The retention of older employees and core work activities

Evidence from Denmark

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Abstract

Background and Objectives: Retention of older employees in the labour market is crucial to cope with ageing populations. Retention of older employees can appear in different forms, such as phased retirement, bridge jobs, career development, or health promotion. However, little is known about how the offering of these retention strategies may vary across workplaces with different core work activities because the opportunities to implement different types of retention strategies are preconditioned by differences in the economic and labour market climate.

Research Design and Methods: The study utilises data from a survey conducted among Danish workplaces in 2018, which is linked to administrative register data to conduct KHB-corrected logistic regression models. The study distinguishes among production workplaces, service and welfare workplaces, and information workplaces.

Results: Phased retirement is most prevalent in service and welfare workplaces, whereas job bridging is most prevalent in both service and welfare and production workplaces. Career development and health promotion strategies are most prevalent in information workplaces. These retention differences between workplaces with different core work activities are in most cases explained by differences in trade union influence, physical working demands, and knowledge intensity.

Discussion and Implications: Although the type of retention strategy offered in the workplace largely matches the core work activity within the workplace, particularly production workplaces could feasibly take more advantage of using career development or health promotion strategies since the employees of these workplaces are more likely to retire early due to poor health and physical working conditions.

Keywords: Extending working lives, Quantitative research methods, Workforce issues, Workplace survey

Introduction

Retention strategies in organisations play a vital role in ensuring an ageing workforce because older employees are more likely to remain in work if their needs are met and accommodated by the organisation (Armstrong-Stassen & Schlosser, 2011; Polat et al., 2017). For example, the offering of flexible working hours has been found to improve older employees' health-related work limitations (Vanajan et al., 2020). So far, most studies examining retention strategies for older employees have focused on the extent to which older employees make use of the provisions offered by the employers. Findings from these studies suggest that the use of retention strategies such as bridge jobs is associated with both work-related and non-work-related factors, such as perceived organisational support and employment relationships (Bennett et al., 2016), higher education, better health, financial incentives together with family circumstances (Dingemans et al., 2017), and different family role responsibilities (Garcia et al., 2021).

From an employer's perspective, however, far less is known about employers' efforts to retain older workers (cf. Oude Mulders, 2016). This is quite surprising, given that employers' behaviour is crucial for shaping employment opportunities for older employees (Henkens & Van Dalen, 2013). Previous research has outlined how organisations differ in their retention strategies by examining the workplace characteristics that are associated with different types of retention strategies. Findings from these studies suggest that factors such as larger workplaces, a higher share of older workers, recruitment problems, the influence of labour unions, and the public administration sector are conducive for having strategies aiming at retaining older workers (Hermansen & Midtsundstad, 2015; Lössbroek et al., 2019; Oude Mulders & Henkens, 2019; Principi et al., 2020; Van Dalen et al., 2015). A factor that has largely been overlooked in the previous literature is how different retention strategies are associated with the core work activity

of the workplace. The core work activity of a workplace refers to the essential function of the workplace to operate successfully. Workplaces that, for example, rely on work tasks aiming at producing or moving objects may be more likely to have other retention strategies compared to workplaces relying on merely information work conducted at an office. The current study aims to extend previous research by contributing to a systematic understanding of how the prevalence of employer-orchestrated retention strategies differs across workplaces with different core work activities and to explain the driving forces behind these workplace differences. To this end, the study utilises data from a Danish workplace survey conducted in 2018.

By examining this research question, the study contributes to a growing knowledge base about extending working life policies. Older employees with different core work activities are likely to have different preferences for retirement due to, for example, differences in working conditions. However, older employees with different core work activities may also have different possibilities for retirement because their employers' efforts to retain older employees vary depending on the core work activity of the workplace. Whereas some employers may be more likely to offer changes in the working demands to their older employees because it matches the workplace's core work activity, other employers may be more likely to offer training opportunities because that fits better with their workplace's core work activity. In this context, the study examines both more formal age-related personnel policies, such as phased retirement, and more informal and broad personnel policies, such as health promotion. Additionally, Denmark offers an interesting case for the study of retention practice, as the retention rate in Danish workplaces, measured as the percentage of employees between age 60-64 with at least five years of job tenure, has increased markedly from 34% in 2008 to 50% in 2018, which is above the average retention rate in the EU countries (OECD, 2021). As such, the strategies adopted by employers have likely

changed or expanded over the last couple of years because of a considerable political focus on extending the working lives of older employees. Lastly, since each workplace in Denmark has a unique identification number, it is possible to merge the survey data with administrative register data about each workplace. This allows us to measure some register-based organisational characteristics that are not prone to self-reported bias, which is a limitation of previous studies that solely have used survey data.

Theoretical background

Different types of retention strategies resemble both the workability and the demand–resource model. The core assumption in the workability model (E.g. Ilmarinen, 2006; Ilmarinen et al., 2008) is that the balance between (a) demands of work and (b) personal resources of older workers affects retirement intentions and the timing of retirement. To some extent, the workability model resembles the job demand–resource model (E.g. Demerouti et al., 2001; Schaufeli & Bakker, 2004), arguing that a healthy and socially sustainable work environment may require (a) a change in work demands and/or (b) the stimulation of personal growth, paving the way for working until or beyond the statutory retirement age.

Changing work demands and stimulating personal growth

Changing work demands and job characteristics are expected to enable a smooth transition between work and retirement. The most widely available and adopted form of flexible working is part-time work (Cebulla et al., 2007; Loretto et al., 2007). However, it is important to make a distinction between different types of changes in work demands, such as *phased retirement*, on the one hand, and *bridge jobs*, on the other. Phased retirement implies that employers are offering a reduction in working hours and work commitment on the same job (Johnson, 2011). As

such, phased retirement can involve downsizing work schedules, epitomised as partial retirement. In Denmark, phased retirement policies are often a part of collective labour market agreements (Pedersen, 2021). By contrast, phased retirement policies are less frequently used at workplaces in the United States due to cost and management issues from the employer's perspective (Clark & Ritter, 2020). A bridge job is associated with job mobility — i.e., older employees are offered a change in job tasks, meaning that older employees leave or retire from their career job and enter a new occupation on the move towards complete labour force withdrawal (Shultz, 2003).

Stimulating personal growth helps to boost employability, often defined as an individual's ability and readiness to continue working (Mcquaid et al., 2005; Midtsundstad, 2019). The strengthening of employability can include the improvement of both cognitive abilities and health-related abilities. Regarding cognitive abilities, employers may offer career developing initiatives such as training or re-training opportunities to older employees, either to prevent skills from becoming obsolete or to prepare older employees to be able to meet new demands originating from, for example, the introduction of new technologies or organisational changes (Armstrong-Stassen & Ursel, 2009). This type of remedy may also include career counselling that can help older employees to define the best direction in life (Ulrich & Brott, 2005). Regarding health-related abilities, it is rather straightforward that such abilities, such as physical functions, muscular functions, and reaction time, decline with age (Poscia et al., 2016). Since poor health is the most cited barrier to extend working life (Edge et al., 2017) and a workplace is a favourable place for health promotion due to the great amount of time spent there, employers may introduce a variety of health-promotion measures for older employees to meet this challenge (Andersen et al., 2015).

Accordingly, from the workability and job demand–resource model, at least four types of retention strategies can be derived: phased retirement, bridge jobs, career development, and health promotion. In this study, we expect that the offering of the different types of retention strategies varies across workplaces with different core work activities — i.e., whether the workplace performs information work activities, service and welfare work activities, or production work activities. Moreover, we expect that these core work activity differences in the offering of retention strategies are partially explained by differences in the economic and labour market climate.

First, phased retirement is likely to be more present in workplaces performing service and welfare work activities compared to workplaces performing information work. Phased retirement policies are often a part of collective labour market agreements (Pedersen, 2021), which in Denmark are handled by trade unions and employers' associations. As trade union density is largest in the public service tasks in which service and welfare work tasks dominate (Toubøl & Jensen, 2014), the higher likelihood of phased retirement in service and welfare workplaces may partially be driven by trade unions' greater influence on human resource policies. Moreover, since seniority-based wages (i.e., wages that increase with tenure) are a result of trade unions' greater influence and not necessarily productivity level (Ebbinghaus et al., 2011) phased retirement may also be offered in service and welfare workplaces to phase out older employees. Finally, as the job mobility within the health and education sector is generally high (Larsen et al., 2016), and this sector constitute a large share of service and welfare workplaces, the use of phased retirement may be less cost-intensive to implement in service and welfare workplaces. As such, we expect that phased retirement is more likely to be offered in service and welfare workplaces compared to information workplaces because service and welfare workplaces have more trade union involvement, stronger seniority-based wages, and higher accession rates.

Next, we expect that offering bridge jobs as a retention strategy are more likely to appear in workplaces performing production work compared to workplaces performing information work. Since production work often involves heavy and manual working tasks, bridge jobs that involve a change in such work demands may seem more applicable to offer at production workplaces. Additionally, workplaces within production activity are more likely to suffer from recruitment problems compared to other workplaces. Particularly, workplaces within construction work suffer from recruitment problems (Statistics Denmark, n.d.), and the workforce of such traditional and declining sectors is more likely to be aged (Ebbinghaus, 2006). Thus, among production workplaces, bridge jobs may be the most fruitful strategy to cope with their older employees. As such, we expect that bridge jobs are more likely to appear in workplaces performing production work compared to workplaces performing information work because production workplaces have more physical work and greater recruitment problems.

Third, we expect that the strengthening of career development is more likely to occur in workplaces performing information work compared to workplaces performing production work because higher knowledge intensity is more likely to be a criterion to perform information work among older employees in information workplaces. Knowledge intensity is expected to be higher in information workplaces because their jobs more likely require further education compared to production workplaces that rely more heavily on vocational training. Thus, workplaces with high knowledge intensity are likely to have greater incentives to apply career development strategies to their older employees (Principi et al., 2020).

The last retention strategy — health promotion — is a strategy that is less aged-based, as it can be offered to employees across the whole age spectrum and in principle across workplaces with different core work activities. However, from previous research, evidence suggests that health

promotion strategies are more likely to be offered to and utilised by high-skilled employees and less likely to be offered to and utilised by workers in manual and unskilled occupations (The National Research Center for Occupational Health, 2019). As the latter group is more likely to belong to production workplaces than information workplaces, we expect that information workplaces are more likely to offer health promotion compared to production workplaces.

Methods

Data

The study uses a survey among Danish workplaces with five or more employees. The workplace constitutes a local unit with one address and produces mainly one type of good or service. The workplace can be an organisationally delimited part of a company. Thus, a company can consist of many workplaces. The survey was conducted as a combination of internet and hard-copy survey between April and June 2018. The sample was drawn from Danish administrative register data and stratified by size of workplace and industry. The survey questionnaire was completed by the owner of the workplace, the business manager, or the person responsible for human resource management issues. The total sample size was 2,525 workplaces, which yielded a response rate of 25%. This is a relatively low response rate compared with individual surveys but similar to other surveys conducted at the organisational level, where response rates are at most 20–30% (Brewster et al., 1994; Kalleberg et al., 1996; Principi et al., 2020). To gain further insight into the workplace, the survey data has been merged with administrative register data, which is possible through the workplace's identification number. Four percent of the sample has missing values on the included variables or could not be merged to register data due to missing identification numbers. Thus, after merging the data with administrative register data, the sample size consisted of 2,419 workplaces.

Dependent variables

The dependent variables measure different types of retention strategies among workplaces. From the workability and job demand–resource model, we distinguish among four types of retention strategies: phased retirement, bridge jobs, career development, and health promotion. To construct the dependent variables, we make use of a question concerning if and how employers make an effort to retain employees over 55 years old. Phased retirement is coded 1 if the workplace offers at least one of the following initiatives: reduction of working time, flexible working hours, and the possibility of more vacation or days off. The bridge job variable is measured as offering fewer demanding tasks and/or accommodation of tasks between employee and employer. Unlike other definitions where bridge jobs refer to jobs that take place in a different industry or occupation (Brunello & Langella, 2013), we thus use the term to refer to changes in job tasks. Career development is coded 1 if the workplace offers at least one of the four initiatives: senior consultation, senior courses, training programmes, and continuous career development. Finally, health promotion is coded 1 if the workplace offers one of the following initiatives: physical training, treatments such as physiotherapy or psychological assistance, stop smoking programmes, consultations on healthy lifestyle, and health checks.

Independent variables

We distinguish among three different types of core work activities based on the question, "Which of the following core working activities is most dominant in your workplace?" The answer "working with processing, producing, or moving objects" involves workplaces that mainly produce various materials and are classified as production workplaces. The answer "working with humans, services, care, and the like" involves workplaces that mainly serve, treat, support, develop, care for, or inspect other people and are classified as service and welfare workplaces.

Finally, the answer "working in office work, administration, research, IT, and the like" covers workplaces that work with "symbols" such as knowledge, signs, communication, or language as an essential part of their core task. These workplaces are classified as information workplaces. Although the employers are obliged to choose only one of the three core work activities, they are in practice not exclusive, as some workplaces may have more than one type of activity. Also, the variation within each type of core work activity is likely to be heterogeneous. However, we believe that the categorisation is substantially and analytically acceptable to use because the main aim of this study is to explain differences between core work activities in the choice of retention strategies. Moreover, to a substantial extent, the categorisation follows the division of industries. Around 60% of the public administration industry and 85% of the information and communication industry belong to information workplaces. 95% of the health industry and around 85% of the education industry belong to service and welfare workplaces, while around 80% of the construction industry and 85% of the manufacturing industry, and 91% of the agriculture industry belong to production workplaces. Other industries comprising private services, other services, and the trade industry are more equally distributed between the three different core work activities.

Mediator variables

To explain the differences in retention strategies between the workplaces' core work activities, we include several mediator variables. The accession rate is defined as the percentage of the total number of employees in the workplace who have accessed the workplace during the previous year. The variable is collected from the administrative registers. Recruitment problems is a dummy variable indicating whether the workplace has had recruitment problems during the past two years. Knowledge intensity is measured with a five-point scale ranging from "completely

disagree" to "completely agree" to the item that employees in the workplace must continuously train and educate throughout their careers. Physical work is a dummy variable indicating that the workplace mainly conducts physical work. Trade union involvement is measured with a five-point scale ranging from "completely disagree" to "completely agree" to the item that the trade union influences personnel policies. Seniority-based wages are measured with the question "Does the employees' wage increase in line with their seniority?" on a five-point scale ranging from "not at all" to "a high degree".

Control variables

To control for potential confounders, the study includes some structural characteristics of the workplace. We control for the economic performance of the workplace, workplace size, and whether the workplace is newly established, as workplaces performing poorly, with fewer employees and young workplaces are more likely to have fewer resources to implement retention strategies (Korkeamäki & Kyyrä, 2010; Oude Mulders & Henkens, 2019; Van Dalen et al., 2015). Economic performance is measured with the question "How would you rate the economic situation of your workplace?" on a five-point scale ranging from "not good" to "very good". Workplace size is categorised into "5-9 employees", "10-49 employees", "50-249 employees" and "+250 employees". A workplace is categorised as newly established if it is under five years of age. The latter two control variables are measured from the administrative registers. Table 1 presents the descriptive statistics of the included variables.

Statistical analysis

The analysis is performed with binary logistic regression models conducted separately for each retention strategy. The analysis is conducted with separate binary logistic regressions instead of multinominal regression because each workplace can offer more than one retention strategy.

Consequently, the different outcomes are not mutually exclusive, violating a key assumption of multinominal regression. Because the coefficients in non-linear models are not comparable across models due to scaling bias, we use KHB corrected logit models instead of ordinary logistic regressions (Karlson et al., 2012). If the models show significant associations between core work activities and the retention strategy, the indirect effect of each mediator variable and the percentage explained is presented.

Results

[Table 1 about here]

The descriptive statistics in Table 1 show the distribution of the variables by core work activities. We observe that service and welfare workplaces have the highest accession rates and the lowest share with recruitment problems. Production workplaces, on average, rate their knowledge intensity lower compared to information and service and welfare workplaces. Among production workplaces, 83% have physical work compared to 4% of information workplaces and 55% of service and welfare workplaces. Service and welfare workplaces also, on average, rate their trade union involvement and the degree of seniority-based wages higher compared to other workplaces. Information workplaces have the lowest trade union involvement, while production workplaces have the lowest degree of seniority-based wages. Information workplaces constitute the largest workplaces, and only 1% of production workplaces are under five years of age.

[Table 2 about here]

[Table 3 about here]

Table 2 presents the results of the rescaled binary logistic models regressing each of the four retention strategies on workplace characteristics and Table 3 presents the mediation analysis of the effect of core work activities on retention strategies. Model 1 shows the coefficients for phased retirement and suggests that service and welfare workplaces are more likely to offer phased retirement compared to information workplaces. The odds for offering phased retirement are 1.4 times higher for service and welfare workplaces compared to information workplaces ($e^{0.340}$). There are no significant differences between production workplaces and information workplaces in offering phased retirement. The proposed mediating variables are included in model 2. This model suggests that recruitment problems, higher knowledge intensity, higher trade union involvement, and a higher degree of seniority-based wages are associated with a significantly higher probability of offering phased retirement. Additionally, a higher accession rate is associated with a lower probability of offering phased retirement. When controlling for these variables, the differences between service and welfare workplaces and information workplaces in offering phased retirement are reduced and become insignificant. As expected from the indirect effects in Table 3, we learn that trade union involvement significantly explains around 31% of this association, while seniority-based wages explain around 14% of the association. However, as opposed to our expectations, the higher accession rates among service and welfare workplaces cannot explain their higher likelihood of offering phased retirement. Instead, higher knowledge intensity is a significant mediator variable explaining 13% of the association, which suggests that phased retirement may be used in service and welfare workplaces to retain older employees with high firm-specific or general skills.

In model 3, we observe that the odds for offering bridge jobs for both service and welfare workplaces and production workplaces are 1.7 times higher compared to information workplaces

($e^{0.513}$ and $e^{0.531}$, respectively). Model 4 includes the proposed mediator variables and suggests that recruitment problems, knowledge intensity, physical work, and a higher degree of seniority-based wages are associated with a higher probability of offering bridge jobs. Table 3 shows that the indirect effect through physical work is the main driver of the relationship between core work activity and offering bridge jobs. The difference in offering bridge jobs between service and welfare workplaces and office workplaces is reduced by 35% and more than 50% between production workplaces and information workplaces. Additionally, the indirect effect of knowledge intensity and seniority-based wages on the relationship between service and welfare workplaces and information workplaces in offering bridge jobs is also significant.

For the third retention strategy — career development — we learn that production workplaces have 0.5 times lower odds for offering career development compared to information workplaces ($e^{-0.772}$). After controlling for further workplace characteristics, the association between production workplace and information workplace in offering career development is reduced and becomes insignificant. From Table 3, we observe that this association is partially explained by an indirect effect through lower knowledge intensity, which mediates around 39%. Additionally, the difference in offering career development strategies between production and information workplaces is further reduced by 38%, because production workplaces have more physical work.

In model 7, we observe the probability of offering health optimising strategies. As expected and similar to career development, we find that production workplaces have 0.7 times lower odds for offering health promotion compared to information workplaces ($e^{-0.294}$). After the proposed mediator variables are included in model 8, the difference in the probability of offering health optimising strategies between production workplaces and information workplaces increases, suggesting that some of the mediating variables act as suppressor variables. Table 3 shows that the indi-

rect effect through knowledge intensity reduces the gap by nearly 50%, whereas the indirect effects through both having recruitment problems and physical work increase the gap by 12% and 55%, respectively. These suppression effects are likely to occur because having recruitment problems and physical work is positively correlated with health promotion, while production workplaces are negatively correlated with health promotion. Thus, the adjusted coefficient for production workplaces should be interpreted with caution.

The results in Figure 1 summarise the average marginal effects of core work activities for each retention strategy.

Figure 1. Average marginal effects of core work activities on retention strategies

[Figure 1 about here]

Note: R = Reduced model (Model without mediator variables), F = Full model (Model with mediator variables).

The results indicate that welfare and service workplaces have 7 percentage points higher probability of offering phased retirement than information workplaces. After controlling for the economic and labour market climate, this effect becomes insignificant and drops to 3 percentage points higher probability. Similarly, both welfare and service workplaces and production workplaces have 10 percentage points higher probability of offering bridge jobs compared to information workplaces. After controlling for the economic and labour market climate, these effects drop to 4 percentage points and 6 percentage points higher probability, respectively. We also observe that production workplaces have 9 percentage points and 6 percentage points higher probability of offering career development and health promotion compared to information workplaces.

Discussion and conclusion

While previous studies have explored the influence of different workplace characteristics on old-age adaptation policies among employers, the role of the core work activity in the workplace has largely been unexplored. The analysis revealed that the type of core work activity was significantly correlated with the type of retention strategy offered. The differences between the core work activity within the workplace and the type of retention strategy were partially mediated by indirect effects through the economic and labour market climate of each core work activity. The higher influence of trade unions was the most important factor in explaining why service and welfare workplaces have a higher likelihood of offering phased retirement compared to information workplaces, whereas having physical work was the most important factor in explaining why service and welfare and production workplaces have a higher likelihood of offering bridge jobs compared to information workplaces. Finally, knowledge intensity was the most important factor in explaining why information workplaces have a higher likelihood of offering career development and health promotion compared to production workplaces. Thus, whereas previous studies have identified several key predictors of different retention strategies such as union involvement (Van Dalen et al., 2015; Oude Mulders & Henkens, 2019), this study suggests that many of these predictors including union involvement can be understood as mediators of the effect of core work activities on retention strategies. Additionally, whereas previous research has found that workplaces within the industry are less likely to promote workload reduction compared to other sectors (Principi et al., 2020), this study revealed that production workplaces are more likely to implement bridge jobs, measured as changes in job tasks, compared to information workplaces.

Although the analysis revealed that the type of retention strategy offered to some extent matches the core work activity within the workplace, the analysis suggests that there might be room for

improvement. Whereas information and service and welfare workplaces were similar in offering strategies that stimulate personal growth (i.e., career development and health promotion), production workplaces were less likely to offer such strategies. Most obviously, health promotion strategies could be of benefit to production workplaces, since employees within production workplaces are likely to have some physical health-damaging working characteristics that typically push employees into early retirement. Furthermore, some workplaces within production workplaces could make use of more career development strategies as well. Although production workplaces were more likely to offer bridge jobs, such that the working tasks accommodated their older employees, some workplaces within production may not have many variations within their working tasks (Loretto et al., 2007). Hence, it could be an advantage for their employees to also have other possibilities for extending working life such as partial retirement or to receive career counselling on, for example, other job opportunities within other workplaces or industries. To explore this more in-depth, the analysis could have benefited from more variables on working conditions. This could, for example, be information on variation in work tasks or the degree of flexibility in working hours, as these factors highly determine whether it is possible to change the working demands within the workplace. Unfortunately, these variables were not available in the dataset.

Notwithstanding this limitation, the study contributed to a growing body of knowledge about the role of employers and workplaces in older employees' labour market participation. As the workforce is ageing, employers are obliged to make new adjustments to retain their older employees, particularly workers in lower social classes and with hard manual jobs (Edge et al., 2017). The type of retention strategy offered in the workplaces largely matches the core work activity within the workplace. However, particularly production workplaces could conceivably take more ad-

vantage of using strategies that stimulate personal growth since employees with manual work are more often likely to withdraw from work due to poor health and physical working conditions.

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Table 1. Descriptive statistics

	Information workplaces (N = 734)		Service and welfare work-places (N = 849)		Production workplaces (N = 836)	
Variable	Mean	SD	Mean	SD	Mean	SD
Accession rate	24.11	17.54	26.86	20.01	22.93	17.54
Recruitment problems	0.27		0.25		0.41	
Knowledge intensity (1–5)	3.86	0.87	3.96	0.86	3.46	0.92
Physical work	0.04		0.55		0.83	
Trade union involvement (1–5)	2.31	1.29	3.13	1.21	2.56	1.18
Seniority-based wages (1–5)	3.12	1.00	3.40	0.98	2.94	1.00
Workplace size: 5–9	0.22		0.30		0.29	
10–49	0.34		0.35		0.33	
50–249	0.33		0.29		0.31	
250+	0.12		0.07		0.08	
Young workplace (<5)	0.04		0.04		0.01	
Economic performance (1–5)	3.90	0.87	3.71	0.84	3.86	0.90

Table 2. Rescaled logit models' regressing retention strategies on workplace characteristics

	Phased retirement		Bridge jobs		Career development		Health promotion	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Service and welfare	0.340***	0.155	0.513***	0.225	-0.175	-0.129	0.023	-0.164
(ref. information)	(0.111)	(0.128)	(0.117)	(0.136)	(0.141)	(0.160)	(0.122)	(0.142)
Production	-0.166	-0.094	0.531***	0.324*	-0.772***	-0.161	-0.294**	-0.353*
	(0.111)	(0.143)	(0.116)	(0.150)	(0.150)	(0.188)	(0.123)	(0.160)
Accession rate		-0.009**		-0.003		-0.011**		-0.012***
		(0.003)		(0.003)		(0.004)		(0.003)
Recruitment problems		0.223*		0.200*		0.063		0.234*
		(0.099)		(0.099)		(0.129)		(0.108)
Knowledge intensity		0.347***		0.260***		0.779***		0.378***
		(0.054)		(0.055)		(0.080)		(0.062)
Physical work		0.023		0.357**		-0.370*		0.205
		(0.116)		(0.120)		(0.155)		(0.130)
Trade union involve-		0.124**		0.056		0.011		0.053
ment		(0.038)		(0.038)		(0.050)		(0.043)
Seniority-based wages		0.171***		0.131**		0.216***		0.081
		(0.045)		(0.046)		(0.060)		(0.050)
Workplace size	0.485***	0.416***	0.378**	0.320**	0.284	0.236	0.413**	0.354*
(ref. 5–9): 10–49	(0.115)	(0.115)	(0.125)	(0.125)	(0.176)	(0.177)	(0.143)	(0.144)
50–249	1.268***	1.083***	0.794***	0.658***	0.936***	0.740***	1.021***	0.868***
	(0.119)	(0.119)	(0.124)	(0.126)	(0.168)	(0.173)	(0.139)	(0.142)
250+	2.502***	2.187***	1.400***	1.191***	2.452***	2.088***	1.931***	1.669***
	(0.204)	(0.207)	(0.173)	(0.176)	(0.204)	(0.207)	(0.184)	(0.188)
Young workplace	-0.624*	-0.459	-0.294	-0.254	-0.614	-0.378	-0.638	-0.393
	(0.265)	(0.268)	(0.296)	(0.304)	(0.409)	(0.429)	(0.346)	(0.353)
Economic perfor-	0.164***	0.162**	0.113*	0.112*	0.084	0.043	0.148**	0.133*
mance	(0.051)	(0.051)	(0.051)	(0.052)	(0.068)	(0.069)	(0.056)	(0.056)
N	2419	2419	2419	2419	2419	2419	2419	2419

Note: *p<0.05, **p<0.01, ***p<0.001. Robust standard errors in parentheses.

Table 3. Mediation analysis of the effect of core work activities on retention strategies

	Phased retirement		Bridge jobs		Career development		Health promotion	
Service and welfare vs. information	Indirect effect	%	Indirect effect	%	Indirect effect	%	Indirect effect	%
Accession rate	-0.022*	-6.53	-0.009	-1.69	-		-	
	(0.010)		(0.007)					
Recruitment problems	-0.001	-0.29	-0.001	-0.17	-		-	
	(0.005)		(0.005)					
Knowledge intensity	0.044**	12.89	0.033*	6.42	-		-	
	(0.017)		(0.014)					
Physical work	0.011	3.37	0.179**	34.92	-		-	
	(0.058)		(0.061)					
Trade union involvement	0.104**	30.58	0.047	9.23	-		-	
	(0.033)		(0.033)					
Seniority-based wages	0.049**	14.42	0.038*	7.35	-		-	
	(0.016)		(0.015)					
Production vs. information	Indirect effect	%	Indirect effect	%	Indirect effect	%	Indirect effect	%
Accession rate	-		0.002	0.29	0.005	-0.68	0.005	-1.83
			(0.003)		(0.011)		(0.011)	
Recruitment problems	-		0.031	5.76	0.010	-1.26	0.036*	-12.17
			(0.016)		(0.020)		(0.017)	
Knowledge intensity	-		-0.010	-18.82	-0.299***	38.73	-0.145***	49.22
			(0.024)		(0.047)		(0.029)	
Physical work	-		0.282**	53.1	-0.292*	37.86	0.162	-55.01
			(0.095)		(0.123)		(0.103)	
Trade union involvement	-		0.016	2.94	0.003	-0.39	0.015	-4.99
			(0.011)		(0.014)		(0.012)	
Seniority-based wages	-		-0.023*	-4.26	-0.037*	4.81	-0.014	4.73
			(0.010)		(0.015)		(0.010)	

Note: *p<0.05, **p<0.01, ***p<0.001. Robust standard errors in parentheses.