

THE INFLUENCE OF PROXIMITY TO
ENTREPRENEURSHIP SUPPORT MECHANISMS ON
ENTREPRENEURIAL PROPENSITY: THE ROLE OF
GENDER AND BIG FIVE PERSONALITY TRAITS

A Master's Thesis

by
AYBÜKE TEMEL ÇAKIR

Department of
Business Administration
İhsan Doğramacı Bilkent University
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To My Mom, Dad, and Soulmate - Onuralp

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The Graduate School of Economics and Social Sciences

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by

AYBÜKE TEMEL ÇAKIR

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By Ayb ke Temel  akır

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science in Business Administration.

Rasim Serdar Kurdođlu
Advisor

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science in Business Administration.

Zahide Karakitapođlu Ayg n
Examining Committee Member

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science in Business Administration.

Celile Itır G đ  
Examining Committee Member

Approval of the Graduate School of Economics and Social Sciences

Refet S. G rkaynak
Director

ABSTRACT

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Temel akır, Ayb ke

MS, Department of Business Administration

Advisor: Asst. Prof. Dr. Rasim Serdar Kurdođlu

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This study investigates the role of proximity to entrepreneurial support mechanisms (ESM) on entrepreneurial propensity and the moderating roles of gender and personality traits. Drawing on established theories such as Knowledge Spillover Theory of Entrepreneurship and Entrepreneurship Enablement Theory, this study integrates contextual and individual perspectives to explore how environmental factors interact with individual traits and gender to shape entrepreneurial outcomes. Data were collected from 322 participants representing diverse demographic and geographic backgrounds. Multiple regressions conducted using R programming revealed that proximity to ESM significantly boosts entrepreneurial propensity. Cognitive and institutional proximity exhibited the strongest impact, while the geographical, organizational, and social proximities had weaker effects. Gender and personality traits

showed no significant moderating role. Adopting a holistic framework, this study addresses gaps in the literature by integrating different factors that shape entrepreneurial propensity. Implications highlight the importance of designing inclusive entrepreneurial ecosystems and tailoring support mechanisms to address individual and contextual differences. This study provides a comprehensive model to understand the interaction between proximity to support mechanisms and entrepreneurial propensity, contributing to theory and practice while discussing the implications of the findings and offering recommendations for future research.

Keywords: Big 5 Personality Traits, Entrepreneurial Propensity, Entrepreneurship Support Mechanisms, Gender, Need for Cognitive Closure, Proximity

ÖZET

GİRİŞİMCİLİK DESTEK MEKANİZMALARINA YAKINLIĞIN GİRİŞİMCİLİK EĞİLİMİ ÜZERİNDEKİ ETKİSİ: CİNSİYET VE BEŞ BÜYÜK KİŞİLİK MODELİNİN ROLÜ

Temel Çakır, Aybüke

Yüksek Lisans, İşletme

Tez Danışmanı: Dr. Öğr. Üyesi Rasim Serdar Kurdoğlu

Ocak 2025

Bu çalışma, girişimcilik destek mekanizmalarına (GDM) yakınlığın girişimcilik eğilimi üzerindeki rolünü ve bu ilişkilerde cinsiyet ile kişilik özelliklerinin moderatör etkilerini araştırmaktadır. Bilgi Yayılımı Teorisi (Knowledge Spillover Theory) ve Girişimcilik Etkinleştirme Teorisi'ne (Entrepreneurship Enablement Theory) dayanan bu çalışma, çevresel faktörlerin bireysel özellikler ve cinsiyetle nasıl etkileşime girerek girişimcilik sonuçlarını şekillendirdiğini incelemek üzere bağlamsal ve bireysel perspektifleri birleştirmektedir. Çeşitli demografik ve coğrafi geçmişlerden gelen 322 katılımcıdan toplanan veriler, R programlama dili kullanılarak çoklu regresyon analizleri ile incelenmiştir. Sonuçta, GDM yakınlığının girişimcilik eğilimini anlamlı ölçüde artırdığını gözlenmiştir. Beş yakınlık boyutu arasında, bilişsel ve kurumsal yakınlık en güçlü etkilere sahipken, coğrafi, organizasyonel ve sosyal yakınlık daha zayıf etkiler göstermiştir. Cinsiyetin ve kişilik özelliklerinin bu ilişkide anlamlı bir

moderatör rolü bulunmamıştır. Bütünsel bir çerçeve benimseyen bu çalışma, girişimcilik eğilimini şekillendiren farklı faktörleri birlikte inceleyerek literatürdeki önemli boşlukları ele almaktadır. Bulgular, kapsayıcı girişimcilik ekosistemlerinin tasarlanması ve bireysel ile bağlamsal farklılıkları ele alan destek mekanizmalarının geliştirilmesinin önemine işaret etmektedir. Çalışma, destek mekanizmalarına yakınlık ve girişimcilik eğilimi arasındaki etkileşimi anlamak için kapsamlı bir model sunarak teoriye ve uygulamaya katkı sağlamakta, bulguların sonuçları tartışılarak gelecekteki araştırmalara yönelik öneriler sunmaktadır.

Anahtar Kelimeler: Beş Faktör Kişilik Özellikleri, Bilişsel Kapanma İhtiyacı, Cinsiyet, Girişimcilik Destek Mekanizmaları, Girişimcilik Eğilimi, Yakınlık

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CHAPTER I

INTRODUCTION

In the modern economies that are constantly changing, entrepreneurship has become a key driver of innovation, job creation, and economic growth. Understanding what drives people to become entrepreneurs and what influences their success has turned into a very critical area of research for scholars, with significant implications for both policymakers and practitioners.

Entrepreneurial propensity is the tendency and willingness of individuals to engage in entrepreneurial activities (Sondari, 2014; Guerrero, Rialp, & Urbano, 2008). In the recent past, entrepreneurship research has increasingly focused attention on the analysis of entrepreneurial propensity. What are the characteristics of some people but not others that make some more likely to start entrepreneurial ventures than others? How do, for instance, access to knowledge, networks, or institutional support shape propensity?

Proximity to entrepreneurship support mechanisms, such as accelerators, incubators, and education programs, is an important factor in answering these questions. This thesis discusses how proximity, defined along the geographical, organizational, institutional, cognitive, and social dimensions (Boschma, 2005), influences individuals' probability of discovering and exploiting entrepreneurial opportunities.

Despite the significant amount of research conducted in the areas of entrepreneurial behavior and entrepreneurial intention, the relationship between proximity and entrepreneurial propensity remains somewhat understudied. While it is well understood that proximity to resources such as incubators, accelerators, and networks sparks entrepreneurial activity, the specific sub-dimensions of proximity are not studied in depth (Audretsch et al., 2006; Aldrich & Zimmer, 1986).

For instance, cognitive proximity, which refers to shared knowledge, and institutional proximity, which emphasizes structured frameworks, often represent critical drivers of entrepreneurial activity. Social proximity is used to access resources through trust-based relationships, while organizational and geographical proximity influences formal networks and spatial resources. The study deviates from existing knowledge by researching whether or not these distinct effects differ in their influence on entrepreneurial propensity with specific reference to the Turkish context.

This research is grounded in several theoretical frameworks and leverages a multidimensional theoretical lens. The Knowledge Spillover Theory of Entrepreneurship (Audretsch & Lehmann, 2005) highlights the critical role of geographical proximity in facilitating the transfer of knowledge from organizations to entrepreneurial actors, emphasizing location-based signals. The Entrepreneurship Enablement Theory (Welter, 2011) expands this view by addressing the importance of contextual factors beyond geography, such as institutional, social, and cognitive proximity, and their influence on entrepreneurial behavior. This study builds upon this theory by having the proximity sub-dimensions as the independent variables of the research model.

Yet, these environmental factors alone do not fully explain why some individuals are more inclined to entrepreneurship than others. Given that behavior is influenced by personality, variations in recognizing opportunities, exploiting them, driving innovation, and creating value are often linked to individual differences (Leutner et al., 2014: 58). When discussing individual differences, personality traits, as conceptualized in the Big Five Personality Traits framework by Goldberg (1990), are pivotal. Thus, this study explores the moderating effects of Big Five personality traits, in particular agreeableness and neuroticism, which are crucial in determining entrepreneurial intentions (John & Srivastava, 1999; Gosling et al., 2003).

Integrating the Intersectionality Theory (Crenshaw, 1991), this study recognizes that multiple identity dimensions, including gender, intersect to

shape entrepreneurial propensity and it underscores the limitations of one-dimensional analyses. Additionally, with a feminist approach (Muntean & Ozkazanc-Pan, 2014) this thesis identifies gender as a key factor and acknowledges the systemic barriers that women often face disproportionately during their entrepreneurial endeavors. Moreover, prior literature shows that women can significantly benefit from accelerators and networks and leverage resources effectively when given access (Avnimelech & Rechter, 2023). In short, this study takes a holistic approach by examining how proximity to entrepreneurship support mechanisms interacts with personality traits and gender, aiming to bridge the gap between external and internal factors while fostering a more inclusive understanding of entrepreneurial ecosystems

The previous lack of multidimensional models might explain why the literature, beginning in the late 1980s, frequently concluded that there is no consistently predictable relationship between personal characteristics and entrepreneurial propensity (Brockhaus & Horwitz, 1986; Gartner, 1988). By adopting a multidimensional approach that incorporates proximity sub-dimensions alongside demographic and psychological factors, this study aims to provide a more comprehensive explanation of entrepreneurial propensity and address the gaps identified in earlier research. Finally, this research contributes to the broader understanding of entrepreneurial propensity by uncovering the intricate dynamics between proximity, individual characteristics, and societal contexts.

This thesis is organized to systematically address the research issue. The literature review includes existing theories, and relevant studies; and identifies gaps in the current research. The hypothesis development section provides the argumentative background of the hypothesis of this study. The methodology section details the strategies for hypothesis development, sampling, data collection, research model, and the operationalization of the variables. The results chapter presents significant findings along with their visual representations. The discussion chapter provides insights into the empirical results, explores the research implications and limitations, and suggests directions for future research. Finally, the conclusion chapter summarizes the conducted research and its findings. Through this structure, the thesis aims to address critical gaps in the entrepreneurship literature and contribute valuable insights to both theory and practice.

CHAPTER II

LITERATURE REVIEW

2.1 Entrepreneurship

Before delving into our research on entrepreneurial propensity, it is essential to comprehend the key definitions in this field. What exactly is “entrepreneurship”? While it may be one of the most popular buzzwords of the 21st century, is it merely a label that brings to mind figures like Jeff Bezos or Elon Musk? Or does entrepreneurship encompass a far broader spectrum, diving deep into the realms of innovation, risk-taking, and social impact within management sciences? As Shaver (2024) stated in his recent book,

entrepreneurs are like professional athletes; some fail and are not remembered, while others become Olympic champions.

It is important to recognize that entrepreneurship can be categorized in various ways, including small business entrepreneurship (SMEs), startup entrepreneurship, or social entrepreneurship. While entrepreneurship often involves creating a new organization, it is not limited to that (Shane & Venkataraman, 2000); it can also take place within an existing organization. This is referred to as “corporate entrepreneurship” or “intrapreneurship” (Amit, Glosten, and Mueller, 1993; Stevenson & Jarillo, 1990; Turner & Pennington, 2015; Zahra, 1996). In this study, I refer to entrepreneurship in a broad sense, encompassing all types of entrepreneurs. As an academic field, entrepreneurship is examining how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited (Venkataraman, 2019).

Entrepreneurship is generally characterized by a high degree of uncertainty and risk, and by the need for innovative and proactive action (Lumpkin and Dess, 1996; Tipu, 2017). The main difference between entrepreneurs from the rest of society is that in situations where ordinary people see risks, successful entrepreneurs see opportunities. (Sarasvathy, Simon and Lave, 1998)

In 1934, Schumpeter defined an entrepreneur as an innovator who disrupts the market equilibrium by introducing new products, processes, or business models and he called this process “creative destruction” (Schumpeter, 1934). On the contrary, Kirzner viewed the entrepreneur as an individual who identifies profit opportunities through “alertness” and moves the market towards equilibrium by exploiting inefficiencies, without necessarily creating innovations (Kirzner, 1974). According to Kirzner (1997), entrepreneurship is a mechanism through which temporal and spatial inefficiencies in an economy are discovered and mitigated. Dilli, Elert, and Herrmann (2018) describe entrepreneurship as a spectrum. On one end, we have Schumpeterian entrepreneurship, which involves taking risks, focusing on radical innovations, and aiming for high growth in companies. On the other end is non-Schumpeterian entrepreneurship, which avoids risk, relies on imitation, and does not focus on growing the business.

Many entrepreneurship scholars supported the Kirznerian entrepreneurship approach by declaring that “opportunity recognition” and “exploitation” are the key aspects of the entrepreneurial process. Shane and Eckhardt (2003), identified opportunity exploitation as integral to the entrepreneurial process. Scholars argue that entrepreneurship is fundamentally about seeing and acting upon opportunities. (Kuckertz et al., 2017; (Wang & Chugh, 2014) Similarly, Venkataraman (2019) claims that entrepreneurship is the nexus of lucrative opportunities and enterprising individuals, and it

involves creating value through innovation, seizing opportunities (Churchill, 1992), and creating something new (Hisrich, Peters, and Shepherd, 2023). Individuals seeking to become entrepreneurs need to respond quickly to evolving circumstances, think creatively, and seek out new avenues to effectively capitalize on entrepreneurial chances. (Choi and Shepherd, 2004; Turner & Pennington, 2015).

This naturally leads to the subsequent question: What exactly is an “opportunity”? Casson (1982) defines entrepreneurial opportunities as circumstances in which products or services can be sold for a profit. While an opportunity may exist objectively, it is not always apparent to everyone, as its identification relies on personal perception, and an individual can only benefit from it if they acknowledge that opportunity (Hayek, 1945; Kirzner, 1978; Shane & Venkataraman, 2000). The ability to recognize an entrepreneurial opportunity frequently arises from an instinctive understanding of the market, as entrepreneurs might notice opportunities informally based on their market "intuition" (Cooper & Kleinschmidt, 1987).

So, if opportunity recognition is entirely subjective, who sees it? Why, when, and how do some people and not others discover and exploit these opportunities? In fact, this is one of the key questions in entrepreneurship research. (Shane & Venkataraman, 2000) This study aims to explore a potential answer to that question. This research focuses on why some

individuals are more likely to discover and exploit opportunities than others and which factors can be influential.

2.2 Entrepreneurial Propensity

Entrepreneurial propensity is often explained by individuals' intentions to start a business (Sondari, 2014; Guerrero, Rialp, and Urbano, 2008). Koellinger et al. (2013) and Langowitz and Minniti (2007) argue that initiating action to start a new business is a manifestation of entrepreneurial propensity. Various measures, such as entrepreneurial alertness (Kaish & Gilad, 1991) or the entrepreneurial orientation scale (Langkamp Bolton & Lane, 2012), have been developed to analyze this propensity.

Many factors impact one's entrepreneurial propensity. Firstly, many researchers argue that individual differences are a key indicator of entrepreneurial propensity. (Khilstrom & Laffont, 1979; Schlaegel et al., 2021) Also, cognitive science has shown that cognitive properties play a significant role in discovering entrepreneurial opportunities (Hajizadeh & Zali, 2016; Kaish and Gilad, 1991). People vary in their abilities to combine existing concepts and information into new ideas (Ward & Smith, 1997). This means that particular individuals have a higher tendency to respond to opportunities

because they possess not only the necessary prior information but also the necessary cognitive abilities to value them (Shane and Venkataraman, 2000). Understanding individual differences and cognitive properties' role in entrepreneurship is enlightening and informs this research.

Moreover, according to the Knowledge Spillover Theory of Entrepreneurship (Audretsch et al., 2006), being geographically close (geographic proximity) to knowledge sources increases the likelihood of entrepreneurial activity. Individuals who are near entrepreneurship support mechanisms¹ benefit from the diffusion of knowledge, networks, and resources. Boudreaux and Nikolaev (2019) showed that the exploitation of opportunities is more common when people have greater financial capital. So, socioeconomic status and wealth are naturally factors in entrepreneurial propensity. Additionally, according to Aldrich and Zimmer's (1986) research findings, stronger social ties to resource providers facilitate the acquisition of resources such as investment, networks, customer acquisition, raw material etc. This enhances the probability of opportunity exploitation. So, it can be said that social proximity is a factor that affects entrepreneurial propensity.

Considering all these factors, the effect of proximity to entrepreneurship support mechanisms on entrepreneurial propensity was examined in this study,

¹ Types of entrepreneurship support mechanisms that are considered in this study are detailed in the upcoming sections.

along with an analysis of the moderating effects of personality traits and gender.

2.3 Entrepreneurship Support Mechanisms

Especially in the last few decades, the nature of entrepreneurship that triggers innovation and thus provides economic growth (Baumol, 2010; Urbano et al., 2020) has been adopted by different societies. With the rise of entrepreneurship ecosystems in many parts of the world, it has been realized that people need to be motivated towards entrepreneurship and that entrepreneurs need to be supported in different ways against the many problems they may encounter during their entrepreneurial journey. Entrepreneurial support refers to the provision of financial, social, and educational resources that assist entrepreneurs in navigating the challenges of venture creation, improving survival rates, and fostering sustainable growth. This support is critical for enhancing entrepreneurial capacity and fostering innovation within local ecosystems (Hanlon & Saunders, 2007; Ratinho et al., 2020).

For this reason, both states and the private sector began to develop special support mechanisms for entrepreneurs (Audretsch & Belitski, 2020;

Lerner, 2012). Thus, thousands of science parks, entrepreneurship centers, entrepreneurial training programs, incubation centers, co-working spaces, maker spaces, and similar formations have emerged all over the world. (Apostolopoulos et al., 2021; Hallen et al., 2020; Hochberg, 2016; Massey & Wield, 1992; Mian et al., 2016; Phan et al., 2005).

The basic logic of these entrepreneurship support mechanisms is to guide the individual in the process of implementing his/her business idea (Hallen et al., 2020; Hausberg & Korreck, 2020; Lerner, 2012; Smith & Hannigan, 2014) provide resources and then provide the entrepreneur with the skills needed to become self-sufficient (Bergman and McMullan, 2022). This approach provides a framework that is consistent with the Entrepreneurship Enablement Theory (Welter, 2011), which argues that entrepreneurship must be supported by the interaction of individual and environmental factors.

The activities of entrepreneurship support mechanisms are tailored to address the specific needs and developmental stages of entrepreneurs. For example, business incubators play a vital role in supporting startups by offering workspace, resources, and access to networks, ultimately aiming to lower the risk of failure for new ventures (Hackett & Dilts, 2004; Phan et al., 2005). Similarly, entrepreneurship education programs equip individuals with essential entrepreneurial skills, empowering them to navigate the challenges of starting and running a business successfully (Bae et al., 2014; Kuratko, 2005).

Although there are debates regarding their efficiency levels (Ratinho et al., 2020), existing literature clearly demonstrates that entrepreneurship support mechanisms positively impact both nascent and experienced entrepreneurs. In this study, I explore whether there is a relationship between individuals' entrepreneurial propensity and their proximity to entrepreneurship support mechanisms, taking into account individuals with no prior entrepreneurial experience as well. The concept of proximity, as referred to here, is elaborated in detail in the following section.

2.4 Proximity

Research on proximity began in the early 1990s, culminating in the establishment of the “Proximity Dynamics” group in 1991 and the publication of a special issue of the *Revue d'Economie Régionale et Urbaine* in 1993, titled “Economies of Proximity” (Bellet et al., 1993). This special issue, authored entirely by members of the French School of Proximity, explored proximity's role in production and innovation processes, emphasizing its geographical dimension.

Since the 2000s, the study of proximity has expanded beyond the French School, with contributions from international researchers introducing new

perspectives and concerns (Torre, 2017). Today, five key types of proximity are widely recognized: cognitive proximity (shared knowledge bases and competences), organizational proximity (relations within organizational structures), social proximity (trust-based relations such as friendships and family ties), institutional proximity (adherence to shared rules, laws, and values), and geographical proximity (spatial closeness) (Boschma, 2005). Various studies exist in the literature on the relationship between geographical proximity and entrepreneurship, even about building bridges (not metaphorically) to enhance startup founding in the local geographic community (Dutta et al., 2022). However, the impact of other sub-dimensions of proximity is generally overlooked. I also observed that there is currently no specific scale for measuring these sub-dimensions. To address these gaps in the literature, I analyzed all five dimensions of proximity in this study, utilizing the questions I have developed. These will be explained in detail in the methodology section.

2.4.1 Geographical Proximity

Geographical proximity fundamentally concerns physical closeness, often measured in metres or kilometres, between individuals or organizations (Boschma, 2005; Torre, 2014). It facilitates face-to-face interactions, knowledge sharing, and informal exchanges, making it an essential dimension

in entrepreneurial ecosystems. The Knowledge Spillover Theory suggests that close geographic proximity to knowledge sources, such as entrepreneurship support mechanisms, significantly increases the likelihood of entrepreneurial activity by facilitating access to critical information, resources, and networks. (Acs et. al., 2009). In other words, entrepreneurs located near urban hubs or entrepreneurial districts frequently benefit from localized knowledge spillovers and serendipitous encounters that can foster innovation (Boschma, 2005).

Moreover, geographical proximity is shaped not only by physical distance but also by the characteristics of the spaces where activities occur, such as the availability of transport infrastructure and the financial resources to access them. It is a neutral dimension that becomes meaningful through the actions and strategies of economic and social actors who may activate or mobilize it differently based on their needs and perceptions (Torre, 2014).

This proximity can be enhanced in urban contexts through localized innovation clusters or networks of producers that exchange knowledge via frequent face-to-face interactions (Torre, 2014). However, excessive reliance on geographical proximity can lead to spatial lock-in, limiting exposure to diverse ideas and innovations from other regions (Boschma, 2005).

In this study, geographical proximity is measured by exploring participants' physical location relative to major entrepreneurial cities in Turkey, their ease of access to these hubs, and the frequency of their visits to

entrepreneurial centers. With these questions I aim to understand how the physical environment influences their entrepreneurial activities and access to resources.

2.4.2 Organizational Proximity

Organizational proximity, as conceptualized by Boschma (2005), reflects the extent to which individuals or organizations are embedded within structured networks or shared governance systems that facilitate interaction and knowledge exchange. In entrepreneurship, this dimension is particularly relevant in determining access to formal support mechanisms, such as accelerators, mentorship programs, or innovation-focused departments within larger corporations.

To measure organizational proximity, this study examines participants' involvement in entrepreneurial support programs, memberships in startup communities, and collaboration experiences with startups or corporate innovation teams. With these questions, I aim to understand how structured organizational ties impact participants' entrepreneurial endeavors by enhancing access to resources and reducing uncertainty.

2.4.3 Institutional Proximity

Institutional proximity refers to the shared norms, rules, and regulatory frameworks that influence how individuals or organizations interact within a specific institutional context (North, 1990; Boschma, 2005). For entrepreneurs, institutional proximity is critical in shaping their ability to navigate legal and procedural environments effectively, access public funding, and align with the broader cultural norms of their ecosystem.

This study measures institutional proximity by exploring participants' familiarity with entrepreneurial regulations in Turkey and their experiences in receiving support from public institutions, such as TÜBİTAK, KOSGEB, or EU-backed initiatives. These questions aim to evaluate how well participants' understanding of and alignment with institutional frameworks contribute to their entrepreneurial success.

2.4.4 Cognitive Proximity

Cognitive proximity concerns the similarity in knowledge bases, skills, and problem-solving approaches among individuals or organizations, enabling effective communication and collaborative learning (Nooteboom, 2000;

Boschma, 2005). In the entrepreneurial context, cognitive proximity is crucial for fostering innovation through shared understanding while balancing diversity to avoid cognitive lock-in.

In this study I measure cognitive proximity by assessing participants' exposure to entrepreneurship education, their awareness of local entrepreneurial opportunities, and their regular engagement in entrepreneurial thinking and problem-solving. These questions are designed to determine the alignment between participants' cognitive frameworks and the entrepreneurial environment they operate in.

2.4.5 Social Proximity

Social proximity refers to trust-based relationships among individuals or organizations, often derived from shared experiences, friendships, or kinship ties (Granovetter, 1985; Boschma, 2005). In entrepreneurship, social proximity supports the exchange of tacit knowledge and fosters collaboration through strong interpersonal networks. However, according to Uzzi (1997), over-embeddedness in close social networks may limit exposure to diverse perspectives and external opportunities.

In order to measure social proximity, this study explores participants' perceived strength of their entrepreneurial networks, their participation in entrepreneurship-related events, and the social support they receive from friends, family, and peers. These questions are designed to assess participants' social capital and the strength of their personal networks, which play a crucial role in entrepreneurship by facilitating access to resources, support, and opportunities.

2.5 Gender Gap in Entrepreneurship

Intersectionality Theory, first introduced by Crenshaw (1991), explores how overlapping social identities—such as gender, race, and socioeconomic status—create unique experiences of privilege or discrimination. Building on this framework, gender, as a key identity dimension, can significantly shape an individual's entrepreneurial propensity by influencing their access to resources, networks, and support mechanisms.

Historically, entrepreneurship theories have predominantly focused on male entrepreneurs and often overlooked or marginalized women's experiences (Ahl, 2006). Adopting a feminist perspective, Muntean and Ozkazanc-Pan (2014) contend that addressing the gender gap in entrepreneurship necessitates

confronting the institutional and structural barriers faced by women entrepreneurs. Feminist Theory illuminates the power dynamics and inequalities that affect women's participation in entrepreneurship, striving for the development of inclusive support systems (Baughn et al., 2006; Langowitz & Minniti, 2007).

Beyond the structural barriers, research suggests that gender gaps in entrepreneurial propensity could be best explained by perceptual factors, such as differences in self-confidence, opportunity perception, and fear of failure (Abbasianchavari & Block, 2022). Women are less confident about their entrepreneurial skills, which considerably lowers the probability of them becoming entrepreneurs (Koellinger et al., 2013). The self-perception gap is a crucial driver of the gender gap in entrepreneurship, as more confident women indeed show an equal or greater entrepreneurial propensity than men (Abbasianchavari & Block, 2022). These findings underline the relevance of social and cognitive proximity since greater exposure to entrepreneurial networks and knowledge sources may reduce the self-confidence gap and increase participation in entrepreneurship by females.

Additionally, research indicates that women founders tend to benefit more from structured entrepreneurship programs. For instance, studies have shown that women gain more from accelerators in terms of acquiring entrepreneurial skills and expanding networks compared to their male counterparts (Avnimelech & Rechter, 2023). This aligns with common belief

suggesting that women's entrepreneurial success is often more dependent on external institutional support mechanisms, emphasizing the importance of institutional and cognitive proximity in closing the gender gap in entrepreneurship.

Furthermore, countries such as Taiwan, Turkey, and Saudi Arabia exhibit notable gender disparities in entrepreneurship, ranking lower on the Female Entrepreneurship Index (FEI) compared to the Global Entrepreneurship Index (GEI) (Terjesen & Lloyd, 2015). These differences underscore the role of cultural, economic, and institutional factors in shaping women's entrepreneurial participation, emphasizing the need for policies that facilitate equal access to resources and funding opportunities. In light of these considerations, this study incorporates gender as a moderator variable within the research model, exploring its influence on the relationship between proximity to entrepreneurial support mechanisms and entrepreneurial propensity.

2.6 Personality Traits

As discussed in the previous sections, individual differences are critical in assessing entrepreneurial propensity, and personality traits play a significant role in this context. (Adenuga & Ayodele, 2013) In this study, personality traits

are examined as a second moderator variable using the Big Five model. The Big Five framework, first conceptualized as the FFM by Costa and McCrae (1985, 1992) through the NEO-PI, was later adapted into a lexical approach by Goldberg in 1990. The Big Five personality framework (Costa & McCrae, 1985, 1992; Goldberg, 1981, 1990): Openness, conscientiousness, extraversion, agreeableness, and neuroticism, and is widely employed in entrepreneurship research. (Adenuga & Ayodele, 2013) For instance, Singh and DeNoble (2003) explored how these traits influence students' perceptions of self-employment, while Zhao and Seibert (2006) conducted a meta-analysis comparing entrepreneurs and managers on the Big Five dimensions.

Each of the Big Five traits offers distinct insights into entrepreneurial propensity and behavior. *Openness to experience* is characterized by creativity, versatility, and a willingness to embrace new challenges and these characteristics are strongly associated with entrepreneurial intentions (Brice, 2002). Antoncic and his colleagues (2015) posit that openness to experience is a significant factor in entrepreneurship since it plays a significant role in opportunity recognition.

Conscientiousness is marked by efficiency, organization, and a strong need for achievement. These aligns with the disciplined and goal-oriented nature of entrepreneurs (Goldberg, 1990). Zhao and Seibert (2006) showed that entrepreneurs have high conscientiousness scores compared to other administrators.

Extraversion, encompassing assertiveness, energy, and optimism, supports the social and proactive aspects of entrepreneurial activity (Goldberg, 1990; Palich & Bagby, 1995). Extrovert people are cheerful, jovial, merry, and optimistic (Goldberg, 1990).

Agreeableness involves traits like enthusiasm, charisma, cooperation, friendliness and helpfulness. However, it has a dual nature on entrepreneurial behavior; it can enhance collaboration and interpersonal relationships, which are valuable for entrepreneurship; but also, excessive agreeableness may lead to submissiveness and this potentially hinders entrepreneurial propensity by reducing the impulsive acts and risk-taking often required in entrepreneurial contexts (Goldberg, 1990; Kets de Vries, 1985). The “dark side of entrepreneurship”, discussed by Kets de Vries (1985), argues that entrepreneurs sometimes act thoughtlessly and impulsively, they obsess with control of everything and they disobey the established rules of organizations. These characteristics makes it hard for others to work with them. Therefore, they might not be as agreeable as we would assume.

Lastly, *neuroticism*, often linked with emotional instability, is debated in entrepreneurial contexts as well. On one hand, emotional stability (the inverse of neuroticism) is linked to autonomy, independence, and resilience, traits critical for entrepreneurship (Goldberg, 1990; Rauch & Frese, 2007). On the other hand, neurotic traits like impulsivity, dissatisfaction, and stress may drive entrepreneurial behavior by pushing individuals into a constant search for

control and independence, despite potential interpersonal challenges (Kets de Vries, 1977). However, as Adenuga and Ayodele (2013) discuss, neurotic individuals do not have tolerance to problem-solving and developing solutions to the problems is one of the prerequisites of becoming an entrepreneur.

CHAPTER III

HYPOTHESIS DEVELOPMENT

As seen in the literature review, entrepreneurship support mechanisms, such as incubators, accelerators, and education programs, play a vital role in fostering entrepreneurial activity by providing access to critical resources, networks, and guidance. According to the Knowledge Spillover Theory of Entrepreneurship (Audretsch et al., 2006), proximity to such mechanisms enhances entrepreneurial propensity by enabling the diffusion of knowledge and reducing barriers to opportunity recognition and exploitation. Existing literature also highlights their role in reducing uncertainty, fostering entrepreneurial skills, and increasing venture survival rates (Shane & Venkataraman, 2000; Zahra & Nambisan, 2011). However, limited empirical work explores the nuanced effects of proximity to entrepreneurial support mechanisms on entrepreneurial propensity across different demographics and personality traits. Building on this gap, this study proposes that proximity to

entrepreneurship support mechanisms significantly enhances individuals' entrepreneurial propensity.

H1: Entrepreneurship support mechanisms enhance individuals' propensity for entrepreneurship.

To analyze proximity comprehensively, it is essential to examine its sub-dimensions, as each offers unique insights into how proximity influences entrepreneurial propensity (Boschma, 2005; Torre, 2014). Based on this multidimensional framework, the below sub-hypotheses are proposed.

According to the Knowledge Spillover Theory of Entrepreneurship, Audretsch & Lehmann (2006) argued that knowledge, being created within organizations, spills over to people in proximity to the organization and helps them to recognize entrepreneurial opportunities. Geographical proximity enables such a transfer of knowledge and resources through lowered interaction barriers and the building up of localized networks (Boschma, 2005). Additionally, studies have also confirmed that entrepreneurs benefit from the co-location of support mechanisms, in the form of incubators and accelerators among others, which provide major resources in a spatially concentrated way (Capello, 2009). Thus, this study hypothesizes the following:

H1.1: Geographical proximity to entrepreneurship support mechanisms enhances individuals' entrepreneurial propensity.

Organizational proximity develops cooperation and trust between actors and supportive institutions, hence easier sharing of knowledge and use of resources (Torre & Rallet, 2005). Good organizational proximity makes the individual feel support structures accessible, predictable, and trusting enough to get motivated and take part in entrepreneurship (Knoben & Oerlemans, 2006). Within entrepreneurial ecosystems, support structures based on well-organized organizations have an important role through bespoke guidance and availability of resources; this again amplifies propensity in entrepreneurship (Boschma, 2005). Hence, the subsequent hypothesis is developed:

H1.2: Organizational proximity to entrepreneurship support mechanisms enhances individuals' entrepreneurial propensity.

The institutional proximity shows how well individuals and the formal rules, norms, and structures of the support mechanisms match. As pointed out by Boschma (2005), institutional proximity reduces uncertainty and transaction

costs, hence stimulates entrepreneurial engagement. Research also documented that institutional fit may guarantee access to financing opportunities, training programs, and mentors, thus facilitating an enabling environment for entrepreneurial activities to flourish in (Torre & Rallet, 2005). Individuals who perceive institutional support mechanisms as trustworthy and aligned with their goals are more likely to act on entrepreneurial opportunities (Capello & Faggian, 2005). Considering these, this study proposes the following statement:

H1.3: Institutional proximity to entrepreneurship support mechanisms enhances individuals' entrepreneurial propensity.

Cognitive proximity, defined as the shared knowledge bases and mental models, is regarded by Nooteboom (2000) as crucial for ensuring effective communication and knowledge transfer. As a result, entrepreneurs can gain greater advantages from available support mechanisms when cognitive proximity fosters a higher level of understanding and reduces the likelihood of misinterpretation, as noted by Boschma (2005). This proximity encourages innovation by allowing individuals to access and integrate relevant knowledge and expertise from support mechanisms, thereby enhancing entrepreneurial propensity (Torre & Rallet, 2005). Building on the notion that entrepreneurial self-efficacy (ESE) boosts entrepreneurial propensity by enhancing perceived

feasibility and perseverance in entrepreneurial pursuits, the influence of cognitive proximity suggests that individuals with greater cognitive alignment to entrepreneurial networks and knowledge sources develop stronger self-efficacy (Şahin et al., 2019), which in turn reinforces their entrepreneurial propensity. This is especially crucial in knowledge-intensive industries, where a mutual understanding between entrepreneurs and support institutions is key to achieving success. For these reasons, I propose the following hypothesis:

H1.4: Cognitive proximity to entrepreneurship support mechanisms enhances individuals' entrepreneurial propensity.

Social proximity refers to trust-based relationships and social networks, which are meant for effective collaboration and resource sharing in the entrepreneurial ecosystem. According to Sternberg (2022), social proximity allows access to increasing mentorship and funding. Additionally, Wang et al. (2024) support the fact that social capital, as an important unit of social proximity, serves as a means of getting close to resource providers, while significantly reducing information asymmetry between nascent entrepreneurs and investors. Mattes (2012) also underscores that strong trust-based ties significantly influence the success of collaborations by facilitating the flow of resources and knowledge. Leveraging these findings this study hypothesizes that

individuals with higher social proximity to support mechanisms are better positioned to overcome barriers and increase their entrepreneurial propensity.

H1.5: Social proximity to entrepreneurship support mechanisms enhances individuals' entrepreneurial propensity.

There is also a powerful "gender" effect visible from the analysis of entrepreneurial propensity. Entrepreneurship, in the majority of cases, is considered as an achievement-related, male activity (Mehtap et al., 2017). Females express less self-efficacy than males (Şahin et al., 2019), and this may be linked with gender roles. Researches into gender gaps in entrepreneurship suggest that women face particular structural barriers such as lack of access to networks, finance, and institutional support (Bird & Brush, 2002; Langowitz & Minniti, 2007). This was also confirmed by studies that reported young adult females to be less prone to entrepreneurial activities compared to males (Díaz-García & Jiménez-Moreno, 2010).

Feminist Theory emphasizes the need to address these systemic challenges to foster inclusivity in entrepreneurial ecosystems (Muntean & Ozkazanc-Pan, 2014). Shahriar (2018) further illustrates that women in matrilineal societies, who have greater cultural support and access to resources,

demonstrate a higher propensity for entrepreneurship compared to their male counterparts in patriarchal societies. This underscores the vital role that supportive environments and resource availability play in alleviating barriers faced by women. Moreover, women are shown to benefit disproportionately from accelerators and training programs, which help bridge gaps in skills and social capital (Avnimelech & Rechter, 2023). These findings suggest that proximity to support mechanisms may play a critical role in mitigating barriers for women and enhancing their entrepreneurial propensity. Given these insights, I hypothesize the following:

H2: Being close to entrepreneurship support mechanisms has a more significant positive effect on women's entrepreneurial propensity than men.

As discussed in the previous chapters, individual differences in personality traits also shape entrepreneurial propensity. According to Rauch and Frese (2007) personality traits are antecedents of entrepreneurial intentions. However, of course not all the personality traits effect entrepreneurial intention in the same way. Considering Big Five model, it can be said that openness to experience, extraversion and conscientiousness traits generally seen as positive indicators for entrepreneurial behavior. The influence of these three traits on

entrepreneurial propensity is mostly straightforward in the entrepreneurship literature, therefore these are not our main focus in this study.

Yet, research on the influence of neuroticism and agreeableness traits yields mixed findings. Neuroticism is a controversial issue when evaluating its impact on entrepreneurial propensity. On one hand, neuroticism, often characterized by stress and emotional instability, is generally seen as a hindrance to entrepreneurial success (Goldberg, 1990; Rauch & Frese, 2007). Neurotic people are generally more tense, angry, depressed, shy, worried than others and are moody, which is not an ideal state of mind for an entrepreneur. (Murugesan & Jayavelu, 2017)

On the other hand, traits like impulsivity and dissatisfaction, often linked to neuroticism, can drive entrepreneurial behavior by pushing individuals to seek independence and control (Kets de Vries, 1977). Entrepreneurship support mechanisms, by providing structured guidance and reducing uncertainty, may offset the negative effects of neuroticism, making entrepreneurship more accessible to individuals with high neurotic tendencies. Based on the above arguments and the contrary findings in the literature, this study proposes the following set of competing hypotheses on neurotic individuals:

H3: Being close to entrepreneurship support mechanisms has a more positive effect on neurotic individuals.

H4: Being close to entrepreneurship support mechanisms has a more negative effect on neurotic individuals.

Similarly, there are mixed findings about the impact of agreeableness on entrepreneurial propensity. Agreeableness is defined by traits like enthusiasm and cooperativeness; while these traits enhance collaboration and relationship-building, excessive agreeableness may reduce risk-taking and decisiveness, traits critical to entrepreneurial success (Goldberg, 1990; Kets de Vries, 1985). Entrepreneurial support mechanisms can empower agreeable individuals by equipping them with the confidence and tools needed to take entrepreneurial risks while leveraging their strengths in collaboration. Consequently, based on the above arguments and the contrary findings in the literature, this study proposes the following set of competing hypotheses on agreeable individuals:

H5: Being close to entrepreneurship support mechanisms has a more positive effect on agreeable individuals.

H6: Being close to entrepreneurship support mechanisms has a more negative effect on agreeable individuals.

By examining these hypotheses, this study aims to provide a deeper understanding of how proximity to entrepreneurship support mechanisms influences entrepreneurial propensity, particularly across different demographics and personality traits. This approach addresses gaps in existing literature and contributes to a more nuanced exploration of the factors driving entrepreneurship.

CHAPTER IV

METHODOLOGY

4.1 Research Model

This study examines the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity, considering the moderating effects of gender and personality traits. Our research question is, “*How can gender and Big Five personality traits (especially neuroticism and agreeableness) moderate the relationship between proximity to entrepreneurship support mechanisms and the individuals’ entrepreneurial propensity in Turkey?*”

Thus, our main research model is as follows:

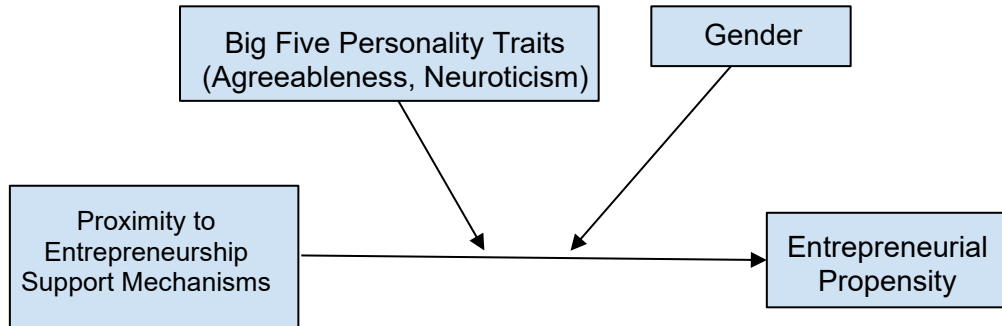


Figure 1 - Research Model

The independent variable, proximity, is measured across five dimensions: geographical, organizational, institutional, cognitive, and social proximity. (Boschma, 2005). The dependent variable is entrepreneurial propensity. Moderator variables include gender and personality traits (specifically neuroticism and agreeableness). Also, the need for cognitive closure is incorporated as a control variable.

4.2 Data Collection and Sampling

To collect data, an online survey comprising 71 questions was distributed to 322 participants with different demographics and from various cities in Turkey. All survey questions can be found in Appendix A (English) and

Appendix B (Turkish). Due to constraints related to time, budget, and accessibility, participants were selected from my personal primary and secondary networks, as well as their connections. I employed convenience and snowball sampling methods for this purpose. Participants may or may not possess entrepreneurial propensity, and they may or may not have previously benefited from an entrepreneurship support program. For example, the Turkish Entrepreneurship Foundation, of which I am an alumnus, serves as one of the channels for data collection, as it includes numerous members from across Turkey.

The survey responses were collected anonymously, with the first six questions designed to capture the general demographic characteristics of the participants. This section included questions about age, gender, education level, and current employment status to serve as supporting variables in the analysis. Additionally, participants were asked to describe the socio-economic status of their nuclear family (the individuals who raised them). The income brackets were defined as follows: For a family of four, an annual income of 57,000 TL or less was categorized as "low income," 57,000–200,000 TL as "middle income," and above 200,000 TL as "high income" (Confederation of Turkish Trade Unions (TÜRK-İŞ), 2024; Turkish Statistical Institute (TÜİK), 2024).

The level of analysis is individuals and since it is a relatively long survey for online participation, three attention check questions are hidden in the questionnaire to assess the participants' attention levels during the survey to

assure the validity of the study. The necessity of these checks is highlighted in the literature (Abbey & Meloy, 2017), and it is discussed that both the use of logical statements and direct queries gauge attention. In my survey, I used a combination of three approaches: a logical statement such as “I have never drunk water in my life” and direct queries like “If you are reading this, choose option 3” or “If you are reading this, type *I am reading this question carefully and completing the survey with attention.*”

Four participants were excluded for failing the first attention check, and three participants were excluded for failing the third attention check. However, due to substantial feedback indicating that the logical statement regarding drinking water was misunderstood, I decided not to exclude the fourteen participants who failed this question. This elimination process was crucial to improve the data quality. As a result, a total of seven participants were removed from the dataset, leaving 315 participants for quantitative analysis. Appendix C shows the sample demographics of these 315 participants.

4.3 Operationalization of Variables

The independent variable, proximity to entrepreneurship support mechanisms, is assessed through its five dimensions: Geographical,

organizational, institutional, cognitive, and social proximity (Boschma, 2005). In order to measure these sub-dimensions, I prepared the questionnaire questions based on their definitions in the literature (Boschma, 2005; Shaw et al., 2000). Table 1 shows the number of questions I asked to measure each dimension.

While evaluating geographical proximity, participants are asked to measure their closeness to İstanbul, Ankara, İzmir, and the most entrepreneurial neighborhoods in these cities. These cities were selected since these three contain by far the most entrepreneurial support mechanisms according to the data derived from Startup Centrum Turkey Entrepreneurship Ecosystem Map. (StartupCentrum Turkey Entrepreneurship Ecosystem Map, n.d.) Therefore, I asked the following questions to measure geographical proximity:

- *“Do you live, study, or work in the city center of Ankara, Istanbul, or Izmir?”*
- *“Do you live/study/work within a maximum distance of 60 km from cities İstanbul, Ankara, İzmir, or in a location easily accessible to the centers of these cities?”*
- *“How often do you visit the entrepreneurial/business hubs/areas in your city?”*

I measured organizational proximity through participants' involvement in support programs, memberships in startup communities, and collaborations with startups or corporate innovation teams to explore how structured ties enhance resource access and reduce uncertainty. I asked the following questions to measure organizational proximity:

- *“Have you ever participated in any entrepreneurship support programs such as accelerator programs, mentorship sessions, or entrepreneurship training?”*
- *“Are you a member of any entrepreneurial organization or startup community?”*
- *“Have you ever had an internship, job or project collaboration at a startup or entrepreneurship department of a company?”*

I measured institutional proximity by exploring participants' familiarity with entrepreneurial regulations in Turkey and their experiences in receiving support from public institutions, such as TÜBİTAK, KOSGEB, or EU-backed initiatives. Thus, the following questions are asked to participants:

- *“Have you ever received any direct or indirect benefit from public institutions (such as TÜBİTAK, KOSGEB, Ministry programs, EU support initiatives etc.) related to entrepreneurship in Turkey?”*
- *“Are you familiar with the regulations and procedures for starting a*

business in Turkey?”

I measured cognitive proximity by assessing participants' exposure to entrepreneurship education, their awareness of local entrepreneurial opportunities, and their regular engagement in entrepreneurial thinking and problem-solving. Hence, I asked the following questions to measure cognitive proximity:

- *“Have you ever received education or training related to entrepreneurship in your school, company, or from other sources?”*
- *“How aware are you of entrepreneurial opportunities in your region?”*
- *“In your daily life, do you find yourself regularly engaging in entrepreneurial thinking and problem-solving?”*

I measured social proximity by assessing participants' perceived strength of their entrepreneurial networks, their participation in entrepreneurship-related events, and the social support they receive from friends, family, and peers. Therefore, I asked the following questions to measure social proximity score of participants:

- *“How extensive is your network of contacts in the entrepreneurial community (entrepreneurs, mentors, investors etc.)?”*
- *“Do you participate in social events or gatherings related to entrepreneurship?”*

- *“Do you feel supported by friends, family, or peers in your entrepreneurial endeavors?”*

For these sub-dimensions, in each question, there are three options indicating low, medium, and high scores. When I prepared the data for analysis, I transformed these into 0, 5, and 10 points, resulting in a score between 0 and 10 for each sub-dimension. While getting the total score, called the "overall proximity score," I calculated it by taking the weight of the sub-dimensions equally.

Table 1: Breakdown of the Survey Questions

Question Type	Number Of Questions
Demographic Questions	6
Geographical Proximity Questions	3
Organizational Proximity Questions	3
Institutional Proximity Questions	2
Cognitive Proximity Questions	3
Social Proximity Questions	3
Personality Traits Questions	10 (Ten Item Personality Inventory – TIPI)
	20 (Additional Questions for Agreeableness and Neuroticism From 44 Item Personality Inventory)
Need for Cognitive Closure Questions	14 (The NFCS Short Version)
Attention Check Questions	3
Entrepreneurial Propensity Questions	4
TOTAL	71

To measure the dependent, entrepreneurial propensity, I developed survey questions based on insights from the literature. Entrepreneurial propensity was measured by four items adapted from Liñán and Chen (2009). These questions assessed participants' current entrepreneurial status, actions taken in the past 12 months toward starting a business (e.g., organizing a team, saving money, or finding equipment), perceived likelihood of starting a business within the next five years, and self-assessed entrepreneurial tendency. Responses were rated on a 1–10 scale, except for the first question, which was a binary yes/no format. For analysis, "yes" responses were coded as 10 and "no" as 1, simplifying the dataset for further interpretation. The questions used for measuring entrepreneurial propensity are as following:

- *“Are you currently a startup founder? In other words, do you own a running enterprise?”*
- *“Please indicate the extent to which you have engaged in activities to start a new business such as looking for equipment or a location, organizing a start-up team, beginning to save money, or any other activity that would help launch a business over the past 12 months.”*
- *“How likely do you see yourself starting a business in the next 5 years?”*
- *“How do you perceive your level of entrepreneurial propensity?”*

The options for gender in the survey were “male,” “female,” “LGBTQIA+,” or “I do not want to specify.” I integrated the last two categories to simplify the data and took them as “other.” Gender is a categorical variable that is incorporated into regression analysis by using dummy variables, which will be explained in the upcoming chapters.

Personality traits were measured with Ten-Item Personality Inventory (TIPI), a concise measure developed by Gosling et al. (2003). The Big Five Model is typically measured using the 44-item Big Five Inventory (BFI), a well-established and widely used instrument (John & Srivastava, 1999). However, for studies like mine, where personality traits are not the primary focus and the survey is already lengthy, it is often more practical to use a shorter inventory to address participants' time constraints. For this reason, I chose the Ten-Item Personality Inventory (TIPI), which assesses the five personality dimensions using only ten items, with a Likert scale of 1 to 7. Each dimension is represented by two items: one standard and one reverse-scored.

To score the TIPI, the reverse-scored items (2, 4, 6, 8, and 10) are first recoded (e.g., a score of 7 is replaced with 1, a score of 6 with 2, etc.). Then, the scores for the standard item and the recoded reverse-scored item corresponding to each dimension are averaged to calculate the final score. For instance, for the Extraversion dimension, if a participant scores 5 on item-1 ("Extraverted, enthusiastic") and 2 on item-6 ("Reserved, quiet"), the reverse-scored value of item-6 becomes 6, and the Extraversion score is calculated as $(5 + 6) / 2 = 5.5$.

Since the survey was administered in Turkish, I utilized the Turkish validation of TIPI, which has been culturally adapted and validated for use in Turkey (Atak, 2013). The Turkish adaptation has been widely cited in local research, indicating its reliability and acceptance within the academic community. Turkish translation has also been approved by the original developer of TIPI, ensuring its accuracy and consistency.

Additionally, to validate the results for specifically agreeableness and neuroticism, I incorporated items specific to these dimensions from the longer 44-item BFI (John & Srivastava, 1999). These items were included as a separate 20-question section in the survey, using a Likert scale of 1-5 for each question. For the Turkish version of the BFI, I referred to the validated adaptation of the 50-item scale, which accounts for linguistic and cultural differences in translation (Tatar, 2017). Scoring for these items followed the same principles as TIPI, with reverse-scored items being recoded and averages calculated for each dimension.

It should be noted that the TIPI and BFI scales use emotional stability trait rather than neuroticism, as they are designed to avoid negatively framed variables. However, since emotional stability and neuroticism are exact opposites—where higher emotional stability corresponds to lower neuroticism—in this study I use emotional stability in the regression analysis but interpret the results in terms of neuroticism for consistency with existing literature and our research model.

Scores for the five personality traits are calculated for all participants, and the data is simplified to prepare it for analysis. For agreeableness and emotional stability, I computed scores using both the long and short versions of the inventories, enabling comparison and cross-validation of results. This dual analysis ensured the robustness of the findings and provided a comprehensive assessment of the selected personality traits.

Lastly, Wąsowska (2016) posits that need for cognitive closure (NFCC) negatively influences individual's entrepreneurial intention. The Need for Cognitive Closure refers to an individual's desire for a definitive answer, avoiding ambiguity and uncertainty in decision-making processes (Roets & Hiel, 2007; Kruglanski & Webster, 1996). Naturally, this cognitive inclination might significantly influence entrepreneurial propensity, as entrepreneurship inherently involves navigating uncertain and ambiguous environments. Prior studies suggest that individuals with high NFCC scores may exhibit lower entrepreneurial propensity due to their discomfort with ambiguity and open-ended situations, which are inherent in entrepreneurial contexts (Roets & Van Hiel, 2011; Webster & Kruglanski, 1994). They may prefer structured and predictable settings, potentially deterring them from entrepreneurial pursuits that require adaptability and openness to new information. A strong desire for closure can negatively impact the inclination toward entrepreneurship.

Conversely, some studies propose that NFCC may drive individuals toward entrepreneurship as a means to assert control and reduce uncertainty in

their professional lives (McMullen & Shepherd, 2006). Furthermore, some scholars discuss higher need for cognitive closure produce higher anxiety and stress levels (White, 2022). The relationship between entrepreneurs and stress is a subject of debate in the literature. While some researchers argue that stress negatively impacts decision-making processes (White & Gupta, 2020) and has a significant adverse effect on entrepreneurship, others suggest that entrepreneurs use stress as a motivational tool to enhance business success (Eager et. al., 2010).

In either case, it is appropriate to state that understanding the level of need for cognitive closure among entrepreneurs operating in high-uncertainty environments would be useful in assessing both their tendency for urgency and their levels of anxiety. Given these mixed findings, this study considers NFCC as a control variable to account for its potential influence on entrepreneurial propensity, ensuring a more accurate assessment of other contributing factors.

To measure NFCC, I employed the short version of the Need for Closure Scale (NFCS), developed by Webster and Kruglanski (1994) and later revised by Roets and Van Hiel (2011). While the full version of the NFCS contains 41 items, the short version comprises 15 items, offering an efficient yet reliable alternative for research designs with time constraints. The Turkish adaptation of the 15-item NFCS consists of 14 items due to linguistic adjustments, as validated in the study by Yılmaz (2018). This adaptation has been widely cited

and utilized in psychological and social research in Turkey, since it ensures cultural appropriateness.

The NFCS scores are calculated by summing participants' responses across all items. Scores up to 30 indicate low NFCC and scores between 75 and 90 reflect high NFCC (Roets & Van Hiel, 2011). To minimize survey fatigue and ensure completion, I opted for the short version of the NFCS. The scores from the participants are meticulously processed, and the dataset is organized in preparation for thorough analysis.

The collected data is analyzed using simple and multiple regression models in R, allowing for the exploration of relationships between variables and the moderating effects of gender and personality traits. This methodology offers a comprehensive understanding of the factors shaping entrepreneurial propensity and their interaction with proximity to support mechanisms, contributing to both theoretical insights and practical applications in entrepreneurship. The next section presents the empirical findings derived from these analyses and explains them in detail.

CHAPTER V

RESULTS

5.1 Multicollinearity Control and Descriptive Statistics

Before starting the regression analysis, I performed a Variance Inflation Factor (VIF) analysis to assess for multicollinearity among the independent variables in the regression models. This was a crucial first step since multicollinearity may cause instability in model coefficients and inflate standard errors, making the results less reliable.

The VIF values for all variables were well below the threshold of 10, with geographical proximity Score at 1.03, organizational proximity score at 1.89, institutional proximity score at 1.55, cognitive proximity score at 2.06,

and social proximity score at 1.90. Most values were under 2, confirming that the predictors are largely independent. These results show that multicollinearity is not a concern in this study, and our model is stable and valid in explaining entrepreneurial propensity.

Moreover, descriptive statistics, reliability coefficients (Cronbach's α values in parentheses), and intercorrelations among the main study variables are presented in Table 2. The internal consistency of our scales is measured through Cronbach's alpha reliability testing. Due to its very low reliability ($\alpha = 0.26$) and its absence from our main research model, openness to experience was excluded from the supplementary analyses conducted with the Big Five personality traits. Also, the correlation between its two items was only 0.152, this further indicates weak internal consistency. Considering all of these, retaining openness to experience as a variable would compromise measurement reliability of the model. Hence, it was omitted from further analyses. However, institutional proximity remains a key variable in our model, making it essential to further validate its measurement. Therefore, Confirmatory Factor Analysis (CFA) was conducted on the proximity sub-dimensions, as discussed in the next section, to assess their validity and structure.

Table 2: Descriptive statistics, reliabilities, and correlations among the main study variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. G	7.54±2.67	(0.62)													
2. O	2.61±2.96	-0.03	(0.67)												
3. I	2.03±2.20	-0.02	0.53**	(0.38)											
4. C	3.84±2.58	0	0.60**	0.52**	(0.66)										
5. S	3.28±2.38	0.12*	0.56**	0.45**	0.63**	(0.58)									
6. OVR	3.86±1.75	0.32**	0.79**	0.70**	0.80**	0.80**	(0.79)								
7. E	5.11±1.45	0.04	0.19**	0.26**	0.35**	0.28**	0.32**	(0.72)							
8. CON	5.61±1.13	-0.05	0.11*	0.15**	0.19**	0.15**	0.16**	0.34**	(0.5)						
9. OP	5.01±1.18	0.08	0.26**	0.23**	0.31**	0.24**	0.33**	0.25**	0.02	(0.26)					
10. NFCC	58.29±12.10	-0.08	-0.25**	-0.14*	-0.2**	-0.01	-0.23**	-0.01	0.08	-0.29**	(0.87)				
11. A	3.97±0.58	0.04	0.09	0.03	0.12*	0.18**	0.13*	0.34**	0.33**	0.12*	0.06	(0.80)			
12. N	2.75±0.79	0.11	-0.19**	-0.19**	-0.28**	-0.17**	-0.21**	-0.42**	-0.44**	-0.15**	0.25**	-0.27**	(0.86)		
13. PROP	3.69±2.15	-0.02	0.45**	0.49**	0.66**	0.49**	0.6**	0.28**	0.09	0.3**	-0.12*	0.05	-0.22**	(0.78)	

Note: *p < 0.05; **p < 0.01; G = Geographical proximity, O = Organizational proximity, I = Institutional proximity, C = Cognitive Proximity, S = Social proximity, OVR = Overall proximity, E = Extraversion, CON = Conscientiousness, OP = Openness to experience, NFCC = Need for cognitive closure, A = Agreeableness (Long Version), N = Neuroticism (Long Version), PROP = Entrepreneurial propensity. Cronbach alpha reliabilities are reported in parentheses.

5.2 Confirmatory Factor Analysis

To further ensure the validity and reliability of the measurement model for proximity dimensions, a Confirmatory Factor Analysis (CFA) was conducted using AMOS before proceeding with the regression analysis. Figure 2 illustrates the Confirmatory Factor Analysis (CFA) model for proximity dimensions, depicting the factor loadings, error variances, and inter-factor correlations. The model includes five latent constructs—Institutional, Social, Cognitive, Organizational, and Geographical Proximity—each measured by multiple observed indicators. The CFA results, presented in Table 3, demonstrate that most constructs meet acceptable reliability and validity thresholds.

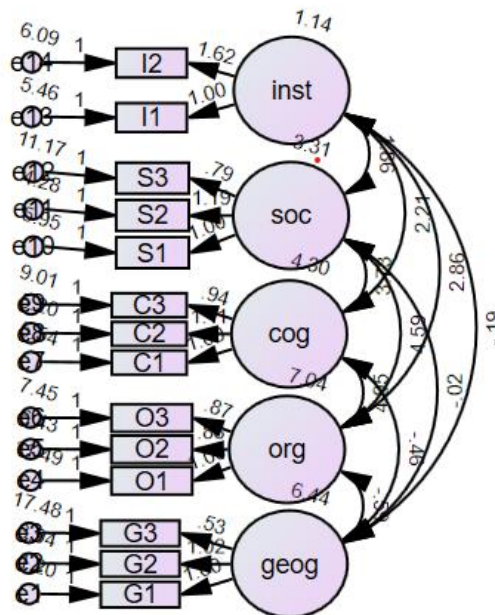


Figure 2 – *Confirmatory Factor Analysis (CFA) Model for Proximity Dimensions*

Table 3: Reliability and Convergent Validity for Proximity Dimensions

Variables	Items	Standardized Factor Loadings	Cronbach Alpha	Composite Reliability	Average Variance Extracted	Maximum Shared Variance
Geographical Proximity	G1	0.918	0.62	0.739	0.521	0.008
	G2	0.793				
	G3	0.304				
Organizational Proximity	O1	0.616	0.67	0.683	0.419	1.018
	O2	0.678				
	O3	0.646				
Cognitive Proximity	C1	0.661	0.66	0.675	0.412	1.0
	C2	0.709				
	C3	0.545				
Social Proximity	S1	0.598	0.58	0.6	0.345	0.976
	S2	0.722				
	S3	0.394				
Institutional Proximity	I1	0.416	0.38	0.396	0.251	1.018
	I2	0.576				
Model Fitness: X2=152.207, df=67, X2/df=2.27, RMSEA=0.064, RMR=0.735, GFI=0.93, CFI=0.932						

The CFA results, as presented in Table 3, indicate that the model demonstrates good fit statistics, including $X^2/df = 2.27$, RMSEA = 0.064, RMR = 0.735, GFI = 0.93, and CFI = 0.932. The recommended thresholds, as outlined by Hu and Bentler (1999) and Browne and Cudeck (1992), suggest that a Chi-square ratio below 3.0 represents a reasonable model fit. Current model meets this expectation with the value of $X^2/df = 2.27$. The RMSEA is 0.064, which also falls within the acceptable range (<0.08), indicating a satisfactory model fit. Furthermore, the GFI (0.93) and CFI (0.932) values exceed the recommended threshold of 0.90 and this further supports the model adequacy.

In terms of reliability, Cronbach's alpha and composite reliability values meet the acceptable threshold of 0.60 for most constructs. This confirms adequate internal consistency for the regarding scales. However, institutional proximity exhibits low reliability, with a Cronbach's alpha of 0.38, composite reliability of 0.396, and average variance extracted (AVE) of 0.251. These values are below commonly accepted thresholds (Hair et al., 2010), raising concerns about the measurement quality of this construct. Furthermore, the standardized factor loading of I1 (0.416) is notably lower than that of I2 (0.576), and the correlation between I1 and I2 is only 0.238.

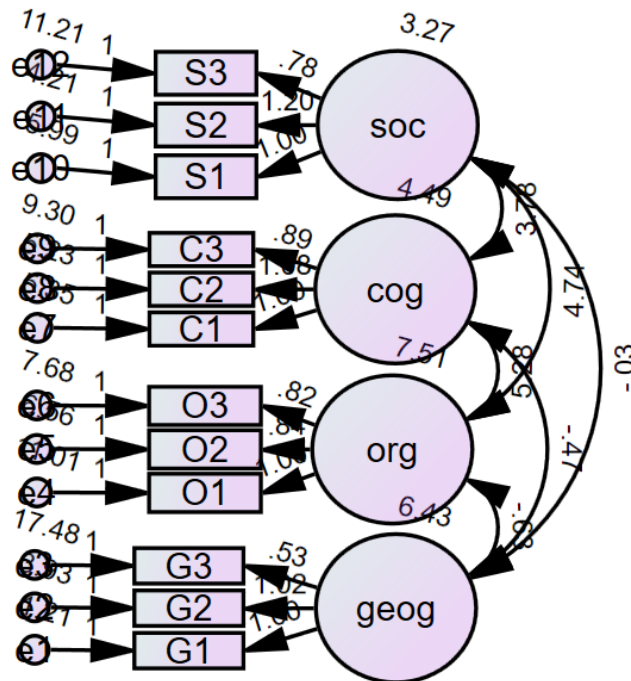


Figure 3 – *The Revised CFA Model*

Given these values, I decided to remove I1 from the construct and recalculate institutional proximity score by using only I2, which demonstrates a better alignment with the scale. This decision aligns with best practices in the literature on scale refinement, where poorly performing indicators are eliminated to enhance construct reliability and validity (DeVellis, 2016). The revised CFA model is presented in Figure 3, and the updated model results are displayed in Table 4.

Table 4: Revised Reliability and Convergent Validity

Variables	Items	Standardized Factor Loadings	Cronbach Alpha	Composite Reliability	Average Variance Extracted	Maximum Shared Variance
Geographical Proximity	G1	0.918	0.62	0.722	0.521	0.008
	G2	0.793				
	G3	0.304				
Organizational Proximity	O1	0.637	0.67	0.647	0.418	0.912
	O2	0.670				
	O3	0.632				
Cognitive Proximity	C1	0.676	0.66	0.641	0.410	0.972
	C2	0.707				
	C3	0.524				
Social Proximity	S1	0.594	0.58	0.587	0.345	0.972
	S2	0.728				
	S3	0.390				
Institutional Proximity	I2	-	-	-	-	-
Model Fitness: X2=103.855, df=48, X2/df=2.164, RMSEA=0.061, RMR=0.734, GFI=0.945, CFI=0.948						

Since I2 remains the sole item within the institutional proximity dimension, reliability measures such as Cronbach's alpha, composite

reliability, and factor loadings could not be computed and are therefore not reported in the revised model. While this represents a limitation of the study, retaining I2 as the best available indicator of institutional proximity is the most theoretically and methodologically justified choice. The revised model maintains an overall good model fit ($X^2/df = 2.164$, RMSEA = 0.061, RMR = 0.734, GFI = 0.945, CFI = 0.948), further supporting the robustness of this approach. In the next sections, I proceed with my analyses based on this measurement approach, as it represents the most appropriate choice.

5.3 Relationship Between Proximity and Propensity

The simple regression analysis examining the relationship between Overall Proximity Score and Entrepreneurial Propensity Score confirms a significant positive effect ($\beta = 0.688$, $p < 0.01$). As can be seen in Table 5, the coefficient for the Overall Proximity Score is 0.688, indicating a significant positive relationship, where each unit increase in proximity corresponds to a 0.688-unit increase in entrepreneurial propensity. This effect is highly significant, with a p-value well below 0.01, confirming the robustness of the relationship.

This model (column (1)) explains 35.7% of the variation in entrepreneurial propensity ($R^2 = 0.357$), indicating moderate explanatory power. These findings support the H1 hypothesis that proximity to entrepreneurship support mechanisms enhances entrepreneurial engagement. However, the moderate R-squared value suggests additional factors may influence entrepreneurial propensity. Thus, I proceed with the multiple regressions in the coming sections to deepen the analysis.

5.3.1 Impact of Proximity Sub-Dimensions

Multiple regression analyses are conducted to examine the impact of Geographical, Organizational, Institutional, Cognitive, and Social Proximity on Entrepreneurial Propensity. The model (column (2) in Table 5) is statistically significant (F-statistic = 53.013, $p < 0.01$), with an $R^2 = 0.462$, indicating that proximity sub-dimensions collectively explain 46.2% of the variance in entrepreneurial propensity.

According to the results in this model, Cognitive Proximity ($\beta = 0.408$, $p < 0.01$) and Institutional Proximity ($\beta = 0.124$, $p < 0.01$) to entrepreneurial support mechanisms have significant positive effects on entrepreneurial propensity. In particular, cognitive proximity shows the strongest relationship. In contrast, Geographical ($p > 0.1$) and Organizational Proximity ($p > 0.1$) are

not statistically significant, while Social Proximity ($p < 0.1$) is marginally significant, indicating a potential weak positive effect. Hence, while H1.1, H1.2, and H1.5 are not supported; H1.3 and H1.4 are supported.

The residual standard error is 1.593, indicating a reasonable model fit. However, the moderate R^2 value of 0.462 suggests that there may be other factors beyond the proximity sub-dimensions that contribute to entrepreneurial propensity and should be considered.

5.3.2 Including Need for Cognitive Closure as a Control Variable

To control for potential confounding effects of cognitive preferences, Need for Cognitive Closure Score is included as a control variable in the third model (Table 5, column (3)). This ensured that the observed relationships between proximity sub-dimensions and entrepreneurial propensity were not influenced by individuals' differing needs for cognitive closure. As seen in the last column of Table 5, the analysis produces results consistent with the previous model. The overall model remains statistically significant (F -statistic=44.045, $p < 0.01$), explaining 46.2% of the variance in entrepreneurial propensity ($R^2 = 0.462$, Adjusted $R^2 = 0.451$). Cognitive proximity and institutional proximity continue to have significant positive effects on

entrepreneurial propensity. The residual standard error of 1.595 suggests a slight increase in prediction error compared to the previous model, but the overall fit remains consistent. The addition of the control variable does not substantially alter the model's explanatory power.

Table 5: Simple and Multiple Regression Results

	<i>Dependent variable:</i> ‘Entrepreneurial Propensity Score’		
	(1)	(2)	(3)
Overall Proximity Score	0.688*** (0.052)		
Geographical Proximity Score		−0.038 (0.034)	−0.037 (0.035)
Organizational Proximity Score		0.013 (0.04)	0.015 (0.041)
Institutional Proximity Score		0.124*** (0.036)	0.124*** (0.036)
Cognitive Proximity Score		0.408*** (0.051)	0.409*** (0.051)
Social Proximity Score		0.091* (0.052)	0.090* (0.052)
Need for Cognitive Closure Score			0.001 (0.008)
Constant	0.884*** (0.234)	1.690*** (0.300)	1.596*** (0.583)
Observations	315	315	315
R ²	0.357	0.462	0.462
Adjusted R ²	0.355	0.453	0.451
Residual Std. Error	1.730 (df = 313)	1.593 (df = 309)	1.595 (df = 308)
F Statistic	173.864*** (df = 1; 313)	53.013*** (df = 5; 309)	44.045*** (df = 6; 308)

Note:

p<0.1; **p<0.05; *p<0.01*

5.4 Gender as a Moderator Variable

To investigate whether gender moderates the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity, I conducted an interaction model. Gender, treated as a categorical variable with three levels (other, female, and male), was included in the regression analysis by creating dummy variables. The interaction terms between the Overall Proximity Score and these dummy variables for Gender were incorporated into the model. Additionally, the Need for Cognitive Closure Score was included as a control variable.

The regression analysis results, as presented in Table 6, demonstrate that neither the female ($\beta = -1.278$, $SE = 2.218$, $p > 0.1$) nor the male ($\beta = -1.111$, $SE = 2.231$, $p > 0.1$) categories show significant differences in entrepreneurial propensity compared to the reference group ("other"). Additionally, the interaction terms between overall proximity score and gender categories are also non-significant. Hence, H2 is not supported. The control variable, Need for Cognitive Closure (NFCC), also has a non-significant effect ($\beta = 0.008$, $SE = 0.008$, $p > 0.1$), which means that it does not play a substantial role in shaping entrepreneurial behavior in this context.

Table 6: Interaction Effects Between Gender and Overall Proximity

	<i>Dependent variable:</i>
	Entrepreneurial Propensity Score
Overall Proximity Score	0.357 (0.614)
Gender (Female)	-1.278 (2.218)
Gender (Male)	-1.111 (2.231)
Overall Proximity x Gender (Female)	0.252 (0.618)
Overall Proximity x Gender (Male)	0.404 (0.619)
Need for Cognitive Closure Score	0.008 (0.008)
Constant	1.714 (2.218)
Observations	315
R ²	0.392
Adjusted R ²	0.380
Residual Std. Error	1.696 (df = 308)
F Statistic	33.079*** (df = 6; 308)
<i>Note:</i>	
*p<0.1; **p<0.05; ***p<0.01	

The overall model is statistically significant ($F = 33.079$, $p < 0.01$), however, the model explains 39.2% of the variance in entrepreneurial propensity ($R^2 = 0.392$, Adjusted $R^2 = 0.380$) and the residual standard error is 1.696 which is a reasonable model fit. These again indicate that other factors not included in the model may also influence entrepreneurial propensity.

5.5 Big Five Personality Traits as Moderators

To explore the effect of the other moderator in the research model, personality traits, I conducted analyses using Big Five personality traits. As discussed in the previous chapters, given the mixed findings and differing perspectives in the literature, this study is focused particularly on agreeableness and neuroticism traits.

5.5.1 Impact of Neuroticism

To test the third and fourth hypotheses, I analyzed the interaction between emotional stability (opposite of neuroticism) and the overall proximity score (Table 7). The results indicate that the direct effect of the overall proximity score is significant and positive ($\beta = 0.579$, $SE = 0.199$, $p < 0.01$), suggesting that proximity to entrepreneurship support mechanisms increases entrepreneurial propensity overall. However, the interaction term between emotional stability and the overall proximity score is positive but not statistically significant ($\beta = 0.023$, $SE = 0.042$, $p > 0.1$). This suggests that neuroticism does not significantly moderate the relationship between proximity and entrepreneurial propensity. The direct effect of emotional stability itself is

also non-significant ($\beta = 0.113$, $SE = 0.177$, $p > 0.1$), indicating no direct influence on entrepreneurial propensity within the tested model.

Table 7: Interaction Effects of Emotional Stability, Agreeableness and Proximity (with Need for Cognitive Closure as Control Variable)

	<i>Dependent variable: Entrepreneurial Propensity Score</i>	
	Neuroticism Model	Agreeableness Model
Overall Proximity Score	0.579*** (0.199)	0.731*** (0.219)
Emotional Stability Score	0.113 (0.177)	
Agreeableness Score		0.068 (0.197)
Overall Proximity x Emotional Stability	0.023 (0.042)	
Overall Proximity x Agreeableness		-0.008 (0.044)
Need for Cognitive Closure Score	0.007 (0.008)	0.001 (0.008)
Constant	0.003 (0.975)	0.480 (1.079)
Observations	315	315
R ²	0.373	0.358
Adjusted R ²	0.365	0.349
Residual Std. Error	1.716 (df = 310)	1.737 (df = 310)
F Statistic	46.117*** (df = 4; 310)	43.140*** (df = 4; 310)

Note:

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Additionally, I performed the same analysis with both short (derived from TIPI) and long (derived from the 50-item inventory) versions of the emotional stability scores to ensure the reliability of the findings. As presented in Table 8, in columns (3) and (4), the findings remain similar regardless of whether the short or long version of the score is used. Overall proximity score emerges as a significant positive predictor of entrepreneurial propensity. However, emotional stability itself does not significantly influence entrepreneurial propensity, either as a main effect (Short version: $p > 0.1$; Long version: $p > 0.1$) or in interaction with proximity (Short version: $p > 0.1$; Long version: $p > 0.1$). This comparison confirms once more that neuroticism does not moderate the relationship between proximity and entrepreneurial engagement, regardless of the scale used. Hence, H3 and H4 are not supported.

Table 8: Long vs Short Versions of Agreeableness and Emotional Stability

	<i>Dependent variable:</i>			
	Entrepreneurial Propensity Score			
	(1)	(2)	(3)	(4)
Overall Proximity Score	0.588* (0.384)	0.731*** (0.219)	0.412* (0.244)	0.579*** (0.199)
Agreeableness Score Long Version	-0.231 (0.376)			
Agreeableness Score		0.068 (0.197)		
Emotional Stability Score Long Version			0.011 (0.304)	
Emotional Stability Score				0.113 (0.177)
Need for Cognitive Closure Score	0.002 (0.008)	0.001 (0.008)	0.006 (0.008)	0.007 (0.008)
Overall Proximity x Agreeableness Score Long Version	0.027 (0.096)			
Overall Proximity x Agreeableness Score		-0.008 (0.044)		
Overall Proximity x Emotional Stability Score Long Version			0.076 (0.070)	
Overall Proximity x Emotional Stability Score				0.023 (0.042)
Constant	1.648 (1.612)	0.480 (1.079)	0.592 (1.189)	0.003 (0.975)
Observations	315	315	315	315
R ²	0.359	0.358	0.372	0.373
Adjusted R ²	0.350	0.349	0.364	0.365
Residual Std. Error (df = 310)	1.736	1.737	1.718	1.716
F Statistic (df = 4; 310)	43.337***	43.140***	45.850***	46.117***

Note:

*p<0.1; **p<0.05; ***p<0.01

5.5.2 Impact of Agreeableness

To test the fifth and sixth hypotheses and explore the role of agreeableness as a potential moderator, I tested the interaction between the overall proximity score and agreeableness score on entrepreneurial propensity, as seen in Table 7. Similar to the neuroticism model, the direct effect of the overall proximity score is significant and positive ($\beta = 0.731$, $SE = 0.219$, $p < 0.01$). However, the interaction term between agreeableness and the overall proximity (agreeableness x overall proximity) score is not significant ($\beta = -0.008$, $SE = 0.044$, $p > 0.1$), indicating that agreeableness does not moderate the relationship between proximity and entrepreneurial propensity. The direct effect of agreeableness on entrepreneurial propensity is also non-significant ($\beta = 0.068$, $SE = 0.197$, $p > 0.1$), showing no standalone impact within the tested model.

To ensure the robustness of these findings, the analysis is repeated using both a short version of the agreeableness scale (TIPI) and a long version derived from the 50-item personality inventory. This dual approach aimed to verify whether the choice of measurement scale influenced the observed effects. In all models, the Need for Cognitive Closure Score was included as a control variable to account for potential cognitive preferences, but its effect was not statistically significant, which means that it did not substantially

influence entrepreneurial propensity or interact with proximity or agreeableness.

As presented in Table 8, in columns (1) and (2), the results are consistent across both versions, reinforcing the robustness of these results. The short version model explains 35.8% of the variance (Adjusted $R^2 = 0.358$), while the long version explains 35.9% (Adjusted $R^2 = 0.359$). Since these two models have very similar explanatory power and aligned results, it is confirmed that ten-item and fifty-item scales are both valid to use when measuring Big Five personality traits.

Overall proximity remains a significant positive predictor of entrepreneurial propensity. However, neither the main effect of agreeableness score (Short version: $p > 0.1$; Long version: $p > 0.1$) nor its interaction with proximity (Short version: $p > 0.1$; Long version: $p > 0.1$) is statistically significant. Thus, agreeableness does not play a moderating role in the relationship between proximity and entrepreneurial propensity; H5 and H6 are not supported.

5.6 Supplementary Analyses

While not explicitly included in the research model or hypotheses, additional analyses were undertaken to further enrich the study by leveraging the available dataset. Since the survey was comprehensive, this allowed me to conduct additional analyses, exploring potential moderators. This section presents the findings of these supplementary analyses, which examine additional factors such as other personality traits within the Big Five model, age, socioeconomic status, and educational attainment.

5.6.1 Age-Based Approach

To investigate whether neuroticism moderates the relationship between proximity and propensity across different age groups, separate regression analyses are conducted for each age group in the sample. Detailed regression coefficients and significance levels can be found in Table 13 in Appendix D. No significant moderation effect was found for neuroticism in most age groups. The interaction term (Overall Proximity Score x Emotional Stability) is not significant across all groups except for the 46–60 age group ($\beta = 0.193$, $SE = 0.093$, $p < 0.05$). It means that in the 46-60 age group, neuroticism negatively

moderates the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity. This indicates that proximity has a stronger association with entrepreneurial propensity for individuals with higher levels of emotional stability (lower levels of neuroticism) in this age group. However, for other age groups, the interaction term was not significant.

Same approach is applied to determine whether agreeableness moderates the proximity-entrepreneurial propensity relationship across age groups. Detailed coefficients and significance levels for these analyses are available in Appendix E.

The direct effects of agreeableness across all age groups were non-significant, indicating that agreeableness alone does not have a notable impact on entrepreneurial propensity. The regression analysis results for agreeableness as a moderator of the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity reveal mixed findings across age groups (Table 14 in Appendix E).

The interaction term between Overall Proximity Score and Agreeableness is significant only for the 18–25 years ($\beta = 0.029$, $SE = 0.065$, $p < 0.05$) and 26–35 years ($\beta = 0.042$, $SE = 0.025$, $p < 0.1$) age groups. This suggests that agreeableness moderates the proximity-propensity relationship differently for younger age groups, particularly those aged 18–35, while its

effects diminish or become negligible in older populations. For other age groups, no significant moderation effects were observed.

In both cases, it is important to note that meaningful results could not be derived for individuals under the age of 18 and over the age of 60 due to the extremely small sample sizes ($n=3$ and $n=4$, respectively). Consequently, the relevant cells of the tables lack entries for these groups.

5.6.2 Impact of Extraversion

I performed a regression analysis to assess whether extraversion moderates the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity. In Table 9, column (1) shows the results of this regression. While the overall model explains 36.7 % of the variance in entrepreneurial propensity (adjusted $R^2 = 0.367$), extraversion does not appear to play a significant role. Neither the main effect of extraversion scores ($p > 0.1$) nor its interaction with proximity ($p > 0.1$) reaches statistical significance. This suggests that extraversion neither influences nor moderates the relationship being studied. The control variable, need for cognitive closure score, is also not significant ($p > 0.1$).

5.6.3 Impact of Conscientiousness

Then, I tested conscientiousness as a potential moderator of the proximity-propensity relationship. Table 9, column (2) shows the results of this analysis. The results indicate that conscientiousness has no significant direct effect ($p > 0.1$) nor moderating effect through its interaction with proximity ($p > 0.1$). The overall model explains 35.7% of the variance in entrepreneurial propensity (adjusted $R^2 = 0.357$). The need for cognitive closure score also remains insignificant ($p > 0.1$). These findings suggest that conscientiousness does not meaningfully impact the proximity-propensity relationship.

Table 9: Interaction Effects of Other Personality Traits

	<i>Dependent variable:</i>	
	Entrepreneurial Propensity Score	
	(1)	(2)
Overall Proximity Score	0.511** (0.209)	0.794*** (0.296)
Extraversion Score	0.049 (0.147)	
Conscientiousness Score		0.079 (0.204)
Need for Cognitive Closure Score	0.002 (0.008)	0.001 (0.008)
Overall Proximity x Extraversion	0.028 (0.038)	
Overall Proximity x Conscientiousness		-0.018 (0.050)
Constant	0.654 (0.943)	0.346 (1.265)
Observations	315	315
R ²	0.367	0.357
Adjusted R ²	0.358	0.349
Residual Std. Error (df = 310)	1.725	1.738
F Statistic (df = 4; 310)	44.852***	43.122***
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

5.6.4 Considering Different Education Levels

Considering that education level may influence entrepreneurial propensity, and since this data was already gathered in the demographic questions section of the survey, additional tests were conducted. To further explore how education level influences the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity, the sample was divided into three groups based on education level: Basic Education, Undergraduate Education, and Postgraduate Education. Separate regression analyses were conducted for each group to examine the interaction effects between proximity and gender. The results are summarized in Table 10.

The analysis reveals that proximity to entrepreneurship support mechanisms has a significant and positive effect on entrepreneurial propensity only for individuals in the Postgraduate Education group ($\beta = 0.588$, $SE = 0.183$, $p < 0.01$), while the effects were positive but statistically insignificant for the Basic Education and Undergraduate Education groups. Additionally, gender, both as a direct predictor and in its interaction with proximity, did not yield significant results across any education level, indicating that the benefits of proximity are relatively independent of gender. The explanatory power of the models was moderate, with the basic education group demonstrating the

highest adjusted R^2 (0.447), followed by the undergraduate education (0.419) and postgraduate education (0.321) groups.

Table 10: Interaction Effects of Proximity and Gender by Education Level

Term	Basic Education	Undergraduate Education	Postgraduate Education
Overall Proximity Score	0.13 (0.84)	1.269 (1.404)	0.588*** (0.183)
Gender (Male)	-1.14 (3.9)	0.852 (4.191)	0.4 (2.016)
Gender (Female)	-1.86 (3.87)	1.241 (4.177)	-0.362 (2.155)
Need for Cognitive Closure Score	-0.011 (0.02)	0.08 (0.011)	0.013 (0.02)
Overall Proximity x Gender (Male)	0.54 (0.864)	-0.389 (1.407)	-
Overall Proximity x Gender (Female)	0.355 (0.86)	-0.641 (1.406)	-0.008 (0.242)
Constant	3.677 (3.876)	-0.913 (4.222)	0.914 (2.453)
Observations	50	204	61
R^2	0.447	0.419	0.321
Adjusted R^2	0.370	0.401	0.26
Residual Std. Error	1.579	1.662	1.949
F-Statistic	5.801***	23.635	5.212***

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

5.6.5 Considering Socioeconomic Status

Similar to the previous section, considering the potential impact of socioeconomic background on entrepreneurial propensity, I further analyzed how proximity and gender interact with entrepreneurial tendencies across different socioeconomic groups. I gathered this data through the demographic section of the survey.

Table 11 illustrates how the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity varies across different socioeconomic status (SES) groups. For individuals from low socioeconomic backgrounds, the Overall Proximity Score has a significant positive effect on entrepreneurial propensity ($\beta = 0.575$, $SE = 0.202$, $p < 0.01$). In contrast, the effects for middle SES ($\beta = 0.386$) and high SES ($\beta = 0.391$) groups are not statistically significant.

Gender, both as a direct predictor and in interaction with proximity, does not have significant effects in any socioeconomic status (SES) group. Additionally, the Need for Cognitive Closure does not serve as a significant predictor. Among the models analyzed, the Middle SES group demonstrated the highest explanatory power, with an adjusted R^2 of 0.469, followed by the High SES group at 0.322, and the Low SES group at 0.316.

Table 11: Interaction Effects of Proximity and Gender by Socioeconomic Status

	<i>Dependent variable: Entrepreneurial Propensity Score</i>		
	Low SES	Middle SES	High SES
Overall Proximity Score	0.575*** (0.202)	0.386 (0.582)	0.391 (0.192)
Gender (Female)	—	1.583 (2.272)	-0.184 (1.371)
Gender (Male)	0.644 (1.066)	-1.077 (2.291)	-1.861 (1.704)
Overall Proximity x Gender (Female)	0.107 (0.265)	0.288 (0.589)	—
Overall Proximity x Gender (Male)	—	0.431 (0.592)	0.44 (0.26)
Need for Cognitive Closure Score	-0.003 (0.023)	0.011 (0.010)	0.003 (0.018)
Constant	1.380 (1.622)	1.324 (2.250)	2.154 (1.749)
Observations	61	186	68
R ²	0.316	0.469	0.322
Adjusted R ²	0.267	0.451	0.267
Residual Std. Error	1.927 (df = 56)	1.558 (df = 179)	1.840 (df = 62)
F Statistic	6.470*** (df = 4; 56)	26.313*** (df = 6; 179)	5.887*** (df = 5; 62)

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

5.7 Visualization of the Results

In this section, to provide a clearer understanding of the key findings, the results are summarized using a series of visualizations that highlight the key relationships and patterns identified in the analysis.

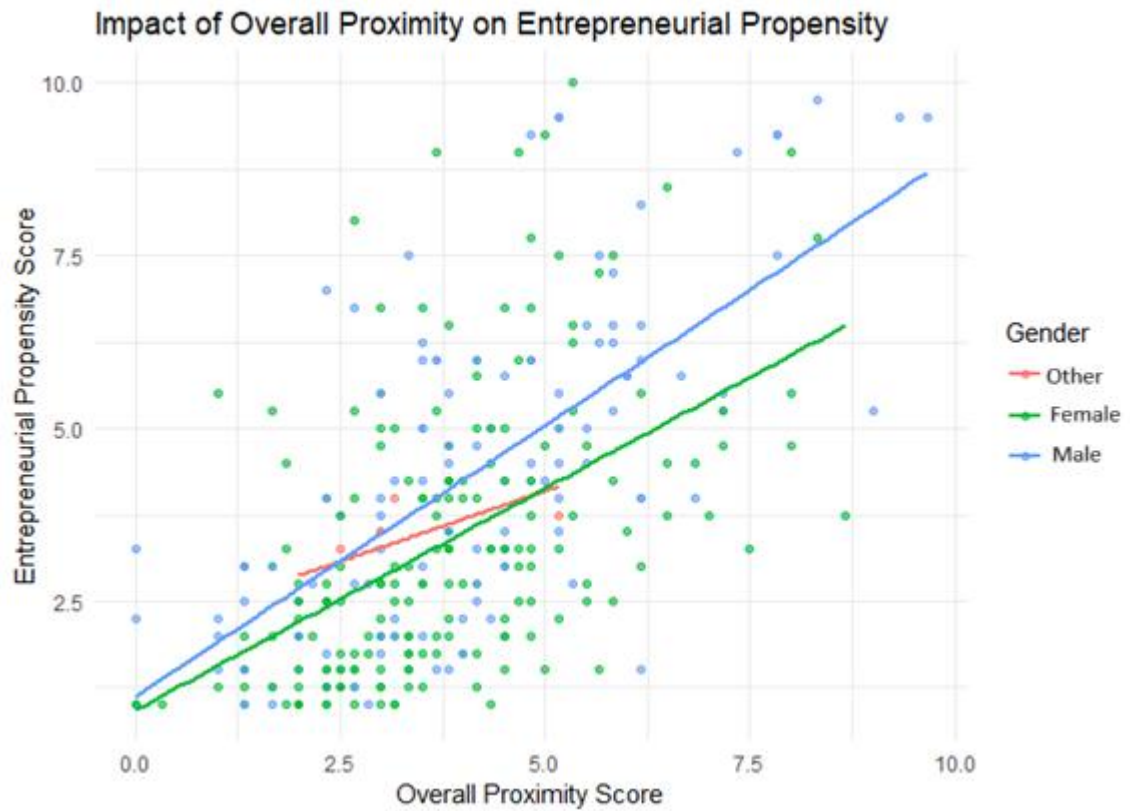


Figure 4 - Impact of Overall Proximity on Entrepreneurial Propensity

Figure 4 illustrates the relationship between overall proximity score and entrepreneurial propensity across three gender categories: female, male, and other, with distinct trend lines for each group.

This graph also confirms the regression results indicate no significant moderation by gender on the relationship between proximity and

entrepreneurial propensity. Differences in slopes reflect sample variability rather than meaningful distinctions.

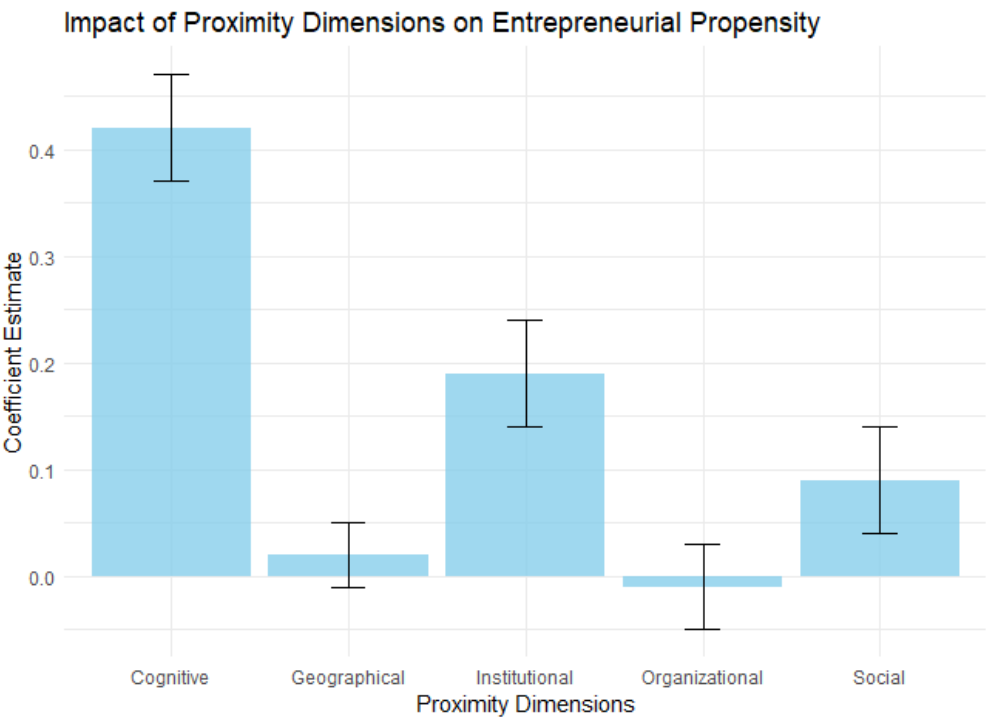


Figure 5 - Impact of Proximity Sub-Dimensions on Entrepreneurial Propensity

As shown in Figure 5, cognitive and institutional proximity emerge as the strongest predictors of entrepreneurial propensity, with cognitive proximity exhibiting the most significant and positive effect. In contrast, geographical, organizational, and social proximity demonstrate weak and statistically non-significant effects, suggesting that mere physical closeness, organizational affiliations, or social ties do not directly drive entrepreneurial tendencies.

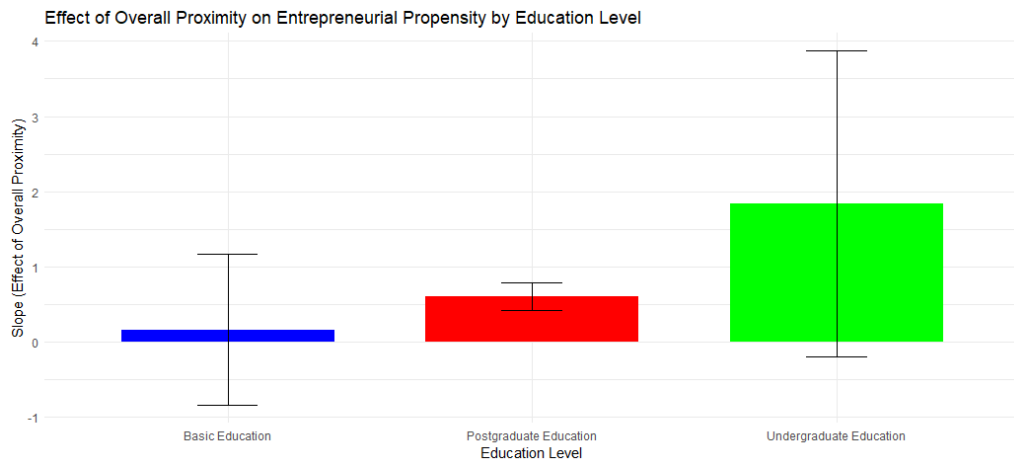


Figure 6 – *Effect of Overall Proximity on Entrepreneurial Propensity by Education Level*

Moving on with the subgroups by education level, Figure 6 shows the relationship between overall proximity score and entrepreneurial propensity across different education levels. Only the postgraduate education group shows a statistically significant positive effect among the three groups, as its error bars do not cross zero, indicating a reliable relationship. In contrast, the basic education and undergraduate education groups have wide error bars that cross zero, suggesting that their slopes are not statistically significant and substantial variability exists in these estimates. The lack of statistical significance due to high variability limits the reliability of these groups.

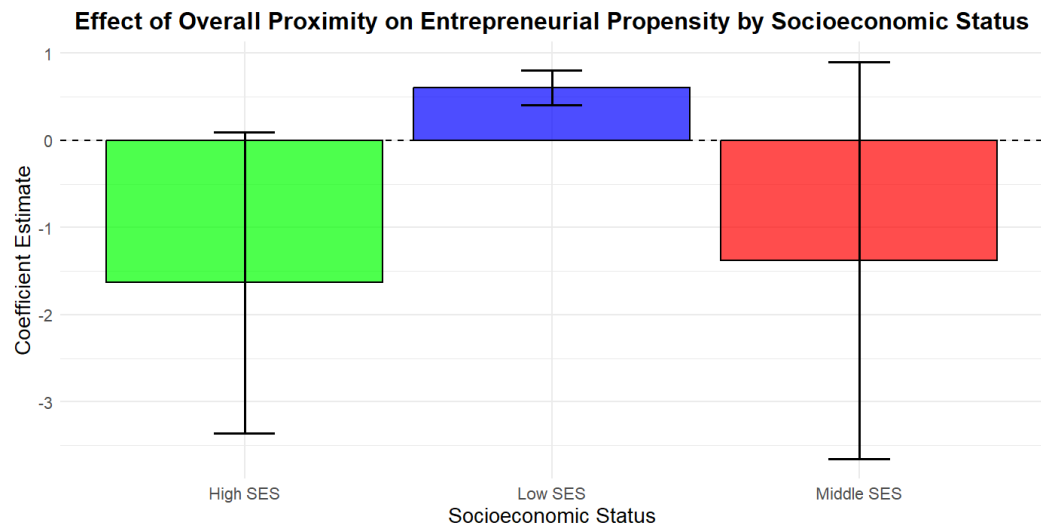


Figure 7 – *Effect of Overall Proximity on Entrepreneurial Propensity by Socioeconomic Status*

Lastly, Figure 7 highlights the effect of overall proximity on entrepreneurial propensity across different socioeconomic groups. Strongest positive impact observed for the low-income group, influence of proximity to entrepreneurship support mechanisms on entrepreneurial propensity is statistically insignificant in middle- and high-income groups.

CHAPTER VI

DISCUSSION

6.1 Discussion and Contributions

This study contributes to entrepreneurship literature by examining how proximity to entrepreneurship support mechanisms influences entrepreneurial propensity, considering the moderating effects of gender and personality traits, as well as the impact of age, education level, and socioeconomic background. Using a multidimensional framework for proximity—which includes geographical, organizational, institutional, cognitive, and social dimensions—and employing a survey-based methodology with a sample of 322 participants, the research has produced several key insights.

The results of the study confirmed that overall proximity to entrepreneurship support mechanisms has significant effect on entrepreneurial propensity, aligning with theoretical expectations. Furthermore, cognitive and institutional proximity were found the most critical dimensions for boosting entrepreneurial propensity, while geographical, organizational, and social proximity showed weaker effects in the Turkish context. This finding highlights the significance of shared knowledge and understanding in fostering entrepreneurial behavior, alongside the supportive role of institutional frameworks in enhancing entrepreneurial propensity, as also suggested by Antoncic et al. (2015), who also emphasized the importance of openness and cognitive alignment for opportunity recognition.

This result is particularly reasonable in the unique context of Turkey, where the government plays a significant role in fostering the entrepreneurial ecosystem through substantial investments. Additionally, Turkey has a quite young and dynamic population, which creates a strong foundation for entrepreneurial activity. With a median age significantly lower than many developed economies (according to the 2024 data of The World Factbook, the median age in Turkey is 34 and among European countries it is 40.3 years old) the country's youth-driven workforce has high entrepreneurial potential, further amplifying the impact of cognitive and institutional proximity on fostering new ventures. Initiatives such as TÜBİTAK 1512 and KOSGEB's grants aiming young entrepreneurs provide extensive support to early-stage

entrepreneurs. Also, while large-scale initiatives like TEKNOFEST, organized annually by the Turkish Ministry of Industry and Technology and the Turkey Technology Team Foundation, attract thousands of young participants every year. Such efforts likely enhance young people's cognitive and institutional proximity to support mechanisms, thereby strengthening their entrepreneurial propensity in Turkey.

In contrast, geographical, organizational, and social proximity demonstrate weak and statistically non-significant effects, suggesting that mere physical closeness, organizational affiliations, or social ties do not directly drive entrepreneurial propensity. These findings are interesting because they challenge the assumptions about the universal importance of physical or organizational closeness and point to the broader relevance of cognitive and institutional mechanisms. This aligns well with Boschma's (2005) argument that proximity dimensions beyond geography, such as shared knowledge bases and institutional alignment, are crucial for fostering interactive learning and innovation. These findings might also be associated with the decreasing need for physical constructs in the modern world. Especially after the COVID-19 pandemic, entrepreneurial support mechanisms have evolved and increasingly shifted toward remote setups, mirroring broader digital transformations across various domains. This might be an explanation for the insignificant results on geographical proximity. Also, these results emphasize the need to prioritize mechanisms that promote

cognitive alignment and institutional support. By focusing on these critical dimensions, entrepreneurial support systems can better address the underlying drivers of entrepreneurial engagement across diverse populations.

Contrary to expectations, hypothesized moderating roles of gender and personality traits were not observed in the data. Proximity appears to affect entrepreneurial propensity similarly across all gender categories, with no evidence of gender-based differences in this dataset. The lack of significant moderating effects of gender contradicts prior research that underscores gendered disparities in entrepreneurial ecosystems (Muntean & Ozkazanc-Pan, 2014; Murugesan & Jayavelu 2017). This situation may be due to relatively balanced access to entrepreneurial support mechanisms within the sampled population, reducing gender disparities. Future research could explore additional factors, such as cultural norms, access to resources, or educational background, to better understand the dynamics of entrepreneurial behavior. Moreover, a larger sample size or more nuanced measures of gender might provide further insights into these relationships.

The results on the effect of personality traits are consistent with literature emphasizing the mixed findings (Cao et al., 2022; Kristanto & Pratama 2020). While agreeableness and neuroticism did not moderate the proximity-propensity relationship contrary to my initial hypothesis in overall sample, further analyses with age, education, and socioeconomic background revealed interesting findings. Although neuroticism did not have a significant

moderating role among overall sample, it demonstrated a significant negative moderation in the proximity-propensity relationship for the 46-60 age group. This finding is consistent with some of the previous research. For instance, the works of Kristanto and Pratama (2020), Murugesan and Jayavelu (2017), and Zhao and Seibert (2006) show that neuroticism is negatively correlated with entrepreneurial intentions and behavior. One possible explanation is that individuals in this age group may have accrued life and work experiences that influence their perception of risk and uncertainty, making those high in neuroticism more cautious about pursuing entrepreneurial activities despite available support mechanisms. In addition, older individuals may have more financial and personal responsibilities, which increase anxiety and fear of failure associated with entrepreneurship.

Similarly, agreeableness exhibited a significant positive effect for only individuals who are between 18-35 years old. This indicates that among young people, agreeable individuals may benefit more from proximity to entrepreneurial support mechanisms. This could perhaps be partly because the young are more accommodating and receptive to outside influences, knowing how to exploit social networks and institutional support better. Besides, younger people could actually be in the earlier stage of their careers when collaboration and interpersonal relationships become relevant strategies toward seeking advice, mentorship, and funding opportunities. This finding again supports the research of Kristanto and Pratama (2020), which is

conducted in India with a similar research model. Turkey, a very different economic and cultural context from India, yields the similar results on the effect of these two personality traits. These findings underscore the universal benefit of proximity mechanisms across personality traits while highlighting specific age-related dynamics for neuroticism and agreeableness.

In order to extend the analyses, additional tests were conducted with considering different demographics. Proximity-propensity relationship varied across different education levels and socioeconomic groups. Overall, I conclude that education level interacts with proximity, with postgraduate education showing the strongest and most consistent relationship. This finding suggests that individuals with more advanced education may be better positioned to leverage support mechanisms effectively. For instance, people with postgraduate education might already be involved in some academic research, and being closer to a science park might be more meaningful for them to use these facilities to commercialize their scientific projects.

Similarly, across socioeconomic groups, only low-income group showed a significant positive impact on the proximity-propensity relationship, regardless of gender. This result suggests that proximity to entrepreneurship support mechanisms is particularly important for individuals from lower socioeconomic backgrounds, possibly because they benefit the most from proximity mechanisms due to a lack of other resources. Research has largely established that individuals from a low socio-economic background generally

lack resources such as financial capital, mentorship, and professional networks compared to more privileged entrepreneurs; hence, there is the tendency to lean on support mechanisms as the only way out of their deficiencies. During periods of economic downturn, the vulnerabilities of entrepreneurs with a lower socioeconomic status make the role of support networks much stronger in times of hardship. (Brändle et al., 2022) Those from higher socioeconomic groups may rely on other resources than entrepreneurship support mechanisms. This shows existing access to resources reduces the incremental importance of proximity. This also supports findings from low-income entrepreneurship support programs, where interventions were shown to increase access for participants to several resources.

This study extends the understanding of proximity by underlining differential effects of its dimensions on entrepreneurial propensity and, more precisely, emphasizing the roles of cognitive and institutional proximity. The findings emphasize the importance of tailoring support mechanisms to address the specific needs of diverse demographic groups and provide actionable insights for policymakers in designing more inclusive entrepreneurial ecosystems.

6.2 Limitations of the Study, Practical Implications and Directions for Future Research

While this research offers important insights, several limitations must be recognized. Initially, the dependence on self-reported information from an online questionnaire raises the possibility of response biases, including social desirability or an exaggerated sense of entrepreneurial inclination. Subsequent studies could use longitudinal approaches or observational techniques to confirm and build upon these results.

The sample, drawn from personal and professional networks using convenience and snowball sampling, limits generalizability. Expanding the sample to include a broader and more representative demographic would enhance the robustness of future studies.

Moreover, the study focuses on the Turkish context, which has its own unique cultural, economic, and institutional characteristics. On one hand this provides valuable insights for the local ecosystem but on the other hand, the localized insights may not generalize to other regions. Comparative studies could better capture the role of proximity across diverse settings.

Furthermore, due to the lack of literature on appropriate weightings, equal weighting was applied to the sub-dimensions while calculating the

overall proximity score. However, later on, the analysis revealed that these dimensions influence entrepreneurial propensity to varying degrees. Future research could address this gap by exploring methods to assign more accurate weights to proximity dimensions, potentially enhancing the explanatory power of such models.

Additionally, the study's moderate R-squared values indicate that while proximity explains a significant portion of the variance in entrepreneurial propensity, other unexamined factors also play a crucial role. Future research could explore additional variables, such as cultural attitudes, region-specific dynamics, or digital access, to provide a more holistic view.

It is also important to recognize certain limits related to model fit and measurement reliability. The results of the CFA show that social and institutional proximity have low convergent validity and reliability, indicating the need for scale improvement. Furthermore, the high RMR number (0.735) suggests possible residual error problems, and the AVE values for some constructs are below the suggested cutoff. To improve the robustness of proximity-related measures, future research should concentrate on addressing discriminant validity issues, enhancing construct validity, and improving measurement scales.

Finally, the moderating effects of gender and personality traits revealed intriguing but inconclusive patterns, such as age-specific interactions of

neuroticism and agreeableness. Further research may delve deeper into these interactions since interesting results may be revealed. Another limitation of this study is the small sample sizes for certain age groups, which limited the generalizability of findings across these populations. Thus, employing larger samples and advanced techniques could uncover these subtleties.

Beyond new academic research areas, this study offers some important practical implications as well:

a) Programs and initiatives must be tailored to create cognitive and institutional proximity in entrepreneurial ecosystems.

b) Support mechanisms need to be differentiated, right from accelerators to training programs, in line with individual demands of different educational backgrounds and socio-economic status.

c) Encouraging joint initiatives between local governments, educational institutions, and private organizations in providing resources and networks for would-be entrepreneurs, particularly from underrepresented groups.

CHAPTER VII

CONCLUSION

In conclusion, this study advances our understanding of the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity, considering how different proximity dimensions influence entrepreneurial behavior. The findings emphasize the particularly strong impact of cognitive and institutional proximity. This suggest that access to entrepreneurial knowledge networks and institutional support structures significantly increases individuals' likelihood of engaging in entrepreneurship.

By integrating The Big Five personality traits, the study reveals that personality traits or gender have no moderating effect on this relationship. However, supplementary analyses show that there are age-specific moderating effects: Agreeableness positively influences the influence of proximity to

entrepreneurial support mechanisms on entrepreneurial propensity among younger individuals (18-35 years old), while neuroticism has a negative moderating effect in older age groups (46-60 years old). These insights contribute to the literature by demonstrating how individual-level characteristics interact with contextual factors in shaping entrepreneurial behavior.

This research also fills a critical gap in the literature by offering a multidimensional perspective on entrepreneurial propensity. By considering both contextual (external) and individual-level (internal) influences, it provides a comprehensive framework for understanding the factors that drive entrepreneurship for individuals. Future research could build upon these findings by exploring additional contextual elements, such as regional economic conditions, access to digital support mechanisms, and cross-cultural variations in proximity effects.

Ultimately, this study lays a solid foundation for both future academic researchers and practitioners, emphasizing the complex interplay between internal and external drivers of entrepreneurial behavior. The insights presented here contribute to ongoing discussions in entrepreneurship research, offering new directions for understanding and supporting entrepreneurial engagement in diverse contexts.

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APPENDICES

Appendix A

SURVEY QUESTIONS

Dear Participant,

Thank you for agreeing to participate in our study, which examines the relationship between proximity to entrepreneurship support mechanisms and entrepreneurial propensity, focusing on the moderating effects of gender and personality traits. This survey is conducted by Aybüke Temel Çakır as part of the Master's thesis in the Management and Organization Studies program at Bilkent University Faculty of Business Administration, under the supervision of Dr. Rasim Serdar Kurdoğlu.

Your participation is highly valuable in contributing to a deeper understanding of the factors influencing entrepreneurial propensity. Your responses will be kept strictly confidential and used solely for academic purposes. The data collected will be reported in aggregate form to ensure anonymity.

Completing the survey will take approximately 6-8 minutes.

Thank you for dedicating your time and contributing to this academic research.

For any questions, suggestions, or comments regarding this study, please feel free to contact us at aybuke.temel@bilkent.edu.tr.

Kind regards,

Chapter 1: Demographics and Proximity

1. Please enter a nickname for yourself: *(This will be used to distinguish your answers if needed, since this questionnaire is anonymous.)*
2. Age:
 - Below 18

- 18-25
- 25-35
- 35-45
- 45-60
- 60 and above

3. Gender:

- Female
- Male
- Other (LGBTQIA+)
- I do not want to specify

4. Education Level:

- Elementary School
- Middle School
- High School
- Bachelor's Degree
- Master's Degree
- Doctorate or Professional Degree
- Other (please specify)

5. Current Employment Status:

- Employed full-time
- Employed part-time
- Unemployed
- Student
- Self-employed / Entrepreneur
- Other (please specify)

6. How do you define the socio-economic status of your closest family (who raised you the most to this day)? *(For reference, for a family of four, an income of 57,000 TL or less is considered low, between 57,000 TL and 200,000 TL is*

considered middle, and above 200,000 TL is considered a high-income group (TÜİK, 2024).)

- High
- Middle
- Low

7. Do you live, study, or work in the city center of Ankara, Istanbul, or Izmir? *(Engaging in any one of these three activities is sufficient to answer "yes." These cities are defined based on the Startup Centrum Turkey Entrepreneurial Ecosystem Map.)*

- Yes, currently I am living, studying, or working in one of those cities.
- No, but I have lived, studied, or worked in one of those cities in the past.
- No, I live, study, or work in a different city.

8. Do you live/study/work within a maximum distance of 60 km from cities İstanbul, Ankara, İzmir, or in a location easily accessible to the centers of these cities?

- Yes, currently.
- No, but I have lived/studied/worked near one of those cities in the past.
- No, I live/study/work far away from those cities.

9. How often do you visit the entrepreneurial/business hubs/areas in your city? *(For example for İstanbul, you can think of Levent, Maslak; for Ankara you can think of Söğütözü, Üniversiteler Mahallesi; for İzmir you can think of Konak, Alsancak etc.)*

- Frequently, more than once a week
- Sometimes, more than once a month
- Rarely, normally I have no business with those places

10. Have you ever participated in any entrepreneurship support programs such as accelerator programs, mentorship sessions, or entrepreneurship training?

- Yes, more than once
- Yes, once
- No, never

11. Are you a member of any entrepreneurial organization or startup community?

- Yes, I am actively involved in at least one organization.
 - Yes, but currently I am not actively involved.
 - No, I have never been a member of such a community.
12. Have you ever had an internship, job or project collaboration at a startup or entrepreneurship department of a company?
- Yes, more than once
 - Yes, once
 - No, never
13. If you are reading this question, please select the option labeled "3." This question is designed to help the researchers confirm your attention to the survey. *(Attention check question)*
- 1
 - 2
 - 3
14. Have you ever received any direct or indirect benefit from public institutions (such as TÜBİTAK, KOSGEB, Ministry programs, EU support initiatives etc) related to entrepreneurship in Turkey?
- Yes, more than once
 - Yes, once
 - No, never
15. Are you familiar with the regulations and procedures for starting a business in Turkey?
- Yes, I am very familiar
 - I am somewhat familiar
 - No, I am not familiar at all
16. Have you ever received education or training related to entrepreneurship in your school, company, or from other sources?
- Yes, extensively
 - Yes, to some extent
 - No

17. How aware are you of entrepreneurial opportunities in your region?
- I am very aware
 - I am somewhat aware
 - I am generally not aware of opportunities
18. In your daily life, do you find yourself regularly engaging in entrepreneurial thinking and problem-solving?
- Yes, frequently
 - Yes, occasionally
 - No
19. How extensive is your network of contacts in the entrepreneurial community (entrepreneurs, mentors, investors etc)?
- Very extensive, I know a lot of people from the entrepreneurial community
 - Somewhat extensive, I know some people
 - Very limited, I barely know anybody
20. Do you participate in social events or gatherings related to entrepreneurship?
- Yes, frequently (at least once a month)
 - Yes, occasionally (at least once a year)
 - No
21. Do you feel supported by friends, family, or peers in your entrepreneurial endeavors?
- Yes, strongly supported
 - Yes, somewhat supported
 - No, I don't feel any support

Chapter 2: Ten-Item Personality Inventory

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1 = Disagree strongly, 2= Disagree moderately, 3 = Disagree a little, 4 = Neither agree nor disagree, 5 = Agree a little, 6 = Agree moderately, 7 = Agree strongly

I see myself as:

- 22. _____ Extraverted, enthusiastic.
- 23. _____ Critical, quarrelsome.
- 24. _____ Dependable, self-disciplined.
- 25. _____ Anxious, easily upset.
- 26. _____ Open to new experiences, complex.
- 27. _____ Reserved, quiet.
- 28. _____ I have never drunk water in my life. (Attention check question)
- 29. _____ Sympathetic, warm.
- 30. _____ Disorganized, careless.
- 31. _____ Calm, emotionally stable.
- 32. _____ Conventional, uncreative.

Chapter 3: Additional Questions for Neuroticism and Agreeableness from B5KT-50-Tr
(44 Item Inventory in English version)

How would you describe yourself? Please indicate how well each statement aligns with you by selecting the most appropriate response next to each statement. Describe yourself as you currently perceive yourself, not as you aspire to be in the future.

1 = Not suitable at all, 2 = Not suitable, 3 = Neutral/Unsure, 4 = Slightly suitable, 5 = Very suitable

- 33. _____ I don't have much interest in others.
- 34. _____ I easily feel under pressure.
- 35. _____ I care about people.
- 36. _____ I am generally at ease.
- 37. _____ I insult people.
- 38. _____ I worry about everything.
- 39. _____ I understand and share others' emotions.
- 40. _____ I rarely feel down.
- 41. _____ I don't concern myself with other people's problems.
- 42. _____ I get agitated easily.
- 43. _____ I am tender-hearted.
- 44. _____ I get upset easily.
- 45. _____ I am not really interested in others.
- 46. _____ My mood changes very often.

- 47. _____ I make time for others.
- 48. _____ My emotional balance shifts frequently.
- 49. _____ I can sense others' feelings.
- 50. _____ I get annoyed quickly.
- 51. _____ I comfort people.
- 52. _____ I often feel down.

Chapter 4: The NFCS Short Version

Read each of the following statements and decide how much you agree with each according to your beliefs and experiences. Please respond according to the following scale:

1 = Strongly disagree, 2 = Moderately disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Moderately agree, 6 = Strongly agree

- 53. _____ I don't like situations that are uncertain.
- 54. _____ I don't like questions that can be answered in many different ways.
- 55. _____ I find a well-planned life, where every task has a set time, suitable to my temperament.
- 56. _____ When I face a problem, I hurry to reach a quick solution.
- 57. _____ I feel uncomfortable when one person disagrees with something everyone else in a group agrees on.
- 58. _____ I don't want to enter a situation without knowing what to expect.
- 59. _____ When I have to make a decision, I feel relieved as soon as I decide.
- 60. _____ I feel uncomfortable when an event occurs without understanding the reason behind it.
- 61. _____ I like having a structured life where the rules are clearly defined.
- 62. _____ I don't like being around people who are capable of unexpected actions.
- 63. _____ I feel uncomfortable if a person's statement can mean many different things.
- 64. _____ To answer this question, please select the "Other" option and write "I am reading the survey carefully."
- 65. _____ Having a consistent and stable lifestyle makes life more enjoyable.
- 66. _____ If I cannot immediately find a solution to a problem, I become impatient and uncomfortable.
- 67. _____ I don't like unpredictable or unforeseeable situations.

Chapter 5: Entrepreneurial Propensity

- 68. Are you currently a startup founder? In other words, do you own a running enterprise? (Yes / No)
- 69. Please indicate the extent to which you have engaged in activities to start a new business such as looking for equipment or a location, organizing a start-up team, beginning to save money, or any other activity that would help launch a business over the past 12 months. (1=Not at all, 10=Extremely)
- 70. How likely do you see yourself starting a business in the next 5 years? (1=Very low, 10= Very high)
- 71. How do you perceive your level of entrepreneurial propensity? (1=Very low, 10=Very high)

Thank you for your invaluable contribution to this academic research.

If you would like to receive more information about the research or if you have any questions regarding the results, please do not hesitate to send an e-mail to this address :
aybuke.temel@bilkent.edu.tr

Appendix B

ANKET SORULARI

Sayın Katılımcı,

Girişimcilik destek mekanizmalarına yakınlık ile girişimcilik eğilimi arasındaki ilişkiyi cinsiyet ve kişilik özelliklerinin düzenleyici etkilerine odaklanarak inceleyen çalışmamıza katılmayı kabul ettiğiniz için teşekkür ediyoruz. Bu anket Aybüke Temel Çakır tarafından Bilkent Üniversitesi İşletme Fakültesi Yönetim ve Organizasyon Çalışmaları programında Yüksek Lisans tezi kapsamında, Dr. Rasim Serdar Kurdoğlu danışmanlığında yürütülmüştür.

Katılımınız, girişimcilik eğilimlerini etkileyen faktörlere ilişkin anlayışımızın ilerlemesine katkıda bulunması açısından çok değerlidir. Yanıtlarınız kesinlikle gizli tutulacak ve yalnızca akademik amaçlarla kullanılacaktır. Toplanan veriler, anonimliğinizi sağlayacak şekilde toplu olarak rapor edilecektir.

Anketi tamamlamak yaklaşık 6-8 dakika sürecektir.

Bu akademik çalışmaya zaman ayırdığınız ve katkı sağladığınız için teşekkür ederiz. Çalışmaya ilişkin her türlü soru, öneri ve yorum için aybuke.temel@bilkent.edu.tr mail adresine yazabilirsiniz.

Saygılarımızla.

Bölüm 1: Demografik Bilgiler ve Yakınlık

1. Lütfen kendiniz için bir takma ad girin: *(Bu anket anonim olduğundan, gerektiğinde yanıtlarınızı ayırt etmek için bu ad kullanılacaktır.)*
2. Yaşınız:
 - 18 yaş altı
 - 18-25 yaş
 - 25-35 yaş
 - 35-45 yaş
 - 45-60 yaş

- 60 yaş üzeri
3. Cinsiyetiniz:
- Kadın
 - Erkek
 - Diğer (LGBTQIA+)
 - Belirtmek istemiyorum
4. Eğitim Seviyeniz:
- İlkokul mezunu
 - Ortaokul mezunu
 - Lise mezunu
 - Lisans
 - Yüksek lisans
 - Doktora
 - Diğer
5. Güncel Çalışma Durumunuz:
- Tam zamanlı çalışan
 - Yarı zamanlı çalışan
 - Çalışmıyorum
 - Öğrenci
 - Girişimci
 - Diğer
6. Çekirdek ailenizin (sizi bugüne kadar yetiştirmiş olan kişi/kişiler) sosyo-ekonomik durumunu nasıl tanımlarsınız? *(Örneğin 4 kişilik bir aile için 57.000 TL ve altında kazanç düşük, 57.000-200.000 TL arası orta, 200.000 TL üzeri kazanç yüksek gelir grubunu ifade etmektedir. (TÜİK, 2024).)*
- Yüksek
 - Orta
 - Düşük

7. Ankara, İstanbul veya İzmir şehirlerinden birinin merkezinde mi yaşıyorsunuz / okuyorsunuz / çalışıyorsunuz? *(Bu üç faaliyetten birini yapıyor olmanız evet cevabı vermek için yeterlidir. Şehirler Startup Centrum Türkiye Girişimcilik Ekosistemi Haritası'na göre belirlenmiştir.)*
- Evet, güncel olarak bu şehirlerden birinde yaşıyorum/okuyorum/çalışıyorum.
 - Hayır, ama daha önceden bu şehirlerden birinde yaşadım/okudum/çalıştım.
 - Hayır, başka bir şehirde yaşıyorum/okuyorum/çalışıyorum.
8. İstanbul, Ankara, İzmir şehirlerine en fazla 60 km uzaklıkta veya bu şehirlerin merkezlerine kolay ulaşılabilir bir lokasyonda mı yaşıyorsunuz / okuyorsunuz / çalışıyorsunuz?
- Evet, güncel olarak
 - Hayır, ama eskiden öyleydi
 - Hayır, daha uzakta yaşıyorum/okuyorum/çalışıyorum
9. Şehrinizdeki girişimcilik/iş hayatı merkezi sayılan bölgeleri ne sıklıkla ziyaret ediyorsunuz? *(Örneğin İstanbul için Levent, Maslak; Ankara için Söğütözü, Üniversiteler Mahallesi; İzmir için Konak, Alsancak vb. düşünebilirsiniz.)*
- Sıklıkla, haftada birden fazla
 - Bazen, ayda birden fazla
 - Nadiren, normalde o bölgelerde herhangi bir işim olmuyor
10. Hızlandırıcı programlar, mentorluk oturumları veya girişimcilik eğitimleri gibi herhangi bir girişimcilik destek programına katıldınız mı?
- Evet, birden fazla
 - Evet, bir kez
 - Hayır, hiç katılmadım
11. Herhangi bir girişimcilik organizasyonunun veya startup topluluğunun üyesi misiniz?
- Evet, güncel olarak aktif olduğum en az bir topluluk var.
 - Evet, ama güncel olarak aktif değilim.
 - Hayır, hiçbir zaman üye olmadım.
12. Daha önce bir startupta veya kurumsal bir şirketin girişimcilik departmanında staj, tam zamanlı çalışma veya bir proje için işbirliği yaptınız mı?

- Evet, birden fazla kez
 - Evet, bir kez
 - Hayır, hiç yapmadım
13. Bu soruyu okuyorsanız, 3 yazan şıkkı işaretleyiniz. Bu soru, araştırmacıların ankete verdiğiniz dikkati teyit etmesini sağlamaktadır.
- 1
 - 2
 - 3
14. Türkiye'de girişimcilikle ilgili kamu kurumlarından (TÜBİTAK, KOSGEB, Bakanlık programları, AB destek girişimleri vb.) doğrudan veya dolaylı herhangi bir destek aldınız mı?
- Evet, birden fazla kez
 - Evet, bir kez
 - Hayır, hiç almadım
15. Türkiye'de iş kurmaya ilişkin yasal düzenleme ve prosedürlere aşina mısınız?
- Evet, çok aşinayım
 - Bir miktar aşinayım
 - Hayır, hiç bilmiyorum
16. Okulunuzda, çalıştığınız organizasyonda veya başka kaynaklardan girişimcilikle ilgili herhangi bir eğitim aldınız mı?
- Evet, yoğun olarak bu konuda eğitildim.
 - Evet, bir miktar eğitime girdim.
 - Hayır, hiç bu konuda hiç eğitim almadım.
17. Bölgenizdeki girişimcilik fırsatlarının ne kadar farkındasınız?
- Bu konuda yüksek derece farkındalığa sahibim
 - Bir miktar farkındayım
 - Genellikle farkında değilim
18. Günlük yaşamınızda kendinizi düzenli olarak bir girişimci gibi düşünme ve problem çözme halindeyken buluyor musunuz?

- Evet, sıklıkla
 - Evet, bazen
 - Hayır
19. Sizce Türkiye girişim ekosistemindeki çevreniz/iletişim ağıınız (girişimciler, mentorlar, yatırımcılar vb.) ne kadar güçlü?
- Çok güçlü, girişimcilik ekosisteminden çok fazla tanıdığım var.
 - Güçlü sayılabilir, tanıdıklarım var.
 - Çok sınırlı, çok az kişiyi tanıyorum / neredeyse kimseyi tanımıyorum.
20. Girişimcilikle ilgili sosyal etkinliklere, toplantılara, buluşmalara katılıyormusunuz?
- Evet, sıklıkla katılıyorum. (Ayda en az 1 kez)
 - Evet, bazen katılıyorum. (Yılda en az 1 kez)
 - Hayır, hiç katılmam.
21. Girişimcilik çabalarınızda arkadaşlarınız, aileniz veya akranlarınız tarafından desteklendiğinizi hissediyor musunuz?
- Evet, güçlü şekilde destekliyorlar.
 - Evet, az da olsa destekliyorlar.
 - Hayır, hiçbir destek hissetmiyorum.

Bölüm 2: Beş Faktör Kişilik Envanteri

Aşağıda sizin için geçerli olabilecek veya olmayabilecek bazı kişilik özellikleri bulunmaktadır. Lütfen her ifade için o ifadenin kendinizi ne ölçüde tanımladığını belirtmek için bir sayı seçin. İki özellikten biri diğerinden daha güçlü şekilde size uygun olsa bile, bu özellik çiftinin sizin için ne ölçüde geçerli olduğunu derecelendirmelisiniz. Kendinizi, gelecekte, olmak istediğiniz gibi değil, şu an nasıl görüyorsanız o şekilde tanımlayınız.

1 = Kesinlikle katılmıyorum, 2= Katılmıyorum, 3 = Kısmen katılmıyorum, 4 = Kararsızım, 5 = Kısmen katılıyorum, 6 = Katılıyorum, 7 = Kesinlikle katılıyorum

22. _____ Kendimi **dışa dönük, istekli** biri olarak görürüm.
23. _____ Kendimi **eleştirel, kavgacı** biri olarak görürüm.
24. _____ Kendimi **güvenilir, öz disiplinli** biri olarak görürüm.

25. _____ Kendimi **kaygılı, kolaylıkla hayal kırıklığına uğrayan** biri olarak görürüm.
26. _____ Kendimi **yeni yaşantılara açık, karmaşık** biri olarak görürüm.
27. _____ Kendimi **çekingen, sessiz** biri olarak görürüm.
28. _____ Hayatım boyunca hiç su içmedim. (*Dikkat sorusu*)
29. _____ Kendimi **sempatik, sıcak** biri olarak görürüm.
30. _____ Kendimi **altüst olmuş, dikkatsiz** biri olarak görürüm.
31. _____ Kendimi **sakin, duygusal olarak dengeli** biri olarak görürüm.
32. _____ Kendimi **geleneksel, yaratıcı olmayan** biri olarak görürüm.

Bölüm 3: Nevrotiklik ve Uyumluluk için B5KT-50-Tr'den Alınan Ek Sorular (İngilizce versiyonunda 44 soruluk envanter)

Kendinizi nasıl tanımlarsınız? Her anlatımın size ne kadar uygun olduğunu anlatımın yanındaki yanıtlardan uygun olanını işaretleyerek belirtiniz. Kendinizi, gelecekte, olmak istediğiniz gibi değil, şu an nasıl görüyorsanız o şekilde tanımlayınız.

1 = Hiç uygun değil, 2 = Uygun değil, 3 = Orta/Kararsız, 4 = Biraz uygun, 5 = Çok uygun

33. _____ Başkalarına pek ilgi duymam.
34. _____ Kolayca kendimi baskı altında hissederim.
35. _____ İnsanlarla ilgilenirim.
36. _____ Genelde rahatımdır.
37. _____ İnsanlara hakaret ederim.
38. _____ Her şeye endişelenirim.
39. _____ Başkalarının duygularını anlayıp paylaşıyorum.
40. _____ Nadiren kendimi keyifsiz hissederim.
41. _____ Başka insanların problemleriyle ilgilenmem.
42. _____ Kolayca huzursuz olurum.
43. _____ Yumuşak kalpliyim.
44. _____ Moralim çabuk bozulur.
45. _____ Aslında başkalarıyla pek ilgilenmem.
46. _____ Ruh halim çok sık değişir.
47. _____ Başkalarına zaman ayırıyorum.
48. _____ Ruhsal dengem sık değişir.
49. _____ Başkalarının duygularını hissederim.
50. _____ Çabuk rahatsız olurum.
51. _____ İnsanları rahatlatırım.
52. _____ Çoğu zaman kendimi keyifsiz hissederim.

Bölüm 4: Bilişsel Kapalılık İhtiyacı Ölçeği- Kısa Versiyon

Aşağıdaki ifadelerin her birini okuyun ve inançlarınıza ve deneyimlerinize göre her birine ne kadar katıldığınıza karar verin. Lütfen aşağıdaki ölçeğe göre yanıtlayınız:

1= Kesinlikle katılmıyorum, 2= Katılmıyorum, 3= Kısmen katılmıyorum, 4= Kısmen katılıyorum, 5=Katılıyorum, 6=Kesinlikle katılıyorum

53. ____ Belirsiz olan durumlardan hoşlanmıyorum.
54. ____ Birçok farklı şekilde cevaplanabilecek soruları sevmiyorum.
55. ____ Yapılacak her işin zamanının belli olduğu, iyi planlanmış bir hayatı mizacıma uygun buluyorum.
56. ____ Bir sorunla karşı karşıya kaldığımda, çok çabuk bir çözüme ulaşmak için acele ederim.
57. ____ Bir grupta, herkesin aynı fikirde olduğu bir şeye bir kişi karşı çıktığında rahatsız oluyorum.
58. ____ Ne ile karşılaşacağımı bilmediğim bir durumun içine girmek istemem.
59. ____ Karar vermem gereken bir durumda, bir an önce karar verdiğimde rahatladığımı hissederim.
60. ____ Nedenini anlayamadığım bir olay meydana geldiğinde rahatsız oluyorum.
61. ____ Kuralları açıkça belli olan düzenli bir yaşam tarzına sahip olmaktan hoşlanırım.
62. ____ Beklenmedik eylemlerde bulunabilecek insanlarla birlikte olmak istemem.
63. ____ Bir kişinin sözü çok farklı anlamlara geliyorsa rahatsız olurum.
64. ____ Bu soruyu cevaplamak için lütfen "Diğer" seçeneğini işaretleyerek "Anketi dikkatlice okuyorum" yazınız.
65. ____ Düzenli ve istikrarlı bir hayat tarzı sahip olmak hayatı daha keyifli kılar.
66. ____ Bir soruna derhal çözüm bulamazsam, sabırsızlanırım ve rahatsız olurum.
67. ____ Öngörülemeyen, tahmin edilemeyen durumlardan hoşlanmam.

Bölüm 5: Girişimcilik Eğilimi

68. Şu anda bir startup kurucusu musunuz? Başka bir deyişle, çalışan bir işletmeniz var mı? (Evet/Hayır)
69. Lütfen son 12 ayda yeni bir iş kurmak için ekipman veya mekân arama, ekip organize etme, para biriktirmeye başlama gibi faaliyetlere (veya bir iş kurmaya yardımcı olacak diğer tüm adımlar) yönelik ne ölçüde aksiyon aldığınızı belirtin. (1=Hiç, 10=Yoğun derece)
70. Önümüzdeki 5 yıl içinde bir iş kurma olasılığınızı ne kadar görüyorsunuz? (1= Çok düşük olasılık, 10=Çok yüksek olasılık)

71. Sizce girişimcilik eğiliminiz ne seviyede? (1= Çok düşük, 10=Çok yüksek)

Bu akademik araştırmaya yaptığınız değerli katkılar için teşekkür ederiz.
Araştırma hakkında daha fazla bilgi almak veya sonuçlarla ilgili herhangi bir sorunuz olması durumunda lütfen şu adrese e-posta göndermekten çekinmeyin:
aybuke.temel@bilkent.edu.tr

Appendix C

Table 12: Sample Demographics

Demographic Variable	Distribution
Gender	Other: 6 (1.9%); Female: 198 (62.9%); Male: 111 (35.2%)
Age	Under 18: 3 (1%); 18-25 years: 174 (55.2%); 26-35 years: 51 (16.1%); 36-45 years: 31 (9.8%); 46-60 years: 52 (16.5%); Above 60: 4 (1.3%)
Education Status	Basic Education: 50 (15.9%); Undergraduate Education: 204 (64.8%); Postgraduate Education: 61 (19.4%)
Socio-Economic Status of Family	Low: 61 (19.4%); Middle: 186 (59%); High: 68 (21.6%)

Appendix D

Table 13: Regression Results for Emotional Stability and Proximity by Age Group

		<i>Dependent variable: Entrepreneurial Propensity Score</i>					
		Under 18	18–25	26–35	36–45	46–60	Above 60
Overall Proximity Score	–	0.979*** (0.280)	1.113** (0.452)	0.031 (0.688)	–0.395 (0.474)	–	–
Emotional Stability Score	–	0.346 (0.263)	0.773* (0.454)	–0.099 (0.600)	–0.485 (0.391)	–	–
Need for Cognitive Closure Score	–	–0.017** (0.010)	0.039 (0.026)	–0.007 (0.036)	0.038* (0.021)	–	–
Overall Proximity x Emotional Stability	–	–0.062 (0.061)	–0.094 (0.096)	0.110 (0.139)	0.193** (0.093)	–	–
Constant	–	0.074 (1.324)	–4.379 (2.690)	2.675 (4.130)	1.212 (2.397)	–	–
Observations	3	174	51	31	52	4	
R ²	1.000	0.418	0.462	0.408	0.325	1.000	
Adjusted R ²	–	0.404	0.416	0.317	0.267	–	
Residual Std. Error	–	1.444	2.030	1.842	1.809	–	
F Statistic	–	30.291***	9.891***	4.474***	5.647***	–	

Note: Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

Appendix E

Table 14: Regression Results for Proximity and Agreeableness by Age Group

	<i>Dependent variable: Entrepreneurial Propensity Score</i>				
	Under 18	18-25 years	26-35 years	36-45 years	46-60 years
Overall Proximity Score	–	0.843** (0.317)	0.755 (0.506)	0.537 (0.699)	–0.117 (0.578)
Agreeableness Score	–	0.144 (0.287)	–0.378 (0.562)	–0.198 (0.682)	–0.136 (0.408)
Overall Proximity x Agreeableness	–	0.029** (0.065)	0.042* (0.025)	0.016 (0.132)	0.127 (0.110)
Need for Cognitive Closure Score	–	–0.020* (0.010)	0.034 (0.159)	–0.021 (0.037)	0.027 (0.021)
Constant	–	1.013 (1.429)	0.848 (2.941)	4.290 (4.748)	0.256 (2.437)
Observations	3	174	51	31	52
R ²	1.000	0.411	0.448	0.355	0.288
Adjusted R ²	–	0.397	0.400	0.255	0.228
Residual Std. Error	–	1.453	2.057	1.923	1.857
F Statistic	–	29.481***	9.326***	3.570**	4.758***

Note: Significance levels: *** p<0.01, ** p<0.05, * p<0.1.