



## **Senior Entrepreneurship in Malaysia: Key Determinants of Entrepreneurial Intention Among Malaysian Pre-Retirees**

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### **ABSTRACT**

As Malaysia is currently in the transition of moving towards an ageing nation in 2030, Malaysian pre-retirees are being increasingly urged to establish stable and secure sources of income to ensure a sustainable retirement. Promoting senior entrepreneurship is one effective strategy in this regard. However, most entrepreneurship research in Malaysia has predominantly focused on younger individuals seeking alternatives to traditional employment, leaving pre-retirees and seniors underexplored. This study aims to identify the factors influencing entrepreneurial intentions among Malaysian pre-retirees aged 45 to 59. A survey conducted with 616 respondents revealed that Individual Entrepreneurial Orientation, Entrepreneurial Attitude, Instrumental Readiness and Entrepreneurial Ecosystem, account for 66.0% of the variation in Entrepreneurial Intention among this group. Analysis with Smart PLS 3.0 reveals that these factors each have a significant positive relationship with Entrepreneurial Intention. Furthermore, the relationship between Individual Entrepreneurial Orientation and Entrepreneurial Intention is partially mediated by Entrepreneurial Attitude. These results offer valuable insights for the Malaysian government and other interested parties looking to engage pre-retirees as a productive resource for developing SMEs businesses. By addressing this research gap, the potential of pre-retirees can be harnessed to contribute to national economic growth and enhance individual retirement welfare.

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## INTRODUCTION

As highlighted in the National Entrepreneurship Policy 2030, Malaysia is aspiring to become a developed and prosperous nation by 2030. In order to achieve this, the New Development Model has been developed to 'involve all segments of society in contributing towards the country's socio-economic growth based on knowledge and high societal values.' In another words, a fair and inclusive economic wealth distribution should be equally shared by all citizens (NEP, 2030). Unfortunately, government initiatives and efforts in promoting entrepreneurship in Malaysia had been mainly attributed towards certain groups of people, such as the youths, Bumiputera and women; thus, leaving the senior cohort often discriminated against and neglected in this scenario.

The Silver Times (January 2025) highlights that many countries are becoming fertile ground for senior entrepreneurship—specifically in aging nations like Japan, the U.K., and Australia among those championing silver-age business success. It emphasizes how older adults are delaying retirement and launching ventures, supported by tailored programs and cultural shifts. Malaysia is also rapidly advancing toward becoming an aging nation by 2050, with over 15% of its population expected to be over 65. In response, Malaysia has increased its mandatory retirement age to 60 for both private and public sector employees. Given the current life expectancy of 75, this shift presents substantial social and economic challenges for Malaysia, as retirees will need to sustain themselves for an extra 15 to 20 years. The critical question is whether the savings accumulated during one's working life will be adequate to sustain them through these additional years of retirement. According to a report by New Straits Times (2023), economic experts have noted that, under the present conditions, many EPF contributors may need to continue working into old age, as some nearing retirement have less than RM10,000 in their EPF accounts, jeopardizing their ability to enjoy a comfortable retirement.

Additionally, rising healthcare costs and high inflation will significantly impact individual spending, particularly for retirees who lack a steady income after retirement. Moreover, the risk of developing age-related illnesses such as Alzheimer's, high blood pressure, and heart disease increases with inactivity in retirement. Economically, an aging population will strain the government's annual budget, as additional funds will be needed to provide improved healthcare, medication, and facilities for the elderly. In the labor market, this demographic shift could lead to labor shortages, creating imbalances and potentially reducing overall productivity, which could in turn slow down economic growth.

The Malaysian government should take decisive steps to address the economic and social challenges related to aging. One effective approach is to promote entrepreneurship among older individuals. By fostering senior entrepreneurship, they can generate additional income to complement their EPF retirement savings or pension funds, helping to mitigate longevity risk and ensure a more sustainable retirement. Additionally, staying active through business ventures can contribute to better physical and mental health, ultimately enhancing overall quality of life.

Examining and analyzing entrepreneurial intention among pre-retirees in Malaysia is crucial. Over the past decades, entrepreneurial intention has been recognized as a key factor in explaining the development of entrepreneurship. Dlamini and Botha (2023), entrepreneurial intention is considered a primary driver of the formation, development, and expansion of entrepreneurial ventures, and is seen as the most significant motivator of entrepreneurial behavior. Numerous influential models of entrepreneurial intention have been proposed and developed. Although these models have demonstrated strong correlations between various factors and entrepreneurial intention, there is broad agreement on their usefulness, despite differing opinions on the effectiveness of their theoretical foundations. This variation in views has not deterred researchers from utilizing these models based on their specific study objectives. Therefore, it is essential to understand the factors influencing entrepreneurial intention among pre-retirees. Such an understanding allows for the creation of models that can predict, support, and foster entrepreneurial behavior.

The demographic background of the respondents was diverse, variances could be found in business start-up intention with the various differences in prior employment experiences gained among the respondents. The experiences, knowledge, skills and expertise gained from formal employment were crucial to determine their impact on business start-up intentions and entrepreneurial behaviour, ultimately. Therefore, studies focusing on the senior group may reach different conclusions as this group might have different entrepreneurial mindsets and entrepreneurial attitudes towards starting up a venture. There has been a lack of

research in this area, especially concerning the context of Malaysia, and there is scant knowledge about how the senior cohort can engage in entrepreneurship as a strategy for income replacement to ensure a sustainable retirement. In conclusion, senior entrepreneurship is a novel research topic in Malaysia in which many areas require further exploration. Thus, it provides opportunity to explore and investigate Malaysian pre-retirees' characteristics and factors that influence their business start-up intention. These individuals, who are currently employed but considering future ventures, represent a potentially untapped source of human capital in the country.

This study aims to investigate the key determinants of Malaysian pre-retirees' business start-up intention, whose age fall in the range of 45 to 59. It mainly focuses on how the following exogenous variables - Individual Entrepreneurial Orientation, Entrepreneurial Attitude, Instrumental Readiness, and the Entrepreneurial Ecosystem – impact the endogenous variable of the study, Entrepreneurial Intention.

## LITERATURE REVIEW

### Senior Entrepreneurship

Senior entrepreneurship is defined as individuals in the later stages of life transitioning from traditional employment to starting their own businesses. There is no specific age that marks this transition, as it can occur anywhere from around 45 years old to 60 years and older (Nyoko et al., 2025). Despite increasing interest in senior entrepreneurship, research on entrepreneurial activities among older adults remains limited compared to younger age groups. As a result, there is still a lack of understanding about how older individuals develop an interest in entrepreneurship later in their careers. Many advanced nations, including the U.S., U.K., and Australia, are increasingly focusing on motivating older adults to remain engaged in the workforce and consider sustainable career paths, such as entrepreneurship, as part of their approaches to tackling challenges associated with aging populations. For instance, The Guardian (2024) reports that nearly 1 million people aged 60 or over in the U.K. were self-employed which recorded a 33% increase over the past decade. This phenomenon continues in Australia, where older people age 50 and above are increasingly creating businesses which representing a fast-growing segment of entrepreneurs in Australia (Maritz et al., 2015). According to a study conducted by Gruss and Noureldin (2025) and IMF's Research Department, healthier aging populations—particularly those aged 50 and above—could contribute an additional 0.4 percentage points annually to global GDP growth through 2025–2050, provided they remain economically active. This illustrates the macroeconomic importance of engaging older individuals in work, including entrepreneurial activity.

Senior entrepreneurs, with their extensive work and life experiences, established networks, and drive to remain active, represent a significant but underutilized resource. These valuable attributes should be recognized and leveraged, and relevant stakeholders across various sectors need to work together to overcome barriers and unlock their potential (Amorós et al., 2024; Chee, 2025). Although senior entrepreneurs possess experience and assets that often make them more competitive than younger counterparts, they may encounter specific challenges when transitioning from employment to self-employment later in life. Challenges reported by older individuals include age-related bias, discrimination in business settings, inadequate support programs, insufficient financial resources, lack of information about starting a business, complex administrative procedures, issues with social acceptability, inadequate technological skills, resource limitations, and deteriorating health (Gruben et al., 2025; OECD, 2023). These obstacles can notably impede senior entrepreneurship by making the startup process more complex and potentially deterring older adults from pursuing self-employment or diminishing their interest in owning a business. To date, there is still a considerable gap in the literature addressing these issues.

Amorós et al. (2024) suggests that the motivation for starting a business later in life is often driven by economic rationales involving both push and pull motivation. On one hand, individuals might pursue entrepreneurship for a better work-life balance and greater autonomy and time flexibility. They may also aim to realize long-standing aspirations or attain personal objectives. Often, they may have long contemplated a business idea but were unable to bring it to fruition due to various constraints—whether personal, family-related, institutional, or cultural. On the other hand, some may turn to entrepreneurship not out of passion, but due to limited options for staying active in the workforce (Al-Jubari et al., 2021). Regardless of whether the

motivation is driven by pull or push factors, it is essential to uncover the entrepreneurial potential of seniors and to foster their entrepreneurial inclinations.

### **Individual Entrepreneurial Orientation (IEO)**

Individual Entrepreneurial Orientation (IEO) extends the concept of entrepreneurial orientation (EO) from the organizational to the individual level. While firm-level EO focuses on collective strategic postures (Miller, 1983; Lumpkin and Dess, 1996), IEO emphasizes the personal characteristics and behavioral tendencies that influence entrepreneurial decision-making and action. Bolton and Lane (2012) developed a widely adopted measure of IEO, capturing three key dimensions: innovativeness, proactiveness, and risk-taking. These traits reflect how individuals perceive opportunities, tolerate uncertainty, and pursue entrepreneurial ventures.

#### **Innovativeness and Entrepreneurial Intention**

Innovativeness represents an individual's openness to new ideas, creativity, and preference for experimentation (Miller, 1983). It is strongly associated with entrepreneurial intention, as individuals who generate and adopt novel ideas are more likely to recognize and exploit opportunities (Zapkau et al., 2017). Among senior adults, innovativeness often emerges through leveraging life experience, professional expertise, and networks to create value in business contexts.

#### **Proactiveness and Entrepreneurial Intention**

Proactiveness refers to the tendency to anticipate and act on future opportunities rather than responding reactively (Lumpkin and Dess, 1996). Proactive individuals tend to scan the environment, identify gaps, and take initiative to exploit them before competitors (Covin et al., 2020). For senior adults, proactiveness can be linked to their motivation to remain economically active post-retirement, pursue second careers, or engage in purpose-driven entrepreneurship.

#### **Risk-Taking and Entrepreneurial Intention**

Risk-taking is defined as the willingness to engage in uncertain ventures with potential rewards (Miller, 1983). It reflects an individual's tolerance for ambiguity and resource commitment despite uncertainty. Research suggests that risk-taking significantly predicts entrepreneurial intention, as entrepreneurship inherently involves navigating uncertain environments (Hassan et al., 2021). Among Malaysian seniors, willingness to take risks may vary based on financial stability, family obligations, and cultural values.

#### **IEO and Senior Entrepreneurship in Malaysia**

The link between IEO and entrepreneurial intention is particularly relevant in the context of senior adults, as this demographic increasingly views entrepreneurship as a viable pathway for active aging, financial independence, and social engagement. In Malaysia, with its growing aging population, entrepreneurship provides an avenue for seniors to remain economically and socially productive. Recent studies highlight that seniors with higher levels of IEO are more inclined toward entrepreneurial intention, especially in emerging sectors such as digital commerce and service-based enterprises (Hassan et al., 2021). Overall, the literature suggests that innovativeness, proactiveness, and risk-taking collectively foster entrepreneurial intention among senior adults. In the Malaysian context, these orientations are shaped not only by individual traits but also by socio-cultural and institutional environments that either facilitate or constrain entrepreneurial action.

As such, the following hypothesis is established:

*H1: Individual entrepreneurial orientation positively affects entrepreneurial intention among Malaysian pre-retirees.*

### **Entrepreneurial Attitude**

Entrepreneurial attitude refers to the degree in which an individual values, positively or negatively, being an entrepreneur; and it includes both affective and evaluative dimensions (Azjen, 2006). According to Azjen (1991), the most influential factor that affects an individual's entrepreneurial intention is the entrepreneurial

attitude which alone had explained about 50% of the variance in the Theory of Planned Behaviour (TPB) model. This direct relationship between attitude and intention in entrepreneurship is well-established and is a key component in various intention-based models, such as the Luthje and Franke (2003)'s Structural Model of Entrepreneurial Intent. Empirical research consistently shows that entrepreneurial attitude is a strong predictor of entrepreneurial intention. For example, Ayalew and Zeleke (2023) found that individuals with favorable entrepreneurial attitudes exhibit stronger intentions to engage in new venture creation. Similarly, Hassan et al. (2021) demonstrated that entrepreneurial self-efficacy mediates the relationship between entrepreneurial attitude and entrepreneurial intention, suggesting that positive attitudes translate into intentions when individuals feel capable of entrepreneurship. For older adults, positive entrepreneurial attitudes—such as viewing entrepreneurship as meaningful, rewarding, and aligned with personal values—are critical for fostering entrepreneurial intention. Overall, the literature indicates that entrepreneurial attitude is a critical psychological antecedent of entrepreneurial intention. For senior adults in Malaysia, the interplay of positive entrepreneurial attitudes, accumulated life experience, and supportive institutional frameworks fosters stronger entrepreneurial intention, ultimately encouraging later-life entrepreneurship. As such, the following hypothesis statement is established:

*H2: Entrepreneurial attitude positively affects entrepreneurial intention among Malaysian pre-retirees.*

### **Instrumental Readiness**

Instrumental readiness is widely defined as an individual's perception of the availability of concrete start-up supports and resources such as finance, market information, networks, administrative procedures, training, and digital tools. Unlike dispositional antecedents (e.g., personality, attitudes), instrumental readiness represents a contextual enabler that makes entrepreneurship feasible. Recent studies highlight that instrumental readiness is best measured as subjective perceived access rather than objective resource availability, since perceptions more strongly influence entrepreneurial decisions (Al-Qadasi et al., 2023). Within Ajzen's (1991) Theory of Planned Behavior and related frameworks, instrumental readiness influences entrepreneurial intention through two channels. First, a direct feasibility channel, where perceived availability of resources reduces perceived barriers and strengthens entrepreneurial intention. Second, an indirect psychological channel, where instrumental readiness boosts entrepreneurial self-efficacy and perceived behavioral control, which then drive entrepreneurial intention (Adeniyi, 2023). Past studies reveal that the direct effect of instrumental readiness on entrepreneurial intention is inconsistent, but the indirect pathway via entrepreneurial self-efficacy is robust. For example, Al-Qadasi et al. (2023) found that instrumental readiness correlates positively with entrepreneurial self-efficacy but loses significance as a direct predictor of entrepreneurial intention once dispositional traits (attitudes, locus of control) are included. Similarly, Adeniyi (2023) showed that instrumental readiness increases self-efficacy, which then strongly predicts start-up readiness among students. These findings suggest that perceptions of resources enhance individuals' confidence in handling entrepreneurial tasks, and this confidence more reliably drives entrepreneurial intention. Since the previous findings on the two variables are mixed; therefore, there is a need to re-investigate the relationship between instrumental readiness and entrepreneurial intention to reconfirm the relationship. Furthermore, studies focusing on senior group are still scarce so far. Hence, it is interesting to know the finding when it is applied to this particular target group of samples. As such, the following hypothesis statement is established:

*H3: Instrumental readiness positively affects entrepreneurial intention among Malaysian pre-retirees.*

### **Entrepreneurial Ecosystem**

The concept of the entrepreneurial ecosystem describes the interconnected set of actors, institutions, and resources that support entrepreneurship within a given region. This includes government policies, financial systems, culture, education, networks, and infrastructure (Spigel and Harrison, 2018). In recent years, the entrepreneurial ecosystem framework has gained traction as a contextual lens for understanding entrepreneurial intention, shifting the focus from individual-level traits to systemic enablers and constraints (Aparicio et al., 2022). Past research suggests that specific entrepreneurial ecosystem components exert varying influence on entrepreneurial intention. For example, supportive policies, simplified registration processes, and tax incentives foster stronger entrepreneurial intentions. Conversely, bureaucratic hurdles

weaken entrepreneurial intentions (Adeniyi et al., 2024). In addition, the availability of venture funding, microcredit, and crowdfunding platforms enhances perceived feasibility of entrepreneurship, directly boosting entrepreneurial intentions (Narmaditya et al., 2024). Al-Qadasi et al. (2023) highlighted that pro-entrepreneurial cultures reduce stigma of failure and strengthen subjective norms, increasing entrepreneurial intentions. In Malaysia context, Malaysia's National Entrepreneurship Policy 2030 explicitly emphasizes ecosystem building through digitalization, funding support, and education reforms. Research by Kwek et al. (2023) confirm that digital ecosystem readiness (skills, platforms, infrastructure) is critical for boosting entrepreneurial engagement, especially among youth and senior entrepreneurs who face distinct barriers. Although entrepreneurial ecosystem research has grown recently; However, senior entrepreneurship within entrepreneurial ecosystem frameworks remains underexplored, despite aging populations in countries like Malaysia. As such, the following hypothesis statement is established:

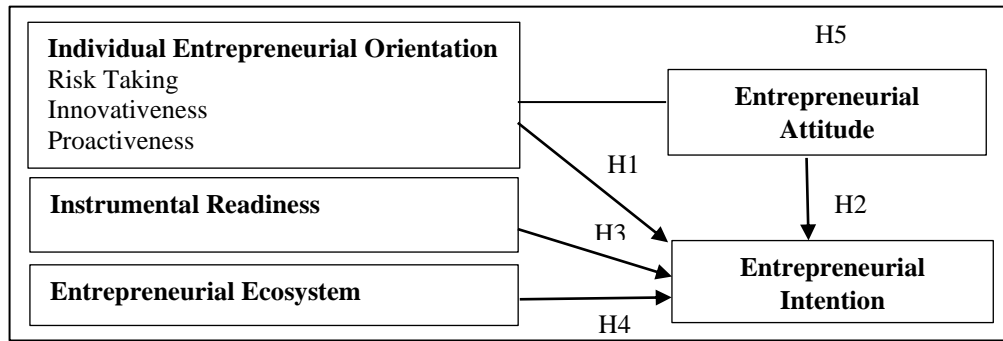
*H4: Entrepreneurial ecosystem positively affects entrepreneurial intention among Malaysian pre-retirees.*

### **Entrepreneurial Attitude as A Mediator**

Although many recent studies continue to model direct relationship between individual entrepreneurial orientation and entrepreneurial intention, an increasing number explicitly or implicitly test mediating chains that include entrepreneurial attitude. First, research consistently demonstrates that individual entrepreneurial orientation positively influences both entrepreneurial attitude and entrepreneurial intention. For example, Singh and Mehdi (2022) showed that individual entrepreneurial orientation impacts entrepreneurial intention through positivity, a construct closely related to entrepreneurial attitude. Similarly, Adeniyi et al. (2024) found that individual entrepreneurial orientation enhances entrepreneurial readiness, which in turn supports intention formation—again suggesting that affective-cognitive factors mediate the relationship between individual entrepreneurial orientation and entrepreneurial intention. Second, evidence confirms that entrepreneurial attitude itself strongly predicts entrepreneurial intention. Balgiu and Simionescu-Panait (2024) found that among Romanian engineering students, entrepreneurial attitude was the most influential predictor of entrepreneurial intention compared to subjective norms and perceived behavioural control. Likewise, Andrei and Erik (2025) demonstrated that innovation self-efficacy influenced entrepreneurial intention via entrepreneurial attitude in Filipino student samples. These findings position entrepreneurial attitude as a proximal cognitive-affective mechanism linking individual entrepreneurial orientation to entrepreneurial intention. Third, direct mediation tests show that entrepreneurial attitude can partially transmit the effects of individual entrepreneurial orientation to entrepreneurial intention. While studies such as Otache (2025) and Ying and Yaakob (2025) investigated entrepreneurial attitude primarily in the context of entrepreneurial education and knowledge, their findings consistently reveal significant mediation effects. Such evidence strengthens the case for modeling entrepreneurial attitude as a mediator in individual entrepreneurial orientation - entrepreneurial intention frameworks. Despite encouraging evidence, most recent work focuses on students, particularly in higher education settings. Research with senior adults remains scarce. As such, the following hypothesis statement is established:

*H5: The relationship between individual entrepreneurial orientation and entrepreneurial intention will be mediated by entrepreneurial attitude.*

The research framework for the study is illustrated in Figure 1.



Source: Framework developed for the study

Figure 1 Determinants of Entrepreneurial Intention for Malaysian Pre-retirees

## METHODOLOGY

This study utilized a quantitative approach by using online surveys and self-administration techniques to collect data from the target respondents. The questionnaire was distributed to the participants through various social media platforms and email. Purposive sampling was employed to reach the intended respondents. The scope and coverage of the research study are limited to respondents residing in Selangor and Wilayah Persekutuan Kuala Lumpur. The data was collected from individuals aged between 45 and 59 years who were currently employed in either the private or public sector and met at least one of the following criteria: being a full-time worker, a contract worker, working for a minimum of six hours per day or at least 20 days in a month, or employees who were not working during the survey period but continued to receive salaries or wages with a definite return to work. The study, however, excluded certain groups of respondents, namely employers, paid employees who also owned their own businesses, employees who had previously owned a business but were currently working as employees, and retirees. In total, 808 completed questionnaires were received. Out of the total of 808, 51 sets indicated that they have already owned a business and 110 reported that they had owned a business before but gave up; these group of respondents were, therefore, not in the scope of study. Another 31 sets were invalid or incomplete. As a result, a total of 616 completed sets of questionnaires were utilised for data analysis in the study.

In this study, a five-point Likert scale was used to measure the variables, with responses ranging from (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, to (5) Strongly Agree. The variables assessed included Individual Entrepreneurial Orientation, Instrumental Readiness, Entrepreneurial Ecosystem, and Entrepreneurial Intention, whereas a five-point Semantic Differential Scale was applied to measure Entrepreneurial Attitude by using polar opposite adjectives. There were 35 scales items adapted from previous studies such as Lumpkin and Dess (1996), Indarti (2004), Chow (2021), Muofhe and DuToit (2011), Reynold (1999) and Linan and Chen (2009) to measure the 5 main constructs in the study. Certain validated scales were used directly, while others were adapted and adjusted to fit the specific context of the study. Table 1 presents the questionnaire items that constitute each construct in the study.

Table 1 Measurement Items for Each Study Construct

Construct	No. of Item	Item
<b>Individual Entrepreneurial Orientation (IEO)</b> Adapted from Lumpkin and Dess (1996)	3	Risk Taking 1. "I like to take bold/daring action by venturing into the unknown." 2. "I am willing to invest a lot of time and/or money on something that might yield a high return." 3. "I tend to act 'boldly'/'daring' in situations where risk is involved."
	4	Innovativeness 1. "I often like to try new and unusual activities that are not typical but not necessarily risky." 2. "In general, I prefer a strong emphasis on projects with unique, one-of-a-kind approaches." 3. "I prefer to try my own unique way when learning new things rather than doing it like everyone else does." 4. "I favour experimentation and original approaches to problem solving rather than using method others generally use for solving their problems."
	3	Proactiveness 1. "I usually act in anticipation of future problems, needs or changes." 2. "I tend to plan ahead on projects." 3. "I prefer to 'step-up' and get things going on projects rather than sit and wait for someone else to do it."
<b>Entrepreneurial Attitude</b> Adapted from Muofhe and DuToit (2011)	6	Thinking of entrepreneurship, I perceive it as: 1. Difficult – Easy 2. Unpleasant – Pleasant 3. Uninteresting – Interesting 4. Impossible – Possible 5. Unfeasible – Feasible 6. Frustrating – Fulfilling
<b>Instrumental Readiness</b> Adapted from Indarti (2002) and Chow (2021)	4	1. "I have access to financial capital to start to be an entrepreneur." 2. "I have good social networks that can be utilized when I decide to be an entrepreneur." 3. "I have access to supporting information to start to be an entrepreneur." 4. "The knowledge, skills and vast experiences that I gained from my former employment prepare me to start to be an entrepreneur."
<b>Entrepreneurial Ecosystem</b> Adapted from Chow (2021)	9	1. "Financial resources such as grants and subsidies are available for business start-up in Malaysia." 2. "Malaysian government introduced various policies to support business start-up in Malaysia." 3. "The presence and quality of programmes introduced directly assist new business start-ups at all levels of government in Malaysia." 4. "Education institutions of all levels (primary, secondary, tertiary, vocational, professional) provide good and adequate preparation for business start-up in Malaysia." 5. "In Malaysia, there is adequate government support for new firms to access and acquire new research and technology." 6. "In Malaysia, it is easy for new firms to get good and professional infrastructure and services such as subcontracts, business consultations, legal, accounting and banking services." 7. "In Malaysia, new firms are free to enter into new and existing markets without being unfairly blocked by established firms." 8. "In Malaysia, it is easy to access to various types of physical infrastructure such as roads, utilities, communication and waste disposal." 9. "My social and cultural norms encourage for new business start-ups that can potentially increase personal success."
<b>Entrepreneurial Intention</b> Adapted from Linan and Chen (2009)	6	1. "I am ready to do anything to be an entrepreneur." 2. "My professional goal is to become an entrepreneur." 3. "I will make every effort to start and run my own business." 4. "I am determined to set-up my own business in the near future." 5. "I have seriously thought of starting up my business." 6. "I have firm intention to start my own business in the near future."

Source: Developed for the study

Individual Entrepreneurial Orientation (encompassing Risk Taking, Innovativeness, and Proactiveness), Entrepreneurial Attitude, and Entrepreneurial Intention are modeled as reflective constructs, given that their measurement items are highly correlated and interchangeable. In contrast, Instrumental Readiness and Entrepreneurial Ecosystem are modeled as formative constructs, with each measurement item representing distinct dimensions that collectively form the respective constructs. Both types of constructs have been evaluated and validated, with the results detailed in Table 2, Table 3, and Table 4, respectively.

Table 2 Assessment of reflective construct

First Order Construct	Second Order Construct	Items	Loading	CR	AVE
Risk Taking		RT1	0.854	0.888	0.726
		RT2	0.863		
		RT3	0.839		
Innovativeness		INNO1	0.799	0.880	0.646
		INNO2	0.837		
		INNO3	0.822		
		INNO4	0.755		
Proactiveness		PRO1	0.872	0.905	0.761
		PRO2	0.897		
		PRO3	0.847		
Individual Entrepreneurial Orientation		Risk Taking	0.755	0.857	0.668
		Innovativeness	0.888		
		Proactiveness	0.803		
Entrepreneurial Attitude		EA1	0.799	0.927	0.681
		EA2	0.789		
		EA3	0.869		
		EA4	0.837		
		EA5	0.792		
		EA6	0.860		
Entrepreneurial Intention		EI1	0.867	0.970	0.844
		EI2	0.921		
		EI3	0.935		
		EI4	0.922		
		EI5	0.929		
		EI6	0.936		

Source: Developed for the study

Table 3 Discriminant Validity- HTMT

	EA	EI	IEO	Inno	Pro	RT
Entrepreneurial Attitude (EA)						
Entrepreneurial Intention (EI)	0.813 CI90(0.784,0.840)					
Individual Entrepreneurial Orientation (IEO)	0.656 CI90(0.608,0.700)	0.683 CI90(0.640,0.723)				
Innovativeness (Inno)	0.611 CI90(0.554,0.663)	0.602 CI90(0.552,0.649)				
Proactiveness (Pro)	0.584 CI90(0.524,0.638)	0.606 CI90(0.542,0.662)		0.690 CI90(0.631,0.744)		
Risk Taking (RT)	0.454 CI90(0.388,0.518)	0.518 CI90(0.460,0.573)		0.655 CI90(0.589,0.716)	0.470 CI90(0.387,0.548)	

Source: Developed for the study

The results showed that all reflective measurement constructs successfully passed four key evaluations: internal consistency, factor loadings, convergent validity, and discriminant validity. First, as indicated in Table 2, the Composite Reliability (CR) values for all constructs exceed 0.7, demonstrating satisfactory internal consistency (Chin, 1998). Second, the factor loadings for all items are above the 0.708 threshold, reflecting strong indicator reliability (Hair et al., 2010). Third, the Average Variance Extracted (AVE) values for all constructs surpass the recommended minimum of 0.5, indicating good convergent validity (Hair et al., 2017). Finally, Table 3 shows that the HTMT values for all constructs are below the 0.85 threshold and value of 1 does not exist in the interval range for all the constructs examined, confirming adequate discriminant validity and ensuring that the constructs are distinct from each other (Urbach and Ahlemann, 2010). However, this study will not assess the discriminant validity between the lower-order constructs (Risk Taking, Innovativeness, and Proactiveness) and their higher-order construct (Individual Entrepreneurial Orientation), as this is expected to be violated. This is because the higher-order construct's measurement includes indicators from the three lower-order constructs, making the assessment of discriminant validity in this context irrelevant (Sarstedt et al., 2019).

As shown in Table 4, the formative constructs successfully met all evaluation criteria, including convergent validity, collinearity among indicators, and the significance and relevance of outer weights and outer loadings.

Table 4 Assessment of formative constructs

Formative Construct	Items	Convergent Validity	Variance Inflation Factor	Outer Weights	Weights value	P-Loadings	Outer Loadings	Loadings P-value
Instrumental Readiness	IR1	0.987	2.029	0.326	0.000		0.817	0.000
	IR2		2.430	0.161	0.048		0.811	0.000
	IR3		2.119	0.352	0.000		0.857	0.000
	IR4		1.777	0.360	0.000		0.836	0.000
Entrepreneurial Ecosystem	EE1	0.985	2.811	0.142	0.050		0.770	0.000
	EE2		3.960	0.099	0.231		0.826	0.000
	EE3		2.917	0.110	0.162		0.766	0.000
	EE4		2.707	0.126	0.063		0.786	0.000
	EE5		3.292	0.077	0.308		0.829	0.000
	EE6		2.516	0.474	0.000		0.906	0.000
	EE7		3.329	0.069	0.416		0.827	0.000
	EE8		3.480	0.011	0.887		0.807	0.000
	EE9		3.137	0.102	0.212		0.830	0.000

Source: Developed for the study

Firstly, the study demonstrated a satisfactory level of convergent validity, as the path coefficients for each of the formative constructs exceed the value of 0.8 (Chin, 1998). Secondly, no collinearity issues were detected among the formative constructs, with all VIF values below the 5.0 threshold (Diamantopoulos and Siguaw, 2006). At last, while reported value of outer weights for most items are revealed to be significant ( $P < 0.05$ ), items EE2, EE3, EE4, EE5, EE7, EE8, and EE9 are exceptions. However, for content validity purposes, despite their lack of significance, these items are still retained in the construct (Hair et al., 2017). Additionally, all the reported outer loading values revealed to be statistically significant ( $P\text{-value} < 0.05$ ), justifying their inclusion for their absolute contribution to the construct (Hair et al., 2017).

## FINDINGS

Table 5 displays the demographic background of the respondents, including their gender, age group, ethnicity, work sector, educational level, years of experience, occupational level, and annual income range. Out of the 616 survey participants, 56.2% were male and 43.8% were female. The majority (54.7%) were aged between 51 and 55, followed by 29.2% who were between 45 and 50 years old, and 16.1% who were in their late 50s (ages 56 to 59). Ethnically, 40.9% were Bumiputera, 45.3% were Chinese, and 13.8% were Indian. Most respondents (69.6%) worked in the private sector, 28.7% were employed in the government sector, and 1.6% were with Non-Governmental Organizations (NGOs). Regarding education, 50.1% of respondents had at least a certificate or diploma, 31.5% had secondary education or less, and 12.2% had Bachelor's degrees, while 6.2% held Master's or Doctorate degrees. Additionally, 46.4% of respondents reported having 26 to 35 years of work experience, 19.8% had over 36 years, 27.8% had 16 to 25 years, and 6.0% had less than 15 years of experience. In regards with occupation levels, 53.9% of respondents reported being at the middle management level within their companies. Meanwhile, 18% were at the entry-level position, and 19% were wage staff. A smaller proportion, 9.1%, reported holding top management positions. Among the 616 total respondents, the majority (40.7%) had an annual income ranging from RM50,001 to RM100,000. Additionally, 39.1% of respondents indicated an annual income of less than RM50,000, while 20.2% reported earning more than RM100,001 annually.

Table 5 Respondents' demographic profile

	Frequency	Percentage
<b>Gender</b>		
Male	346	56.2
Female	270	43.8
<b>Age</b>		
45-50	180	29.2
51-55	337	54.7
56-59	99	16.1
<b>Ethnicity</b>		
<i>Bumiputera</i>	252	40.9
Chinese	279	45.3
Indian	85	13.8
<b>Sector</b>		
Government	177	28.7
Private	429	69.6
NGO	10	1.6
<b>Educational Level</b>		
Secondary level or lower	190	31.5
Diploma or Certificate	309	50.1
Bachelor Degree	75	12.2
Postgraduate level	38	6.2
<b>No. of Years of Working Experience</b>		
Less than 15 years	37	6.0
16 – 25	171	27.8
26 – 35	286	46.4
More than 36 years	122	19.8
<b>Occupational Level</b>		
Top level	56	9.1
Middle level	332	53.9
First level	111	18.0
Waged staff	117	19.0
<b>Range of Annual Income</b>		
Less than RM50,000	241	39.1
RM50,001 – RM100,000	251	40.7
More than RM100,001	124	20.2

Note: Sample size (N) = 616

Source: Developed for the study

Table 6 displays the respondents' interest in business start-up. When asked if they had ever considered starting their own business in the future, 60.6% of respondents (373 individuals) indicated they had never thought about it, while the remaining 39.4% (243 individuals) were contemplating the possibility of starting a business at some point. From the 243 respondents who had reported that they were thinking of starting a business in the future, 70.8% were males, compared to a relatively smaller percentage (29.2%) of females, reported the same. In terms of ethnicity, 70% of the Non-bumiputera (Chinese and Indian) and the remaining 30% Bumiputera, registered their interest in starting their own business in the future.

Table 6 Information pertaining to business start-up

	Frequency	Percentage
<b>Thinking of Business Start-up</b>		
Yes	243	39.4
No	373	60.6
<b>Thinking of Business Start-up based on Gender</b>		
Male	172	70.8
Female	71	29.2
<b>Thinking of Business Start-up based on Status</b>		
Bumiputra	73	30
Non-Bumiputra (Chinese and Indian)	170	70

Source: Developed for the study

Table 7 displays the respondents' level of individual entrepreneurial orientation based on gender. In general, male pre-retirees reported a higher level of Risk-taking with a mean value of 3.2013, compared to their female counterparts, with mean value of 3.0383. This phenomenon can be found in two other areas as well, Innovativeness (Inno) and Proactiveness (Pro), where male pre-retirees reported higher mean values of 3.3584 and 3.3921, in each of the areas respectively, compared to the female counterpart who reported 3.0824, and 3.1160, respectively. The t-values of 2.793 (RT), 5.142 (Inno), and 4.333 (Pro), which is greater than the critical value of 1.96 (p-value < 0.05) and 2.5758 (p-value < 0.01), indicate that there were gender differences

in existence on individual entrepreneurial orientation. In another words, male pre-retirees demonstrated a higher level of risk-taking, innovativeness and proactiveness, compared to their female counterparts.

Table 7 Gender differences in individual entrepreneurial orientation

	Gender	Mean	Std. Deviation	t-value
Risk taking	Male	3.2013	.7313	2.793**
	Female	3.0383	.7027	
Innovativeness	Male	3.3584	.6655	5.124**
	Female	3.0824	.6605	
Proactiveness	Male	3.3921	.8014	4.333**
	Female	3.1160	.7624	

Note: \*\*Significant at p-value < 0.01

Table 8 displays the respondents' level of individual entrepreneurial orientation based on ethnicity. Firstly, there were no significant differences found among the ethnic groups on their risk-taking propensity, where the reported p-values were all above 0.05. In other words, Bumiputeras, Chinese and Indians demonstrated similar levels of risk-taking propensity. Secondly, it was found that there were significant ethnic differences in the dimension of innovativeness. The post hoc result shows that the differences were mainly attributed from the ethnic groups of Bumiputera and Chinese, with its p-value of 0.007 (p < 0.05). Therefore, it can be concluded that Chinese pre-retirees demonstrated higher levels of innovativeness, compared to their Bumiputera counterparts. Lastly, ethnic differences were also found in the third dimension of individual entrepreneurial orientation, proactiveness. Again, post hoc results show that Chinese and Bumiputeras demonstrated significant differences (p-value < 0.05) on Proactiveness characteristic. In other words, it can be concluded that Chinese pre-retirees were more proactive, when compared to their Bumiputera counterparts.

Table 8 Ethnicity differences in individual entrepreneurial orientation

Dependent Variable	(I) Race	(J) Race	Mean Difference (I-J)	Std. Error	Sig.
Risk Taking	Bumiputera	Chinese	-0.1135	0.0627	0.071
		Indian	-0.1273	0.0905	0.160
	Chinese	Bumiputera	0.1135	0.0627	0.071
		Indian	-0.0138	0.0894	0.877
	Indian	Bumiputera	0.1273	0.0905	0.160
		Chinese	0.0138	0.0894	0.877
Innovativeness	Bumiputera	Chinese	-0.1578	0.0585	0.007*
		Indian	-0.1384	0.0845	0.102
	Chinese	Bumiputera	0.1578	0.0585	0.007*
		Indian	0.0193	0.0834	0.817
	Indian	Bumiputera	0.1384	0.0845	0.102
		Chinese	-0.0193	0.0834	0.817
Proactiveness	Bumiputera	Chinese	-0.1887	0.0688	0.006*
		Indian	-0.0894	0.0993	0.368
	Chinese	Bumiputera	0.1887	0.0688	0.006*
		Indian	0.0992	0.0981	0.312
	Indian	Bumiputera	0.0894	0.0993	0.368
		Chinese	-0.0992	0.0981	0.312

Note: \*Significant at p-value < 0.05.

Subsequently, in evaluating the overall fit of the structural model, the following four types of analyses were conducted - assessments of lateral collinearity, path coefficients, coefficient of determination (R<sup>2</sup>), and effect size (f<sup>2</sup>). The results of these evaluations for the structural model are detailed in Table 9.

Table 9 Assessment of structural model

H	Relationship	Std Beta	p-value	t-value	Decision	f <sup>2</sup>	VIF	R <sup>2</sup>
H1	Individual Entrepreneurial Orientation → Entrepreneurial Intention	0.149	0.000	3.819	Supported	0.031	2.141	0.660
H2	Entrepreneurial Attitude → Entrepreneurial Intention	0.464	0.000	12.487	Supported	0.303	2.095	
H3	Instrumental Readiness → Entrepreneurial Intention	0.120	0.001	3.108	Supported	0.020	2.135	
H4	Entrepreneurial Ecosystem → Entrepreneurial Intention	0.208	0.000	5.505	Supported	0.063	2.017	

Source: Developed for the Study

Firstly, the VIF values for all constructs studied were found to be below 3.3, indicating no collinearity issues exist (Hair et al., 2017). Secondly, the results from bootstrapping analysis indicated that all hypotheses tested were significant, with p-values less than 0.001 and T-values exceeding the critical value of 1.645.

Specifically, Individual Entrepreneurial Orientation ( $\beta = 0.149$ ,  $p < 0.001$ ), Entrepreneurial Attitude ( $\beta = 0.464$ ,  $p < 0.001$ ), Instrumental Readiness ( $\beta = 0.120$ ,  $p < 0.001$ ), and Entrepreneurial Ecosystem ( $\beta = 0.208$ ,  $p < 0.001$ ) all demonstrated significant positive relationships with entrepreneurial intention, accounting for 66.0% ( $R^2 = 0.660$ ) of the variance in entrepreneurial intention. This means that the exogenous variables—Individual Entrepreneurial Orientation, Entrepreneurial Attitude, Instrumental Readiness, and Entrepreneurial Ecosystem—collectively have a significant predictive effect on the endogenous variable, Entrepreneurial Intention. Consequently, H1, H2, H3, and H4 were supported.

Table 10 Mediation Analysis

H	Relationship	Standard Beta	Standard Error	t-value	Confidence Interval (BC)	
					LL	UL
H5	Individual Entrepreneurial Orientation -> Entrepreneurial Attitude -> Entrepreneurial Intention	0.273	0.025	10.841**	0.235	0.317

Note: \*\*Significant at p-value  $< 0.01$ , BC = Bias Corrected, UL = Upper Level, LL = Lower Level.

Source: Developed for the study

Biased-Corrected and Accelerated Bootstrapping analysis was performed to assess the indirect effect of the model. The results presented in Table 10 revealed that the indirect effect (individual entrepreneurial orientation -> entrepreneurial attitude-> entrepreneurial intention) was significant ( $\beta = 0.273$ , t-value = 10.841). In addition, the value of 0 did not fall between the lower level and upper level of 95% confidence interval which indicated that there is a mediation found in the model (Preacher and Hayes, 2008). In conclusion, the mediation effect was found to be statistically significant in the study. Hence, H5 is supported.

## DISCUSSION AND IMPLICATION

This study investigated the entrepreneurial intention of pre-retirees in Malaysia, examining how Individual Entrepreneurial Orientation, Entrepreneurial Attitude, Instrumental Readiness, and the Entrepreneurial Ecosystem influence business start-up intention among Malaysians aged 45 to 59. The findings revealed that all four factors have direct positive effects towards Entrepreneurial Intention. Furthermore, the relationship between Individual Entrepreneurial Orientation and Entrepreneurial Intention was partially mediated by Entrepreneurial Attitude.

Firstly, the results indicate that individual entrepreneurial orientation is positively correlated to entrepreneurial intention, thus supporting Hypothesis 1. Previous research conducted by Hassan et al., (2021), Zapkau et al. (2017), and Furrakh et al. (2022) have reached an agreement to confirm the positive relationship between individual entrepreneurial orientation and entrepreneurial intention. This indicates that individuals with higher levels of entrepreneurial orientation are more likely to have a stronger intention to pursue entrepreneurship. To enhance entrepreneurial intention, initiatives such as workshops, training programs, business showcases, and competitions can be implemented to develop skills in risk-taking, innovation, and proactiveness.

The results also show that, with the exception of the effect of ethnicity on risk-taking, gender and ethnicity differ in the three aspects of individual entrepreneurial orientation. This strongly suggests that the courses and training offered in entrepreneurship should not be applied to everyone. Stated differently, a "one size fits all" program is no longer workable or suitable for use. People from diverse demographic and cultural origins may possess varying degrees of entrepreneurial talents and aptitude, and this should be recognized. As a result, when creating and promoting entrepreneurial programs, the relevant parties or organizers ought to be more considerate of gender and ethnicity. In fact, by tailoring entrepreneurship programs to meet certain needs, the emphasis should be on meeting each person's unique wants. Along with encouraging business aspiration, the content and resources offered should be modified for both men and women, Bumiputeras and non-Bumiputeras, with varying depths and extensions. Additionally, the design and implementation of programs should be well-balanced with both theory and real-world business experience.

Besides that, participation in business showcases, case competitions, and apprenticeship programs can help individuals generate and exchange ideas, enhance their innovativeness, and develop risk-taking and

proactive abilities. Engaging in these activities certainly better prepares individuals for future entrepreneurial endeavors.

Secondly, the research findings reveal a significant positive relationship between entrepreneurial attitude and entrepreneurial intention among Malaysian pre-retirees, thus supporting Hypothesis 2. Additionally, entrepreneurial attitude was identified as the strongest predictor of entrepreneurial intention among the variables examined. This outcome aligns with Azjen's (1991) study, which found entrepreneurial attitude to be the most significant factor influencing individual entrepreneurial intention, explaining approximately 50% of the variance in the Theory of Planned Behavior (TPB) model. The well-established direct link between entrepreneurial attitude and entrepreneurial intention is commonly used in intention-based models, such as Luthje and Franke (2003)'s Structural Model of Entrepreneurial Intent. Similar results have been observed in studies by Ayalew and Zeleke (2023) across different sample groups. Furthermore, the research indicates that individual entrepreneurial orientation not only has a direct effect on entrepreneurial intention but also influences it indirectly through entrepreneurial attitude. In other words, entrepreneurial attitude acts as a mediator in the relationship between individual entrepreneurial orientation and entrepreneurial intention, thus supporting Hypothesis 5. This is consistent with the findings of Andrei and Erik (2025), Otache (2025) and Ying and Yaakob (2025) who found that individual with risk-taking, innovativeness, and proactiveness characteristics tend to have a positive attitude towards entrepreneurship, which in turn affects his or her entrepreneurial intention. Therefore, promoting activities that enhance entrepreneurial attitude and foster a positive entrepreneurial mindset is crucial. The Malaysian government should play a key role in advancing senior entrepreneurship by raising awareness of its benefits. Information about the advantages of starting a business later in life should be effectively communicated to the senior group.

Thirdly, the research findings indicate that instrumental readiness is positively associated with entrepreneurial intention, thus supporting Hypothesis 3. This result is consistent with the studies of Al-Qadasi et al. (2023) and Adeniyi (2023), which identified a significant relationship between instrumental readiness and entrepreneurial intention. With years of working experience, there is no doubt that the senior group has a greater amount of financial resources that can be used to fund the business. In addition, the findings also show that the majority of pre-retirees are thinking of relying on their own funds such as EPF savings, personal savings, service gratuity or loans and investments from family members, relatives and friends to finance their business start-ups. However, this group should be aware that starting a business also presents its own set of risks, and instead of using their own savings to fund a business, it is advisable to keep it for future retirement. Therefore, special financial support such as various grants and subsidies should be provided and made available and accessible to this senior group. Besides that, detailed information on how to start up and develop a business should also be provided to potential senior entrepreneurs. For instance, guidelines for business start-up, how to generate business ideas, skills needed or necessary to start a business, sources of funding available and types of support and initiatives given to the senior group. Furthermore, government agencies, non-governmental agencies and business associations should collaborate and work together to bring potential senior entrepreneurs and prominent senior entrepreneurs together for meetings and to share their business ideas, discover challenges and ways to overcome them, and to share success stories. This channel not only enhances individual networks, it also provides a better understanding of the positive and negative aspects senior entrepreneurship brings to the nation. Therefore, this increases awareness among potential entrepreneurs and better prepares them with enhanced readiness to become successful future entrepreneurs.

Lastly, the findings also show that there is a significant positive relationship between the entrepreneurial ecosystem and entrepreneurial intention (supporting H4). This finding is consistent with Al-Qadasi et al. (2023), Adeniyi et al. (2024), Narmaditya et al. (2023) and Kwek et al. (2023), which found that individual entrepreneurial intention is affected by the surrounding environment such as market opportunity, availability of resources, government support and product demand. In addition, Luthje and Franke (2003) argued that even with a negative attitude towards entrepreneurship, an individual might have the willingness to start up a business just because he or she perceives that the entrepreneurial ecosystem is favourable. With this, the Malaysian government or the policymakers should develop and create a favourable entrepreneurial ecosystem to encourage this senior group to participate in entrepreneurship. Various supporting mechanisms such as funding, training, consultancy, coaching/mentoring, network development and access to information, should be specially designed and provided to this senior group. In Malaysia, the focus of introducing senior entrepreneurship is still rare. The Malaysian government should play an active role to promote senior entrepreneurship by introducing and

providing various alternative entrepreneurship programmes to cater to the needs of senior entrepreneurs. Again, a 'one size fits all' strategy is viewed as inappropriate as the senior group might have different demographic backgrounds, entrepreneurial motivations, cultural and contextual settings which will eventually affect the individuals differently. Therefore, the Malaysian government and other relevant parties should tailor-make the entrepreneurship programmes, recommendations and strategies according to different groups with different needs. It is advisable to bring and involve the senior group, relevant parties, and experienced senior entrepreneurs together, in the early stages of the design and development of entrepreneurship programmes. With a better understanding of entrepreneurial mindset among the senior group, a more comprehensive and systematic package can only be designed and developed for this special interest group.

## **CONCLUSION AND RECOMMENDATION**

In summary, the results provide important information for the Malaysian government and other key players, such as business advisory agencies and financial institutions, who seek to utilize pre-retirees as a valuable asset in fostering the growth of entrepreneurial SMEs. This research aims to fill the gap in entrepreneurship development by leveraging the untapped potential of pre-retirees, thereby contributing to national economic growth and enhancing retirement welfare. Additionally, the study provides a comprehensive model that integrates personal, demographic, and environmental factors, serving as a useful reference for future researchers investigating senior entrepreneurship. This model can be applied and tested in various economic and cultural settings beyond Malaysia.

This study has certain limitations. Primarily, the use of cross-sectional data limits the ability to determine causation, as the research model focuses mainly on the intention phase and does not examine the link between entrepreneurial intention and actual behavior, such as individuals who actively start businesses. Therefore, there is a need for longitudinal studies to assess whether the intentions observed in this sample translate into actual entrepreneurial activity. In other words, future studies should investigate whether entrepreneurial intentions and their precursors at one point are connected to actual behaviors at a later time. Gaining insights into these aspects could offer a more comprehensive understanding of the entrepreneurial process.

Secondly, the Coefficient of Determination ( $R^2$ ) for this structural model is 0.66, meaning that 66.0% of the variation in Entrepreneurial Intention is explained by the exogeneous variables in the study. However, the remaining 34.0% of the variation remains unexplained, indicating that other factors might also impact entrepreneurial intention. To enhance the predictive accuracy of the research model, future studies could explore and examine other additional variables. Besides that, improving sample selection criteria to focus on senior individuals with managerial experience, business exposure, or a background in family businesses could provide deeper insights into the skills and abilities needed to run a business effectively. Comparative research across different states, industries, and residential areas can be conducted to gain a more detailed and thorough views of Malaysian pre-retirees' attributes and profiles.

Finally, the data collected from this study is limited because the questionnaire used closed-ended questions, which prevented participants from providing additional opinions or comments. To gain a more comprehensive understanding of the motivations, reasons, obstacles or challenges faced by the senior cohort and the factors affecting their business start-up decisions, it is recommended to conduct qualitative research, such as focus groups and interviews. Moreover, further quantitative research with more extensive surveys is needed to generalize the study's findings.

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