

## **Silver Entrepreneurship and Digital Transformation in Malaysia's Gig Economy: Enhancing Sustainability and Inclusivity**

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### **ABSTRACT**

This expository article explores the integration of silver entrepreneurship within Malaysia's gig economy, focusing on individuals aged 50 and above. It examines the unique opportunities and challenges older entrepreneurs face, including digital literacy gaps and limited access to technology. The study emphasises how digital transformation can empower older adults to contribute to sustainability by reducing emissions and promoting eco-friendly practices. The paper proposes targeted policy interventions and the development of supportive ecosystems to foster social inclusion and economic sustainability. Recommendations include advanced digital literacy programs, age-friendly digital platforms, and comprehensive social protection measures.

**Keywords:** digital literacy, digital transformation, gig economy, silver entrepreneurship, sustainability.

### **INTRODUCTION**

#### *Overview of the topic*

As Malaysia progresses through the 21st century, the nation faces significant demographic, economic, and technological transformations et al., 2024). The country is transitioning towards an 'aged society,' with individuals aged 60 and above expected to constitute over 14% of the population by 2030 (World Bank, 2020). This demographic shift and a diminishing number of prime working-age adults pose challenges in ensuring sufficient old-age income security and social protection. The COVID-19 pandemic has exacerbated these issues, leading to elevated unemployment rates and disproportionately affecting older workers due to age-related vulnerabilities and the rapid pace of technological advancements (Daud et al., 2024).

In response to these challenges, the gig economy has emerged as a vital source of income and flexibility, particularly for older adults, often referred to as silver entrepreneurs (Al-Jubari & Mosbah, 2021; Muhyi et al., 2023; Nawawi et al., 2023). The gig economy offers a dynamic marketplace of short-term contracts and freelance opportunities, greatly propelled by digital transformation (Batmunkh et al., 2022; Huđek, & Širec, 2023). This digital shift has altered the nature of work and holds considerable potential for curbing emissions and waste, thereby contributing to environmental sustainability. According to the United Nations Economic and Social Commission for Asia and the Pacific (2022), Malaysia, Singapore, and Thailand policies are increasingly centred on aligning workforces with future jobs and leveraging digitalisation to foster economic growth and social welfare. This essay explores the increasing participation of older adults in Malaysia's gig economy, examining how digital transformation has reshaped work opportunities and contributed to sustainability and inclusivity (Hill et al., 2015; Nawawi et al., 2023). The discussion will focus on these

entrepreneurs' challenges, including digital literacy gaps and limited access to technology. It will propose policy interventions to support their integration into the digital economy.

Recent data from the Malaysia Digital Economy Corporation (MDEC) accentuate the increasing involvement of older adults in the gig economy, with senior gig workers (aged 50 and above) comprising approximately 15% of the total gig workforce as of 2023. Many silver entrepreneurs enter the gig economy driven by the need to supplement their retirement income—65% of older gig workers cited this as a primary reason for their participation. Additionally, 45% emphasised the importance of flexible work schedules, allowing them to juggle other responsibilities such as caregiving or managing health issues (World Bank, 2020; Jayawardhana et al., 2023). However, challenges such as digital literacy gaps and limited access to technology pose substantial barriers (Karna et al, 2022). A survey indicated that 75% of older entrepreneurs recognised the pivotal role of digital literacy and access to technology in effectively securing and performing gig work (Steelman et al., 2016).

Despite the growing body of literature on silver entrepreneurship and the gig economy, significant gaps remain, particularly in the Malaysian context (Steelman et al., 2016; Steyn, 2018). While global studies have explored the economic contributions and challenges older adults face in entrepreneurial ventures (Ratten, 2019; Maritz et al., 2021), the Malaysian context remains underexplored. Key areas that require further investigation include the digital literacy barriers faced by older Malaysians, the economic impact of their participation in the gig economy, and the role of digital transformation in enhancing their inclusivity and sustainability (Steelman et al., 2016; Karna et al, 2022; Uchiyama et al., 2022). Additionally, there is a lack of research on the policy frameworks that could support older adults in the gig economy, particularly concerning social protection and access to digital tools (Jayawardhana et al., 2023).

Digital transformation, particularly through the proliferation of online platforms and digital tools, is pivotal in empowering older adults to participate in the gig economy (Huđek, & Širec, 2023). Initiatives such as Malaysia's eRezeki and Global Online Workforce (GLOW) programs aim to upskill and reskill older adults, equipping them with the necessary digital skills to thrive in this new work environment (MDEC, 2024). These programs are integral to broader national strategies aimed at harnessing digitalisation's potential for economic growth and ensuring inclusive participation across all age groups.

Furthermore, the gig economy aligns with broader sustainability goals, with national policies in Malaysia, Singapore, and Thailand increasingly integrating green agendas focusing on sectors such as renewable energy, green finance, and sustainable agricultural practices (ESCAP, 2022). The gig economy can contribute to these goals by offering flexible job opportunities in emerging green sectors, enabling older adults to engage in sustainable economic activities (Malik et al., 2019; Alanzi, 2021).

This paper delves into the opportunities and challenges encountered by silver entrepreneurs in Malaysia's gig economy, underscoring the role of digital transformation in enhancing sustainability and inclusivity. It seeks to provide a comprehensive understanding of how leveraging technology can empower older adults to continue making economic contributions while addressing broader societal and environmental challenges. By reviewing existing literature and analysing current trends, the paper proposes targeted governmental reforms and the development of supportive ecosystems to facilitate the integration of older adults into the gig economy.

This narrative highlights the dual potential of the gig economy to provide economic security for older adults and nurture broader societal goals such as digital inclusion and sustainability. It underscores the importance of addressing digital literacy gaps and introducing age-friendly policies to maximise the benefits of the gig economy for older adults. As Malaysia and neighbouring countries navigate these transformative shifts, fostering an inclusive and sustainable gig economy will ensure all age groups' well-being and economic security.

## **LITERATURE REVIEW**

### **2.0 The emergence of silver entrepreneurship**

Silver entrepreneurship refers to the involvement of individuals aged 50 and above in entrepreneurial activities (Ratten, 2019; Maritz et al., 2021; Eager et al., 2022; Isabel et al., 2023; Daud et al., 2024). This concept has gained significant global attention due to the increasing ageing populations in many countries. The demographic shift towards an older population challenges traditional notions of retirement, presenting older adults as a valuable asset capable of contributing economically through entrepreneurship (Ratten, 2019). Older adults bring a wealth of experience, skills, and networks, often acquired over decades in professional careers, which can be leveraged to start and sustain businesses (Ilczuk et al., 2023). This trend aligns with the broader concept of "active ageing," where older individuals seek to remain engaged and productive, challenging the stereotype of passive retirement (Maritz et al., 2021).

Studies indicate that silver entrepreneurs often pursue ventures that reflect their interests or areas of expertise, allowing them to transform hobbies or professional skills into business opportunities (Vallas & Schor, 2020; Jayawardhana et al., 2023). This provides financial benefits and contributes to their mental and social well-being, fostering a sense of purpose and community engagement (Ratten, 2019). In Western countries, the economic influence of older entrepreneurs has been widely recognised, with research emphasising their role in fostering innovation and diversifying the business landscape (Ilczuk et al., 2023).

### **3.0 The role of the gig economy**

The gig economy, characterised by flexible, task-based work facilitated by digital platforms, offers unique opportunities for older adults. This sector's inherent flexibility allows individuals to choose when, where, and how much they work, which is particularly appealing to those who may have physical constraints or other responsibilities, such as caregiving (Vallas & Schor, 2020; Jayawardhana et al., 2023). The rise of the gig economy has been driven by technological advancements, enabling platforms like Upwork and Freelancer and ride-sharing services such as Food Panda and Grab to flourish (Uchiyama et al., 2022).

For older adults, the gig economy can provide a vital source of income, helping to supplement pensions or retirement savings. It also allows them to continue productively using their skills and experience, promoting financial independence and reducing the economic burden on public pension systems (Maritz et al., 2021). However, the integration of older adults into this economy varies across different regions, with Western countries having more established frameworks for supporting older entrepreneurs than emerging economies like Malaysia (Muhyi et al., 2023; Nawawi et al., 2023).

The gig economy's growth in Malaysia has been significant, driven by digital advancements and a societal shift towards valuing flexible work arrangements. This environment has created new opportunities for silver entrepreneurs, allowing them to remain economically active outside traditional employment structures. The gig economy's flexibility and autonomy are particularly beneficial for older adults, who may prefer less rigid working conditions to navigate ageing-related challenges (World Health Organization, 2021).

Despite these benefits, older adults in Malaysia face several challenges in the gig economy. Digital literacy gaps are a significant barrier, as many older individuals may not be as familiar with the technology used on digital platforms as younger generations (Uchiyama et al., 2022). Additionally, access to technology and the internet can be limited, especially in rural areas, further hindering their

participation. Anecdotal evidence and preliminary studies suggest that while platforms like Grab have seen an increase in senior drivers, and freelancing sites like Upwork are being utilised by older Malaysians for services such as writing and consulting, there is still a need for more targeted support to integrate this demographic into the digital economy fully (Fang et al., 2022; Ratten, 2019).

Addressing digital literacy and technological access is crucial to support silver entrepreneurship's growth in Malaysia's gig economy (Batmunkh et al., 2022). Programs like Malaysia's eRezeki and Global Online Workforce (GLOW) aim to upskill and reskill older adults, equipping them with the necessary digital skills to thrive in this new work environment. These initiatives are part of broader national strategies to harness digitalisation's potential for economic growth and ensure inclusive participation across all age groups. However, the uptake of these programs remains challenging, indicating a need for more tailored and accessible training methods.

#### **4.0 Digital transformation and its impact on silver entrepreneurs**

Digital transformation, integrating digital technologies into various aspects of business and daily life, is a critical factor in the evolution of modern economies (Huđek, & Širec, 2023). For older entrepreneurs, this transformation presents opportunities and challenges that significantly influence their participation in the gig economy (Berde & Tókés, 2019).

Digital transformation offers older entrepreneurs numerous tools and platforms to enhance their business operations, marketing strategies, and customer engagement (Berde & Tókés, 2019; Huđek & Širec, 2023). Platforms such as e-commerce websites, social media, and digital marketing tools enable older entrepreneurs to reach a broader audience with minimal physical presence, reducing overhead costs associated with traditional brick-and-mortar businesses (Pongratz, 2018; Ray, Herman & Sen, 2021; Zwysen & Piasna, 2024).

Despite these opportunities, older adults in Malaysia face significant barriers to fully engaging in the digital economy. One of the primary challenges is the digital literacy gap. Many older individuals may not be as familiar with modern digital tools and technologies, which can hinder their ability to use digital platforms effectively (Rosales & Blanche, 2021; Uchiyama et al., 2022). This gap is often exacerbated by a lack of confidence in navigating digital interfaces, which can be intimidating and complex for those unfamiliar with such technologies (Huđek & Širec, 2023; Zwysen & Piasna, 2024).

Access to technology is another critical issue. While urban areas in Malaysia generally have good internet connectivity, rural areas often suffer from limited access to reliable internet services. This digital divide restricts the ability of older adults in these areas to participate in the gig economy, as many digital platforms require stable and fast internet connections for effective use (Rohani, 2020).

Moreover, there is a cultural and generational gap in adopting digital technologies. Older adults may be less inclined to adopt new technologies due to entrenched habits and a preference for traditional business methods. This resistance can be a significant barrier to leveraging digital tools to enhance business efficiency and reach (Rahim & Mohamad, 2019).

The Malaysian government has recognised these challenges and is actively working to address them through various initiatives. For example, the Digital Economy Blueprint outlines strategies to enhance digital inclusion across all age groups, including targeted programs for older adults. These initiatives aim to provide comprehensive digital literacy training and improve access to digital infrastructure, particularly in underserved areas.

In Malaysia, initiatives such as the eRezeki and Global Online Workforce (GLOW) programs have promoted digital literacy among older adults. These programs aim to upskill and reskill individuals to equip them with the necessary digital skills to thrive in an increasingly digital economy. These initiatives provide training and facilitate access to digital platforms where older adults can find freelance work or market their products and services (Malaysia Digital Economy, 2021).

In conclusion, while digital transformation presents significant opportunities for older entrepreneurs in Malaysia's gig economy, substantial challenges remain. Addressing these barriers through targeted training programs, improved infrastructure, and supportive policies is crucial for ensuring that older adults can fully participate in and benefit from the digital economy. Further research and policy development are needed to explore innovative solutions bridging the digital divide and fostering a more inclusive digital economy.

## **5.0 Opportunities for silver entrepreneurs in the gig economy**

Silver entrepreneurs, or older adults engaged in entrepreneurial activities, can tap into several unique opportunities within the gig economy, especially in Malaysia. The gig economy's flexible and diverse nature allows these entrepreneurs to leverage their extensive experience, adapt to the increasing remote work trend, and cater to niche markets.

### **5.1 Leveraging experience**

Older adults often possess deep expertise and rich professional backgrounds, which can be a valuable asset in the gig economy (Nawawi et al., 2023; Vallas & Schor, 2020). This demographic can offer specialised services such as consultancy, coaching, and mentoring (Greco et al., 2022; Kautonen et al., 2017). For instance, experienced professionals can provide consultancy in business strategy, human resources, or financial planning. Their extensive networks and credibility can also be leveraged to attract clients looking for seasoned experts (Kuhn & Maleki, 2017; Malik et al., 2021).

There's a growing demand for consultancy services in Malaysia, such as healthcare, education, and financial services. Silver entrepreneurs with backgrounds in these areas can offer tailored advice and solutions, helping businesses navigate complex challenges (Ilczuk et al., 2023). The credibility and trust of older professionals can be a significant advantage in building a client base, particularly in industries where expertise and reliability are paramount (Kautonen et al., 2017; Vallas & Schor, 2020; Greco et al., 2022; Muhyi et al., 2023).

### **5.2 Niche markets**

Another significant opportunity for silver entrepreneurs lies in exploring niche markets, particularly those tailored towards other seniors (Ibrahim & Msbah, 2021). With a deep understanding of their demographic, older entrepreneurs can develop products and services that cater specifically to the needs and preferences of senior citizens (Greco et al., 2022). This can include healthcare and wellness services, retirement planning, leisure and travel services designed for older adults, and educational programs focused on lifelong learning.

In Malaysia, the ageing population is creating a growing demand for products and services that cater to seniors (Fachinger, 2019). For example, there is increasing interest in assistive technologies, home care services, and community-based activities that promote social engagement among older adults (Mitzner et al., 2018; Melkas et al., 2020). Silver entrepreneurs can leverage their insights and personal experiences to innovate in these areas, providing valuable services often overlooked by younger entrepreneurs (Ray et al., 2021).

### **5.3 Remote work**

The shift towards remote work, significantly accelerated by the COVID-19 pandemic, presents a substantial opportunity for silver entrepreneurs (Eager et al., 2022; Norwani et al., 2022; Nawawi et al., 2023). Remote work allows older adults to engage in economic activities from the comfort of their homes, reducing the need for physical commuting, which can be a significant barrier for those with mobility issues or health concerns (Ahmad et al., 2014; Kalleberg & Dunn, 2016; Ratten, 2019; Ilczuk et al., 2023; Janaji et al., 2021). This flexibility is crucial in attracting older adults seeking to balance work with other responsibilities, such as caregiving or managing health-related issues (Wheatley, 2017).

In Malaysia, the adoption of remote work has been facilitated by increased internet penetration and the availability of various digital platforms that support online collaboration and service delivery (Farrell & Greig, 2017; Muhyi et al., 2023). Older entrepreneurs can work remotely through freelancing platforms, offering services like writing, translation, graphic design, and more. This broadens their market reach beyond local boundaries and allows them to compete globally (Sundararajan, 2017; Nawawi et al., 2023).

## **6.0 Challenges and barriers for silver entrepreneurs in Malaysia's gig economy**

### **6.1 Digital literacy**

Digital literacy is a critical challenge for older adults in Malaysia's gig economy. A recent survey by the Malaysia Digital Economy Corporation (MDEC) revealed that only 30% of older adults (aged 50 and above) possess basic digital skills, starkly contrasting with 70% of the general population. This disparity significantly limits their ability to effectively navigate and utilise online platforms, which is crucial for engaging in digital marketing, managing online financial transactions, and performing other essential gig work tasks.

Older individuals often struggle with fundamental tasks such as creating online profiles, managing digital payments, and marketing online services success (Vallas & Schor, 2020; Isabel et al., 2023). These tasks are essential for success in the gig economy, and the lack of digital literacy can hinder their participation (Kautonen et al., 2017). Furthermore, the gap in digital skills affects individual performance and raises broader concerns regarding social inclusion and equal access to entrepreneurial opportunities in the digital sphere (Farrell & Greig, 2016; Vallas & Schor, 2020).

Anecdotal evidence and preliminary studies suggest a notable trend: older adults increasingly participate in the gig economy. For example, platforms like Grab have seen an uptick in senior drivers, and older Malaysians use freelancing sites such as Upwork and Freelancer.com for services like writing, translation, and consulting (Müller & Korsgaard, 2018). However, the full potential of older adults in this sector remains untapped due to barriers such as limited access to technology and the Internet, especially in rural areas (Berde & Tőkés, 2019; Hudek & Širec, 2023).

To address these issues, initiatives like the Digital Economy Blueprint and various MDEC programs aim to enhance digital literacy among older adults. These programs focus on upskilling and reskilling individuals, equipping them with the necessary digital skills to thrive in an increasingly digital economy (Pongratz, 2018; Ray, Herman & Sen, 2021; Zwysen & Piasna, 2024). However, uptake remains challenging, as older individuals may feel intimidated by new technologies or not see the immediate value in acquiring these skills.

In summary, substantial challenges remain while the gig economy offers significant opportunities for silver entrepreneurs, including flexible work arrangements and the ability to leverage extensive experience. Addressing digital literacy gaps and providing targeted support is crucial for maximising the benefits of the gig economy for older adults in Malaysia.

### **6.2 Access to Technology**

Access to necessary technology, such as high-speed internet and modern computing devices, is another significant barrier for older entrepreneurs. In many parts of Malaysia, particularly in rural areas, internet connectivity remains inconsistent and slow, limiting the ability of older adults to engage in the gig economy effectively (Shi et al., 2022). Even in urban areas, acquiring and maintaining up-to-date digital devices can be prohibitive for older individuals, particularly those on fixed incomes or pensions.

The digital divide exacerbates these issues, creating disparities between those with access to the latest technologies and those without access (Vassilakopoulou & Hustad, 2023). For older adults, who may already face challenges adapting to new digital tools, the lack of access to reliable internet and modern devices can significantly limit their opportunities to participate in digital platforms essential for gig work. This includes platforms for freelancing, remote consulting, and online marketplaces (Friemel, 2016).

### **6.3 Social and Economic Security**

The gig economy in Malaysia, like in many other countries, is characterised by a lack of traditional social protections, such as health benefits, pensions, and unemployment insurance. This poses significant risks for older workers who may rely on gig work as a primary or supplementary source of income (Cook et al., 2019). The absence of a stable income and the lack of benefits can lead to economic insecurity, particularly for older adults with higher healthcare needs or dependents to support (Uchiyama et al., 2022).

Moreover, older entrepreneurs in the gig economy often face precarious working conditions, with incomes that fluctuate based on demand and competition (Alanzi, 2021). This instability is

particularly concerning for older workers who do not have the time to recover financially from downturns or the ability to transition easily to other forms of employment (Wood, Graham, Lehdonvirta, & Hjorth, 2019). The lack of a safety net affects their economic stability and poses broader social risks, including increased vulnerability to poverty and social isolation.

To address these challenges, there is a need for targeted policies that provide social protection and economic support for gig workers, particularly older adults (Katiyatiya & Lubisi, 2024). This could include creating tailored insurance products, subsidised healthcare, and retirement savings plans designed to accommodate the flexible nature of gig work (Dartanto et al., 2020; Alanzi, 2021). Additionally, promoting policies that encourage digital literacy and improve access to technology can help older adults better integrate into the digital economy and mitigate some of these risks (Muhammad, 2020).

#### **6.4 Income and Employment Stability**

Income and employment stability are significant concerns for older entrepreneurs in Malaysia's gig economy. The gig economy often presents a more volatile and less predictable income stream than traditional employment (Daud et al., 2024). Older gig workers typically earn lower and more irregular incomes than their younger counterparts, largely due to the digital literacy gaps and limited access to lucrative digital platforms (Berde & Tóké, 2019).

Anecdotal evidence suggests that older adults often participate in lower-paying segments of the gig economy, such as ride-sharing and delivery services, rather than more lucrative digital services like consulting or graphic design, where digital skills are essential (Uchiyama et al., 2022). This disparity is compounded by the lack of social protections like health benefits and retirement savings, which are typically not provided in gig economy roles. A Malaysian Institute of Economic Research (MIER) 2024 survey revealed that while younger gig workers might still be covered under parental insurance or be building savings, older workers often have higher immediate healthcare needs and financial responsibilities.

The instability of gig work income poses a unique challenge for older adults, who may have less time to recover financially from economic downturns or market shifts than younger workers (Berde & Tóké, 2019; Daud et al., 2024). This instability affects their current economic stability and long-term financial planning, especially retirement essentials (Uchiyama et al., 2022). To address these issues, there is a growing need for policies that provide financial and social safety nets specifically tailored to older gig workers, including subsidised health insurance and retirement savings plans.

#### **7.0 Promoting Sustainability through Silver Entrepreneurship**

Integrating older adults into the gig economy presents multiple avenues for promoting environmental and economic sustainability. By leveraging their experiences and adapting to new digital tools, silver entrepreneurs can contribute significantly to sustainable practices.

##### **7.1 Reducing Emissions**

The gig economy's emphasis on remote work can substantially reduce commuting-related emissions, which is particularly beneficial for urban areas struggling with pollution and traffic congestion (Sutton-Parker, 2021). Older adults, who might find it challenging to commute daily due to health or mobility issues, can engage in gig work from home (Ramadhani & Rogers, 2023). This shift reduces the carbon footprint associated with commuting and lessens the need for physical office space, thereby decreasing energy consumption and related emissions (Grasso & Davidoff, 2023). The COVID-19 pandemic has accelerated the adoption of remote work technologies, making it easier for silver entrepreneurs to participate in the gig economy without needing physical travel (Zaffagnini et al., 2022).

##### **7.2 Promoting Digital Solutions**

Older entrepreneurs can adopt digital solutions that significantly minimise resource usage. Paperless operations, for example, can greatly reduce the environmental impact of business activities (Pandey et al., 2023). Digital tools such as e-invoicing, online document storage, and virtual meetings help eliminate the need for paper and physical materials, aligning business practices with environmental sustainability goals (Pongratz, 2018). Additionally, online consultations and virtual services can reduce

the environmental costs associated with traditional business models, such as energy consumption and waste production from office supplies (Ray et al., 2021).

In Malaysia, the government and various organisations are increasingly promoting digital literacy among older adults, encouraging them to use digital tools that support sustainable practices (Zwysen & Piasna, 2024). Initiatives like the Digital Economy Blueprint emphasise equipping older entrepreneurs with the necessary skills to operate efficiently in a digitalised business environment, thus supporting the broader national agenda of reducing environmental impact through technology.

### 7.3 Supporting Green Sectors

Older entrepreneurs have considerable potential to engage in green industries, such as renewable energy, sustainable agriculture, and eco-friendly products (Sharma, Pundir, Goel & Bhatt, 2022). Silver entrepreneurs can leverage their life-long expertise in these areas, transitioning into roles that support environmental sustainability (Gupta & Dharwal, 2020). For instance, those with backgrounds in agriculture might explore sustainable or organic farming practices, contributing to Malaysia's food security and environmental goals.

In the renewable energy sector, older entrepreneurs can play a role in advocating for and implementing clean energy solutions, such as solar panel installation or energy efficiency consulting (Khezri & Hasan, 2024). By participating in these sectors, they not only contribute to the reduction of greenhouse gas emissions but also promote the adoption of sustainable technologies. This engagement is particularly relevant as Malaysia pushes forward with its green agenda, which includes ambitious targets for renewable energy adoption and sustainable development.

### 8.0 Policy Recommendations and Future Directions

To support the integration of older adults into Malaysia's gig economy, it is essential to implement innovative and context-specific policies. These policies should address the unique challenges older entrepreneurs face and leverage the opportunities digital transformation presents. The following recommendations build on existing literature but are tailored to the Malaysian context, incorporating local economic, social, and technological considerations.

#### 8.1 Enhanced Digital Literacy Programs

While digital literacy programs are widely recognised as necessary, a more nuanced approach is needed to cater specifically to older adults (Drăguşin et al., 2019). Programs should focus on basic digital skills and include advanced training in digital marketing, cybersecurity, and emerging technologies like AI and blockchain (Lynn et al., 2022). Tailored workshops that use relatable, age-appropriate content and learning methods can significantly enhance the effectiveness of these programs (Greco et al., 2022). Furthermore, partnerships with tech companies could facilitate free or subsidised access to digital tools and platforms, making it easier for older adults to practice and apply new skills (Nawawi et al., 2023).

#### 8.2 Development of Age-Friendly Digital Platforms

Developing age-friendly digital platforms can make a significant difference in the participation of older adults in the gig economy (Gandini, 2019; Nemkova et al., 2019). These platforms should feature intuitive user interfaces, accessible customer support, and resources specifically designed for older users (Kaine & Jossierand, 2019). Such platforms could include features like larger text, simplified navigation, and tutorials tailored to the needs of older adults (Vallas & Schor, 2020). Additionally, providing options for voice-command technologies could help those with visual or motor impairments to use these platforms more effectively.

#### 8.3 Comprehensive Social Protection Measures

Implementing comprehensive social protection measures is crucial for securing the economic well-being of older gig workers (Uchiyama et al., 2022). Policies should include flexible health insurance plans that cover freelancers and gig workers, acknowledging this demographic's diverse and

often unstable income streams (Alanzi, 2021). Retirement savings schemes that allow for sporadic contributions, matching government contributions, or providing tax incentives could also encourage long-term savings among older gig workers (Dartanto et al., 2020). Furthermore, a gig worker protection framework could be developed to ensure fair pay, dispute resolution mechanisms, and protection against age discrimination.

#### **8.4 Mentoring and Networking Opportunities**

Creating mentorship and networking programs for older adults can help bridge the gap between traditional business practices and modern digital entrepreneurship (Malik et al., 2021; Greco et al., 2022; Daud et al., 2024). Such programs could connect older entrepreneurs with younger, tech-savvy mentors who can guide them in using digital tools and navigating online marketplaces (Wood et al., 2018; Jayawardhana et al., 2023). Conversely, older mentors can share their extensive industry knowledge and professional experience, creating a mutually beneficial exchange of skills (Putnam, 2020). Networking events catering to older adults can also foster community and collaboration, reducing the social isolation that can come with gig work (Nate et al., 2022).

#### **8.5 Incentivizing Participation in Green and Sustainable Sectors**

To align with Malaysia's sustainability goals, policies should incentivise the participation of older entrepreneurs in green and sustainable industries (Khezri & Hasan, 2024). This could involve providing grants or tax breaks for businesses focusing on renewable energy, sustainable agriculture, or eco-friendly products (Sharma et al., 2022). Training programs could also be developed to help older adults acquire the skills needed to thrive in these sectors, such as understanding sustainable business practices and utilising green technologies (Gupta & Dharwal, 2020).

#### **9.0 Conclusion**

In conclusion, integrating silver entrepreneurship into Malaysia's gig economy offers a promising avenue for enhancing economic sustainability and social inclusivity. As the nation transitions towards an 'aged society,' the contributions of older adults through the gig economy become increasingly vital. Digital transformation plays a crucial role in facilitating these contributions, offering tools and platforms that can help bridge the digital divide and enable older adults to leverage their skills in new and innovative ways. However, significant challenges remain, particularly in digital literacy and access to technology

To address these challenges, this paper proposes several policy interventions, including advanced digital literacy programs tailored to older adults, the development of age-friendly digital platforms, and the implementation of comprehensive social protection measures. Additionally, promoting the involvement of silver entrepreneurs in green and sustainable industries can further align with Malaysia's environmental goals. By fostering an inclusive and supportive ecosystem, Malaysia can enhance the economic well-being of its ageing population and contribute to broader societal and environmental objectives.

This research underscores the importance of continued focus on digital inclusion and the need for targeted policy frameworks to support the unique needs of older adults in the gig economy. Future research should explore the long-term impacts of these policy interventions and continue to identify best practices for integrating older adults into digital and green economies.

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