherently be more or less entrepreneurial (Oppen & Andersson, 2019). Therefore, our results should be applied cautiously in different cultural settings.

Additionally, although we collected data in multiple waves, our analysis is cross-sectional in nature and cannot establish causality. The variables in our study were not manipulated, and we did not use random assignment techniques. Future research could improve causal inferences by using manipulated variables or random assignment methods. Longitudinal research designs would also be beneficial in testing the causal relationships proposed in this study. Despite these limitations, our findings contribute robustly to the current understanding of the formation of EI.

Our research underscores the importance of polychronicity and other cognitive factors in the entrepreneurial process, particularly in the early stages of forming entrepreneurial intentions. While we have some evidence that polychronicity benefits entrepreneurs in specific contexts (Carmeli et al., 2021; Souitaris & Maestro, 2010), there remains a significant gap in

understanding how a polychronic approach influences various outcomes, stages, and contexts within entrepreneurship (Franczak et al., 2024). This finding contributes to the broader EI literature by addressing the role of time preferences in entrepreneurial decision-making, a dimension initially highlighted by Bird (1988, 1992) but largely overlooked in recent studies (Donaldson, 2019; Liñán & Fayolle, 2015).

Future research should continue to investigate polychronicity and its implications for EI, extending beyond initial intention formation to explore its impact on various entrepreneurial outcomes, stages, and contexts. Research has shown that polychronicity is a significant predictor of job performance (Kantrowitz et al., 2012; Mohammed & Harrison, 2013), and it can lead to optimal performance when moderated by multitasking ability (Sanderson et al., 2013). Polychronicity may also be particularly influential for founders who adopt a portfolio approach to entrepreneurship (Chandra et al., 2015). Further investigation is needed to understand how polychronicity influences entrepreneurial intentions in different settings, such as acute medical care or emergency/disaster response, where time management is critical.

Our findings suggest that polychronicity should be considered a critical factor in the entrepreneurship framework. In doing so, we add to the known attributes contributing to the person-vocation fit for entrepreneurship, which emphasizes the match between individual attributes and vocational requirements (Guan et al., 2021; Holland, 1985; Vogel & Feldman, 2009). Integrating polychronicity within the P-V fit framework could benefit future research in vocational psychology. For example, Glosenberget al. (2019) integrated the tenets of Social Cognitive Career Theory (Lent et al., 1994) with the traditional RIASEC model, offering a comprehensive explanation of how cultural, economic, and cognitive factors influence P-V fit. Further research could explore the role of polychronicity in achieving fit and its subsequent impact on career satisfaction, success, and/or exit.

7. Conclusion

Our study provides a robust theoretical framework and empirical evidence supporting the role of

cognitive flexibility, polychronicity, and gender in the formation of entrepreneurial intentions. This research contributes to the existing literature by addressing a critical gap in understanding the temporal dimensions of EI, which have been largely overlooked in recent studies. By integrating these cognitive and temporal dimensions into the existing body of literature on EI, we offer novel insights and pave the way for future research to further explore these complex interactions. We hope that our findings will inspire continued investigation into the cognitive foundations of entrepreneurship, ultimately contributing to a deeper and more comprehensive understanding of what drives individuals to pursue entrepreneurial ventures.

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Table 1: Reliability and Validity Assessment

Constructs, details of measures, and reliability and validity test	Mean	s.d.	α	t-value	SMC
I can communicate an idea in many different ways	3.807	1.305	0.816	Fixed	0.666
I avoid new and unusual situations (r)	3.831	1.049	0.759	13.452	0.576
I can find workable solutions to seemingly unsolvable problems	3.848	1.055	0.856	16.019	0.734
I seldom have choices when deciding how to behave (r)	3.815	1.126	0.803	14.573	0.645
I have the self-confidence necessary to try different ways of behaving	3.827	1.089	0.786	14.124	0.618
I am willing to listen and consider alternatives for handling a problem	3.881	1.032	0.807	14.675	0.652
I have many possible ways of behaving in any given situation	3.815	1.104	0.755	13.355	0.570
In any given situation, I am able to act appropriately	3.893	1.055	0.722	12.575	0.521
Cognitive					
I often define goals for myself	3.337	1.283	0.622	Fixed	0.387
I think of several ways to solve a problem and choose the best one	3.486	1.258	0.696	8.445	0.484
I think about what I really need to accomplish before I begin a task	3.683	1.200	0.807	9.192	0.651
I ask myself if I have considered all the options when solving a problem	3.819	1.302	0.734	8.749	0.539
Polychronicity (Bluedorn et al., 1999): CR = 0.828; AVE = 0.500					
I like to juggle several projects at the same time.	3.527	1.257	0.688	Fixed	0.473
I would rather complete an entire project every day than complete parts of several projects (r).	3.280	1.145	0.669	9.097	0.448
I believe people should try to do many things at once	3.654	1.066	0.753	10.044	0.567
I believe it is best to complete one project before beginning another (r)	3.523	1.179	0.738	9.887	0.545
I believe it is best for people to be given several projects to perform	3.543	1.125	0.652	8.889	0.425
Entrepreneurial intention (Lin & Chen, 2009): CR = 0.872; AVE = 0.578; 0.869					
I am ready to do anything to be an entrepreneur	3.716	1.232	0.733	Fixed	0.538
My professional goal is to become an entrepreneur	3.786	1.130	0.789	11.915	0.622
I will make every effort to start and run my own firm	3.757	1.126	0.820	12.387	0.673
I am determined to create a firm in the future	3.967	1.032	0.761	12.387	0.579
I have the firm intention to start a firm some day	3.897	1.147	0.691	11.487	0.477
Fit indices: $\chi^2(df) = 452.395(203)$; $\chi^2/df = 2.249$; RMSEA = 0.0718; SRMR = 0.0469; NNFI = 0.908; CFI = 0.919. CR = composite reliability; AVE = average variance extracted; α = alpha value; s.d = standard deviation; λ = standardised factor loading; SMC = squared multiple correlation					

Table 2: *Common Method Bias Test for Study*

Measurement models	χ^2	df	χ^2/df	$\Delta\chi^2(\Delta\text{df})^{\S}$	NNFI	CFI	RMSEA	RMSEA CI	AIC
Hypothesised model (four-factor)	456.454	203	2.249	--	0.908	0.919	0.072	[0.063; 0.081]	556.454
Model 1 (three-factor A)	686.014	206	3.330	229.56(3)***	0.826	0.845	0.104	[0.096; 0.112]	837.981
Model 2 (three-factor B)	789.637	206	3.833	333.183(3)***	0.828	0.846	0.108	[0.100; 0.116]	883.637
Model 3 (three-factor C)	602.522	206	2.925	146.068(3)***	0.856	0.872	0.095	[0.087; 0.103]	750.468
Model 4 (two-factor)	882.640	208	4.243	426.186(5)***	0.757	0.781	0.131	[0.124; 0.139]	1168.333
Model 5 (one-factor)	1013.091	209	4.847	556.637(6)***	0.712	0.740	0.142	[0.135; 0.150]	1320.234
[§] Compared to the four-factor model. *** $p < 0.001$. Model 1: Cognitive flexibility and cognitive adaptability were combined into one factor with polychronicity and entrepreneurial intention. Model 2: Cognitive flexibility and polychronicity were combined into one factor with cognitive adaptability and entrepreneurial intention. Model 3: Cognitive adaptability and polychronicity were combined into one factor with cognitive flexibility and entrepreneurial intention. Model 4: Cognitive flexibility, cognitive adaptability and polychronicity were combined into one factor with entrepreneurial intention. Model 5: All study variables were combined into one factor.									

Table 3: *Descriptive Statistics and Correlation*

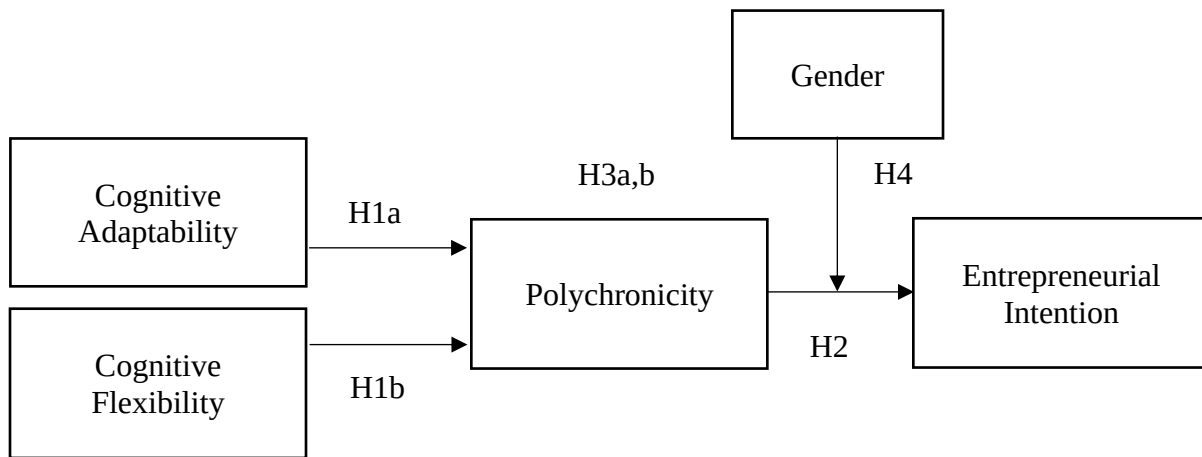
Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Cognitive flexibility	3.840	0.901										
2. Cognitive adaptability	3.581	1.000	0.427***									
3. Polychronicity	3.505	0.888	0.550***	0.476***								
4. Entrepreneurial intention	3.825	0.920	0.739***	0.353***	0.487***							
5. Gender ^m	--	--	0.042	0.018	0.088	0.004						
6. Age	38.296	5.943	-0.008	0.021	-0.092	0.051	0.056					
7. Business education [‡]	2.720	0.724	0.219**	0.127*	0.218**	0.169**	0.006	0.054				
8. Marital status [‡]	1.671	0.654	0.057	0.046	0.022	0.053	0.027	0.071	0.119 [†]			
9. Employment status ^m	--	--	0.125	0.195**	0.195**	0.142*	0.003	0.020	0.237***	-0.007		
10. Prior entrepreneurial experience ^m	--	--	0.069	0.015	0.062	0.047	0.029	-0.015	0.019	-0.096	0.223***	
Variance inflation factor (VIF)			1.510	1.362	1.597							

Note: N = 243. [†] $p < .10$; ^{*} $p < 0.05$; ^{**} $p < 0.01$; ^{***} $p < 0.001$. ^m dummy variables; [‡] categorical control variables

Table 4: Structural Model Estimation[illegible]

Table 5: Results of the Comparison of Hypothesized Model with Nested Models in Structural Equation Modelling

[illegible]

Figure 1: *Conceptual Model***Figure 2:** *Interaction Effect of Polychronicity and Gender on Entrepreneurial Intention*