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# Senior Entrepreneurship: A Selective Review and a Research Agenda

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# Senior Entrepreneurship: A Selective Review and a Research Agenda

Catarina Seco Matos<sup>1</sup>, Miguel Amaral<sup>2</sup> and Rui Baptista<sup>3</sup>

#### ABSTRACT

Scholarly interest in entrepreneurial activity by older members of society has been rising, reflected in the growing tally of publications about senior entrepreneurship as a distinct form of entrepreneurship.

Our goal is to review and communicate the key conceptual approaches and empirical findings about senior entrepreneurs' characteristics and behaviors, and to propose a research agenda. We analyze the literature by focusing on two research questions.

- i. What determines senior entrepreneurship?
- ii. What determines the performance of senior entrepreneurs?

Although senior entrepreneurs are not a homogeneous group, they are: more likely driven by non-pecuniary motivations than pecuniary ones; mostly male, married, and with high

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levels of education attainment. In general, senior entrepreneurs have previous entrepreneurial experience and display high levels of self-efficacy. A shift to self-employment later in life often leads to positive changes on individuals' quality of life, but negative impacts on income.

Existing research is mostly based on data collected to assess entrepreneurs in general and not designed to analyze variables of specific interest for senior subjects. Future research should seek to develop primary data focusing on the relationship between quality of life and performance outcomes, and entrepreneurial activity's impact on active ageing. Senior entrepreneurship needs to be examined through multidisciplinary lenses including psychology, gerontology, economics, and sociology.

**Keywords:** entrepreneurship; senior entrepreneurs; active ageing; quality of life; venture performance.

# 1

#### Introduction

The creation and growth of new firms are considered critical for economic growth and societal development (Audretsch, 2004; Baumol, 1968). At the same time, throughout the developed world population birth rates are falling and life expectancies are rising. As a result, the demography and workforce of societies are becoming markedly older. Researchers in a variety of fields have acknowledged his phenomenon and, according to Shepherd (2015), research on entrepreneurship must accompany mega trends of society such as ageing. The present work aims to bring these together the phenomena of entrepreneurship and workforce ageing by exploring how older individuals relate to entrepreneurship. Self-employment and entrepreneurship have been gaining increased attention as feasible occupational strategies for older individuals (Kautonen and Minniti, 2014; Singh and DeNoble, 2003), and emerging either as a life style option or as an "inevitability" due to insufficient income and lack of opportunities in the formal labor market in later life.

Self-employment and entrepreneurship rates tend to be higher amongst older cohorts (on average 21.1% of individuals age 55 to 64) than in younger groups (on average 4.1% of individuals age 15 to 24) (except Estonia and Finland) (Eurostat, Labor Force Survey 2000–2011).

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Thus, being self-employed and/or an employer/business owner plays a more important role among older than younger individuals. In economic terms, senior entrepreneurship may mitigate the rise in social security costs (Kautonen, 2008; Zhang, 2008) and potentially contribute towards economic and social development (Audretsch, 2004; Baumol, 1968).

For the purposes of the present work, senior entrepreneurship refers to those individuals aged 50 or over who intend to create, are in the process of creating, or have created a business. It includes both individuals who have never started a firm before (novice entrepreneurs) as well as those who have already started at least one (serial and/or portfolio entrepreneurs) (Kautonen, 2013).

While reviewing the most relevant research output on self-employment and entrepreneurship of older individuals, the present work aims to contribute to the future development of novel theoretical and empirical approaches explaining self-employment and entrepreneurship of older individuals, bridging concepts from different fields, such as psychology, gerontology, economics, and sociology. Parker (2009), in his review of the personal and external factors affecting entrepreneurial behavior, argues that age is one of the main determinants of entrepreneurship and self-employment. Extending previous reviews of senior entrepreneurship (Ainsworth, 2015; Furlong, 2004; Gonçalves and Pifano, 2015; Halvorsen and Howell, 2016; Kautonen, 2013; Lewis and Walker, 2011; Luck et al., 2014; Maritz, 2015; Minola et al., 2014; Patel and Gray, 2006; Rogoff, 2007; Weber and Schaper, 2004), we discuss the profiles of the senior entrepreneurs and the potential contribution of senior entrepreneurship to create social wellbeing and economic value by surveying theoretical and empirical work in different fields. To the best of our knowledge, the present study is the first encompassing and systematic literature review specifically focused on senior entrepreneurship. As a body of literature develops, it is useful to take inventory of the work that has been accomplished and identify new directions and challenges for the future. Departing from our examination of the contributions and shortcomings of past research regarding entrepreneurship among individuals aged 50 or over – hereafter referred to as "senior entrepreneurship research" – we put forward recommendations for future research.

By placing senior entrepreneurship research at the center of our analysis, we do not seek to provide an exhaustive account of everything written about entrepreneurship that happens to include findings or insights related to age. Instead, we review the literature that purposefully examines self-employment and entrepreneurship of senior entrepreneurs. We believe this review to be timely, responding to Ainsworth's (2015) observation that it is necessary to undertake a broad evaluation of the value and impact of senior entrepreneurship, considering its economic, social and human benefits. In our review, we are guided by two questions.

- i. What determines senior entrepreneurship?
- ii. What determines the performance of senior entrepreneurs?

We employ the framework suggested by Parker (2009) to analyze the determinants of senior entrepreneurship on entry and their influence on performance. "Performance" is here analyzed on two dimensions – subjective and objective, by considering both pecuniary benefits (i.e. income, growth, survival) and non-pecuniary ones (i.e. wellbeing). New venture performance is a central topic in entrepreneurship research (Cooper, 1993). Linking different dimensions of entrepreneurship to firm performance has been a long-standing focus of research in both economics – e.g. Lucas (1978) for entrepreneurial ability; Kihlstrom and Laffont (1979) for risk taking propensity – and psychology/organizational theory – e.g. Lumpkin and Dess (2001) for entrepreneurial orientation; Zhao et al. (2010) for entrepreneurial intentions. Examining the determinants of performance of senior entrepreneurs seems a natural extension of this focus, and the extant literature on senior entrepreneurship has still not paid significant attention to performance (exception for Azoulay et al., 2018; Gielnik et al., 2012).

By focusing on older people, this research aims to shed light on how entrepreneurship might be shaped by the life stage of the individual. For instance, we know that older individuals have had a longer life span and, consequently, may hold more accumulated resources and labor experience (Parker, 2009). Nevertheless, having a longer life span may also increase the likelihood of having been unemployed or having spent a longer spell of time out of the labor market, which may lead to human capital depreciation (Neuman and Weiss, 1995; Parker, 2013). Furthermore, according to socio-emotional selectivity theory (Carstensen, 2006; Carstensen et al., 1999), we know that older individuals recognize time

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as a scarcer resource and thus assign a lower value to future outcomes (Lévesque and Minniti, 2006) and shift their life goals from more logical aspirations to more emotionally oriented ones. Lifespan perspective (Baltes, 1987; Baltes et al., 1999) poses that as individuals get older, their cognitive aptitude decreases in terms of fluid intellectual abilities (i.e. abilities to relate and understand more complex ideas), whereas there is a gain in knowledge and experience they have acquired over their life course. Moreover, the extent of the losses in skills and aptitudes faced by an individual depends on his/her own socio-cultural characteristics (Baltes, 1987). In this context, the present study contributes by reviewing previous literature and contributing to deepen our understanding of the significance older age might have on entrepreneurial skills.

The topic of senior entrepreneurship has mainly received attention over the last dozen of years and much of the early writing on the subject lacked theoretical insight (about half of the theory-based articles were developed since 2014). Early research mainly focused on what drives individuals to start companies at an older age and only recently some articles have brought about innovative theory-based approaches analyzing entrepreneurial performance by seniors at an individual level (Kautonen et al., 2017) and firm-level (Gielnik et al., 2012) were developed. These studies generate more complex, theory-based analysis and are more driven towards the outcomes of senior entrepreneurship, not merely focusing on what determines entry.

The remainder of the present work is structured as follows. In Section 2 theoretical approaches to senior entrepreneurship are presented and discussed. In Section 3 we introduce the literature search strategy, concepts adopted, and the approach applied to organize and analyze the articles reviewed. In Section 4 we introduce the results of the literature survey. In exploring the research work surveyed we first discuss the concepts of senior entrepreneurship adopted by the studies and then the methods applied. Following that, we look at theoretical developments that are specific to the phenomenon of senior entrepreneurship, and finally the we present the empirical findings of previous studies. In Section 5 we discuss the survey's results and potential future developments of research in the topic. Section 6 concludes.

- Agarwal, R., R. Echambadi, A. M. Franco, and M. B. Sarkar (2004). "Knowledge transfer through inheritance: Spin-out generation, development, and survival". *Academy of Management Journal*. 47(4): 501–522.
- Ainsworth, S. (2015). "Aging entrepreneurs and volunteers: Transition in late career". In: Aging workers and the employee-employer relationship. Springer International Publishing. 243–260.
- Ainsworth, S. and C. Hardy (2008). "The enterprising self: An unsuitable job for an older worker". *Organization*. 15(3): 389–405.
- Ajzen, I. (1991). "The theory of planned behavior". Organizational Behavior and Human Decision Processes. 50(2): 179–211.
- Amaral, A. M., R. Baptista, and F. Lima (2011). "Serial entrepreneurship: impact of human capital on time to re-entry". *Small Business Economics*. 37(1): 1–21.
- Amit, R. and E. Muller (1995). ""Push" and "pull" entrepreneurship". Journal of Small Business and Entrepreneurship. 12(4): 64–80.
- Amoros, J. E. and N. Bosma (2014). "Global entrepreneurship monitor: 2013 Global Report".
- Ashforth, B. E. and F. Mael (1989). "Social identity theory and the organization". *Academy of Management Review.* 14(1): 20–39.
- Atchley, R. C. (1989). "A continuity theory of normal aging". *The Gerontologist.* 29(2): 183–190.

Audretsch, D. B. (2004). "Sustaining innovation and growth: Public policy support for entrepreneurship". *Industry and Innovation*. 11(3): 167–191.

- Autio, E., S. Pathak, and K. Wennberg (2013). "Consequences of cultural practices for entrepreneurial behaviors". *Journal of International Business Studies*. 44(4): 334–362.
- Azoulay, P., B. Jones, J. D. Kim, and J. Miranda (2018). "Age and high-growth entrepreneurship". *NBER Working Paper No* 24489.
- Bae, T. J., S. Qian, C. Miao, and J. O. Fiet (2014). "The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review". *Entrepreneurship Theory and Practice*. 38(2): 217–254.
- Baltes, P. B. (1987). "Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline". Developmental Psychology. 23(5): 611.
- Baltes, P. B., U. M. Staudinger, and U. Lindenberger (1999). "Lifespan psychology: Theory and application to intellectual functioning". *Annual Review of Psychology.* 50(1): 471–507.
- Baptista, R., M. Karaöz, and J. Mendonça (2014). "The impact of human capital on the early success of necessity versus opportunity-based entrepreneurs". Small Business Economics. 42(4): 831–847.
- Bates, T. (1990). "Entrepreneur human capital inputs and small business longevity". The Review of Economics and Statistics: 551–559.
- Baucus, D. A. and S. E. Human (1994). "Second-career entrepreneurs: A multiple case study analysis of entrepreneurial processes and antecedent variables". *Entrepreneurship Theory and Practice*. 19(2): 41–71.
- Baumol, W. J. (1968). "Entrepreneurship in economic theory". *The American Economic Review*: 64–71.
- Becker, G. S. (1962). "Investment in human capital: A theoretical analysis". *Journal of Political Economy*. 70(5, Part 2): 9–49.
- Becker, G. S. (1965). "A theory of the allocation of time". *The Economic Journal*: 493–517.
- Benz, M. and B. S. Frey (2008). "Being independent is a great thing: Subjective evaluations of self-employment and hierarchy". *Economica*. 75(298): 362–383.

Biehl, A. M., T. Gurley-Calvez, and B. Hill (2014). "Self-employment of older Americans: do recessions matter?" *Small Business Economics*. 42(2): 297–309.

- Blackburn, R. and A. Kovalainen (2009). "Researching small firms and entrepreneurship: Past, present and future". *International Journal of Management Reviews.* 11(2): 127–148.
- Block, J. and P. Koellinger (2009). "I can't get no satisfaction—necessity entrepreneurship and procedural utility". *Kyklos.* 62(2): 191–209.
- Block, J., R. Thurik, P. van der Zwan, and S. Walter (2013). "Business takeover or new venture? Individual and environmental determinants from a cross-country study". *Entrepreneurship Theory and Practice*. 37(5): 1099–1121.
- Bohlmann, C., A. Rauch, and H. Zacher (2017). "A lifespan perspective on entrepreneurship: Perceived opportunities and skills explain the negative association between age and entrepreneurial activity". Frontiers in Psychology. 8: 2015.
- Bosma, N., M. Van Praag, R. Thurik, and G. De Wit (2004). "The value of human and social capital investments for the business performance of startups". *Small Business Economics*. 23(3): 227–236.
- Botham, R. and A. Graves (2009). The grey economy: How third age entrepreneurs are contributing to growth. London: NESTA Research report.
- Bruce, D., D. Holtz-Eakin, and J. F. Quinn (2000). "Self-employment and labor market transitions at older ages". Working Papers in Economics. 132.
- Burr, J. and J. Mutchler (2007). "Employment in later life: A focus on race/ethnicity and gender". Generations. 31(1): 37–44.
- Cannon, T. and K. Kurowska (2013). "The impacts of demographic change in the functional economies for the North of England on entrepreneurship and business development by those aged 50 and over". Applied Spatial Analysis and Policy. 6(2): 165–183.
- Carrasco, R. (1999). "Transitions to and from self-employment in Spain: an empirical analysis". Oxford Bulletin of Economics and Statistics. 61(3): 315–341.

Carree, M. A. and I. Verheul (2012). "What makes entrepreneurs happy? Determinants of satisfaction among founders". *Journal of Happiness Studies*. 13(2): 371–387.

- Carstensen, L. L. (2006). "The influence of a sense of time on human development". Science. 312(5782): 1913–1915.
- Carstensen, L. L., D. M. Isaacowitz, and S. T. Charles (1999). "Taking time seriously: A theory of socioemotional selectivity". *American Psychologist.* 54(3): 165.
- Cooper, A. C. (1993). "Challenges in predicting new firm performance". Journal of Business Venturing. 8(3): 241–253.
- Cooper, A. C. and K. W. Artz (1995). "Determinants of satisfaction for entrepreneurs". *Journal of Business Venturing*. 10(6): 439–457.
- Cumming, E., L. R. Dean, D. S. Newell, and I. McCaffrey (1960). "Disengagement-a tentative theory of aging". *Sociometry*. 23(1): 23–35.
- Curran, J. and R. A. Blackburn (2001). "Older people and the enterprise society: Age and self-employment propensities". Work, Employment and Society. 15(4): 889–902.
- D'Amours, M. (2009). "Non-standard employment after age 50: How precarious is it?" *Relations Industrielles/Industrial Relations*. 64(2): 209–229.
- Davidsson, P. and B. Honig (2003). "The role of social and human capital among nascent entrepreneurs". *Journal of Business Venturing*. 18(3): 301–331.
- De Bruin, A. and P. Firkin (2001). Self-employment of the older worker. Labour Market Dynamics Research Programme, Massey University.
- De Kok, J. M., A. Ichou, and I. Verheul (2010). "New firm performance: Does the age of founders affect employment creation". *Zoetermeer:* EIM Research Reports: 4–38.
- Deci, E. L., R. M. Ryan, M. Gagné, D. R. Leone, J. Usunov, and B. P. Kornazheva (2001). "Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination". *Personality and Social Psychology Bulletin.* 27(8): 930–942.
- EC (2016). "Senior entrepreneurship good practices manual". European Commission.

- EC and OECD (2012). "Policy brief on senior entrepreneurship".
- Estes, C. L. (2011). "Crises and old age policy". In: *Handbook of Sociology of Aging*. New York, NY: Springer. 297–320.
- Eurostat, Labor Force Survey (2000–2011). DOI: http://dx.doi.org/ 10.1787/888932926072.
- Evans, D. S. and L. S. Leighton (1989). "Some empirical aspects of entrepreneurship". *American Economic Review*. 79(3): 519–535.
- Frasquilho, D., M. G. Matos, F. Salonna, D. Guerreiro, C. C. Storti, T. Gaspar, and J. M. Caldas-de-Almeida (2016). "Mental health outcomes in times of economic recession: a systematic literature review". *BMC Public Health.* 16(1): 115.
- Frey, B. S., M. Benz, and A. Stutzer (2004). "Introducing procedural utility: Not only what, but also how matters". *Journal of Institutional and Theoretical Economics JITE*. 160(3): 377–401.
- Fuchs, V. R. (1980). "Self-employment and labor force participation of older males (revised)". NBER Working Paper No. 584R.
- Furlong, M. (2004). "Entrepreneurship and venture capital: By and for people in mid-and later life". *Generations*. 28(4): 45–47.
- Giacomin, O., J. L. Guyot, F. Janssen, and O. Lohest (2007). "Novice creators: personal identity and push pull dynamics". In: 52th International Council for Small Business (ICSB) World Conference. 1–30.
- Gielnik, M. M., H. Zacher, and M. Frese (2012). "Focus on opportunities as a mediator of the relationship between business owners' age and venture growth". *Journal of Business Venturing*. 27(1): 127–142.
- Gielnik, M. M., H. Zacher, and M. Wang (2018). "Age in the entrepreneurial process: the role of future time perspective and prior entrepreneurial experience". *Journal of Applied Psychology*. 103(10): 1067–1085.
- Gimeno, J., T. B. Folta, A. C. Cooper, and C. Y. Woo (1997). "Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms". *Administrative Science Quarterly*: 750–783.
- Gimmon, E., R. Yitshaki, and S. Hantman (2018). "Entrepreneurship in the third age: retirees' motivation and intentions". *International Journal of Entrepreneurship and Small Business*. 34(3): 267–288.

Ginzberg, E. (1952). "Toward a theory of occupational choice". *Personnel and Guidance Journal*. 30: 491–494.

- Gollwitzer, P. (2012). "Mindset theory of action phases": 526–545.
- Gonçalves, V. B. and M. S. Pifano (2015). "Idade e empreendedorismo: uma revisão da literatura". Working Paper No. 2015/06. DINAMIA'CET.
- Gratton, L. and A. Scott (2017). "The corporate implications of longer lives". MIT Sloan Management Review. 58(3): 63.
- Gray, H. (2007). "Creating older entrepreneurs: a development dilemma". Development and Learning in Organizations: An International Journal. 21(1): 12–14.
- Halvorsen, C. J. and N. Morrow-Howell (2016). "A conceptual framework on self-employment in later life: Toward a research agenda". Work, Aging and Retirement. waw031.
- Hambrick, D. C. and P. A. Mason (1984). "Upper echelons: The organization as a reflection of its top managers". *Academy of Management Review.* 9(2): 193–206.
- Hantman, S. and E. Gimmon (2014). "Dare to dream: New venture incubator for older adults". *Educational Gerontology*. 40(10): 737–744.
- Harms, R., F. Luck, S. Kraus, and S. Walsh (2014). "On the motivational drivers of gray entrepreneurship: An exploratory study". Technological forecasting and social change. 89: 358–365.
- Hatak, I., R. Harms, and M. Fink (2015). "Age, job identification, and entrepreneurial intention". *Journal of Managerial Psychology*. 30(1): 38–53.
- Havighurst, R. J. (1963). "Successful aging. Processes of aging". Social and Psychological Perspectives. 1: 299–320.
- Headd, B. (2003). "Redefining business success: Distinguishing between closure and failure". *Small Business Economics*. 21(1): 51–61.
- Healy, T. and S. Côté (2001). "The well-being of nations: The role of human and social capital. Education and skills". Organisation for Economic Cooperation and Development, France.
- Heimonen, T. (2013). "Entrepreneurship in golden years-creative opportunity or not?" China-USA Business Review. 12(1).

Hennekam, S. (2015). "Challenges of older self-employed workers in creative industries: The case of the Netherlands". *Management Decision*. 53(4): 876–891.

- Hessels, J., M. Van Gelderen, and R. Thurik (2008). "Entrepreneurial aspirations, motivations, and their drivers". *Small Business Economics*. 31(3): 323–339.
- Hodges, J. (2012). "The transition of midlife women from organizational into self-employment". Gender in Management: An International Journal. 27(3): 186–201.
- Holland, J. L. (1959). "A theory of vocational choice". *Journal of Counseling Psychology*. 6(1): 35.
- Jennings, P. and G. Beaver (1997). "The performance and competitive advantage of small firms: a management perspective". *International Small Business Journal.* 15(2): 63–75.
- Jovanovic, B. (1982). "Selection and the evolution of industry". *Econometrica*: 649–670.
- Kautonen, T. (2008). "Understanding the older entrepreneur: Comparing third age and prime age entrepreneurs in Finland". *International Journal of Business Science and Applied Management.* 3(3): 3–13.
- Kautonen, T. (2012). "Do age-related social expectations influence entrepreneurial activity in later life?" The International Journal of Entrepreneurship and Innovation. 13(3): 179–187.
- Kautonen, T. (2013). "Senior entrepreneurship". A background paper for the OECD Centre for Entrepreneurship, SMEs and Local Development.
- Kautonen, T., S. Down, and M. Minniti (2013). "Ageing and entrepreneurial preferences". *Small Business Economics*. 42(3): 579–594.
- Kautonen, T., S. Down, and L. South (2008). "Enterprise support for older entrepreneurs: The case of PRIME in the UK". *International Journal of Entrepreneurial Behavior and Research*. 14(2): 85–101.
- Kautonen, T., M. Gelderen, and M. Fink (2015a). "Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions". *Entrepreneurship Theory and Practice*. 39(3): 655–674.

Kautonen, T., I. Hatak, E. Kibler, and T. Wainwright (2015b). "Emergence of entrepreneurial behavior: The role of age-based self-image". Journal of Economic Psychology. 50: 41–51.

- Kautonen, T., E. Kibler, and M. Minniti (2017). "Late-career entrepreneurship, income and quality of life". *Journal of Business Venturing*. 32(3): 318–333.
- Kautonen, T., S. Luoto, and E. T. Tornikoski (2010). "Influence of work history on entrepreneurial intentions in 'prime age' and 'third age': A preliminary study". *International Small Business Journal*. 28(6): 583–601.
- Kautonen, T. and M. Minniti (2014). "Fifty is the new thirty': ageing well and start-up activities". Applied Economics Letters. 21(16): 1161–1164.
- Kautonen, T. and J. Palmroos (2010). "The impact of a necessity-based start-up on subsequent entrepreneurial satisfaction". *International Entrepreneurship and Management Journal.* 6(3): 285–300.
- Kautonen, T., E. T. Tornikoski, and E. Kibler (2011). "Entrepreneurial intentions in the third age: The impact of perceived age norms". Small Business Economics. 37(2): 219–234.
- Keeley, B. (2007). "Human capital: How what you know shapes your life". OECD Insights Series. Organization for Economic Co-operation and Development.
- Kenny, B. and I. Rossiter (2017). "Transitioning from unemployment to self-employment for over 50s". *International Journal of Entrepreneurial Behavior & Research*. https://doi.org/10.1108/IJEBR-01-2017-0004.
- Kerr, G. (2017). "The motivations, business satisfaction and commitment of career and later-life older entrepreneurs". *Journal of Small Business and Entrepreneurship*. 29(2): 140–155.
- Kibler, E., T. Wainwright, T. Kautonen, and R. Blackburn (2015). "Can social exclusion against 'older entrepreneurs' be managed?" *Journal of Small Business Management*. 53(S1): 193–208.
- Kihlstrom, R. E. and J. J. Laffont (1979). "A general equilibrium entrepreneurial theory of firm formation based on risk aversion". Journal of Political Economy. 87(4): 719–748.

Kolvereid, L. (1996). "Prediction of employment status choice intentions". Entrepreneurship Theory and Practice. 21(1): 47–58.

- Krueger Jr., N. F., M. D. Reilly, and A. L. Carsrud (2000). "Competing models of entrepreneurial intentions". *Journal of Business Venturing*. 15(5–6): 411–432.
- Krueger, N. F. and A. L. Carsrud (1993). "Entrepreneurial intentions: applying the theory of planned behavior". *Entrepreneurship and Regional Development.* 5(4): 315–330.
- Kruse, A. and E. Schmitt (2012). "Generativity as a route to active ageing". Current Gerontology and Geriatrics Research. 2012. Article ID 647650, 9 pages.
- Kurek, S. and T. Rachwał (2011). "Development of entrepreneurship in ageing populations of the European Union". *Procedia-Social and Behavioral Sciences*. 19: 397–405.
- Lamotte, O. and A. Colovic (2013). "Do demographics influence aggregate entrepreneurship?" *Applied Economics Letters*. 20(13): 1206–1210.
- Lazear, E. P. (2004). "Balanced skills and entrepreneurship". *The American Economic Review*. 94(2): 208–211.
- Lazear, E. P. (2005). "Entrepreneurship". *Journal of Labor Economics*. 23(4): 649–680.
- Lévesque, M. and M. Minniti (2006). "The effect of aging on entrepreneurial behavior". *Journal of Business Venturing*. 21(2): 177–194.
- Lévesque, M. and M. Minniti (2011). "Age matters: How demographics influence aggregate entrepreneurship". Strategic Entrepreneurship Journal. 5(3): 269–284.
- Lewis, K. and E. A. Walker (2011). "Self-employment: Policy panacea for an ageing population?" *Small Enterprise Research.* 18(2): 143–151.
- Lewis, K. V. and E. A. Walker (2013). "Third age self-employment: A business assistance perspective". *Journal of Small Business and Enterprise Development.* 20(2): 399–419.
- Li, J. (2015). Ageing liabilities or ageing assets: The effect of the founder's age on new venture performance. University of Essex.

Lin, S. and S. Wang (2018). "How does the age of serial entrepreneurs influence their re-venture speed after a business failure?" *Small Business Economics*: 1–16.

- Logan, J. (2014). "An exploration of the challenges facing women starting business at fifty". *International Journal of Gender and Entrepreneurship.* 6(1): 83–96.
- Lucas Jr., R. E. (1978). "On the size distribution of business firms". The Bell Journal of Economics: 508–523.
- Luck, F., S. Kraus, and R. B. Bouncken (2014). "Senior entrepreneurship: Definitions and underlying theories". *International Journal of Business Research.* 14(3): 209–215.
- Lumpkin, G. T. and G. G. Dess (2001). "Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle". *Journal of Business Venturing*. 16(5): 429–451.
- Mallett, O. and R. Wapshott (2015). "Making sense of self-employment in late career: understanding the identity work of olderpreneurs". Work, Employment and Society. 29(2): 250–266.
- Maritz, A. (2015). "Senior entrepreneurship in Australia: an exploratory approach". *International Journal of Organizational Innovation (Online)*. 7(3): 6.
- Marvel, M. R., J. L. Davis, and C. R. Sproul (2016). "Human capital and entrepreneurship research: A critical review and future directions". *Entrepreneurship Theory and Practice*. 40(3): 599–626.
- Mincer, J. (1974). Schooling, experience, and earnings. Cambridge, MA: National Bureau of Economic Research (NBER).
- Mincer, J. and H. Ofek (1982). "Interrupted work careers: Depreciation and restoration of human capital". *Journal of Human Resources*: 3–24.
- Minola, T., G. Criaco, and L. Cassia (2014). "Are youth really different? New beliefs for old practices in entrepreneurship". *International Journal of Entrepreneurship and Innovation Management 2.* 18(2-3): 233–259.
- Minola, T., G. Criaco, and M. Obschonka (2016). "Age, culture, and self-employment motivation". *Small Business Economics*. 46(2): 187–213.

Neuman, S. and A. Weiss (1995). "On the effects of schooling vintage on experience-earnings profiles: theory and evidence". *European Economic Review.* 39(5): 943–955.

- OECD (1998). Maintaining prosperity in an ageing society. Paris: OECD.
- OECD (2013). The missing entrepreneurs: Policies for inclusive entrepreneurship in Europe. OECD Publications Centre.
- Parker, S. C. (2009). The economics of entrepreneurship. Cambridge University Press.
- Parker, S. C. (2013). "Do serial entrepreneurs run successively better-performing businesses?" *Journal of Business Venturing.* 28(5): 652–666.
- Parker, S. C. and J. C. Rougier (2007). "The retirement behavior of the self-employed in Britain". *Applied Economics*. 39(6): 697–713.
- Parry, J. and R. F. Taylor (2007). "Orientation, opportunity and autonomy: why people work after state pension age in three areas of England". *Ageing and Society*. 27(4): 579–598.
- Patel, S. H. and C. Gray (2006). "The grey entrepreneurs in UK. Open university research centre on innovation, knowledge and development (no. 18)". IKD Working paper.
- Perenyi, A., R. Zolin, and A. Maritz (2018). "The perceptions of Australian senior entrepreneurs on the drivers of their entrepreneurial activity". *International Journal of Entrepreneurial Behavior & Research.* 24(1): 81–103.
- Pilkova, A., M. Holienka, and J. Rehak (2014). "Senior entrepreneurship in the perspective of European entrepreneurial environment". *Procedia Economics and Finance*. 12: 523–532.
- Pilková, A. and J. Rehák (2017). "Regional aspects of inclusive entrepreneurship of seniors in Europe". *Society and Economy*. 39(1): 49–64.
- Platman, K. (2003). "The self-designed career in later life: a study of older portfolio workers in the United Kingdom". *Ageing and Society*. 23(3): 281–302.
- Rees, H. and A. Shah (1986). "An empirical analysis of self-employment in the UK". *Journal of Applied Econometrics*. 1(1): 95–108.

Rogoff, E. (2007). "Opportunities for entrepreneurship in later life". Generations. 31(1): 90–95.

- Rolfe, B., S. Leshabari, F. Rutta, and S. F. Murray (2008). "The crisis in human resources for health care and the potential of a 'retired' workforce: case study of the independent midwifery sector in Tanzania". *Health Policy and Planning*. 23(2): 137–149.
- Ryan, R. M. and E. L. Deci (2000). "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being". *American Psychologist.* 55(1): 68.
- Santarelli, E. and M. Vivarelli (2007). "Entrepreneurship and the process of firms' entry, survival and growth". *Industrial and Corporate Change*. 16(3): 455–488.
- Say, P. Y. A. and M. Patrickson (2012). "Switching to entrepreneurship in mid-career: A singaporean perspective". *Journal of Enterprising Culture*. 20(2): 119–149.
- Schott, T., E. Rogoff, M. Herrington, and P. Kew (2016). "Senior entrepreneurship". Special Topic Report, 2017.
- Schumpeter, J. A. (1934). The theory of economic development. Harvard University Press.
- Schwarzer, R. (2008). "Modeling health behavior change: How to predict and modify the adoption and maintenance of health behaviors". *Applied Psychology.* 57(1): 1–29.
- Shane, S. (2000). "Prior knowledge and the discovery of entrepreneurial opportunities". *Organization Science*. 11(4): 448–469.
- Shane, S. and S. Venkataraman (2000). "The promise of entrepreneurship as a field of research". *Academy of Management Review*. 25(1): 217–226.
- Shapero, A. and L. Sokol (1982). "The social dimensions of entrepreneurship. Encyclopedia of entrepreneurship, 72–90". Available at SSRN: https://ssrn.com/abstract=1497759.
- Shaver, K. G. and L. R. Scott (1992). "Person, process, choice: The psychology of new venture creation". *Entrepreneurship Theory and Practice*. 16(2): 23–46.
- Shepherd, D. A. (2015). "Party On! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial". *Journal of Business Venturing*. 30(4): 489–507.

Singh, G. and A. DeNoble (2003). "Early retirees as the next generation of entrepreneurs". *Entrepreneurship Theory and Practice*. 27(3): 207–226.

- Singh, G. and A. Verma (2003). "Work history and later-life labor force participation: Evidence from a large telecommunications firm". *ILR Review.* 56(4): 699–715.
- Singh, R. P. (2009). "The aging population and mature entrepreneurs: Market trends and implications for entrepreneurship". New England Journal of Entrepreneurship. 12(1): 45.
- Small, M. (2012). "Understanding the older entrepreneur". Working with Older People. 16(3): 132–140.
- Solinge, H. (2014). "Who opts for self-employment after retirement? A longitudinal study in the Netherlands". European Journal of Ageing. 11(3): 261–272.
- Stirzaker, R. J. and L. Galloway (2017). "Ageing and redundancy and the silver lining of entrepreneurship". *The International Journal of Entrepreneurship and Innovation*. 18(2): 105–114.
- Stypinska, J. (2018). "The enterprising self: A panacea for all or new fictitious social role for older adults? The analysis of European polices for senior entrepreneurship". *Journal of Population Ageing*. 11(1): 43–65.
- Sudnik, P. (2012). "Picking up the pieces: themes in Macedonian midcareer transitions". *International Journal for Educational and Vocational Guidance*. 12(2): 123–139.
- Terjesen, S. (2005). "Senior women managers' transition to entrepreneurship: Leveraging embedded career capital". Career Development International. 10(3): 246–259.
- Tervo, H. (2014). "Starting a new business later in life". Journal of Small Business and Entrepreneurship. 27(2): 171–190.
- Thorgren, S., C. Sirén, C. Nordström, and J. Wincent (2016). "Hybrid entrepreneurs' second-step choice: The nonlinear relationship between age and intention to enter full-time entrepreneurship". *Journal of Business Venturing Insights.* 5: 14–18.
- Tornikoski, E. T. and T. Kautonen (2009). "Enterprise as sunset career? Entrepreneurial intentions in the ageing population". *International Journal of Entrepreneurship and Small Business.* 8(2): 278–291.

Ucbasaran, D., P. Westhead, and M. Wright (2008). "Opportunity identification and pursuit: Does an entrepreneur's human capital matter?" *Small Business Economics*, 30(2): 153–173.

- Unger, J. M., A. Rauch, M. Frese, and N. Rosenbusch (2011). "Human capital and entrepreneurial success: A meta-analytical review". *Journal of Business Venturing*. 26(3): 341–358.
- Van Es, F. and D. J. Van Vuuren (2011). "A decomposition of the growth in self-employment". *Applied Economics Letters*. 18(17): 1665–1669.
- van Gelderen, M., T. Kautonen, J. Wincent, and M. Biniari (2017). "Implementation intentions in the entrepreneurial process: concept, empirical findings, and research agenda". *Small Business Economics*: 1–19.
- Wainwright, T. and E. Kibler (2013). "Beyond financialization: older entrepreneurship and retirement planning". *Journal of Economic Geography*. 14(4): 849–864.
- Walker, A. (2006). "Active ageing in employment: Its meaning and potential". Asia-Pacific Review. 13(1): 78–93.
- Walker, E. A. and B. J. Webster (2007). "Gender, age and self-employment: some things change, some stay the same". Women in Management Review. 22(2): 122–135.
- Wang, M., Y. Zhan, S. Liu, and K. S. Shultz (2008). "Antecedents of bridge employment: A longitudinal investigation". *Journal of Applied Psychology.* 93(4): 818.
- Weber, P. and M. Schaper (2004). "Understanding the grey entrepreneur". Journal of Enterprising Culture. 12(2): 147–164.
- Weber, P. and M. Schaper (2007). "Are mature (grey) entrepreneurs more successful than their younger counterparts? A study of Australian tourism hosted accommodation owners". In: *Proceedings of the Small Enterprise Conference: Building Sustainable Growth in SMEs.* Manakau City, Auckland.
- Welter, F., T. Baker, D. B. Audretsch, and W. B. Gartner (2017). Everyday entrepreneurship—a call for entrepreneurship research to embrace entrepreneurial diversity.
- Wenger, J. B. and J. Reynolds (2009). "Older married workers and non-standard jobs: The effects of health and health insurance". *Industrial Relations: A Journal of Economy and Society*. 48(3): 411–431.

Wiklund, J. and D. Shepherd (2003). "Aspiring for, and achieving growth: The moderating role of resources and opportunities". *Journal of Management Studies*. 40(8): 1919–1941.

- World Health Organization (2002). Active ageing—A policy framework. A contribution of the World Health Organization to the second United Nations World Assembly on Ageing. Madrid (ES): WHO.
- Zhang, T. (2008). Elderly entrepreneurship in an aging US economy: it's never too late. Vol. 2. World Scientific.
- Zhang, T. and Z. Acs (2018). "Age and entrepreneurship: nuances from entrepreneur types and generation effects". *Small Business Economics*: 1–37.
- Zhao, H., S. E. Seibert, and G. T. Lumpkin (2010). "The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review". *Journal of Management*. 36(2): 381–404.
- Zissimopoulos, J. M. and L. A. Karoly (2007). "Transitions to self-employment at older ages: The role of wealth, health, health insurance and other factors". *Labour Economics*. 14(2): 269–295.
- Zissimopoulos, J. M. and L. A. Karoly (2009). "Labor-force dynamics at older ages: Movements into self-employment for workers and nonworkers". *Research on Aging*. 31(1): 89–111.
- Zissimopoulos, J. M., L. A. Karoly, and Q. Gu (2010). "Liquidity constraints, household wealth, and self-employment: the case of older workers". URL: https://www.frbsf.org (accessed on 05/10/2018).