Is it time to rethink benefit packages? Perks associated with the intention to leave in different age groups during COVID-19

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Abstract

Purpose – The study's objective is to estimate the association of specific perceived employer-provided benefits on employees' intention to leave in different age cohorts during coronavirus disease 2019 (COVID-19). Informed by the psychological theories of ageing, the authors propose three age-cohort-specific hypotheses in three motivational domains: security and health benefits, flexible work arrangement and education-related benefits.

Design/methodology/approach – The authors use a large survey of employees in Estonia (n = 7,209) conducted in 2020 and test the association of specific benefits and their interactions with age on employees' intention to leave.

Findings – The results show that older cohorts are generally less prone to leave their jobs. Benefits that employers could use during the COVID-19 crisis generally had negative associations with the intention to leave, but age-specific differences were negligible; only the perceived provision of flexible work arrangements reduced the younger cohort's intention to leave relatively more.

Originality/value – This study is one of the few that allows us to make inferences regarding the benefits preferences amongst the working population during an unprecedented health crisis.

Keywords Benefits, Intention to leave, Human resource management, Lifespan

Paper type Research paper

Introduction

Ageing societies and age diversity in the labour market have resulted in harsh competition for human resources in the labour market. Recent external shocks like the pandemic, war and energy crisis have added extra strain on employers. Since 2020, many traditionally used benefits have ceased to function and broader reorienting in compensation policy may be on

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the way. Employer-provided benefits, also referred to as fringe benefits, are an essential component of employees' total compensation package (Daley, 2008; DeGenzo *et al.*, 2013; Xavier, 2014; Galetić and Klindžić, 2020). Employer benefits are conceptualised as non-wage job amenities (Dale-Olsen, 2006) or indirect financial rewards (Milkovich *et al.*, 2016) that are voluntarily provided and sponsored by the employer to attract and keep employees (DeGenzo *et al.*, 2013, p. 301). The debate about redesigning compensation packages whilst having sustainability or flexibility aims under new trends in the future of work is increasing (Werner and Balkin, 2021); coronavirus disease 2019 (COVID-19) certainly intensified this debate.

The critical area of concern for the organisation when (re)designing compensation packages is what benefits to provide (Spencer *et al.*, 2016; Galanaki, 2020), whilst the focus can be on performance, retention or cost perspective. Similarly, to many studies (Dychtwald *et al.*, 2004; Lee *et al.*, 2006; Kooij *et al.*, 2011; Woodward *et al.*, 2015; Veth *et al.*, 2019), we concentrate on employees' life span and retention. Psychological theories of ageing (Carstensen, 2006; Kooij *et al.*, 2011) inform us how different benefits may impact diverse age groups. Interestingly, studies on employer benefits regarding ageing are scarce (Dencker *et al.*, 2007; Wells-Lepley *et al.*, 2013; Goštautaitė *et al.*, 2022). We need to validate our assumptions about if and how benefits affect different employee age groups.

We start from the idea that employees representing different age groups have different preferences in terms of employer benefits as predicted by psychological theories regarding ageing, in particular the Socio-Emotional Selectivity Theory (SST) (Carstensen, 2006). We ask what the effect of perceived benefits on the employees' intention to leave is and how age moderates this effect. We hypothesise that the overall association is negative in the case of all benefits, so if the benefit is perceived as provided, the employees have a smaller intention to leave. Given the psychological theories of ageing, we expect age-specific cohort effects for security and health benefits, flexible working arrangements and education and training benefits. We test whether these assumptions hold.

Our first contribution involves advancing the discussion on psychological theories of ageing in the context of human resource management (HRM) and employer benefits. Secondly, we explore the relationships between benefits and turnover intention in a European country that provides extensive social coverage and where the relevance of benefits to firms has only recently emerged. It is important to note that benefits such as health security or pension, which have traditionally been included in employment packages in the USA (and, thus, mostly researched), may have different effects on employee attitudes in a country where these benefits are guaranteed by the state (de la Torre-Ruiz *et al.*, 2019).

We use a large sample-based survey ($n = 7{,}209$) of Estonian employees collected in 2020, in the early days of the COVID-19 crisis. Our dependent variable is the intention to leave, and our main independent variables contain information about various self-reported perceptions of employer-provided benefits, 10 in total. In addition, we have various organisation and individual-level control variables. For estimation, we use simple ordinary least squares estimates with weights to estimate the age-specific slopes by interaction effects between age (group) and provision of the benefit.

The paper is structured as follows: first, we explain the psychological theories of ageing relevant to benefits policies and the role of employer benefits in the broader area of HRM. After that, we give an overview of diverse benefits outcomes for different age groups to develop our hypotheses. A method including sample characteristics for our empirical study is described in section two. Results, study implications and suggestions for further research are presented before concluding remarks.

Literature review

Theoretical foundations of an age-aware benefits strategy

The psychological theories of ageing, such as SST, explain the mechanism between age and the features of the work (Kooij *et al.*, 2011). SST theory (Carstensen, 2006) relies on the temporal change of regulatory focus and time perception. It is a theory of motivation asserting that goals and priorities become increasingly selective as people experience old age. SST distinguishes between two broad functional categories of social goals: expansive goals like searching for and acquiring new knowledge and experiences that are supposedly beneficial for the future and goals that focus on attaining immediate emotional well-being. The strategic shift takes place in how people invest their energy and time across different activities: as people get older, they prefer goals that are realisable in the present rather than in the future and activities that are personally and emotionally meaningful (Appelbaum *et al.*, 2016b; Ng and Feldman, 2015).

Carstensen (2006) noted that younger individuals prioritise more long-term goals because they perceive their future as expansive. They perceive time in life as plentiful, which allows them to invest in acquiring knowledge, developing new skills and taking care of relationships that facilitate future career objectives. The younger people strive to fulfil their "ideal self", aspirations, growth and development, whereas the older people are concerned with their obligations, avoiding losses and minimising negative outcomes. Older employees estimate that their remaining time and opportunities at work are limited, shifting their focus to shorter-term goals (Zacher and Frese, 2009). Overall, ageing brings about maintenance and prevention (Baltes, 1997; Ebner *et al.*, 2006). In other words, as people become older, they are more inclined to protect what has been achieved rather than opportunities that can potentially be exploited or developed. This different view of individuals' future time perspective works as motivation and may determine their attitudinal responses to employer benefits (Ferdous *et al.*, 2021; Kooij *et al.*, 2011).

Age implications for the outcomes of employer benefits

Previous research (Daley, 2008; Galetić and Klindžić, 2020) has shown that fringe benefits amount to 20 to 40% of the total compensation, depending on context. So, the effects of the fringe benefits on workers' satisfaction, well-being and retention are studied intensively. However, the empirical evidence for benefits' effect on employee turnover (intention) has not received definite conclusions. The assumed negative association between the level of benefits and between actual turnover by Lee *et al.* (2006) and Dale-Olsen (2006). But non-significant results are also reported, for example by Williams *et al.* (2002) and de la Torre-Ruiz *et al.* (2019). One possible explanation for insignificant results is that age-specific effects come into play (Cennamo and Gardner, 2008; Dulebohn *et al.*, 2009; Gabrielova and Buchko, 2021; Martin *et al.*, 2021).

Benefits related to security and health

Benefits related to pensions are aimed at securing employees' income after retirement. For older employees, economic security inevitably materialises nearer the time. According to SST, benefits that target income and health are "protection programmes" (Dencker *et al.*, 2007) and therefore more valuable to older employees (Appelbaum *et al.*, 2016b), who wish to buffer economic fluctuations and are more concerned about the immediate future. This is empirically confirmed by Finegold *et al.* (2002) and Rice *et al.* (2022). Dencker *et al.* (2007, p. 214) note: "Older workers are more likely to be concerned about sufficient retirement income and the rising costs of medical care and prescription drug costs". In contrast, younger employees do not care about economic and health security that much (Dulebohn *et al.*, 2009; Hall *et al.*, 2017). Although it is argued that studies on health benefits are scarce (Xavier, 2014)

no heterogeneous effects by age groups emerged in the studies by Veth *et al.* (2019), Miller (2016) and Eriksson and Kristensen (2014). The last two sources demonstrate age-insensitive effects also regarding retirement savings.

Even though empirical support is controversial, based on theoretical assumptions and adding the COVID-19 context whereby the health of older adults was at higher risk, we put forward.

H1. Age moderates the relationship between health and security benefits and employee intention to leave. There is a negative association across all age groups, but it is stronger amongst individuals aged 55 years and older.

Benefits related to flexible work arrangements

To hypothesise about flexible work arrangements, we need to broaden our discussion to attitudinal effects of employee autonomy. Autonomy and trust are more important to older employees because of the accompanying sense of meaningfulness and personal satisfaction, i.e. emotional well-being. Flexibility that grants higher autonomy is, therefore, more important to older employees and authors (Hill *et al.*, 2008; Wells-Lepley *et al.*, 2013; Appelbaum *et al.*, 2016a) advocate respective employer policies as appropriate benefits for older employees. Decades ago, it was noted that simply having flexible work arrangement options produced lower stress levels, increased job satisfaction and less work-family conflict amongst old-age employees even if they did not use those benefits (Business Information Group, 1995).

But Ng and Feldman (2015) conjecture that SST does not entail unequivocal age-related predictions. On the one hand, autonomy nurtures social relationships that are more valuable to older employees (Eriksson and Kristensen, 2014; Martin *et al.*, 2021), but on the other hand, autonomy also enables more learning and developing job skills, which is relevant for younger employees. Meta-analysis (Ng and Feldman, 2015) concluded that the age-moderated effect of autonomy depends on the chosen outcome variable. Unfortunately, intention to leave was not included in their study, but effect sizes of related constructs (job satisfaction, commitment, engagement) were larger for younger employees.

Indeed, more recent studies also cast doubt on the stronger effects of flexible work arrangements for older employees. Miller (2016) argument turns the "age profile around" – stating that autonomy and flexibility enable younger employees to nurture their (friends and family) relationships outside the work collective. Miller (2016) finds that flexible working time, home personal computers and Internet access enabling space flexibility were more valuable to younger employees. The same is also concluded by Bal and De Lange (2015).

Employees in Queensland, Australia, reported that usage of various flexible work practices had a significant negative indirect effect on their turnover intentions when under 45 years of age, but the effect was insignificant for older employees (Ferdous *et al.*, 2021). Data of German employees showed that when it comes to work engagement and affective commitment flexible schedules produced positive effects across all ages (Piszczek and Pimputkar, 2021).

Lyons and Kuron (2014) discovered the U-shape effects of flexibility such that it was important to younger *and* older employees but less for middle-aged people. Whilst younger employees appreciate the flexibility to reduce work-family conflict related to children, older employees may have caretaking responsibilities towards their spouses, parents (Ng and Feldman, 2015), or even grandchildren. To add to the complexity, reduced work-to-family conflict due to flexible work arrangements was only evident amongst middle-aged workers in Germany (Piszczek and Pimputkar, 2021) and Goštautaite *et al.* (2022) found insignificant differences in age referring to the equal importance of flexibility across the life span. Based on the above, we need to conjecture that the existing literature lacks consensus on the age-

specific effects of flexibility. In addition to contradictory empirical evidence gathered thus far, we note that participating in the gig economy and digital nomadism is not age-neutral (Nielsen *et al.*, 2022). Younger employees are more likely to work for various employers, which probably makes flexibility an especially valuable attribute for them. We suggest that in the modern age.

H2. Age moderates the relationship between flexible work arrangements and employee intention to leave. There is a negative association across all age groups, but it is stronger amongst individuals 35 years and younger.

Benefits related to employee enhancement

Enhancement benefits, mainly in the form of training and tuition reimbursement, promote opportunities for employees (Dencker *et al.*, 2007). Ageing workers increasingly emphasise job security, i.e. current status, over employability, which refers to future opportunities (Kooij *et al.*, 2011). Based on their meta-analysis, the authors (Kooij *et al.*, 2011) conclude that preferences for extrinsic motives, such as compensation, benefits and promotion, tend to increase with age, whereas preferences for opportunities for growth decrease with age. As described above, ageing changes the focus and perceived time boundaries according to SST: a growth- and future orientation tend to be replaced by a maintenance- and present orientation. It is shown that satisfaction with opportunities to develop skills was more negatively associated with the intention to leave for younger employees (Kooij *et al.*, 2010; Martin *et al.*, 2021). More recently, Zhang and Farndale (2022) and Goštautaitė *et al.* (2022) show that competence development has a lower effect on the work engagement of the older cohorts. However, nonsignificant age differences are found by Eriksson and Kristensen (2014) regarding employees' preferences for training and by Veth *et al.* (2019) for perceived availability (and use) of training on work engagement. Following SST, we suggest that.

H3. Age moderates the relationship between employee enhancement benefits and employee intention to leave. There is a negative association across all age groups, but it is stronger amongst individuals aged 35 years and younger.

Method and sample

Data collection and sample

The data collection was administered by The Salary Information Agency in the autumn of 2020 amongst the Estonian workforce. This period was when many traditional benefits used by employers were on hold: e.g. snacks in the office or social gatherings. We therefore only focus on benefits that were feasible at the time. Using the web-based tool LimeSurvey, the survey was sent to a representative sample of 55,000 people living in Estonia. The survey gathered responses from 9,733 employees active in the labour market, corresponding to approximately a 17% response rate. The survey participation was anonymous, and it was ensured that the contact data was not linked to the responses. The final dataset constitutes cross-sectional individual-level data (n = 7,209).

The sample characteristics are shown in Appendix. The age distribution in the final sample was as follows: the smallest group represented employees who were 24 or younger (4.2%). The age group 55 or older makes up 25.5% of respondents. Approximately 60–70% of each age group are females. In addition, we have high participation from employees with higher education: the share of employees with bachelor's or master's degrees varies from 53 to 61% in different age groups. Most managers belonged to the age group 35–44 (34.0%) and 17% were from the age group of 24 and younger.

Employees represented predominantly private companies (61.3%) and state (11.4%) or local community (6.1%) institutions, whereas younger employees worked more in private organisations and older age groups more in the public sector. To get the unbiased age effect many control variables are included that correlate with age (see Appendix, p-values of Chi-square tests). Also, many descriptive characteristics of the sample (e.g. gender, age and education composition) indicate that the sample is biased toward more educated females compared to Eurostat (2021). Thus, we use sampling weights to reduce the sampling error and potential non-response bias. To calculate weights that calibrate the population structure by gender, age and education, the Stata Sreweight command was used (Pacifico, 2014). The final weights indicate an average weight equal to 85.6, but it has a large variation from 33 to 340. In Table 1, we report the descriptive of the variables using weighted data.

Statistic	N	Mean	St. Dev	Min	Max
*Items related to the dependent variable**					
Thought about changing the job during the last six months	7,209	2.580	1.270	1	5
Intention to change the job within the next six months	7,209	2.620	1.120	1	5
Actively searching for a new job	7,209	2.340	0.882	1	4
Age	7,209	3.270	1.21	1	5
Benefits					
Health and security					
Contribution to pension funds	3,109	0.091	0.288	0	1
Health/life insurance	3,325	0.140	0.347	0	1
Disease prevention/treatment costs	3,585	0.501	0.500	0	1
Flexible working arrangements					
Flexible working time	3,757	0.680	0.467	0	1
Remote work	3,772	0.563	0.496	0	1
Equipment for remote work	3,614	0.565	0.496	0	1
Employee enhancement					
Reimbursement of higher education cost	3,287	0.348	0.476	0	1
Compensating additional skills development	3,419	0.415	0.493	0	1
Reimbursement of professional training	3,543	0.635	0.481	0	1
Reimbursement of employees' hobby education	3,271	0.111	0.314	0	1
Control variables					
Income and satisfaction with compensation					
Coping with income	7,209	3.140	0.815	1	5
Satisfaction with total compensation	7,209	2.960	1.220	0	5
Background characteristics					
Manager	7,300	0.264	0.441	0	1
Female	7,209	0.486	0.500	0	1
Education	7,209	4.590	1.45	1	8
Organisation's characteristics					
Organisation type	7,228	3.020	1.810	1	7
Organisation size	7,291	2.860	1.130	1	5

Note(s): *Composite score has skew 0,3 and kurtosis −0,38
Source(s): Authors' own creation

Table 1.
The weighted descriptive statistics table

Estimation strategy and operationalisation of variables

Our estimation strategy is depicted in Figure 1. Our main interests are the heterogeneous effects of benefits by age (groups) on employees' intention to leave. However, instead of a continuous age variable, we have to rely on discrete categories of ages. There are five age groups: 24 or younger, 25–34, 35–44, 45–55 and older than 55. Hence, we treat age as a categorical variable. This constraint originating from the data has pros and cons. It allows us to estimate different effects of age groups (different slopes) but also forces us to estimate the same effect size within the group, e.g. making 35-years and 44-years old homogeneous. Thus, the age effects have to be interpreted as cohort effects.

We operationalise employee intention to leave using three items, all measured with a 4- and 5-point Likert scales from stating "not at all/definitely not" to "very often/definitely yes" (in case of questions 1 and 2) and "not interested to offers" to "actively looking for a job" (in case of question 3). Figure 2 shows these items' distributional properties and bivariate correlation. The questions are.

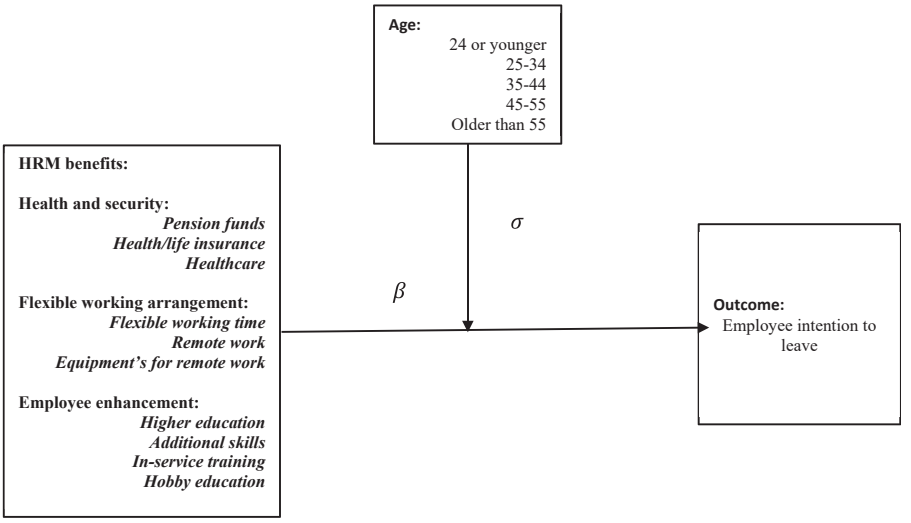
(1) Have you thought about changing jobs during the last six months?

(2) Do you intend to change your job within the next six months?

(3) Are you actively searching for a new job?

To test the validity, we ran a reliability analysis. Cronbach's raw alpha (Guttman's Lambda 3) is above the pre-agreed threshold (0.83) and meets the threshold. Thus, the dependent variable *intention to leave* was operationalised using mean scale scores, thus treating it as a continuous scale from 1 to 5.

The operationalisation of the benefits in three broad categories represents independent variables. The 10 benefit items are all measured binary (yes/no), indicating the employee's assessment of whether their employer provides the respective benefit or not. Due to the self-reported nature of the variables, we consider them as employees' perceptions of human resource (HR) practices (see also Jiang *et al.*, 2017). We acknowledge that the perceived provision of benefits may not always accurately reflect reality and the number of certain



Source(s): Authors' own creation

Figure.1. Operationalisation of the model: moderating effects of age (σ) on the effects of benefit (β)

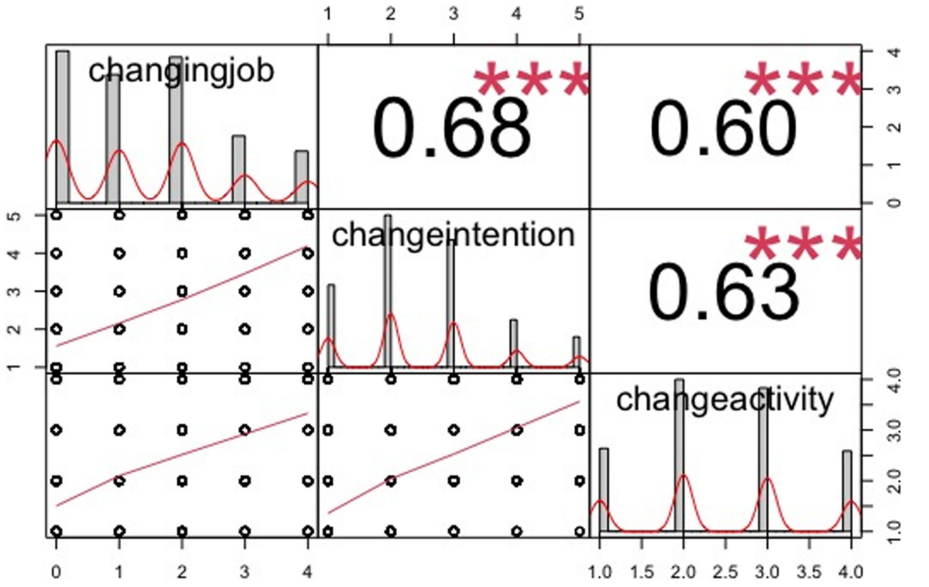


Figure.2.
Correlation between three items of dependent variable: intention to leave

Source(s): Authors' own creation

benefits may hold greater significance than their mere availability (see also Supplementary Material). However, we base our study on the research conducted by Lee *et al.* (2006), which demonstrated that the presence of benefits is as influential in determining employee outcomes as the amount invested by the employer. Furthermore, as our focus is on employee attitudes, specifically the intention to leave, it is the perception of employees that becomes crucial rather than the actual actions of the employer or whether the employee utilises the benefits themselves (Veth *et al.*, 2019). In other words, how employees perceive the benefits and their impact on their attitudes and intentions is what matters for our analysis.

We used point-biserial correlation coefficients to reveal the correlation between individual perceived benefit items. In general, correlation coefficients varied from insignificant, close to zero, to 0.69. Whilst correlations between groups of perceived benefits were much higher than between items in specific benefit groups, thus, we tested them individually. Even though some correlations were lower than expected, we tested for autocorrelation, which was present in the case of the multivariate model, including all items. Thus, to avoid overidentification, we use an identification strategy that (a) shows the marginal effect of each perceived benefit and (b) asks for heterogeneous effects by interacting with the age group. Due to the estimation strategy all coefficient estimates, denoted above as effects, should be interpreted as associative not causal. Our model is specified as follows:

$$y_i = \alpha + \beta_k b_{ik} + \delta a_i + \sigma b_{ik} \times a_i + \sum_{l=1}^{2} \gamma_l m_{il} + \sum_{o=1}^{3} \tau_o p_i + \sum_{j=1}^{2} \eta_j t_i + \epsilon_i \quad (1)$$

where *i, j, k, l, o* respectively represent individual *i*, the number of organisational level controls *j*, specific perceived benefit ($k = 10$), number of monetary rewards (m) and the number of organisational levels controls *o*. More specifically, y is the outcome variable (intention to leave), b is the benefit and a is age; *m, p and t* stand for satisfaction with

monetary reward variables, individual level controls (such as manager status, gender and the level of education) and organisational level controls (organisational type and organisation size). ϵ stands for the error term. The same model was estimated by all 10 cases. The scales of the main individual-level controls for monetary rewards are the following. First, the respondents self-assess their total income, including payments from other sources than the organisation they are working for (dividends, pension, additional work for other companies, etc.), measured with a 5-point scale ranging from 1(very bad) to 5 (very good). Second, satisfaction with total compensation (including salary and bonuses paid by the organisation they are working for) was measured with a 6-point scale: 0 (I cannot evaluate); 1 (not satisfied at all); 2 (mostly not satisfied); 3 (yes and no); 4 (mostly satisfied); 5 (very satisfied). Finally, we include controls for organisational characteristics such as organisation types (seven categories, nominal scale) and organisation size (ordered categorical variable) (see Appendix).

We expect the older and younger cohorts to have heterogeneous effects from the mean. Thus, we use the age group 35–44 as a reference category to specify the effects of the youngest and oldest cohorts. According to the hypotheses developed in the previous section, we expect *betas* to be negative and moderating age effects of *sigmas* to be significant and negative for the young cohorts' related enhancement and flexibility benefits and for the old cohorts in case of health and security benefits. In addition, we assume individuals do not self-select the benefits based on some unobservable characteristics, meaning that they can choose the job based on perceived benefits. However, we cannot control for it, so in case this assumption is not valid, our estimators can be biased and as mentioned above the effect are correlational, not causal.

Results

Descriptive statistics

Table 1 shows the weighted summary statistics. Since all perceived benefits have binary scales (1 = provided, 0 = not provided), the reported means indicate the proportion of benefits provided to the population. Health and security benefits are commonly used to reimburse disease prevention or treatment cost (51.2%). The perceived benefits that increase an employee's future security, such as contribution to pension funds (8.0%) or additional payment for health/life insurance (12.5%), are modestly represented. Different kinds of flexibility benefits are perceived as offered: family-friendly policies for remote work (64.3%), providing equipment for working remotely (60.2%) and flexible working time (68.6.%). Employee enhancement benefits are perceived as provided in varying degrees; mostly provided is professional training (66.6%).

Regression analysis: moderating effects of age

In Tables 2–4, we report the regression coefficients used for hypotheses testing in the order of appearance from our hypotheses. In Table 2, we test H1: the age variable acts as expected; we see a significantly lower intention to leave in the case of older cohorts, even though not in all cases of perceived benefits (e.g. contribution to pension funds and health/life insurance) we see the significant negative effect – young and old cohorts have a respectively high and low intention to leave, none of the perceived benefits has heterogeneous effects by age groups. Thus, H1 is rejected: older cohorts of employees do not show more appreciation for benefits that enhance their security.

In Table 3, we report the results of the perceived flexibility benefits and their effects on the intention to leave (H2). Again, we see clear cohort effects; old age groups have a much lower intention to leave and flexibility-supporting policies negatively affect employees'

Dependent variable: intention to leave					
(Model 1)		(Model 2)		(Model 3)	
Benefit					
Contribution to pension funds	−0.158 (0.099)	Health/life insurance	−0.164* (0.085)	Disease prevention/ treatment costs	−0.240*** (0.058)
Age (ref: 35–44)					
24 or younger	0.427*** (0.080)	24 or younger	0.488*** (0.080)	24 or younger	0.457** (0.089)
25–34	0.091** (0.044)	25–34	0.106** (0.044)	25–34	0.082 (0.057)
45–55	−0.153*** (0.048)	45–55	−0.158*** (0.049)	45–55	−0.154** (0.061)
older than 55	−0.357*** (0.055)	older than 55	−0.377*** (0.055)	older than 55	−0.384*** (0.070)
Interactions					
Contribution to pension funds x 24 or younger	0.330* (0.173)	Health/life insurance x 24 or younger	0.261 (0.173)	Disease prevention/ treatment costs x 24 or younger	0.168 (0.130)
Contribution to pension funds x 25–34	0.225 (0.147)	Health/life insurance x 25–34	−0.083 (0.120)	Disease prevention/ treatment costs x 25–34	0.101 (0.079)
Contribution to pension funds x 45–55	0.141 (0.171)	Health/life insurance x 45–55	−0.003 (0.132)	Disease prevention/ treatment costs x 45–55	0.067 (0.087)
Contribution to pension funds x older than 55	−0.221 (0.200)	Health/life insurance x older than 55	0.067 (0.148)	Disease prevention/ treatment costs x older than 55	0.086 (0.096)
Constant	3.416*** (0.245)	Constant	3.526*** (0.232)	Constant	3.785*** (0.225)
Controls					
Satisfaction to compensation	yes	Satisfaction to compensation	yes	Satisfaction to compensation	yes
Background characteristics	yes	Background characteristics	yes	Background characteristics	yes
Company characteristics	yes	Company characteristics	yes	Company characteristics	yes
Observations	3,077	Observations	3,284	Observations	3,547
R^2	0.202	R^2	0.203	R^2	0.196
Adjusted R^2	0.194	Adjusted R^2	0.196	Adjusted R^2	0.189
F statistic	25.632***	*F* statistic	27.670***	*F* statistic	28.599***

Note(s): Statistical significance *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$, standard errors in brackets. All regressions use weights. Coefficient sizes can be interpreted as the effects to standardised measures
Source(s): Authors' own creation

Table 2.
OLS estimations of effects of existence-related benefits and age group moderating effects

intention to leave. All three perceived benefits have pronounced desired effects for the youngest cohorts. Hence, flexible working time is highly valued by the youngest cohorts (34 or younger) but not the rest; this also applies to remote work but not to equipment. We see that equipment is equally appreciated by all age groups below 55; only the older cohort has essentially zero effect. By some reservations related to the latter, we consider that H2 is confirmed.

Dependent variable: intention to leave (Model 1)		(Model 2)		(Model 3)	
Benefit					
Flexible working time	−0.054 (0.062)	Remote work	−0.199*** (0.060)	Equipment's for remote work	−0.292*** (0.061)
Age (ref: 35–44)					
24 or younger	0.923*** (0.130)	24 or younger	0.637*** (0.079)	24 or younger	0.485*** (0.087)
25–34	0.335*** (0.072)	25–34	0.212*** (0.064)	25–34	0.190*** (0.065)
45–55	0.015 (0.073)	45–55	−0.080 (0.066)	45–55	−0.187*** (0.066)
Older than 55	−0.321*** (0.076)	older than 55	−0.395*** (0.071)	older than 55	−0.501*** (0.072)
Interactions					
Flexible working time x 24 or younger	−0.538*** (0.147)	Remote work x 24 or younger	−0.614*** (0.128)	Equipment's for remote work x 24 or younger	−0.145 (0.128)
Flexible working time x 25–34	−0.309*** (0.085)	Remote work x 25–34	−0.143* (0.080)	Equipment's for remote work x 25–34	−0.102 (0.081)
Flexible working time x 45–55	−0.145 (0.090)	Remote work x 45–55	−0.036 (0.087)	Equipment's for remote work x 45–55	0.069 (0.088)
Flexible working time x older than 55	−0.117 (0.098)	Remote work x older than 55	0.025 (0.098)	Equipment's for remote work x older than 55	0.249** (0.100)
Constant	3.254*** (0.205)	Constant	3.178*** (0.324)	Constant	3.527*** (0.210)
Controls					
Satisfaction to compensation	yes		yes		yes
Background characteristics	yes		yes		yes
Company characteristics	yes		yes		yes
Observations	3,711	Observations	3,726	Observations	3,570
R^2	0.207	R^2	0.213	R^2	0.217
Adjusted R^2	0.200	Adjusted R^2	0.207	Adjusted R^2	0.185
F statistic	31.968***	*F* statistic	33.351***	*F* statistic	33.923***

Note(s): Statistical significance *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$, standard errors in brackets. All regressions use weights. Coefficient sizes can be interpreted as the effects to standardised measures
Source(s): Authors' own creation

Table 3.
OLS estimations of effects of relatedness benefits and age group moderating effects

Finally, in Table 4 we test H3, the relationship between employee enhancement benefits and intention to leave. Perceived educational benefits, such as *reimbursement of higher education costs*, *additional skill development compensation and professional training reimbursement,* significantly and negatively influence the intention to leave. However, the association is not age sensitive. Moreover, in the case of *reimbursement of employees' hobby education,* we see no significant associations at all. Perceiving this benefit as provided is apparently not appreciated by any of the cohorts. Our H3 indicating that educational benefits are more important to the younger employees finds no confirmation

Table 4.
OLS estimations of the effects of growth-related benefits and age group moderating effects

Dependent variable: Intention to leave (Model 1)		(Model 2)		(Model 3)		(Model 4)	
Reimbursement of higher education	−0.218*** (0.062)	Compensating additional skills' development	−0.276*** (0.058)	Reimbursement of professional training	−0.249*** (0.060)	Reimbursement of employees' hobby education	−0.223 (0.100)
Age (ref: 35–44)							
24 or younger	0.528*** (0.078)	24 or younger	0.550*** (0.080)	24 or younger	0.455*** (0.095)	24 or younger	0.537*** (0.072)
25–34	0.147*** (0.051)	25–34	0.122** (0.056)	25–34	0.179*** (0.067)	25–34	0.162*** (0.044)
45–55	−0.154*** (0.057)	45–55	−0.160*** (0.058)	45–55	−0.144*** (0.072)	45–55	−0.100*** (0.048)
Older than 55	−0.330*** (0.064)	older than 55	−0.408*** (0.062)	older than 55	−0.303*** (0.078)	older than 55	−0.333*** (0.055)
Interactions							
Reimbursement of higher education cost x 24 or younger	−0.046 (0.157)	Compensating additional skills' development x 24 or younger	−0.132 (0.134)	Reimbursement of professional training x 24 or younger	0.330 (0.127)	Reimbursement of employees' hobby education x 24 or younger	−0.212 (0.214)
Reimbursement of higher education cost x 25–34	−0.083 (0.085)	Compensating additional skills' development x 25–34	0.100 (0.080)	Reimbursement of professional training x 25–34	−0.022 (0.083)	Reimbursement of employees' hobby education x 25–34	−0.083 (0.128)
Reimbursement of higher education cost x 45–55	0.041 (0.094)	Compensating additional skills' development x 45–55	0.71 (0.091)	Reimbursement of professional training x 45–55	0.028 (0.090)	Reimbursement of employees' hobby education x 45–55	−0.303* (0.157)
Reimbursement of higher education cost x older than 55	−0.046 (0.105)	Compensating additional skills' development x older than 55	0.024 (0.109)	Reimbursement of professional training x older than 55	−0.042 (0.098)	Reimbursement of employees' hobby education x older than 55	0.020 (0.179)
Constant	3.855*** (0.227)	Constant	3.789*** (0.223)	Constant	3.857*** (0.235)	Constant	3.788*** (0.228)
Controls							

(*continued*)

Dependent variable: Intention to leave (Model 1)		(Model 2)		(Model 3)		(Model 4)	
Satisfaction to compensation	Yes		Yes		Yes		Yes
Background characteristics	Yes		Yes		Yes		Yes
Company characteristics	Yes		Yes		Yes		Yes
Observations	3,248	Observations	3,380	Observations	3,502	Observations	3,232
R^2	0.217	R^2	0.214	R^2	0.216	R^2	0.203
Adjusted R^2	0.209	Adjusted R^2	0.207	Adjusted R^2	0.209	Adjusted R^2	0.196
F statistic	29.633***	*F* statistic	30.433***	*F* statistic	31.824***	*F* statistic	27.253***

Note(s): Statistical significance $*p < 0.1$; $**p < 0.05$; $***p < 0.01$, standard errors in brackets. All regressions use weights. Coefficient sizes can be interpreted as the effects to standardised measures

Source(s): Authors' own creation

Table 4.

since, according to the data, enhancement is just as important to them as to middle-aged employees.

It is worth noting that all control variables summarised in Tables 2–4 have the expected signs in all cases, e.g. income and total compensation measures are significantly negatively correlated to outcomes (the higher the compensation, the smaller the intention to leave) and females have, on average, lower intention to leave. In most models, education and manager status have insignificant effects.

Discussion

The objective of our study is to estimate the impact of perceived employer-provided benefits on employees' intention to leave across different age cohorts during the COVID-19 period. Our data clearly demonstrate that intention to leave decreases with age, indicating that job security holds greater importance for older employees. This finding aligns with previous studies conducted by Finegold *et al.* (2002), Cennamo and Gardner (2008), Kooij *et al.* (2011), Martin *et al.* (2021) and Rice *et al.* (2022). According to the SST, it is predicted that older employees place a higher value on health and security benefits, as they are designed to cater to maintenance and protection needs. However, we did not find evidence to support the notion that older employees react more favourably to such benefits. Surprisingly, the inclusion of security-related perceived benefits, such as pension funds contribution and health/life insurance (when provided), did not demonstrate a significant association with intention to leave. Consequently, our first hypothesis (H1: *Age moderates the relationship between health and security benefits and employee intention to leave. There is a negative association across all age groups, but it is stronger amongst individuals aged 55 years and older)* was not confirmed. This contradicts earlier studies that indicated lower absenteeism and turnover rates in organisations providing non-mandatory health and pension insurance (Galetić and Klindžić, 2020; O'Brien, 2003; Lee *et al.*, 2006; Daley, 2008). We believe that our results highlight the importance of contextual factors.

In the case of Estonia, it is unlikely that such benefits would have a significant impact. It should be noted that these benefits are relatively uncommon amongst Estonian companies, too, with only 9% of respondents receiving *contributions to pension funds* and 14% receiving *additional health/life insurance* (Table 1). Therefore, our results may be influenced by small sample size issues. In contrast, in countries like Taiwan, where 90% of firms implement retirement funds (Lee *et al.*, 2006), the absence of public pension schemes makes such benefits more attractive. In Estonia, the extensive social coverage provided by the state diminishes the perceived value of these initiatives by companies. Individuals can receive tax reductions that equal 20% of the voluntary contributions made during the tax year to the third pillar of the pension system, up to a maximum of 15% of the individual's taxable income. However, when companies make additional payments to the employee pension fund, it is a cost for the company and the employee does not receive the tax reduction from the taxable income. Rutecka-Góra (2021) analysed supplementary pension schemes in Central and Eastern Europe, including Estonia and was very critical as a result: the systems are complex, characterised by asymmetrical risks and inefficient products in the market. It is thus no wonder that employers are reluctant to offer such benefits or if prescribed by (multinational) corporate policy, it does not have the desired effect.

Our findings are consistent with the Spanish study conducted by de la Torre-Ruiz *et al.* (2019), which found no significant effect of benefit level satisfaction on turnover intention. In other words, in a social welfare state like Estonia, companies' provision of pension or additional medical insurance has little influence on employee attitudes, regardless of age. The only exception was *disease prevention/treatment cost,* which had a negative association with the intention to leave, but again, no cohort-specific moderation effect was present. In sum, we

agree with Eriksson and Kristensen (2014), Miller (2016) and Veth *et al.* (2019), who think health and security benefits are equally (un-)attractive. We conclude that in a country with a developed pension system and a relatively high level of public medical care, voluntary pension and health benefits do little to retain (older) employees.

The second hypothesis (H2: *Age moderates the relationship between flexible work arrangements and employee intention to leave. There is a negative association across all age groups, but it is stronger amongst individuals 35 years and younger*) was confirmed. To highlight, we pose the hypothesis for "modern" times, contradicting the traditional theoretical and empirical arguments. So, in our case, flexible work arrangements have a strong and negative association with the intention to leave and younger employees are more appreciative of these practices compared to older employees. As such, our study did not confirm the Dutch study (Eriksson and Kristensen, 2014), or the Luxembourg study (Martin *et al.*, 2021), whereby older employees valued flexibility more. Cennamo and Gardner (2008) summarise that freedom-related values are more relevant to younger generations, having in mind generations X and Y, i.e. the middle-aged employees in the context of our study. The youngest age cohort, 24 years or less, has entered the labour market only recently and has not been studied thoroughly. However, they are claimed to place the highest priority on work-life balance when choosing a job and looking for a "fun place to work, with a flexible schedule and paid time off" (Gabrielova and Buchko, 2021, p. 492). We acknowledge that dramatic changes regarding flexibility have occurred since 2020, and our result may already reflect the "new normal" whereby all age groups expect flexibility, particularly the youngest.

SST suggests that older employees are less interested in their development opportunities compared to the mean and several empirical studies have confirmed it (Bal and Dorenbosch, 2015; Martin *et al.*, 2021; Zhang and Farndale, 2022; Goštautaitė *et al.*, 2022).

Inspired by this, our last hypothesis (*H3: Age moderates the relationship between employee enhancement benefits and employee intention to leave. There is a negative association across all age groups, but it is stronger amongst individuals aged 35 years and younger*) was not confirmed. We had dissimilar results to those of Kooij *et al.* (2010) in the case of professional development, where younger employees reacted more positively to education reimbursement benefits. To our surprise, the data shows that older employees do not differ from other age groups regarding development opportunities. These results are supported by Eriksson and Kristensen (2014) and Veth *et al.* (2019). In explaining why older employees are equally interested in self-development, we note that work-life has extended far beyond 55 years, denoted the oldest category in our categorisation. For a 55-year-old person, especially in a knowledge-intensive sector, 10–15 productive employment years are still ahead and to keep up with the environmental and technological changes self-development is a necessity. Context-specific aspects should also be noted: according to Organisation for Economic Co-operation and Development (OECD), 73.8% of the Estonian population aged 55–64 years were employed in 2022, whilst it was less than 57% in Austria, Poland and France. Furthermore, Estonia has an exceptionally high employment rate amongst the retired. When a retired person in Estonia still works, she gets both the earned pension and the salary. This increases her living standard remarkably because the average public pension is only about half the average salary in the country. Although older people in the future will not depend solely on the public pension, retirement income will still be modest compared to salary. Whether we like it or not, work beyond retirement age would be widespread.

That said, our results may not challenge psychological theories of ageing as such but perhaps shift our theoretical assumptions to a much later phase of life. As a practical implication of our study, we encourage employers to use benefits, especially those targeted to flexible work arrangements and employee development. In times of social isolation, when social events could not be organised, the need for autonomy and employee development

remained. Regardless of the pandemic, (health)insurance-type benefits were less effective than the former. Researchers (Daley, 2008; de la Torre-Ruiz *et al.*, 2017; Galetić and Klindžić, 2020) suggest that cafeteria systems should be considered to increase the efficiency of benefits, where people can choose what they would like the best. The findings of available studies (Rabin, 1994; Vidal-Salazar *et al.*, 2016) show that companies allowing greater freedom to workers in selecting perks and benefits are more successful in their attraction and retention efforts than firms offering fixed benefits systems. However, only in the case of flexible working arrangements intention to leave diminishes more for younger employees, whereas other benefits seem equally (un)valued for employees of all ages. Amongst the 10 benefits studied, none were particularly suited for older employees. We believe that a secure and (socially) meaningful job, where older employees can professionally grow equally to their colleagues, has the best potential to retain them (Wells-Lepley *et al.*, 2013). For the youngest cohort, it may well be that flexibility is no more a benefit but a standard requirement.

Limitations and future research

Our study has several limitations related to the data and estimation technique employed. Firstly, our dependent variable, which was a composite score of three items, relied on the assumption of unifactorial structure (more details can be found in the Supplementary Material).

Additionally, we assumed that perceived benefits would not lead certain individuals, based on unobservable characteristics or age, to self-select for the job. It is unlikely that random assignment to the job occurred, so we relied on observable characteristics to control for self-selection. Our controls included gender, education, income and satisfaction with compensation and organisational characteristics, which justified our estimation strategy. However, it is important to note that the estimated coefficients should be interpreted as cohort effects due to the categorical nature of the age variable.

In terms of data collection, our survey relied on self-reports, which are acceptable for measuring intention to leave (given the confidentiality clause) but may be less reliable for assessing the provision of benefits. It is common for employees to be unaware of company benefits they do not personally use, so the independent variable should be understood as employees' perception of certain HR practices. Furthermore, the cross-sectional design of the survey cautions against making causal claims as there may be unobserved variables influencing both the intention to leave and the benefits reported. Therefore, the estimators show associations in the data, but it would be overly bold to interpret them as causal relationships.

Another limitation is that our study sample may have a nested structure, as some respondents may work at the same company. However, due to the confidentiality of employees and their employers, we were unable to control this factor. Future studies should consider accounting for idiosyncratic effects within large companies by using a representative sample of employees. Finally, it is important to consider the timing and context of our data collection. The survey took place during the autumn of 2020 when Estonia, like many other places, was heavily influenced by the COVID-19 pandemic. The overall uncertainty in the labour market during this period may have affected both employee attitudes and company HRM policies. It is possible that certain benefits were cancelled by employers due to economic difficulties but had no effect on employees' intention to leave because of the health crisis. Therefore, replicating the study under "normal" circumstances is recommended to test the external validity of our findings. Additionally, we excluded socially oriented and office environment-related benefits as implausible due to the timing, but we acknowledge that these benefits may be important and that age effects could emerge in those areas.

Conclusion

The objective of the study was to explore the association between specific employer-provided benefits and employees' intention to leave across different age groups. To achieve this, we investigated self-reported and perceived benefits amongst the workforce in Estonia and linked the age-specific cohort effects with psychological theories of ageing, namely the Socio-Emotional Selectivity Theory (SST).

We used a weighted multiple regression estimation strategy with cohort-specific slopes to demonstrate that intention to leave is cohort-specific, with older cohorts having a lower intention to leave regardless of benefits. Benefits still matter in most cases, and they are negatively associated with the intention to leave. Employer contributions to pension funds and health insurance were surprisingly of little significance to employees, which can be attributed to contextual factors like the absence of an occupational pension scheme in the Estonian pension system. Additionally, employees' attitudes may have been influenced by collective memories of past savings losses during inflationary periods, notably in the Soviet era, in 1992 when Estonia adopted the Estonian kroon, and again in 2011 during the transition to the Euro. Consequently, employees tend to prefer immediate monetary compensation over future-oriented investments like pensions and insurance, influenced by these historical experiences. Other effects were not age-group-specific with one exception. Specifically, benefits in the flexibility category were more relevant to younger employees. The cohort below 35 years old was significantly affected by flexible working arrangements and remote work, which we interpret as the "new normal" in terms of working conditions and arrangements. Surprisingly, there was no indication that younger employees care more about professional development opportunities and that older age groups care less than middle-aged employees.

According to the SST theory, individual choices for successful ageing encompass older cohorts to adopt a shorter-term view when setting and maintaining personal goals. However, we controversially found that older cohorts were not much different regarding perceived benefits stimulus. This could be interpreted as a cultural or labour market context effect, which may question the universal applicability of SST theoretical foundations of HR practices, or its applicability in times of crisis.

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Appendix

Table A1. Unweighted characteristics of the control variables by age groups

	Total	24 or younger	25–34	35–44	45–54	55 or older	Chi-sq	df	*p*-value
Manager	7,209	304	1,610	1,674	1,780	1,841	72.469	4	<0.001
Yes	2,047 (28.4)	53 (17.4)	498 (30.9)	569 (34.0)	498 (28.0)	429 (23.3)			
No	5,162 (71.6)	251 (82.6)	1,112 (69.1)	1,105 (66.0)	1,282 (72.0)	1,412 (76.7)			
Gender	7,209	304	1,610	1,674	1,780	1,841	49.943	4	<0.001
Female	4,588 (63.6)	200 (66.8)	968 (60.0)	986 (58.9)	1,166 (65.5)	1,268 (68.9)			
Male	2,621 (36.4)	104 (34.2)	642 (40.0)	688 (41.1)	614 (34.5)	573 (31.1)			
Education	7,209	304	1,610	1,674	1,780	1,841	369.08	28	<0.001
Less than elementary school	17 (0.2)	1 (0.3)	6 (0.4)	5 (0.3)	2 (0.1)	3 (0.2)			
Elementary school	194 (2.7)	30 (9.9)	48 (3.0)	62 (3.7)	41 (2.3)	13 (0.7)			
Vocational education after elementary school	161 (2.2)	9 (3.0)	36 (2.2)	44 (2.6)	41 (2.3)	31 (1.7)			
Secondary education	1,067 (14.8)	88 (29.0)	235 (14.6)	225 (13.4)	259 (14.6)	260 (14.1)			
Vocational education with secondary education	1,654 (22.9)	59 (19.4)	297 (18.4)	388 (23.3)	488 (27.4)	422 (22.9)			
Bachelor's degree	2,319 (32.3)	111 (36.4)	583 (36.2)	585 (34.9)	559 (31.4)	481 (26.1)			
Master's degree	1,751 (24.3)	6 (2.0)	400 (24.9)	345 (20.6)	385 (21.6)	615 (33.4)			
Doctoral degree	46 (0.6)	0 (0.0)	5 (0.3)	20 (1.2)	5 (0.3)	16 (0.9)			
Income and satisfaction with compensation									
Coping with income	7,209	304	1,610	1,674	1,780	1,841	263.2	16	<0.001
Very bad	165 (2.3)	8 (2.6)	29 (1.8)	37 (2.2)	56 (3.1)	35 (1.9)			
Bad	789 (11.0)	40 (13.2)	145 (9.0)	167 (10.0)	235 (13.2)	202 (11.0)			
Average	3,969 (55.0)	148 (48.7)	713 (44.3)	907 (54.2)	1,053 (59.2)	1,148 (62.3)			
Good	1,876 (26.0)	86 (28.3)	560 (34.8)	455 (27.2)	369 (20.7)	406 (22.1)			
Very good	410 (5.7)	22 (7.2)	163 (10.1)	108 (6.4)	67 (3.8)	50 (2.7)			
Satisfaction with total compensation	7,209	304	1,610	1,674	1,780	1,841	258.79	20	<0.001
I cannot evaluate	168 (2.3)	2 (0.7)	11 (0.7)	32 (1.9)	47 (2.6)	76 (4.1)			
Not satisfied at all	713 (9.9)	26 (8.6)	106 (6.6)	127 (7.6)	209 (11.8)	245 (13.3)			
Mostly not satisfied	1,617 (22.4)	60 (19.7)	295 (18.3)	308 (18.4)	474 (26.6)	480 (26.1)			
Yes and No	1,830 (25.4)	86 (28.3)	397 (24.7)	449 (26.8)	440 (24.8)	458 (24.9)			
Mostly satisfied	2,263 (31.4)	98 (32.2)	622 (38.6)	591 (35.3)	483 (27.1)	469 (25.5)			
Very satisfied	618 (8.6)	32 (10.5)	179 (11.1)	167 (10.0)	127 (7.1)	113 (6.1)			

(*continued*)

Table A1.

	Total	24 or younger	25–34	35–44	45–54	55 or older	Chi-sq	df	*p*-value
Organisation's characteristics									
Organisation type	7,209	304	1,610	1,674	1,780	1,841	285.6	24	<0.001
Public institutions (schools, libraries)	328 (4.5)	13 (4.2)	50 (3.1)	64 (3.8)	85 (4.8)	116 (6.3)			
Private companies	4,412 (61.3)	191 (62.8)	1,140 (70.8)	1,095 (65.4)	1,066 (59.9)	920 (50.0)			
Local community institutions	442 (6.1)	7 (2.3)	41 (2.5)	74 (4.4)	129 (7.2)	191 (10.4)			
Non-profit association or foundation	295 (4.1)	9 (3.0)	51 (3.2)	53 (3.2)	80 (4.5)	102 (5.5)			
State-owned companies	380 (5.3)	13 (4.3)	69 (4.3)	86 (5.1)	86 (4.8)	126 (6.8)			
State managed institutions	824 (11.4)	20 (6.6)	156 (9.7)	199 (11.9)	208 (11.7)	241 (13.1)			
Others/do not know, can't say	528 (7.3)	51 (16.8)	103 (6.4)	103(6.2)	126 (7.1)	145 (7.9)			
Organisation size	7,209	304	1,610	1,674	1,780	1,841	73.482	16	<0.001
Less than 10 employees	887 (12.3)	40 (13.2)	196 (12.2)	188 (11.2)	235 (13.2)	228 (12.4)			
10–49 employees	1,916 (26.6)	71 (23.3)	359 (22.3)	440 (26.3)	504 (28.3)	542 (29.4)			
20–249 employees	2,006 (27.8)	76 (25.0)	465 (28.8)	457 (27.3)	505 (28.4)	503 (27.4)			
250 and more employees	2,076 (28.8)	92 (30.3)	536 (33.3)	525 (31.4)	455 (25.6)	468 (25.4)			
I do not know	324 (4.5)	25 (8.2)	54 (3.4)	64 (3.8)	81 (4.5)	100 (5.4)			

Source(s): Authors' own creation

Supplementary material

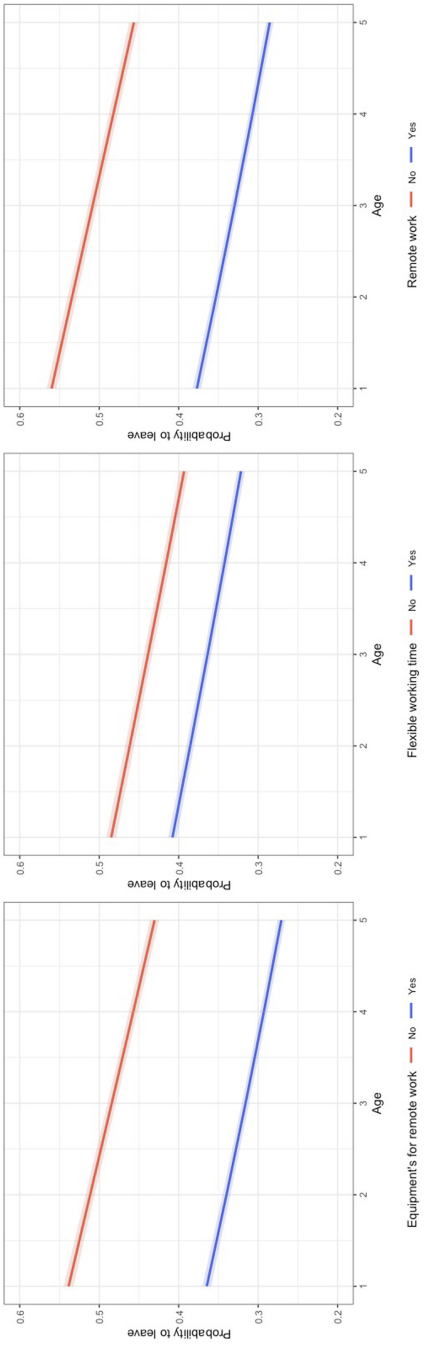
In the simple Ordinary Least Squares (OLS) exercise, we have demonstrated the association between employer-provided benefits and age, indicating that the utilization of these benefits varies across different age groups. However, the regression results do not entirely align with the theoretical predictions concerning health and security, as well as employee enhancement-related benefits. It is important to note that our OLS model specification is based on certain assumptions: (1) our dependent variable, intention to leave, is a composite mean score of three variables, and (2) we have examined only the marginal association of individual benefits, without considering substitutive or complementary relationships. In order to test the robustness of our results under different assumptions, we have specified three additional models where the dependent variable is operationalized as the mean score, but the independent variable is the cumulative effect of all benefits within the same group. We refer to this independent variable as the "*intensity of benefits.*" Specifically, we calculate the sum of benefits within each group (health and security, flexible working arrangements, and employee enhancement), and standardize the measure. The results of these models are presented in Supplementary Material, Panel A. Overall, we observe no significant differences compared to the results shown in Tables 2–4.

Our second test pertains to the operationalization of the dependent variable. We examine the sensitivity of our findings by operationalizing the dependent variable in a binary scale (1 = actively searching for a new job), which represents a more stringent test. The binary nature of the variable enables us to estimate logistic regression models similar to Equation (1) and analyse the nonlinear effects of age on the probability of leaving (ranging from 0 to 1) for two groups – those who receive a particular benefit and those who do not. In Supplementary Material, Panel B, C, and D, we present figures illustrating the average marginal effects. In all cases, we keep all other variables fixed at their mean values and vary only the age variable across the five age groups for both benefit-receiving and non-receiving groups. We also control for organization type and size. Our analysis focuses on private firms with 10–49 employees. The results reaffirm the importance of age as a determinant of the probability of leaving, and demonstrate negative associations between all benefits and the probability of leaving, indicating that the provision of benefits reduces the likelihood of employees leaving. However, the effect sizes vary across benefits. However, there is variation in the association strength across different benefits. *Disease prevention/treatment costs*, *equipment for remote work*, and the *opportunity for remote work* show the most pronounced independent associations across all age groups (intercept effects). There are no significant differences in the observed associations' magnitude (slope effects).

(Model 1)		(Model 2)		(Model 3)	
Benefits					
Health and security	0.105**	*Flexible work arrangements*	0.120***	*Employee enhancement*	0.141***
	(0.029)		(0.030)		(0.029)
Age (ref: 35–44)					
24 or younger	0.516***	24 or younger	0.321***	24 or younger	0.456***
	(0.077)		(0.068)		(0.075)
25–34	0.081*	25–34	0.104***	25–34	0.166***
	(0.043)		(0.040)		(0.043)
45–55	−0.195***	45–55	−0.149***	45–55	−0.134***
	(0.049)		(0.046)		(0.048)
Older than 55	−0.401***	older than 55	−0.406***	older than 55	−0.337***
	(0.055)		(0.055)		(0.055)
Interactions					
Security benefits x 24 or younger	−0.148**	Flexible work arrangements x 24 or younger	0.308***	Educational benefits x 24 or younger	0.111
	(0.061)		(0.069)		(0.073)
Security benefits x 25–34	−0.025	Flexible work arrangements x 25–34	−0.092**	Educational benefits x 25–34	−0.005
	(0.041)		(0.040)		(0.041)
Security benefits x 45–55	−0.037	Flexible work arrangements x 45–55	−0.004	Educational benefits x 45–55	−0.001
	(0.047)		(0.044)		(0.045)
Security benefits x older than 55	−0.009	Flexible work arrangements x older than 55	−0.037	Educational benefits x older than 55	0.010
	(0.056)		(0.050)		(0.053)
Constant	3.457***	Constant	3.345***	Constant	3.737***
	(0.245)		(0.211)		(0.249)
Controls					
Satisfaction to compensation	Yes		Yes		Yes
Background characteristics	Yes		Yes		Yes
Company characteristics	Yes		Yes		Yes
Observations	2,789	Observations	3,382	Observations	2,904
R^2	0.218	R^2	0.235	R^2	0.231
Adjusted R^2	0.209	Adjusted R^2	0.228	Adjusted R^2	0.223
F statistic	25.596***	*F* statistic	34.359***	*F* statistic	28.836***

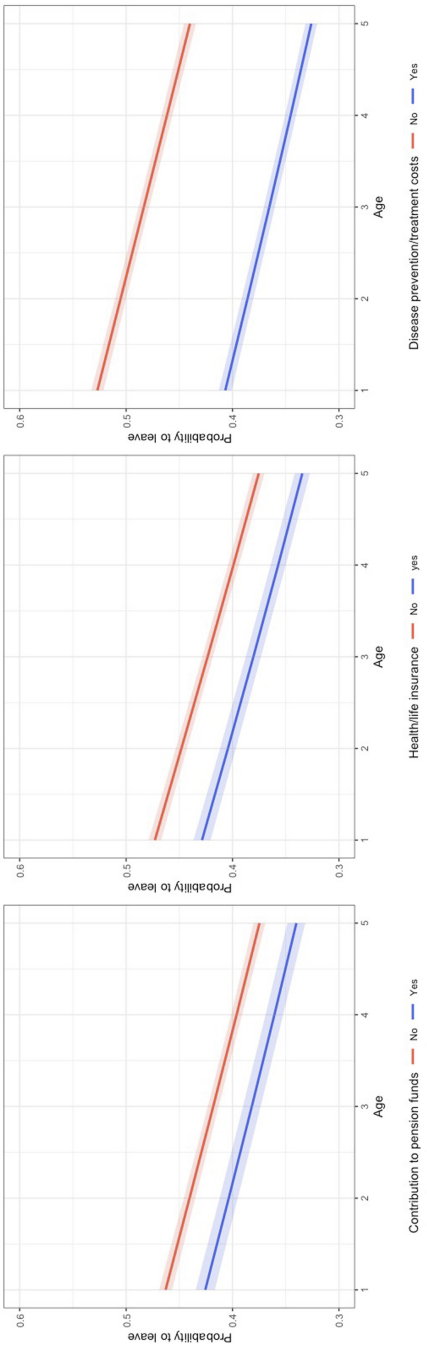
Note(s): *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$
Source(s): Authors' own creation

Table S1.
Panel A: the effects of intensity of benefits to intention to leave, heterogeneous age effects



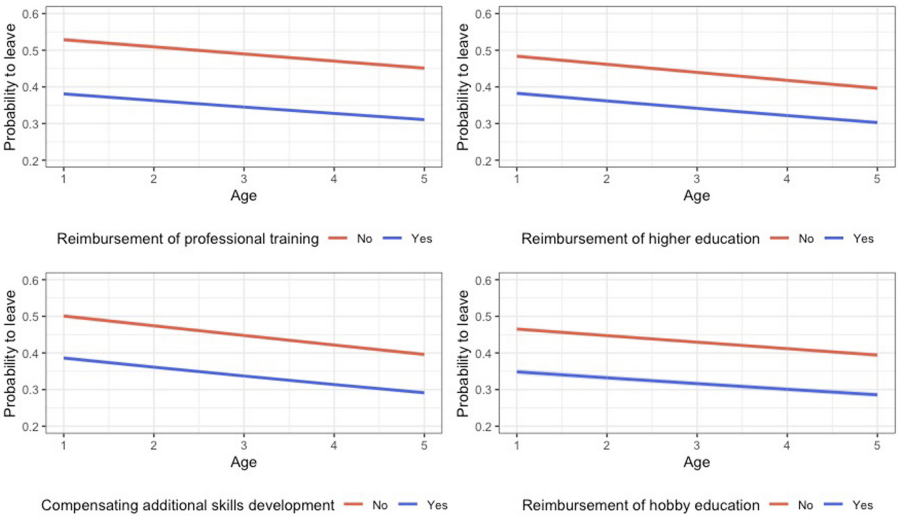
Source(s): Authors' own creation

Figure S1.
Panel B: Nonlinear effects of age on the probability of leaving (scale 0 to 1) by two groups – whether relatedness benefits are provided or not



Source(s): Authors' own creation

Figure S2.
Panel C: Nonlinear effects of age on the probability of leaving (scale 0 to 1) by two groups – whether existence benefits are provided or not



Source(s): Authors' own creation

Figure S3.
Panel D: Nonlinear effects of age on the probability of leaving (scale 0 to 1) by two groups – whether growth benefits are provided or not

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