**Age, job identification, and entrepreneurial intention**

*submitted to Journal of Managerial Psychology*

Dr Isabella Hatak, MA MSc

Institute for SME Management and Entrepreneurship

WU Vienna University of Economics and Business

Welthandelsplatz 1, 1020 Vienna, AUSTRIA

isabella.hatak@wu.ac.at

PD Dr Rainer Harms

Institute for Innovation and Governance Studies / NIKOS

University of Twente

PO Box 217, 7500 AE Enschede, NL

r.harms@utwente.nl *(corresponding author)*

Prof. Dr Matthias Fink

Institute for International Management Practice

Anglia Ruskin University Cambridge

East Road, Cambridge, UK

matthias.fink@anglia.ac.uk

**Age, job identification, and entrepreneurial intention**

**Isabella Hatak** is Assistant Professor at the Institute for Small Business Management and Entrepreneurship at the WU Vienna University of Economics and Business and at the Institute for Innovation at the Johannes Kepler University Linz. Moreover she is a Visiting Fellow to the IIMP at Anglia Ruskin University, Cambridge (UK). Isabella holds a PhD from the WU and an MSc in coaching and organizational development. Isabella has international work experience gained while studying for her MA in International Business at the Charles University in Prague (Czech Republic) and the HES School of Business in Amsterdam (The Netherlands).

**Rainer Harms** is Associate Professor for Entrepreneurship at NIKOS, University of Twente where he is also research director for the International Entrepreneurship group. He is Associate Editor of Creativity and Innovation Management and Zeitschrift für KMU und Entrepreneurship. He has served as Visiting Professor at the WU Vienna University of Economics and Business, and at the Universitat Autònoma de Barcelona, and has been a Visiting Scholar at the Carlson School of Business. He held positions at the University of Klagenfurt (Habilitation) and WWU Münster (Doctorate). His research interests lie in (international) entrepreneurship, firm growth, and innovation management.

**Matthias Fink** is head of the Institute for Innovation Management at the Johannes Kepler University Linz (Austria) and a Professor for Innovation and Entrepreneurship at the Institute for International Management Practice (UK). Matthias was previously Professor for International Small Business Management and Innovation at Leuphana University Lüneburg (Germany) and Head of the Research Institute for Liberal Professions at the WU Vienna University of Economics and Business. Matthias holds a PhD and a postdoctoral qualification (Habilitation) from WU and has been a Visiting Professor at several universities including the Universitat Autònoma de Barcelona (Spain) and the University of Twente (The Netherlands).

**Age, job identification, and entrepreneurial intention**

**Abstract**

The purpose of this paper is to examine how age and job identification affect entrepreneurial intention. We draw on a representative sample of the Austrian population and apply binary logistic regression on entrepreneurial intention. We find that as employees age they are less inclined to act entrepreneurially, and that their entrepreneurial intention is lower the more they identify with their job. Whereas gender, education, and previous entrepreneurial experience matter, leadership and having entrepreneurial parents seem to have no impact on the entrepreneurial intention of employees. Research implications relate to a contingency perspective on entrepreneurial intention where the impact of age is exacerbated by stronger identification with the job. Practical implications include the need to account for different motivational backgrounds when addressing entrepreneurial employees of different ages. Societal implications include the need to adopt an age perspective to foster entrepreneurial intentions within established organizations. While our study corroborates and extends findings from entrepreneurial intention research, we contribute new empirical insights to the age and job-dependent contingency perspective.

**Key words:** entrepreneurship; entrepreneurial intention; entrepreneurship and age; job identification

**Article classification:** research paper

**Age, job identification, and entrepreneurial intention**

**1. Introduction**

The increasing number of people working who are aged over 50 has led to a surge in interest from both the scientific community and policy makers in the subject of work in the later periods of life (Duval, 2003). Entrepreneurship among the older population is one facet of this topic, and in recent years the number of research projects dealing with the antecedents and consequences of what is termed grey entrepreneurship has grown (Hatak *et al*. 2013; Kautonen and Kraus, 2010). Grey entrepreneurship concerns those who act entrepreneurially at the age of 50 or over (Curran and Blackburn, 2001; Singh and DeNoble, 2003; Weber and Schaper, 2004; Werner, 2009).

A key finding of previous research on grey entrepreneurship is that the older workforce is less inclined to act entrepreneurially (Blanchflower *et al*., 2001; Curran and Blackburn, 2001; van Praag and van Ophem, 1995). While this result seems well-founded, grey entrepreneurship research has often overlooked important aspects. For example, research to date has not sufficiently taken account of the job-related context in which employees aged over 50 are embedded. In this regard, Ng and Feldman (2010, p. 678) point out that “how age relates to job attitudes is far less understood.”

This paper therefore analyzes age and job identification as antecedents to entrepreneurial intention on the basis of a large-scale sample of employees in Austria based on binary logistic regression analysis. Based on Ajzen’s (2011) definition of intention as “a person’s readiness to perform a given behaviour,” entrepreneurial intention refers to the intensity with which a person is likely to pursue new opportunities (Hisrich, 1990). It ranges from the non-existent via the latent (Blanchflower *et al.*, 2001) to the nascent (Davidsson and Honig, 2003) and young business ownership (Reynolds *et al.*, 2005).

The main contribution of this study is its analysis of the combined impact of age and job identification on the degree of entrepreneurial intention. The study meets the demand for a sophisticated analysis of the entrepreneurial intentions of the older population. Proponents of multilevel research (Hitt *et al*., 2007; Ireland and Webb, 2007), particularly multilevel entrepreneurship research (Davidsson and Wiklund, 2001), stress that to understand entrepreneurial intentions, researchers must account for both individual and organizational factors. This study addresses the multilevel perspective by jointly analyzing the impact of age and job identification on entrepreneurial intentions. A more valid understanding of grey entrepreneurial intention would enable researchers, managers, and policy makers to concentrate their efforts more efficiently on specific target groups, and to determine which antecedents of grey entrepreneurship they should be focusing on and the types of economic and social results that should be targeted.

This paper is structured as follows: In the first section, hypotheses regarding the effect of age and job identification on the entrepreneurial intention in the context of grey entrepreneurship are formulated based on current research. Subsequently, the sample, the operationalization, and the methods are introduced. Next, the results of the econometric analysis are presented. Finally, we discuss the results and their implications for both research and practice.

**2. Theoretical background and hypotheses**

Companies aiming to increase competitiveness often aim to become more entrepreneurial by embracing risk-taking, innovativeness, and proactivity (Miller, 1983). With evidence supporting the positive performance effects of such an entrepreneurial orientation (Harms and Ehrmann, 2003; Rauch *et al*., 2009), companies are realizing that employees who act in risk-oriented, innovative and proactive ways (Monsen, 2005) and exhibit a readiness to pursue opportunities (Fayolle and Linan, 2014) are a key resource that can deliver competitive advantage. The employees that intend to be, or have been, active in “the development of new business activities for their employer” (Martiarena, 2013, p. 31) are called intrapreneurs, and they help their employers to compete in and create new markets (Antoncic and Hisrich, 2001; Vesper, 1984).

Finding and supporting those employees who have strong entrepreneurial intentions, broadly defined as those who are ready to pursue new opportunities (Thompson, 2009), is therefore vital for any organization. First, these people can use their ambition and energy to develop new businesses for the parent company. Second, they could be looking to pursue independent entrepreneurship opportunities (Douglas and Fitzsimmons, 2013) and may leave the company, which would lead to a loss of vital human capital. Facing such high-impact outcomes associated with entrepreneurial employees, it is in the interest of companies that need to adapt to dynamic environments to be informed about the entrepreneurial intentions of their workforce (Krueger and Brazeal, 1994).

In fact, understanding the factors contributing to employee entrepreneurial intention is crucial for organizational competitiveness. Along with the fact that the number of employees over the age of 50 is increasing (Duval, 2003), it is essential to question whether there are differences between the younger and the older worker in terms of factors influencing their entrepreneurial intentions. Consequently, the econometric model in this study investigates not only how age, but also how job identification influences the entrepreneurial intention of employees, and in so doing, addresses the issue of the job-related context in which the employees are embedded, as called for by Kuratko *et al*., 2005.

*Age*. Although older people are more capable of exhibiting behaviors that deviate from the customary way of doing business as they have greater means and opportunity for doing so (Curran and Blackburn, 2001; Weber and Schaper, 2004), they are only half as likely as people under the age of 50 to take steps toward acting entrepreneurially (Hart *et al*., 2004) or to actually establish a company (Kautonen, 2008). Lévesque and Minniti (2006) explain the age-related effect on entrepreneurial intention as a result of the opportunity costs of time. They argue that older people are less willing to invest time in activities that have a long and uncertain payback period (see also Fung *et al*., 2001), such as starting a venture or developing new business activities for their employer. It can thus be assumed that age has a negative relation with entrepreneurial intention.

*H1: Age has a negative relation with entrepreneurial intention.*

*Job identification*. According to Krueger and Brazeal (1994, p. 92), “entrepreneurial activity does not occur in a vacuum. Instead, it is deeply embedded in a cultural and social context.” While previous economic models of entrepreneurial decision making were simply based on expected utility from prospective income streams, Eisenhauer (1995) explicitly included the expected utility that is derived from the working conditions of the current job and the desire to act entrepreneurially (Lee *et al*., 2011). For example, it has been shown that employees who are satisfied with their current job are less likely to consider entrepreneurship as an alternative (Brockhaus, 1980; Cromie and Hayes, 1991; Henley, 2007).

Taking the utility derived from working conditions into account, the analysis of employees’ entrepreneurial intention should consider the job-related context in which employees are embedded. A key factor is job identification, that is, the extent to which individuals perceive themselves to be part of the job they undertake (Luhtanen and Crocker, 1992; Sargent, 2003). Employees tend to positively interpret job-related conditions if they strongly identify with their job (Chen *et al*., 2013). Such identification is based on the satisfaction that is derived from the job (Baum and Youngblood, 1975), the importance that is attributed to the job (Luhtanen and Crocker, 1992), and the length of employment in an organization (Ng and Feldman, 2010; Schneider *et al*., 1995). Job identification also involves the psychological attachment the employee feels to the job. Taking a closer look at the psychological component of job identification, social identity theorists (Ashforth and Mael, 1989; Kramer 1991; Tajfel and Turner, 1985) have argued that self-definition on the basis of job or profession “helps the individual maintain a consistent sense of self, distinct from others, while enhancing self-esteem” (Dukerich *et al*., 2002, p. 509). Consequently, employees with stronger job identification should be more likely to tie their future to the organization in which their job is embedded. This lowers turnover intention in general (Mael and Ashforth, 1995; van Dick, Christ *et al*., 2004; van Dick, Wagner *et al*., 2004) and entrepreneurial intention in particular. Therefore, we hypothesize:

*H2: Job identification has a negative relation to entrepreneurial intention.*

*Age and job identification*.

Age and job identification may have a combined impact on entrepreneurial intention. Older employees are not only less likely to pursue new opportunities (Hart *et al*., 2004), but also more likely to exhibit more favorable attitudes toward their jobs (Hochwarter *et al*., 2001; Krumm *et al*., 2013; Ng and Feldman, 2010), which may result in even lower entrepreneurial intentions.

This higher level of job identification at an older age might be explained by socioemotional selectivity theory (Carstensen, 1991) that proposes that individuals adapt to aging by trying to maximize their social and emotional gains and minimize their social and emotional risks. Through optimization, older individuals are more likely to work in jobs they can identify with (Carstensen, 1992). According to socioemotional selectivity theory, older individuals are also more likely to experience positive emotions and less likely to experience negative emotions than younger individuals (Gross *et al*., 1997). In this regard, given that attitudes also have an emotional component (Edwards, 1990), Ng and Feldman (2010) have empirically shown that older employees generally have more positive job attitudes, which is manifested in stronger identification with their jobs than that of younger employees.

Socioemotional selectivity theory also proposes that younger individuals prioritize knowledge-acquisition goals, whereas older individuals emphasize emotion-regulation goals (Carstensen, 1992). This goal shift with age results from the individuals’ perceptions of how much time they have left in life. With increasing age, the time horizon becomes more and more limited (Cate and John, 2007). Whereas “younger individuals are more likely to perceive that they have plenty of opportunities in the years ahead [...] older individuals are more likely to perceive that time is running out and perceive more limitations on their future options” (Ng and Feldman, 2010, p. 685). As a result of this shorter time horizon, older employees tend to view their current jobs in a more positive light (Carstensen, 1991). Hence, they receive more immediate gratification from identifying with their current jobs (Wright and Hamilton, 1978) than they do from engaging in the knowledge-acquisition activities (Carstensen *et al*., 1999) required to pursue new opportunities. We therefore assume that the relationship between age and entrepreneurial intention is influenced by job identification.

*H3: The relationship between age and entrepreneurial intention is moderated by job identification, i.e., the stronger the job identification, the stronger the negative relationship between age and entrepreneurial intention.*

*Figure 1* provides an overview of the hypothesized relationships.

----------------------------------

Insert Figure 1 about here

----------------------------------

**3. Method**

3.1. Sample

The sample is based on a postal survey of the adult workforce (20–64 years of age) in Austria. The initial survey instrument was tested on a small convenience sample of Austrian participants, which prompted some amendments. Subsequently, a pilot test was conducted on 100 respondents that confirmed that the survey instrument worked as expected.

We sent out 15,000 questionnaires in Austria to respondents selected randomly in a representative range of regions according to a strategy devised in consultation with Statistics Austria. As we attempted to draw a representative sample in terms of gender, age (target age: 20–64 years), and geographical distribution despite the lack of a central population register, we had to adopt a heuristic approach by using a digital phone book to identify addresses in the selected municipalities. The survey was labeled an “opinion survey on entrepreneurship” so as not to deter potential participants who were not acting entrepreneurially or had no desire to start their own business. The postal survey generated a total of 1,024 responses (response rate 7%). While we were able to control regional and gender distribution, the heuristic sampling approach did not allow us to consider age in the sampling process. Thus, the actual usable sample amounts to 766 individuals between 20 and 64 years of age. Of these 766 individuals, 316 fit the selection criteria of this analysis, in that they are currently in dependent employment.

To avoid nonresponse bias, we implemented several approaches proposed in the literature, such as establishment of survey importance, careful questionnaire design and length management (Yu and Cooper, 1983). Moreover, we assessed the sample for potential nonresponse bias by conducting archival and wave analysis (Rogelberg and Stanton, 2007). Archival analysis targets passive nonresponse bias by comparing the characteristics of the sample with the characteristics of the population (Rogelberg and Stanton, 2007). A comparison of our sample with Austrian population statistics shows that the average age of the respondents in the sample (43.3 years) is somewhat higher than the national average in the age group 20–64 (42 years). Wave analysis aims to control for active nonresponse, that is, nonresponse that results from the recipient’s conscious decision not to respond, by comparing early and late responses (Rogelberg *et al*., 2003). We conducted a wave analysis by comparing the means of key variables between early and late responses (the first and the last 30% to arrive); *t*-tests did not show significant differences.

3.2. Operationalization

*Entrepreneurial intention* was measured on an ordinal scale with respondents indicating whether they were not thinking about acting entrepreneurially at all, sometimes thought about it, were seriously thinking about it, or were nascent entrepreneurs (Krueger *et al*., 2000; Liñán and Chen, 2009). As this variable had a skewed distribution with only 9.6% of the respondents indicating higher degrees of entrepreneurial intention, we dichotomized this variable into those who had not thought about acting entrepreneurially and those who had thought about it or had even become active entrepreneurs.

*Job identification* was measured as a formative construct by an unweighted average of the three factors *importance of current job*, *satisfaction in current job* and *length of dependent employment*. Operationalizations from the literature emphasize the multidimensional nature of job identification (Luhtanen and Crocker, 1992), which is based on the satisfaction that is derived from role performance (Baum and Youngblood, 1975). It also reflects the extent to which employees feel their job is related to their sense of self (Sargent, 2003). In this, job identification acts alongside job importance and length of dependent employment (Schneider et al., 1995). The former is an important predictor of the relationship between job satisfaction and life satisfaction (Benjamin and Barrett, 1972) while the latter is a “good indicator of person-organization fit” (Ng and Feldman, 2010, p. 687). We therefore argue that the items chosen in this research are close enough conceptually to the construct’s content to warrant their inclusion.

*Age* was measured in years as a metric variable with higher values indicating greater age.

As control variables, we chose gender (1 = male; 2 = female), education (ordinal scale), professional background (1 = with leadership component; 2 = without leadership component), previous entrepreneurial experience (1 = no; 2= yes), and entrepreneurial parents (1 = no; 2 = yes), as they have been found to affect entrepreneurial intention.

*Table 1* presents the descriptive statistics for the general sample.

----------------------------------

Insert Table 1 about here

----------------------------------

*Table 2* presents measures of association between the variables.

----------------------------------

Insert Table 2 about here

----------------------------------

3.3. Analysis

As the dependent variable is binary, we use binary logistic regression to analyze whether entrepreneurial intention is influenced by the independent variables and the moderation. First, we calculate a main effects model with controls only. Then, we introduce the moderation analysis.

**4. Results**

Regarding the control variables, both models (*Table* *3*) show a significant impact of *gender* (negative), *education* (positive), and *previous entrepreneurial experience* (positive) as suggested by literature. For *professional background* and *entrepreneurial parents*, the coefficients are not significant in either model. These findings are stable over both models. Overall, these results show that the inclusion of controls is warranted to obtain a well specified model. This claim is supported by the finding that the control model alone (I; *Table 3*) can explain between 9.7% (Cox & Snell) and 13.2% (Nagelkerke) of variance, with 67.6% correctly classified cases.

----------------------------------

Insert Table 3 about here

----------------------------------

The results of the main model (II; *Table 3*) show that age is associated with a lower likelihood of having an entrepreneurial intention (coefficient -.054, significant on a level of under 1%), providing support for Hypothesis 1. *Job identification* itself fails to register a significant impact on entrepreneurial intention (coefficient -.300, p-value at .378). This is contrary to what was anticipated by Hypothesis 2. The *moderation effect* with age, however, indicates that a negative impact of job identification is stronger among older employees (-.044, significant on a level of under 10%). This finding provides support for Hypothesis 3. In sum, job identification does not have a significant direct effect on entrepreneurial intention, although it does moderate the relationship between age and entrepreneurial intention.

The model that contains the variables of interests and the interaction effect (II; *Table 3*) is capable of explaining a larger share of variance than the control model alone (I; *Table 3*) (the corresponding values for Cox & Snell and Nagelkerke are 18.5% and 25.2%, respectively), and the percentage of correctly classified cases increases slightly to 70.9%.

**5. Discussion**

There will be more and more older employees in the workforce of Western companies as baby boomers reach early retirement age and the populous birth cohorts of the late 1960s and early 1970s begin to mature (Krumm *et al*., 2013; Ng and Feldman, 2010). Therefore, to guarantee a resilient economic environment, policy makers are striving to keep individuals in employment longer. At the same time, in order to cope with fierce competition on global markets and the elevated pace of change, companies need employees that are ready to pursue new opportunities within the organization. The need to meet these challenges makes it important to consider which factors contribute to the entrepreneurial intention of the aging workforce. By investigating the joint impact of age and job identification on entrepreneurial intention, this research addresses a topical issue.

Based on a representative sample of Austrian employees, we find that older employees have a reduced intention to act entrepreneurially, and that this effect is stronger when there is a higher degree of job identification. These key results highlight the role of age in the entrepreneurial potential of employees and question the potential of the concept of intrapreneurship in an aging workforce as a strategy to strengthen companies’ innovativeness and thus their competitiveness. The findings also reinforce the validity of socioemotional selectivity theory in combination with economic theory on job selection.

For employers, entrepreneurial intention among the workforce is a double-edged sword. On the one hand, employees with a strong entrepreneurial intention may leave the company and pursue entrepreneurial opportunities independently (Hongli and Qi, 2011). This may lead to a drain of expertise and may deprive the employer of the benefit of economic returns of innovative product–market combinations. On the other hand, if tied to the company, employees that exhibit behaviors deviating from the customary way of doing business (Antoncic and Hisrich, 2003; Krueger and Brazeal, 1994) may act as change agents who enhance the dynamic capabilities of established organizations (Gordon *et al*., 2007). Thus, for management wishing to strengthen entrepreneurial orientation, a key task is to identify these entrepreneurial employees and to tap their entrepreneurial potential. To be able to fulfil this task, management would need to develop human resource management initiatives that satisfy the entrepreneurial employees’ desire for new challenges, and also address the older non-entrepreneurially oriented employees’ desire for emotion-regulation goals. Our findings inform the design of such initiatives.

We advance previous research on the crossroads of organizational embeddedness – which we frame as job identification – and entrepreneurial intention (Hongli and Qi, 2011; Ng and Feldman, 2010) by adopting an age-specific perspective that is based on socioemotional selectivity theory. Hongli and Qi (2011) argue that embeddedness fosters entrepreneurial self-efficacy and hence entrepreneurial intention. In line with socioemotional selectivity theory (Carstensen, 1991), we find, to the contrary, that embeddedness strengthens the negative impact of age on employees’ entrepreneurial intention. There seems to be a trade-off between employees’ job identification, which ties them to their current employer, and their entrepreneurial intention, which is the prerequisite for intrapreneurship to evolve in a company.

We recommend employers striving to foster intrapreneurship in their companies to combine the benefits brought by older employees, such as “personal maturity, significant professional experience” (Gordon *et al*., 2007, p. 8), with the entrepreneurial drive of younger employees. In age-diverse teams in corporate entrepreneurship projects, various forms of motivation could be addressed. Younger employees can address their knowledge-acquisition goals and take the opportunity to benefit from entrepreneurial options that are risky but potentially profitable in the long term. At the same time, older employees can address their emotion-regulation goals by identifying with their current job, thus experiencing a sense of belonging in the social environment (Carstensen *et al.*, 1999).

Existing empirical evidence on the performance impact of mixed-age teams, however, adds a new facet to this debate. While a meta-analysis by Horwitz and Horwitz (2007) suggests that there are no significant relationships between bio-demographic diversity and team performance, the study finds that task-related diversity has a positive relationship with the latter. Providing mixed-age teams represent different task backgrounds, positive effects can be expected. This is in line with the suggestions of the promoter model of innovation management, where (often more senior) power promoters and process promoters help to bring about successful innovation (Hauschildt and Kirchmann, 2001).

Implications for research are suggested in that the relationships between age and other factors that affect the entrepreneurial intention of employees ought to be scrutinized. For gender, education, and entrepreneurial experience, we have found significant direct relationships with entrepreneurial intention that may also serve as moderators of the relationship between age and entrepreneurial intention. Closer scrutiny of these minor results might provide interesting insights.

First, while the barriers facing women choosing to embark on entrepreneurship are being eroded (Loutfi, 2001), women still tend to be confronted with gender-specific legal, institutional and social obstacles that inhibit entrepreneurial action (Acs *et al.*, 2011; Blanchflower *et al.*, 2001; Duxbury and Higgins, 2001) and tend to be socialized toward less entrepreneurial roles (Moore and Butter, 1997; Scherer *et al*., 1991). Those aged over 50 may be particularly subject to more traditional gender models, so the impact of gender on entrepreneurial intention may persist in the older population.

Second, with regard to education, a meta-analysis suggests that postgraduate training has a positive effect on the development of an entrepreneurial mindset (van der Sluijs *et al.,* 2008). In this regard, economic theories on career choice (Douglas and Shepherd, 2002) argue that younger people stand a better chance of reaping long-term profits from entrepreneurship. Thus, education may moderate the effect of age on the entrepreneurial intention of employees.

The limitations of this study can be seen particularly in the pseudo-R2 of the model. While the R2 for the full model is relatively high compared to the average share of explained variance in social science studies (Cox & Snell: .185, Nagelkerke: .252), it might be rather low for companies that want to screen the entrepreneurial intention of their employees in an indirect way. We suggest that instead of relying on indirect indicators, companies should address their workforce directly when they want to tap the entrepreneurial potential of their employees. Here, more fine-grained multi-item measurement may be called for to obtain a differentiated picture of the company’s intrapreneurs (Douglas and Fitzsimmons, 2013).

Another limitation concerns the reach of the empirical findings. While the sample was composed to ensure it was representative of the Austrian population, we cannot be sure that our findings can be generalized to other geographical contexts. Earlier studies point in this direction, with for example Moriano *et al.* (2012) finding culture affects the formation of entrepreneurial intention, and Kautonen *et al.* (2013) reporting significant differences between the impact of attitude on entrepreneurial intention among Finnish and Austrian subjects.

Our results provide a first empirically-grounded orientation. In a nutshell, our findings suggest that older employees are less inclined to act entrepreneurially than younger colleagues and are even less inclined to act entrepreneurially the longer they have been employed and the more important and satisfying they perceive their current job to be. They are unlikely to be the group acting as intrapreneurs and contributing noticeably to improving their employer’s flexibility and innovativeness. However, in the long term, favorable firm development requires a balance between elements of stability and change (Stevenson and Jarillo, 1990). Thus, management needs to nurture a workforce that spans the range from young and new employees, who induce change by questioning the status quo as they strive for more important and satisfying jobs, and older satisfied long-term employees who provide stability.

**References**

Acs, Z.J., Bardasi, E., Estrin, S. and Svejnar, J. (2011), “Introduction to special issue of Small Business Economics on female entrepreneurship in developed and developing economies”, *Small Business Economics*, Vol. 37 No.4, pp. 393-396.

Ajzen, I. (2011), “Theory of planned behavior”, available at: http://people.umass.edu/ aizen/tpb.html (accessed 01 October 2013).

Antoncic, B. and Hisrich, R.D. (2001), “Intrapreneurship: Construct Refinement and Cross-Cultural Validation”, *Journal of Business Venturing*, Vol. 16 No. 5, pp. 495-527.

Antoncic, B. and Hisrich, R.D. (2003), “Clarifying the intrapreneurship concept”, *Journal of Small Business and Enterprise Development*, Vol. 10 No. 1, pp. 7-24.

Ashforth, B.E. and Mael, F.A. (1989), “Social identity theory and the organization”, *Academy of Management Review*, Vol. 14 No. 1, pp. 20–39.

Baum, J.F. and Youngblood, S.A. (1975), “Impact of an organizational control policy on absenteeism, performance, and satisfaction”, *Journal of Applied Psychology*, Vol. 60 No. 6, pp. 688-694.

Benjamin, I. and Barrett, G.V. (1972), “Some relations between job and life satisfaction and job importance”, *Journal of Applied Psychology*, Vol. 56 No. 4, pp. 301-304.

Blanchflower, D.G., Oswald, A.J. and Stutzer, A (2001), “Latent entrepreneurship across nations”, *European Economic Review*, Vol. 45 No. 4-6, pp. 680-691.

Brockhaus, R.H. (1980), “The effect of job dissatisfaction on the decision to start a business”, *Journal of Small Business Management*, Vol. 18, pp. 37–43.

Carstensen, L.L., Issacowitz, D.M. and Charles, S.T. (1999), “Taking time seriously: A theory of socioemotional selectivity”, *American Psychologist*, Vol. 54 No. 3, pp. 165–181.

Carstensen, LL. (1991), “Selectivity theory: Social activity in life-span context”, *Annual Review of Gerontology and Geriatrics*, Vol. 11, pp. 195–217.

Carstensen, LL. (1992), “Social and emotional patterns in adulthood: Support for socioemotional selectivity theory”, *Psychology and Aging*, Vol. 7 No. 3, pp. 331–338.

Cate, R.A. and John, O.P. (2007), “Testing models of the structure and development of future time perspective: Maintaining a focus on opportunities in middle age”, *Psychology and Aging*, Vol. 22 No. 1, pp. 186–201.

Chen, Y.-C., Chi, S.-C.S. and Friedman, R. (2013), “Do more hats bring more benefits? Exploring the impact of dual organizational identification on work-related attitudes and performance”, *Journal of Occupational and Organizational Psychology*, Vol. 86 No. 3, pp. 417–434.

Cromie, S. and Hayes, J. (1991), “Business ownership as a means of overcoming job dissatisfaction”, *Personnel Review*, Vol. 20 No. 1, pp. 19–24.

Curran, J. and Blackburn, R. (2001), “Older people and the enterprise society: Age and self-employment propensities”, *Work, Employment and Society*, Vol. 15 No. 4, pp. 889-902.

Davidsson, P. and Honig, B. (2003), “The role of social and human capital among nascent entrepreneurs”, *Journal of Business Venturing*, Vol. 18 No. 3, pp. 301-331.

Davidsson, P. and Wiklund, J. (2001), “Levels of analysis in entrepreneurship re-search: current research practice and suggestions for the future”, *Entrepreneurship Theory and Practice*, Vol. 25 No. 4, pp. 81–100.

Douglas, E.J. and Fitzsimmons, J.R. (2013), “Intrapreneurial intentions versus entrepreneurial intentions: Distinct constructs with different antecedents”, *Small Business Economics*, Vol. 41 No. 1, pp. 115-132.

Douglas, E.J.D and Shepherd, D.A. (2002), “Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization”, *Entrepreneurship Theory and Practice*, Vol. 26, No. 3, pp. 81-90.

Dukerich, J. M., Golden, B. R. and Shortell, S. M. (2002), “Beauty is in the eye of the beholder: The impact of organizational identification identity and image on the cooperative behaviors of physicians”, *Administrative Science Quarterly*, Vol. 47 No. 3, pp. 507–533.

Duval, R. (2003), “Retirement behaviour in OECD countries: Impact of old-age pension schemes and other social transfer programmes”, *OECD Economic Studies*, No. 37 (2003/2), pp. 7-50.

Duxbury, L. and Higgins, C. (2001), “Work-life balance in the new millennium: Where are we? Where do we need to go?”, Canadian Policy Research Networks Discussion Paper No. W/12, Ottawa.

Edwards, K. (1990), “The interplay of affect and cognition in attitude formation”, *Journal of Personality and Social Psychology*, Vol. 59 No. 2, pp. 202–216.

Eisenhauer, J.G. (1995) “The entrepreneurial decision: economic theory and empirical evidence”, *Entrepreneurship Theory and Practice*, Vol. 19 No. 4, pp. 67–80.

Fayolle, A. and Linan, F. (2014), “The future of research on entrepreneurial intentions”, *Journal of Business Research*, Vol. 67 No. 5, pp. 663-666.

Fung, H.H., Lai, P. and Ng, R. (2001), “Age differences in social preferences among Taiwanese and mainland Chinese: The role of perceived time”, *Psychology and Aging*, Vol. 16 No. 2, pp. 351–356.

Gordon, J.R., Whelan-Berry, K.S. and Hamilton, E.A. (2007), “The relationship among work-family conflict and enhancement, organizational work-family culture, and work outcomes for older working women”, *Journal of Occupational Health Psychology*, Vol. 12 No. 4, pp. 350-364.

Gross, J.J., Carstensen, L.L., Tsai, J., Skorpen, C.G. and Hsu, A.Y (1997), “Emotion and aging: Experience, expression, and control”, *Psychology and Aging*, Vol. 12 No. 4, pp. 590–599.

Harms, R. and Ehrmann, Th. (2003), “The performance implications of entrepreneurial management: Linking Stevenson's and Miller's conceptualization to growth”, Paper presented at BKERC 2003, 05-07 June, Wellesley, MA, USA.

Hart, M., Anyadike-Danes, M. and Blackburn, R. (2004), “Entrepreneurship and age in the UK: Comparing third age and prime age new venture creation across the regions”, paper presented at RENT XVIII, 25-26 November, Copenhagen, Denmark.

Hatak, I., Kautonen, T. and Fink, M. (2013), „Grey-Unternehmertum: Empirische Evidenz aus 27 europäischen Ländern“, *Die Betriebswirtschaft*, Vol. 73 No. 1, pp. 7-26.

Hauschildt, J. and Kirchmann, E. (2001), “Teamwork for innovation – The ‘troika’ of promotors”, *R&D Management*, Vol. 31 No. 1, pp. 41-49.

Henley, A. (2007), “Entrepreneurial aspiration and transition into self-employment: evidence from British longitudinal data”, *Entrepreneurship and Regional Development*, Vol. 19 No. 3, 253–280.

Hisrich, R.D. (1990), “Entrepreneurship/Intrapreneurship”, *American Psychologist*, Vol. 45 No. 2, pp. 209-222.

Hitt, M.A., Beamish, P.W., Jackson, S.E. and Mathieu, J.E. (2007), “Building theoretical and empirical bridges across levels: multilevel research in management”, *Academy of Management Journal*, Vol. 50 No. 6, pp. 1385–1399.

Hochwarter, W., Ferris, G., Perrewé, P., Witt, L. and Kiewitz, C. (2001), “A note on the nonlinearity of the age–job-satisfaction relationship”, *Journal of Applied Social Psychology*, Vol. 31 No. 6, pp. 1223–1237.

Hongli, W. and Qi, H. (2011), “A conceptual model of entrepreneurial intentions of IT professionals”, paper presented at the International Conference on IEEE (Management and Service Science (MASS)), 12-14 August, Wuhan, doi: 10.1109/ICMSS.2011.5997935

Horwitz, S.K. and Horwitz, I.B. (2007), “The effects of team diversity on team outcomes: A meta-analytic review of team demography”, *Journal of Management*, Vol. 33 No. 6, pp. 987-1015.

Ireland, R.D. and Webb, J.W. (2007), “A cross-disciplinary exploration of entrepreneurship research”, *Journal of Management*, Vol. 33 No. 6, pp. 891–927.

Kautonen, T. (2008), “Understanding the older entrepreneur: Comparing third age and prime age entrepreneurs in Finland”, *International Journal of Business Science and Applied Management*, Vol. 3 No. 3, pp. 3-13.

Kautonen, T. and Kraus, S. (2010), “Grey-Unternehmertum”, *Die Betriebswirtschaft*, Vol. 70 No. 1, pp. 95-98.

Kautonen, T., van Gelderen, M. and Fink, M. (2013), „Robustness of the theory of planned behaviour in predicting entrepreneurial intentions and actions“, *Entrepreneurship Theory and Practice*, DOI: 10.1111/etap.12056.

Kramer, R. (1991), “Intergroup relations and organizational dilemmas: The role of categorization processes”, in Cummings, L.L. and Staw, B.M. (eds.), *Research in Organizational Behavior*, JAI Press, Greenwich, CT, pp. 191-228.

Krueger, N.F. and Brazeal, D.V. (1994), “Entrepreneurial potential and potential entrepreneurs”, *Entrepreneurship Theory and Practice*, Vol. 18, pp. 91-104.

Krueger, N.F., Reilly, M.D. and Carsrud, A.L. (2000), “Competing models of entrepreneurial intentions”, *Journal of Business Venturing*, Vol. 15 No. 5–6, pp. 411-432.

Krumm, S., Grube, A. and Hertel, G. (2013), “No time for compromises: Age as a moderator of the relation between needs–supply fit and job satisfaction”, *European Journal of Work and Organizational Psychology*, Vol. 22 No. 5, pp. 547-562.

Kuratko, D.F., Hornsby, J.S. and Bishop, J.W. (2005), “Managers’ corporate entrepreneurial actions and job satisfaction”, *International Entrepreneurship and Management Journal*, Vol. 1 No. 3, pp. 275-291.

Le, A.T. (1999), “Empirical studies of self-employment”, *Journal of Economic Surveys*, Vol. 13 No. 4, pp. 381-416.

Lee, L., Wong, P.K., Foo, M.D. and Leung, A. (2011), “Entrepreneurial intentions: The influence of organizational and individual factors”, *Journal of Business Venturing*, Vol. 26 No. 1, pp. 124-136.

Lévesque, M. and Minniti, M. (2006), “The effect of aging on entrepreneurial behaviour”, *Journal of Business Venturing*, Vol. 21 No. 2, pp. 177-194.

Liñán, F. and Chen, Y.-W. (2009), “Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions”, *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 593-617.

Loutfi, M.F. (ed.) (2001), *Women, Gender and Work - What is equality and how do we get there?*, International Labour Office, Geneva.

Luhtanen, R. and Crocker, J. (1992), “A collective self-esteem scale. Self-evaluation of one's social identity”, *Personality and Social Psychology Bulletin,* Vol. 18 No. 3, pp. 302–318.

Mael, F.A. and Ashforth, B.E. (1995), “Loyal from day one: Biodata, organizational identification, and turnover among new members”, *Personnel Psychology*, Vol. 48 No. 2, pp. 309–333.

Martiarena, A. (2013), “What’s so entrepreneurial about intrapreneurs?”, *Small Business Economics,* Vol. 40 No. 1, pp. 27-39.

Miller, D. (1983), “The correlates of entrepreneurship in three types of firms”, *Management Science*, Vol. 29 No. 7, pp. 770-791.

Monsen, E. (2005), *Employees do matter: Autonomy, teamwork, and corporate entrepreneurial culture.* PhD thesis, Boulder, Colorado.

Moore, D. and Butter, H. (1997), *Women entrepreneurs moving beyond the glass ceiling*, Sage, Thousand Oaks.

Moriano, J.A., Gorgievski, M., Laguna, M., Stephan, U. and Zarafshani, K. (2012), “A cross-cultural approach to understanding entrepreneurial intention”, *Journal of Career Development*, Vol. 39 No. 2, pp. 162-185.

Ng, T. and Feldman, D. (2010), “The relationships of age with job attitudes: A meta-analysis”, *Personnel Psychology*, Vol. 63 No. 3, pp. 677–718.

Ng, T.W.H. and Feldman, D.C. (2010), “The effects of organizational embeddedness on development of social capital and human capital”, *Journal of Applied Psychology*, Vol. 95, No. 4, pp. 696-712.

Rauch, A., Wiklund, J., Lumpkin, G. T. and Frese, M. (2009), “Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future”, *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 761-787.

Reynolds, P.D., Bosma, N., Autio, E., Hunt, St., De Bono, N., Servais, I., Lopez-Garcia, P. and Chin, N. (2005), “Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998-2003”, *Small Business Economics*, Vol. 24. No. 3, pp. 205-231.

Rogelberg, S.G. and Stanton, J.M. (2007), “Understanding and dealing with organizational survey nonresponse”, *Organizational Research Methods*, Vol. 10 No. 2, pp. 195-209.

Rogelberg, S.G., Conway, J.M., Sederburg, M.E., Spitzmüller, C., Aziz, S. and Knight, W.E. (2003), “Profiling active and passive nonrespondents to an organizational survey”, *Journal of Applied Psychology*, Vol. 88 No. 6, pp. 1104-1114.

Sargent, L.D. (2003), “Effects of a Downward Status Transition on Perceptions of Career Success, Role Performance and Job Identification”, *Australian Journal of Psychology*, Vol. 55 No. 2, pp. 114–120.

Scherer, R.F., Brodzinski, J.D., Goyer, K.A. and Wiebe, F.A. (1991), “Shaping the desire to become an entrepreneur: Parent and gender influences”, *Journal of Business and Entrepreneurship*, Vol. 3 No. 1, pp. 47-61.

Schneider, B., Goldstein, H.W. and Smith, D.B. (1995), “The ASA framework: An update”, *Personnel Psychology*, Vol. 48 No. 4, pp. 747–773.

Singh, G. and DeNoble, A. (2003), “Early retirees as the next generation of entrepreneurs”, *Entrepreneurship Theory and Practice*, Vol. 27 No. 3, pp. 207–226.

Stevenson, H.H. and Jarillo, J.C. (1990), “A Paradigm of Entrepreneurship: Entrepreneurial Management”, *Strategic Management Journal*, Vol. 11 No. 4, pp. 17-27.

Tajfel, H. and Turner, J. (1985), “The social identity theory of intergroup behaviour,” in Worchel, S. and Austin, W. (eds.), *Psychology of Intergroup Relations*, Nelson-Hall, Chicago, pp. 7-24.

Thompson, E.R. (2009), “Individual entrepreneurial intention: Construct clarification and development of an internationally reliable metric”, *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 669-694.

van der Sluijs, J., van Praag, M. and Vijverberg, W. (2008), “Education and Entrepreneurship selection: A review of the empirical literature”, *Journal of Economic Surveys*, Vol. 22 No. 5, pp. 795-841.

van Dick, R., Christ, O., Stellmacher, J., Wagner, U., Ahlswede, O., Grubba, C., Hauptmeier, M., Höhfeld, C., Moltzen, K. and Tissington, P. A. (2004), “Should I stay or should I go? Explaining turnover intentions with organizational identification and job satisfaction”, *British Journal of Management*, Vol. 15 No. 4, pp. 351–360.

van Dick, R., Wagner, U., Stellmacher, J. and Christ, O. (2004), “The utility of a broader conceptualization of organizational identification: Which aspects really matter?”, *Journal of Occupational and Organizational Psychology*, Vol. 77 No. 2, pp. 171–191.

van Praag, M. and van Ophem, H. (1995), “Determinants of willingness and opportunity to start as an entrepreneur”, *Kyklos*, Vol. 48 No. 4, pp. 513-540.

Vesper, K.H. (1984), “Three faces of corporate entrepreneurship”, in Hornaday, J.A., Timmons, J.A. and Vesper, K.H. (eds.), *Frontiers of Entrepreneurship Research*, Babson College, Wellesley, MA, pp. 294-320.

Weber, P. and Schaper, M. (2004), “Understanding the grey entrepreneur”, *Journal of Enterprising Culture*, Vol. 12 No. 2, pp. 147–164.

Werner, A. (2009), „Determinanten der Gründungsentscheidung älterer Personen in Deutschland – Eine empirische Analyse“, *Zeitschrift fuer KMU und Entrepreneurship*, Vol. 57 No. 2, pp. 115-139.

Wright, J.D. and Hamilton, R.F. (1978), “Work satisfaction and age: Some evidence for the ‘‘job change’’ hypothesis”, *Social Forces*, Vol. 56 No. 4, pp. 1140–1158.

Yu, J. and Cooper, H. (1983), “A quantitative review of research design effects on response rates to questionnaires”, *Journal of Marketing Research*, Vol. 20 No. 1, pp. 36-44.

Job identification

H2

H3

Entrepreneurial intention

Age

H1

|  |
| --- |
| **Figure 1**: Hypotheses |

|  |  |
| --- | --- |
| **Variable** | **Categories and distribution** |
| entrepreneurial intention | none (1): 63.7% | little (2): 26.6% | serious (3): 7.9% | nascent (4): 1.7% |
|  |  |  |  |
| job identification | Average: 2.96; StDv: .505 |
| Age | Average: 43.34, StDv: 10.97 |
| Gender | male (1): 49.0% | female (2): 51.0% |
|  |  |
| Education | 1-2: 15.9% | 3-4: 39.1% | 5-6: 37.4% | 7-8: 9.6% |
|  |  |  |  |
| professional background | leading (1): 38.2% | non-leading (2): 61.8% |
|  |  |
| entrepreneurial experience | no (1): 90.6% | yes (2): 9.4% |
|  |  |
| entrepreneurial parents | no (1): 54.3% | yes (2): 47.5% |
| **Table 1**: Descriptive statistics |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | entrepreneurial intention |  |  |  |  |  |  |  |
| 2 | job identification | -.219a,\*\* |  |  |  |  |  |  |
| 3 | Age | -.214a,\*\* | .416a,\*\* |  |  |  |  |  |
| 4 | Gender | -.209b,\*\* | -.012a | -.118a,\* |  |  |  |  |
| 5 | Education | .197c, \*\* | -.170c,\*\* | .006a | -.088c,# |  |  |  |
| 6 | professional background | -.066c | -.060a | -.072a | .115b,\* | -.064c,# |  |  |
| 7 | entrepreneurial experience | .166b,\*\* | -.040a | .113a,\* | .153b,\* | .019c | .103b |  |
| 8 | entrepreneurial parents | .026b | -.156a,\*\* | -.094a |  | .131c,\*\* | -.069b | .104b |
| **Table 2**: Measures of association; a: biserial; point biserial; b: phi-coefficient; c: rank biserial\*\* p < .01; \* p < .05; # p < .1 |

|  |  |  |
| --- | --- | --- |
|  | **I: Controls only** | **II: Moderation** |
|  | Coeff. | Std. Error | Sig. | Coeff. | Std. Error | Sig. |
| gender: male (1) / female (2) | -.756 | .239 | .002 | -.961 | .267 | .000 |
| Education | .261 | .074 | .000 | .273 | .084 | .001 |
| professional background: leading (1) / non-leading (2)  | -.050 | .244 | .837 | -.165 | .274 | .548 |
| entrepreneurial experience: no (1) / yes (2) | .878 | .361 | .015 | 1.431 | .470 | .002 |
| entrepreneurial parents: no (1) / yes (2) | -.028 | .240 | .907 | -.214 | .268 | .424 |
| job identification |  |  |  | -.300 | .340 | .378 |
| Age |  |  |  | -.054 | .016 | .001 |
| age \* job identification |  |  |  | -.044 | .024 | .061 |
|  | -2ll: 418.15, Cox&Snell: .097, Nagelkerke: .132; % corr. Class: 67.6 | -2ll: 354.88, Cox&Snell: .185, Nagelkerke: .252; % corr. Class: 70.9 |
| **Table 3**: Main effects model; 316 valid cases |