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Introductory chapter

“... research on older entrepreneurship remains underdeveloped ...” (Wainwright & Kibler, 2014, p. 5)

1. Introduction

There is a dramatic demographic change occurring across many developed countries in the world today where these countries are facing an increasing share of older individuals. Although the demographic structure within a country tend to be slowly changing over time, the effects of an aging society is already visible in many countries. One basic effect is that the labour force will become relatively smaller in proportion to the number of older individuals. Thus, a smaller labour force must carry the burden and support a larger number of older individuals. This is naturally a problem that policy makers need to address and plan for, specifically since the problem is expected to grow over time for several decades. One possible avenue which might partially reduce the problem is to encourage older individuals to stay longer in the labour force either as employed or as self-employed. Making it possible of being employed at older age implies that the rules and regulations surrounding the mandatory retirement age need to be flexible but also that firms must be willing to retain their older employees but also to hire older individuals. Late-career transitions to self-employment or entrepreneurship is another promising way to address some of the challenges of an ageing population.¹ Previous studies have found that a growing share of older individuals are transitioning into self-employment and entrepreneurship (Brown, 2003). A survey in Britain shows that 84 per cent of the growth in self-employment between 2008 and 2012 can be attributed to individuals 50 years or older (Wainwright & Kibler, 2014). Moreover, Backman and Karlsson (2013) show that the relationship between age and self-employment and entrepreneurship looks like an M, i.e. a curve with two maxima. People aged 65-74 have a significantly higher probability to become self-employed and entrepreneurs than those aged 50-64. Thus, there is reason to question the conventional wisdom that entrepreneurial activity declines continuously with age after a certain age. The tendency that older individuals engage in entrepreneurial activities including self-employment have been described using several different labels such as “senior entrepreneurs”, “grey entrepreneurs”, “third age entrepreneurs”, “elderly entrepreneurs”, “older entrepreneurs”, and “mature entrepreneurs”.

Although there has been an increased interest among researchers in the relationship between age and entrepreneurship, many questions are yet unanswered. The purpose of this book is to close some of these gaps. This book contributes to the existing literature on the relationship between aging and entrepreneurship by focusing on four main themes: the international perspective; the behavioural perspective; innovation, dynamics and performance; and what entrepreneurship among elderly looks like in different countries. By analysing these patterns, this book sheds light

¹ In this book we use a broad definition of entrepreneurship including but not only restricting to those that are self-employed.

on older individuals' tendency to become entrepreneurs and contributes to the current discussion of the economic effects of an aging population.

2. Why is there a second maximum in the propensity to become an entrepreneur?

How can we possibly understand that there seems to be a clear tendency that the propensity to become an entrepreneur increases a second time when people come closer to retirement age? When trying to answer this question, let us start from the fundamental assumption that people during their whole life try to maximize their utility. Let us assume that the utility function for a well-informed and rational individual is $U[E(Y_E), E(Y_O), t_v, r]$, where $E(Y_E)$ is the expected income of becoming an entrepreneur, $E(Y_O)$ is the expected opportunity income as non-entrepreneur, t_v is the value of time and r is the individuals risk valuation. Here we focus on the pecuniary benefits of becoming an entrepreneur, but it must be acknowledged that there also are non-pecuniary benefits in terms of e.g. well-being of becoming an entrepreneur.

We will now discuss each of the elements in the utility function to see how they may influence the propensity of an older individual to become entrepreneur. The expected income of becoming an entrepreneur is the following:

$$E(Y_E) = \left\{ \int_0^L [E(p_t)E(q_t) - E(q_t)E(c_t)]e^{-\delta t} dt - E(F) \right\} [1 - E(\tau_e)]$$

where $E(p_t)$ is the expected price for the product provided by the new firm, $E(q_t)$ is the expected sales volume, $E(c_t)$ is the expected unit cost for producing and distributing the product, $E(F)$ is the expected start-up cost, $E(\tau_e)$ is the expected tax on firm profits, t is time, δ is the discount factor and L is estimated time horizon for the entrepreneurial project. We might assume that an elderly entrepreneur with his/her experiences might be superior to a younger entrepreneur in designing products that meets the demand of the customers and increase their willingness to pay which tend to increase the stream of revenues. The superior experiences can also lead to advantages in the form of lower production costs but also lower start-up costs as a result of well-developed networks. These factors tend to increase the propensity of elderly people to become entrepreneurs. On the other hand, we can expect elderly people to have a shorter time horizon for natural reasons and possibly also a higher discount factor than younger people, which tends to reduce the propensity to become an entrepreneur.

Turning now to the opportunity income $E[Y_O]$ of not being an entrepreneur, we get the following expression:

$$E[Y_O] = \int_0^J \{E(\hat{Y}_t)e^{-\rho t} dt [1 - E(\tau_{tY})] + E(K_t)e^{E(i)t}e^{-\rho t} dt [1 - E(\tau_{tK})]\}$$

Where $E(\hat{Y}_t)$ is the expected income from other sources than capital or being an entrepreneur, $E(\tau_{tY})$ is the expected tax on incomes from other sources, $E(K_t)$ is the individuals capital invested in the market, $E(i)$ is the expected interest and dividend on the invested capital, $E(\tau_{tK})$ is the

expected tax on capital incomes, J is the individuals time horizon and ρ is the discount factor. The effect of the income from other sources (net of income tax) have different effects on the propensity to become an entrepreneur depending on the source. If it is income from work, we can initially expect that the higher the income from work the lower the propensity to become an entrepreneur. However, if that work income is the result of hard work and perhaps also overtime work, we could instead think that it may increase the propensity of elderly people to become entrepreneurs to get control over their own work in terms of when and how much to work. However, if this income from other sources is a life-long pension income, we could assume that some elderly people now are prepared to take the risk of becoming an entrepreneur, since they are not depending on their entrepreneurial income to make a living. We can also imagine that if the pension income is low, that may generate an incentive to become an entrepreneur to earn an extra income to supplement the pension income. If the income from other sources is unemployment benefits that potentially ends after a certain period, we can expect strong incentives among elderly people to become entrepreneurs, since it often is difficult for elderly people that become unemployed to find a new job. Concerning the capital that elderly people owns, we can expect that a larger capital stimulates the propensity to become an entrepreneur, given that the capital is not a person's pension capital.

Concerning the influence of the value of time to become an entrepreneur, we can assume that the value of time increases with the age of individuals making them over time less willing to spend time on entrepreneurship. Elderly individuals see time as a scarcer resource and thus give future outcomes a lower value (Lévesque & Minniti, 2006). The influence of the risk factor we can assume is such that elderly people with incomes from permanent income sources and a larger non-pension capital are prepared to take larger risks than other elderly people.

After this short theoretical discussion, we now in Section 2.1 discuss the factors that increase the probability that elderly people become entrepreneurs and in Section 2.2, we discuss the factors that decrease this probability.

2.1 Factors that increase the probability that elderly people become entrepreneurs.

We expect the following factors will increase the probability that an older potential entrepreneur will become an entrepreneur (Parker, 2009):

1. They may possess more human capital than younger ones due to life-long learning and on-the-job-training (Singh & DeNoble, 2003; Weber & Schaper, 2004). Formal education and training can increase the likelihood for becoming an entrepreneur due to i) acquisition of skills, ii) credentialing, and iii) sorting people by ambition and assertiveness (Kim, Aldrich, & Keister, 2006). They have gained more and more varied expertise and professional experiences through their professional life (Bergmann & Sternberg, 2007; Brüderl, Preisendörfer, & Ziegler, 1992; Gray, 1998; Light & Rosenstein, 1995; Parker, 2004) including i) technical knowledge (Jones-Evans, 1996) ii) prior industrial experience (Shane, 2003; Storey, 1994), iii) managerial experience (Boden Jr & Nucci, 2000; Kim et al., 2006; Steiner & Solem, 1988), and iv) prior experience of starting a business (Shane, 2003). Thus, they may have developed a superior

entrepreneurial ability (Lucas, 1978) and become better at identifying and evaluating business opportunities and they may know more about how to start and run a business, which will reduce both the start-up costs and the running costs.

2. They normally have accumulated a larger capital due to savings, inheritances, and investments in their own home (Blanchflower & Oswald, 1998; Lussier & Pfeifer, 2001; Singh & DeNoble, 2003; Weber & Schaper, 2004), which reduces the need to borrow money to start and run the business and thus leads to lower capital costs. This implies that the liquidity constraint becomes less of a constraint for self-employment as people become older (Evans & Leighton, 1989). There is a positive relationship between the assets of a potential entrepreneur and the probability of becoming self-employed (Brusch, 1992; Evans & Jovanovic, 1989). There are also indications that those individuals who have accumulated more wealth prefer self-employment compared to a wage or salary job (Soling, 2014).
3. Low income prospects and financial necessity might encourage older workers to become entrepreneurs (Cahill, Giandrea, & Quinn, 2007; Smeaton & McKay, 2003; Walker & Webster, 2007):
 - a. Older workers who become unemployed might find it difficult to get a new job or a job with a wage at the same level as in their earlier job might consider an alternative career as entrepreneur. Opportunities for work outside of self-employment often diminish over the age of 50.
 - b. They might want to continue their career when they are forced to retire and have to survive on a smaller pension income, which induces a search for alternative income sources of which entrepreneurship is one (Weber & Schaper, 2004).
4. They have had time to develop richer private, professional and business networks, i.e. social capital in terms of social structures, connections, networks and social relations through which they may obtain the resources needed by their entrepreneurial endeavours (Aldrich & Cliff, 2003; Baucus & Human, 1994; Birley, 1985; de Bruin & McLaren, 2002; Dubini & Aldrich, 1991; Larson, 1991; Singh & DeNoble, 2003; Weber & Schaper, 2004) which will tend to reduce start-up costs, make growth easier and possibly lead to larger sales due to links to many potential customers. Singh & DeNoble (2003) indicates that early retirees have a higher likelihood of becoming entrepreneurs if they have strong networks.
5. They have a higher probability of having been self-employed before. Earlier self-employment in the past makes it more likely to become self-employed again (Mueller, 2006; Rotefoss & Kolvereid, 2005).
6. They demand other work conditions and/or are dissatisfied with their current job, such as age discrimination (Blackburn, Mackintosh, & North, 1998; Brown, 2000; C.K. Chiu, Chan, Snape, & Redman, 2001; de Bruin & Firkin, 2001; Dibden & Hibbett, 1993; Evans & Leighton, 1987; Light & Rosenstein, 1995; Metcalf & Thompson, 1990; Min, 1984; Parsons & Mayle, 1996; Platman, 2004; Webster & Walker, 2005):
 - a. Flexible work schedule and hours (Karoly & Zissimopoulos, 2004; Quinn, 1999; Zissimopoulos & Karoly, 2007).

- b. Job autonomy and independence (Bond, Galinsky, Pitt-Catsouphes, & Smyer, 2005; Walker & Webster, 2007).
 - c. Greater opportunities for learning and development (Bond et al., 2005).
 - d. Alternative career opportunities (McClelland, Swail, Bell, & Ibbotson, 2005a; Singh & DeNoble, 2003).
7. They want to be active and feel that they are socially included (Kautonen, Down, & South, 2008a; Webster & Walker, 2005).
 8. They may have been interested a long time becoming entrepreneurs but have postponed the start-up as a result of the family life cycle (Singh & DeNoble, 2003; Weber & Schaper, 2004), which implies that their risk-taking propensity has increased (Kihlstrom & Laffont, 1979).

2.2 Factors that decrease the probability that elderly people become entrepreneurs

We expect the following factors to decrease the probability that older potential entrepreneurs will become entrepreneurs (Parker, 2009):

1. They are more risk-adverse than younger potential entrepreneurs (Lévesque, Shepherd, & Douglas, 2002), i.e., they demand a higher risk premium.
2. They avoid riskier occupations, such as entrepreneurship since the value of the information and knowledge gained is lower than they were younger (Miller, 1984).
3. They have lower levels of formal post-secondary education (Lussier & Pfeifer, 2001; Robinson & Sexton, 1994; Weber & Schaper, 2004).
4. The human capital they possess has a lower discounted value due to general human capital depreciation and due to the possibility of unemployment during a working life (Neuman & Weiss, 1995; Parker, 2013). It might also be the case that as people age, their abilities to relate to and to understand more complex ideas might diminish.
5. Financial resources can not only be used to finance entrepreneurship. They can also be used to finance retirement. This implies that wealth can inhibit the start-up of a firm later in life since entrepreneurship is associated with risks and uncertain returns (Singh & DeNoble, 2003). Some authors also find a negative relationship between wealth and elderly entrepreneurship (Platman, 2003; Parker & Rougier, 2007).
6. They have a shorter time horizon than younger potential entrepreneurs and thus use a higher discount factor $e^{-\delta t}$ (Bates, 1995; Schultz, 1995). Starting a new business often leads to high sunk costs, due to the costs of setting up a business plan, doing market research, developing the product, dealing with legal and administrative problems, etc. With a shorter expected time-span of a new business, the shorter is the period over which these sunk costs can be earned back.
7. They may face challenges in the form of lower levels of health, energy and productivity (Curran & Blackburn, 2001; Weber & Schaper, 2004).
8. They may value leisure higher than younger potential entrepreneurs (Lévesque & Minetti, 2006).
9. They may be discriminated due to age by financiers and customers (Weber & Schaper, 2004).

2.3 What does elderly entrepreneurship imply for the individual?

Economic theory of utility maximization would tell us that workers would choose to become entrepreneurs if the expected utility they get in that case is higher than the expected utility obtained by other types of employment (Parker, 2018). Thus, despite drawbacks such as potentially lower initial income (Hamilton, 2000), in general data shows that entrepreneurs are more satisfied with their job (Blanchflower, Oswald, & Stutzer, 2001), as well as show lower stress levels (Hessels, Rietveld, & van der Zwan, 2017), compared to those who have wage employment.

For the elderly, the decision to become an entrepreneur is an alternative to being unemployed, employed, or retired. Yet, the exact reasons for entering entrepreneurship are very diverse, since they are shaped by several outside factors as well as by intrinsic and extrinsic motives (Hechavarria & Reynolds, 2009; Shapero & Sokol, 1982). The literature has established that there are several “*push*” factors into elderly entrepreneurship including labour market disadvantages, redundancy, age discrimination and insufficient pensions or funds (McClelland, Swail, Bell, & Ibbotson, 2005b; Singh & DeNoble, 2003). Researchers have also identified a number of “*pull*” factors such as business opportunities, desire for independence, following their “dreams”, portfolio careers and growth in knowledge service economy (Alstete, 2002; Kautonen, Down, & South, 2008b; Patel & Gray, 2006). This way, the elderly also have the option and chance to create income for retirement, which creates more opportunities for keeping their lifestyle (Kibler, Wainwright, Kautonen, & Blackburn, 2012). It should be also noted that the decision to become an entrepreneur at older age is restricted by the availability of resources, which can be financial, but also related to time and health (Hurd, 1990; Ruhm, 1990). When comparing the objectives of older entrepreneurs to start their firms to those of younger entrepreneurs, they usually display stronger objectives for independence and a wish that the firm continue to operate and stay in the market, while the younger entrepreneurs prefer firm growth and higher firm profits (Ruis & Scholman, 2012).

Not surprisingly, given the motives behind starting their own business, research has found that the elderly entrepreneurs have the belief that they still contribute to the society at large (Ratten, 2018), and thus are often found to display higher quality of life (Kautonen, Kibler, & Minniti, 2017) as well as being more satisfied with their life (Gimmon, Yitshaki, & Hantman, 2018).

3. What does elderly entrepreneurship look like?

As noted in the beginning of this introduction, elderly entrepreneurship has not got the attention it deserves among researchers. In this section, we give a descriptive overview of (i) what elderly entrepreneurship looks like, (ii) which that attracts older entrepreneurs, (iii) the characteristics of firms run by elderly entrepreneurs and (iv) how elderly entrepreneurship varies with geographical space.

However, initially it is important to discuss what we mean by “entrepreneurship”. Defining and measuring entrepreneurship is not straightforward and there is yet no general agreement to its definition (Davidsson, 2004; Parker, 2018). Throughout the book we define entrepreneurship as

self-employment, which is one of the best available and mostly used measures of entrepreneurship (Blanchflower et al., 2001; Evans & Leighton, 1989). Nevertheless, not all business-owners are necessarily entrepreneurs and not all entrepreneurs are business owners (Parker, 2018). Thus, a number of scholars have argued that self-employment is not an accurate measure of entrepreneurship and have instead suggested other options (Henrekson & Sanandaji, 2014).² However, if one would think of the entrepreneur as someone who organizes and manages a business bearing the risk for the sake of profit, like argued in Glaeser, Rosenthal, and Strange (2010) who follow the definition of the Webster Dictionary, self-employment does in fact capture the most crucial aspects of entrepreneurship. Therefore, lacking better alternatives, self-employment is the best available measure of entrepreneurship, and thus elderly entrepreneurship, we could have.

Starting the discussion with analysing the industries in which the older individuals are more likely to start their own firms, the literature is quite scarce. A few notable examples include the work of Zhang (2008), who argues that the increasing importance of the “knowledge economy” has acted as a catalyser for elderly entrepreneurship. Due to their accumulated job experience, their human capital, and their social ties, the elderly can use their knowledge and competences not only to benefit themselves, but also the society and economy in general. Confirming these arguments, she finds that elderly self-employed in the US are more likely to establish their firms in knowledge-intensive sectors. This is also the case for Sweden, where the highest number of self-employed individuals over 50 years old are found in the technical consultancy industry (Klinthäll & Sundin, 2017). Using a rather different approach, Crawford and Naar (2016) stress the overrepresentation of the elderly entrepreneurs in the B&B sector in the US, where 70 percent of the B&B owners are above the age of 50. However, their study is only focused on this sector and there are no other industries to compare it with.

The literature which has tried to connect the age of the entrepreneur with the size of their firms usually argues about the existence of an inversed U-shaped relationship between the two (Henley, 2005; Storey, 1994). These findings suggest that firms started by young entrepreneurs and older ones are smaller and less likely to grow, where the maximum was achieved among entrepreneurs at the age of 47,8 years. However, this can be connected to the fact that older individuals have a lower need of earning high additional incomes due to their relatively lower cost of living, but also because they have lower motivations and incentives to grow (de Kok, Ichou, & Verheul, 2010).

Naturally, all entrepreneurs will at some point exit the firm they created; the question that arises in this context is how the firms started by elderly entrepreneurs exit the market. However, firm exit in general is understudied (DeTienne & Cardon, 2012). When looking at the relationship between firm exits and the age entrepreneurs, we find very little information in the research literature. Combining Becker’s (1965) theory of time allocation where older entrepreneurs are more likely to exit a firms since the opportunity cost of time increases with age with the prospect theory, which defines entrepreneurs as ‘hyperbolic discounters’ rather than ‘utility-maximisers’ (Grenadier &

² For a more general discussion on self-employment as entrepreneurship, see Wallin (2017).

Wang, 2007), one would expect older individuals to sell their firms rather than to keep on running their business (Wennberg, Wiklund, DeTienne, & Cardon, 2010). Family business research argues that with the increasing age of the entrepreneur, the more likely they are to exit the market by turning the business over to younger individuals in the family (Santarelli & Lotti, 2005). DeTienne and Cardon (2012) confirm the same finding for family firms, but they also extend the analysis by suggesting that elderly entrepreneurs are more likely to use a liquidation strategy when exiting the market. Wennberg et al. (2010) argue, on the other hand, that the age of the entrepreneur positively relates to the probability of making a harvest or distress sale when exiting, relative to continuing, or liquidating. However, given the inconclusive results, there is still a high need of researching what happens to the firms started by elderly entrepreneurs when the founder is no longer willing or able to run his/her firm.

The geography of entrepreneurship is a well-established field in the research literature. Those locations, which historically have had a higher degree of entrepreneurship are also the ones which display higher shares of entrepreneurship today (Andersson & Koster, 2010). This path-dependence is often connected to the entrepreneurial culture of the location (Larsson, 2016). Simultaneously this is also linked to the idea of “role models” where locations with a lot of entrepreneurial activities tend to spur future entrepreneurial activities since individuals who live in these locations can observe what their peers are doing and therefore be inspired to try to do the same (Sorenson & Audia, 2000). Along these lines, Andersson and Larsson (2014) argue for a “local feedback effect” of entrepreneurship where the existing entrepreneurs affect the emergence of new start-ups. However, the role of location for elderly entrepreneurs is not studied to the same extent, but similar observations could be expected in that case as well. Zhang (2008) argues that elderly individuals who live in areas with lower tax rates and higher levels of cultural openness are more likely to become entrepreneurs. Backman and Karlsson (2018) discuss the case of Sweden where older individuals who live in more rural locations are more likely to become entrepreneurs than those who live in more urbanized areas. They explain this result by that the job opportunities are much sparser in rural locations, and therefore entrepreneurship there can be a way of avoiding unemployment or to earn an extra income for an elderly individual. Thus, it is crucial to understand the location patterns of elderly entrepreneurship in order to implement policies which encourage older individuals to start their own firms as a potential tool for bringing forward local development.

4. How successful is elderly entrepreneurship?

Wagner and Sternberg (2004) and Mueller (2006) found that the survival rates of businesses established by older entrepreneurs are higher than for those started by younger entrepreneurs (Cressy & Storey, 1995), which may be due to more extensive and more varied experiences, larger human capital, superior business networks and a stronger financial situation (Arkebauer, 1995; Blackburn et al., 1998; Hindle & Rushworth, 2002). It appears, on the other hand, that businesses established by older entrepreneurs exhibit slower growth rates than the ventures undertaken by younger entrepreneurs (Peters, Storey, & Cressy, 1999). An explanation for this might be that the

age of the entrepreneur has a negative effect on the ambition to grow the new firm (Autio, 2005; Bager & Schøtt, 2004; Lau & Busenitz, 2001; Verhuel, Thurik, Hessels, & van der Zwan, 2010). These results suggest that while the ability to establish and run a firm is higher at an older age there is an age after which the motivation for entrepreneurial behaviour and the ambitions to grow start to decline. It seems, for example, that the social and human capital acquired by older individuals may reduce the rate of business failure (Botham & Graves, 2009) indicating that they might be better equipped than younger entrepreneurs to manage the risks associated with business venturing (Wainwright & Kibler, 2014).

One reason that firms run by older individuals tend to have a slower growth might be that older entrepreneurs are less innovative, more likely to adhere to the status quo, and more risk adverse (Verheul & van Mil, 2008). Research on older individuals also suggests a lesser capacity for creativity and innovation and thus for innovative entrepreneurship in that age group than among younger individuals (Bönte, Falck, & Heblich, 2009; Colovic & Lamotte, 2013). The propensity of entrepreneurs to innovate is affected by an ageing process involving both physical and cognitive drivers, since ageing induces an alteration of both physical and cognitive abilities (Desjardiins & Warnke, 2012; Meyer, 2011). Empirical studies using individual data show that older people generally are slower than younger people to adopt innovative tools, such as those related to information and communication technology (Borghans & Ter Weel, 2002; Friedberg, 2003; Koning & Gelderblom, 2006; Weinberg, 2004). Research on innovation adoption shows that older individuals often have a more negative attitude to new technologies and often are among the last to adopt and use innovative products, services and ideas (Gilly & Zeithaml, 1985; Lunsford & Burnett, 1992). At the same time there is a substantial heterogeneity among older people in terms of attitudes towards innovation (Szmigin & Carrigan, 2000).

Summing-up the existing results concerning the relationship between the age of the founder and employment growth, we find that they seem to be inconclusive, since many other factors than age of founder influence the decisions to become an entrepreneur and to let the firm grow (de Kok et al., 2010). If we control for basic background factors, such as industry, location, business cycle, etc., we can identify four basic factors that might generate differences in performance, namely, i) the age of the entrepreneur, ii) the motivations of the entrepreneur to start a firm, iii) the capabilities of the entrepreneur, and iv) the resources of the entrepreneur (Bates, 1995; Beugelsdijk & Noorderhaven, 2005; Dunn & Holtz-Eakin, 2000; Hout & Rosen, 2000; Thurik, Carree, van Stel, & Audretsch, 2008). There is up to this date a severe lack of knowledge concerning the performance of the firms started by elderly entrepreneurs.

5. The content of the handbook

This edited book consists of 15 chapters besides the introduction chapter. As mentioned above, the chapters are divided into four broad themes: the international perspective; innovation, dynamics and performance; the behavioural perspective; and case studies on how entrepreneurship among elderly looks in different parts of the world.

Starting with the first topic, the chapter “Entrepreneurship among Older Workers: International Evidence” R. Fonseca and S. Parker provide us with a cross-country comparison on elderly entrepreneurs. They start off with discussing the drivers of entering entrepreneurship across the US, England, and other European countries. They then disentangle the role of national-level institutional factors. Lastly, they discuss policy implications. Results indicate that English and American institutions do not seem to push older workers into entrepreneurship. Moreover, the high levels of senior entrepreneurship observed in Southern Europe can be explained through the rigidity of institutions and lack of opportunities for flexible work. Those individuals who are not yet retired and would prefer part-time work, are often found to be entrepreneurs. Thus, policy makers are faced with a challenge on how to promote self-employment as a solution to low incomes and pension benefits. Building upon the result that successful entrepreneurs at old age are more likely to succeed if they were successful entrepreneurs in their younger age, policies that focus on increasing the quality of entrepreneurship should receive more attention.

Keeping the focus on the international perspective, the chapter “Senior entrepreneurship: global mapping of supporting initiatives and programs” by C. Matos and M. Amaral, review the existing global practical initiatives which support the elderly entrepreneurs in 74 regions worldwide. Building upon previous literature, they organized the initiatives into several dimensions. Results show that previous literature has only mentioned and analysed 23 of these initiatives, where 10 of them are not active anymore. Therefore, they introduce and analyse 51 other initiatives which are new to the literature. Results show that most existing initiatives are based on information and training while there is an underrepresentation of those that provide funding and financial support. The authors then discuss implications arising from this assessment for researchers, practitioners and policymakers.

In the last chapter of this topic, “Entrepreneurship and ageing: exploring an economic geography perspective”, H. Mayer and B. Leick, discuss position old-age entrepreneurship in a regional context and discuss the opportunities and challenges arising from it. The main focus is put on regional characteristics related to demography change, such as population growth or decline, population ageing, outflow of younger individuals, etc, which are potential factors that influence older individuals to start their businesses as well as the aggregate numbers of entrepreneurial activities. At the same time, older entrepreneurs also have the power to influence the types of businesses started in these regions.

Moving on to innovation, dynamics and performance, we also find four chapters. In “Are senior entrepreneurs less innovative than younger ones?” R. Sternberg, studies innovative elderly entrepreneurship in 15 innovation-driven countries. GEM data shows that elderly entrepreneurship has increased overall, but it shows the largest increase in those countries where elderly population is higher. Yet, despite its increase in the recent years, senior entrepreneurship is still lower than what it could be signalled from its share in the population. The second main conclusion of the paper is that businesses of elderly entrepreneurs are neither less nor more innovative than the ones of younger entrepreneurs. However, it is only a small share of businesses of elderly entrepreneurs that

are innovative. Taking Germany as a case study, results show that being innovative or not differs across age groups.

In Chapter 5, “Entrepreneurial dynamics in the third age - a study of trajectories for start-ups by two cohorts of entrepreneurs/self-employed aged 55 and 60”, C. Holmquist, E. Sundin, and M. Klinthäll analyse the dynamics of entrepreneurship in Sweden with a large turnover of firms and of entrepreneurs. The authors claim that such dynamics can be linked to the life course dynamics of individual entrepreneurs where few previous studies focus on the dynamics within age groups 55+. This chapter addresses this gap as the authors explore entry, survival and exit patterns of two groups: all Swedish 55 years old and 60 years old who started firms in 2004. The results from the chapter highlights three general patterns among the entrepreneurs: stay as firm owners, go to an employment or leave the labour market (which includes for example retirement and other outcomes). The findings show quite a dynamic pattern and challenge many beliefs about entrepreneurship and about elderly on the labour market as a self-employed.

M. Cucculelli and G. Micucci, on the other hand discuss the importance of the age of the firm founder on firm performance in Italy, in “The Age Effect in Entrepreneurship: Founder’s Tenure, Firm Performance, and the Economic Environment”. Results point towards an inverted U-shaped relationship where in the beginning the relation between the tenure of the founder and performance of the firms (performance is measured as ROA) is positive. However, this relationship peaks (at approximately 10 years after firm start) and then turns negative during maturity. The impact of the experience of the founder on performance is sector-specific and dependent on the economic environment. A dynamic environment reduces the time interval where experience of the founder is beneficial for performance for high-turbulence sectors. Yet, low-turbulence sectors benefit largely from the tenure of the founder. Thus, a long-tenured founder could be harmful for firm performance and would require change of leadership. These results raise the need for policies that assure a good matching between the skills of the founder and the environment.

In “Different Age Effects by Entrepreneur Types: An Investigation on U.S. Boomer Entrepreneurs”, Z. Acs and T. Zhang extend the literature of occupational choice in the setting of elderly entrepreneurship by comparing the age effects across 8 different types of boomer entrepreneurs in the US. Using monthly data during 2006-2016 and controlling for individual and regional effects, their findings show that the share of novice- (versus non-novice) and opportunity- (vs. necessity) entrepreneurs rise after the age of 60.

Moving to the behavioral perspective, in “Ageing and Entrepreneurship: A Psychological Perspective”, H. Zacher, M. Mensmann, and M. Gielnik provide a literature review of how age influences entrepreneurship with a focus on the psychological factors. Considering individuals as well as contextual characteristics, they define entrepreneurship as a process which includes the identification, evaluation, and exploitation of business opportunities. After thereafter reviewing the existing theoretical and empirical literature on ageing and entrepreneurship, suggestions for future research are provided.

In “Grey entrepreneurship; the reasons behind later life entrepreneurship” A. E. Brouwer and H. Delfmann, through a qualitative study, analyse the motivations behind individuals above 50 to enter entrepreneurship as well as focus on their well-being. Basing the analysis and approach on the theory of planned behaviour, findings show that elderly self-employed experience higher rates of wellbeing. This comes because of reasons such as higher personal control, flexibility in working hours, or even fulfilment of dreams. They also discuss how the elderly self-employed in their sample have a positive view of elderly entrepreneurship, how they are influenced by their social environment in their decision to run a business, as well as how they usually bear lower risks since they also have other sources of income to rely on.

Along a similar line of arguing, M. Fritsch, A. Sorgner, and M. Wyrwich discuss the relationship between age and job satisfaction for self-employed and wage employees in “Entrepreneurship and Job Satisfaction: The Role of Age”. They find that job satisfaction is higher for self-employed, but age plays a moderator role in this. Data shows that self-employed are more likely to experience high levels of job satisfaction, but this is very similar across all age cohorts. On the other hand, the job satisfaction of paid employees differs with age. Thus, the degree of self-employed being more satisfied is affected by the age of individuals. Only in the final stage of the working life have paid employees and self-employed equally likely to experience the same level of job satisfaction.

J. Hessels and P. van der Zwan in “Old age self-employment and work-related stress” compare the stress levels of older self-employed with the ones of older paid employees. Data for 2005-2015 shows that older self-employed show lower stress levels. This difference is partially a result of the fact that older self-employed have more control over their job compared to wage employees, but partially also because of lower levels of job demand and higher levels of social support. When comparing stress levels between older and younger self-employed results point towards differences among the two, which can be attributed to lower job demands for older entrepreneurs.

The last topic of the book is to examine how entrepreneurship among elderly looks across different countries, where we have four case studies. In “Senior Self-Employment – The Case of the Netherlands” M. Damman and H. van Solinge provide an overview of the existing insights of elderly entrepreneurship in the Netherlands. They put focus on two streams of literature: (i) the career self-employed and their retirement preparation and behaviour and (ii) entrance in self-employment of previously wage employees. Existing literature suggests that in the past, prolonged employment was mostly opportunity-driven. However, lately financial motivations are also found to have an increasing role.

Moving to Romania, D. Welsh, M. Dragusin, and R. M. Grosu, provide an overview of the fast-growing elderly population and entrepreneurship in “Romania’s Ageing Population: Entrepreneurship Opportunities and Challenges”. The senior population play a big role in the economy, both active and passive, and are therefore important in policy implications. Romanian entrepreneurship in this angle has not been covered before in the literature, delivering so reflections on the challenges and opportunities that arise from an ageing population.

For the case study of Australia, A. Maritz analyses the scope and impact of senior entrepreneurship in the chapter “Senior Entrepreneurship Perspectives in Australia”. The chapter sheds light on the positive economic and social impact that senior entrepreneurship including an active lifestyle, giving satisfaction through achieving personal and family goals as well as work-life balance, providing satisfaction through networking and avoiding discrimination in the workplace. Data is collected from several entrepreneurship databases and the analysis presents specific to Australia by providing so suggestions for policy makers together with potential future senior entrepreneurs.

In the last chapter, “Senior entrepreneurship: A case-study for Portugal” M. Amaral and C. Matos provide an overview of the case of Portugal which is one of the countries in the world with one of the most aged populations. Results show that even if senior entrepreneurship in Portugal is lower than in most European countries, it is quickly increasing. Portuguese senior entrepreneurs start their firms at around the age of 56 and are usually those people who have previous experience but were wage employees right before starting their current business. These companies do not generate high-income, but those senior entrepreneurs who were surveyed perceive their companies as successful. They also show high level of job satisfaction and see entrepreneurship as a channel through which they can experience active ageing.

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