

# The Role of Occupational Future Time Perspective as a Moderator in the Relationship between Chronological Age and Work Engagement

Hilda Elsa Putri<sup>1</sup> Debora Eflina Purba<sup>1,\*</sup>

<sup>1</sup> Faculty of Psychology, Universitas Indonesia

\*Corresponding author. Email: [eflina@ui.ac.id](mailto:eflina@ui.ac.id)

## ABSTRACT

Age-related factors, such as chronological age and subjective age, are one of the most important factors that influence work engagement. However, previous studies showed inconsistent results in revealing the relationship between chronological age and work engagement. We extend the previous research by arguing the relationship between chronological age and work engagement is moderated by subjective age in the workplace context, namely occupational future time perspective (OFTP) within the framework of conservation of resources (COR) theory. Built upon the framework, OFTP played a role as motivational and compensatory resources to be engaged. Data were collected using a paper and pencil survey from healthcare employees at six private hospitals in Jakarta and its surroundings (N = 190). Using a simple moderation test with Hayes' (2008) PROCESS macro on SPSS software v25.0, the results showed that the moderating effect of OFTP on chronological age-work engagement was positive and significant, such that the relationship between chronological age and work engagement is positive and higher on individuals with expansive OFTP. Meanwhile, chronological age could not predict work engagement on low OFTP individuals. The results of this study are able to show the organization to highlight the OFTP variable, especially on the older workers.

**Keywords:** *chronological age, occupational future time perspective, OFTP, work engagement.*

## 1. INTRODUCTION

The proportion of Indonesian labor over the age of 55 has increased in the past decade with an annual percentage increase of 6.4% from 6.2 million workers in 2010 to 9.7 million workers as of February 2020 [1], [2]. Besides that, the number of workers who have just entered the employment has tripled in the last three years, from 5 million workers in 2017 to 15.4 million workers as of February 2020 [2], [3]. One of the factors contributing to age diversity is that for the first time, four generations are working side by side in the same period as the entry of Generation Z [4]. With the increasing age of the workforce, organizations are faced with the challenge of retaining senior workers and being able to manage age diversity in the workplace because the characteristics between ages are different from one another [5]. It will affect the attitudes, behavior, and expectations of employees, including the level of work

engagement they display [6]. Work engagement gradually becomes important because it could predict positive outcomes at the individual, team, and organizational levels [7]–[9].

At the individual level, promoting work engagement may have positive effects on an individual's efficacy and well-being [10]. Furthermore, engaged workers may get a higher rating from their co-workers in regards to in-role and extra-role performance which indicates that workers who are engaged will give their best performance and high initiative [8]. At the team level, work engagement was positively correlated with task and team performance and collective positive affect [11]. At the organizational level, work engagement was found to be positively related to extra-role behavior and performance quality [12], [13].

Work engagement is defined as affective-emotional circumstances and related to conditions of fulfillment at

work that is identified by vigor, dedication, and absorption [14]. Vigor captures a strong feeling while working and demonstrates a high level of energy [8]. Dedication is characterized by experiencing challenges, inspiration, and enthusiasm towards work [8]. Absorption is characterized by high concentration and experiencing a sense of harmony while time passes quickly [8]. Literature suggested that work engagement was driven by factors namely job resources, personal resources, and socio-demographic [15]–[17]. Job resources are the physical, social, or psychological aspects of the job that help to attain the goal of the job [18]. Personal resources are an individual's positive self-evaluation that is related to resiliency and their perception of being able to control their environment [18]. Lastly, prior studies have found that socio-demographic factors such as age, gender, and employment status related to work engagement [16], [17].

As mentioned above, socio-demographic aspects such as age were proven to be one of the factors that can lead to work engagement. Work engagement is crucial to be investigated more deeply because it is related to the issue of age diversity in the workplace. Characteristics between ages that differ from one another will affect the work experience of employees including the level of work engagement they display [6]. Previous studies have explained how the mechanism of the relationship between chronological age and work engagement, with most studies finding a significant positive correlation between the two variables [15], [16], [19]. The older the individual gets, the higher level of work engagement they will display. However, there is an inconsistency in the strength of the relationship between chronological age and work engagement in previous empirical studies. Siu [17] for instance, found that work engagement and chronological age have a moderate correlation in the 789 healthcare workers in China. On the other hand, several other studies found very weak correlations between the two variables [15], [16]. Thus, this study aimed to examine other age-related factors, which is subjective age as a boundary condition in the relationship between chronological age and work engagement.

Subjective age explains that individuals will perceive themselves at a certain age, could be younger, older, or the same as their chronological age [20]. In line with the conceptualization of subjective age above, occupational future time perspective (OFTP) is considered as a subjective age that is perceived by individuals in the workplace context. The concept of OFTP is defined as the perception of future time in one's working life [21]. OFTP is considered as a subjective age because a high level of OFTP individuals could perceive themselves as young due to their perception of unlimited time and opportunities in the organization, even though they are senior workers [20]–

[22]. Conversely, young individuals with a low level of OFTP could perceive themselves as old because they think they do not have enough time and opportunities to grow in the organization.

The present study used the conservation of resources (COR) theory as a framework. The COR theory states that individuals will be motivated to acquire, maintain, and protect resources that are considered valuable [23]. A resource is something perceived by individuals that could help to achieve their goals [24]. The COR theory also explains the compensatory of resources concept, which suggests even though individuals experienced stress when they lost resources, they will pitch into another adequate resource to compensate and minimize the loss [24]–[26].

This research was conducted on healthcare workers. As they age, healthcare workers become more competent in tasks related to their profession, so that they are more motivated in their work [27]. The literature suggested that healthcare workers are one of the sectors with high job complexity and autonomy [27]. This will offer a resource-rich work context that will help to add additional resources in terms of perceptions of opportunity and time. A work environment that has a resource-rich work context will direct individuals to have a positive perception of their future career, or in this case, will have a high OFTP [28]. Following the COR theory, increasing age is expected to increase resources that can help an individual's ability to engage with their work. Individuals also have other personal resources, namely their perception of the opportunities and time remaining to work in the organization (OFTP), which can be developed by employees. Based on the explanation above, we assume that OFTP can work as a motivational resource that directs employees to be engaged in their work. Furthermore, loss-compensation dynamism which is part of the compensatory of resources concept is reflected in the aging process of individuals [16], [24]–[26], [29]. As people age, individuals will gain and lose resources (e.g. in the form of physical, cognitive, emotional) so that individuals will adjust their behavior by optimizing other resources that are considered sufficient [16]. In this case, a high OFTP becomes a compensating resource from a chronological age that allows employees to continue to display high work engagement.

This study proposed a hypothesis: OFTP moderates the relationship between chronological age and work engagement, such that the relationship between chronological age and work engagement is positive and significant on high OFTP individuals than low OFTP individuals. In other words, increased age could keep an individual engaged in their work, because they perceive they still have enough opportunity and time to grow in the organization. Conversely, increased age will not make individuals feel engaged in their work when they

perceive they do not have enough time and opportunity to grow in the organization.

## 2. METHODS

### 2.1. Research Design

The present study used a quantitative approach with a cross-sectional study design. Based on the nature of the investigation, this study is classified as a non-experimental field study, specifically correlational research that aimed to examine the strength of the relationship between two or more variables without manipulations [30].

### 2.2. Procedures

Before collecting the data, we conducted a pilot study for OFTP scale due to the unavailability of the instrument in Indonesian. We referred to the translation procedure as recommended by Colina, Marrone, Ingram, and Sánchez [31]: translation, back-translation, committee review, and pretesting. The pilot study was tested online using Google Form on 108 full-time workers from various cities in Indonesia who had worked at the company where they worked for at least one year. On collecting the research data, we were assisted by the Human Resources Department in distributing questionnaires.

### 2.3. Sample

The population of the study is healthcare workers from six private hospitals in Jakarta and its surroundings. We used the non-probability sampling technique to gather the research participant with criteria that have been working in the company at least one year and is a full-time worker. We assumed that full-time workers with a minimum of one-year working experience have formed a perception about their career in the company. We collected 202 responses, but only data from 190 participants can be used due to missing data in the study variables. The sample included 81,5 percent of females and 18,5 percent of males. The participants' average age was 33,69 years ( $SD = 8,8$ ). Among the survey participants, 7,6 percent held a master's degree, 30 percent held a bachelor's degree, and 62,4 percent held a diploma. The average occupational tenure was 4,9 years ( $SD = 4,2$ ).

### 2.4. Instruments and Measurements

#### 2.4.1. Work Engagement

Work Engagement was measured by the nine-items Utrecht Work Engagement (UWES) scale developed by Schaufeli and Salanova [32] that have been adapted to Indonesian by Kristiana [33] with an adequate

Cronbach's alpha of .85. Participants rated the items on a seven-point Likert Scale (0 = never, 7 = always).

#### 2.4.2. Occupational Future Time Perspective (OFTP)

OFTP was measured by the ten-items OFTP scale modified by Zacher and Frese [21] and has been adapted in Indonesian workers on the pilot study. The Cronbach's alpha for this instrument was .77. Participants rated the items on a five-point Likert Scale (1 = strongly disagree, 5 = strongly agree).

#### 2.4.3. Chronological Age

Chronological age was measured by asking participants to indicate their birth-age in years.

### 2.5. Data Analyses

We analyzed the research data in four stages. First, we conducted a preliminary analysis to see missing values, outliers, and data normality. Second, we conducted a confirmatory factor analysis to test the research model using R studio software v10.13+. Third, we conducted descriptive analyses to see the demographic distribution of the participants and bivariate correlation analyses to see the relationship between chronological age, work engagement, OFTP, and demographic variables in the SPSS statistical software v25.0. Finally, to test the main hypothesis, we used the PROCESS macro from Andrew F. Hayes in the SPSS v25.0. We used simple moderation model 1 with 5000 bootstraps.

## 3. RESULTS

We conducted a confirmatory factor analysis (CFA) test to determine the discriminant validity of work engagement and OFTP. In evaluating the fitness model, we referred to Hu and Bentler [34], with  $\chi^2/df$  is greater than 3, standardized root mean squared residual (SRMR) is less than 0.08, comparative fit index (CFI) and the Tucker-Lewis index (TLI) are more than 0.90. The CFA results shown in the table X suggested a model with two factors - work engagement and OFTP as a latent variable provides a fit model than the other model factors (*2-factor model*;  $\chi^2 = 192.35$ ,  $df = 95$ ;  $SRMR = .05$ ;  $CFI = .95$ ;  $TLI = .93$ ).

Furthermore, we conducted a Pearson Product-Moment Correlation technique to see the correlation between variables. Based on the Pearson correlation in table 2, it is known that there is a significant positive relationship between chronological age and work engagement ( $r = .34$ ,  $p < .01$ ). This positive relationship indicates that the older individual gets, the higher the level of work engagement they displayed. Furthermore, the result also showed that there is a significant positive

**Table 1.** Model comparison using confirmatory factor analysis

| Models             | $\chi^2$ (df) | SRMR | CFI | TLI | $\chi^2$ (df) |
|--------------------|---------------|------|-----|-----|---------------|
| Two-factor model   | 369.22 (150)  | .05  | .95 | .93 | 2.46          |
| Three-factor model | 383.34 (147)  | .07  | .86 | .84 | 2.60          |
| Four-factor model  | 330.71 (143)  | .07  | .90 | .87 | 2.31          |
| Five-factor model  | 316.72 (138)  | .06  | .90 | .87 | 2.29          |

Note. Two-factor model: OFTP and work engagement as latent variables.

Three factors model: Perceived remaining opportunity, perceived remaining time, and work engagement as latent variables

Four factors model: OFTP, absorption, vigor, and dedication as latent variables

Five factors model: perceived remaining opportunities, perceived remaining time, absorption, vigor, dedication as latent variables.

**Table 2.** Mean, Standard Deviation, and Correlation

| Variables | M     | SD    | 1      | 2      | 3      | 4 |
|-----------|-------|-------|--------|--------|--------|---|
| Tenure    | 4.90  | 4.276 | -      | -      | -      | - |
| Chro. Age | 33.69 | 8.186 | .306** | -      | -      | - |
| WE        | 4.37  | .87   | .145*  | .337** | -      | - |
| OFTP      | 3.61  | .60   | -.085  | .114   | .318** | - |

Note. N = 190. Age and job tenure were measured in years; OFTP was measured on a 5-point scale, and work engagement was measured on a 7-point scale. Chro. Age = Chronological Age WE = work engagement. OFTP = occupational future time perspective. \*  $p < .01$ ;  $p < .05$ .

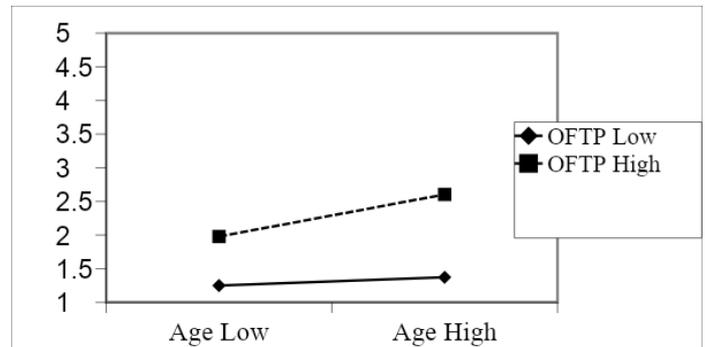
relationship between the main variable of work engagement with job tenure ( $r = .14, p < .05$ ).

To test the hypothesis, we used Hayes' PROCESS macro on the SPSS software by applying model 1 for moderation analysis. The results of the regression analysis are shown in Table 3. We tested with standard deviation slopes -1 and 1 to see the difference in OFTP between younger and older samples. Based on Figure 1, we found that chronological age to be positively and significantly related to work engagement ( $b = .12, t(186) = 2.84, p = .005$ ) Furthermore, results showed that OFTP to be positively and significantly related to work engagement ( $b = 1.20, t(186) = 3.08, p = .002$ ; 95% CI [.43, 1.97]). Furthermore, the interaction effect between the chronological age and OFTP was significant ( $b = -.02, t(186) = -2.10, p = .03$ ; 95% CI [-.04, -.001]). Figure 1 showed the simple slope of the interaction effect of chronological age and OFTP, showing that the relationship between chronological age and work engagement to be nonsignificant when OFTP was low than when OFTP was high. Based on these results, it can be concluded that our hypothesis was supported by the data, in that OFTP strengthens the effect of chronological age on work engagement.

**Table 3.** Moderating effect of OFTP in the relationship between chronological age and work engagement

| Predictors       | b    | SE   | t     | p    | LLCI   | ULCI   |
|------------------|------|------|-------|------|--------|--------|
| Chro. Age        | .12  | .042 | 2.84  | .005 | .366   | .2028  |
| OFTP             | 1.20 | .390 | 3.08  | .002 | .4346  | 1.197  |
| Chro. Age x OFTP | -.02 | .011 | -2.10 | .037 | -.0458 | -.0014 |

Note. N=190. B (coefficient), SE (Standard Error), LLCI (Lower Level Confidence Interval), ULCI (Upper Level Confidence Interval). \*\*  $p < .01$ , \*  $p < .05$ .



**Figure 1.** Interaction plot of the relationship between chronological age and work engagement with OFTP as a moderator

#### 4. DISCUSSION

This research was aimed to examine OFTP as a moderator between the relationship of chronological age and work engagement. The results of this study showed that chronological age positively and significantly influences work engagement, and OFTP moderates the relationship between the two variables. Based on the results above, we can conclude that the research hypothesis was supported, such that increased engagement appeared to be stronger within participants who have a high level of OFTP compared to the lower level of OFTP.

The result of this study can be explained using the COR theory [23], in which high OFTP works as a future-oriented motivational resource. Workers with a high level of OFTP will get positive self-concept, self-esteem, and self-efficacy and consider it as a motivational resource that can help them to be more engaged at work [35]. Furthermore, compensatory of resources can offset negative perceptions of employees due to chronological age [23], [25], [26]. As people age, individuals will gain and lose resources (e.g. in a physical, cognitive, emotional form) so that individuals will alter their behaviour by optimizing other resources that are deemed sufficient [16]. In this case, a high OFTP will be a compensating resource of chronological age that allows workers to continue to display high work engagement.

The result of this study is also in line with previous studies which revealed that employees who have high OFTP will experience higher engagement physically, emotionally, and cognitively (Sia et al., 2015). This can be explained through cognitive mediation theory which explains that beliefs, expectations, and appraisal can be a potential resource for positive emotions [26], [36]. These positive emotions then lead to the formation of positive attitudes and behaviour such as job engagement and organizational commitment. The perception of the remaining time they have to work will be corresponding to individual motivational systems [37]. Employees who have an expansive OFTP will have an orientation and focus more on the opportunities they can achieve compared to their own limitations. Focus on opportunities has contributed to intrinsic work motivation and employees who focus on their opportunities and goals in the future will perceive their work as meaningful [38]. OFTP as subjective age gradually becomes important because goal-directed behaviour leads to how the individual perceives their future time – then - the perception of time leads to goal selection and goal pursuit [39]. Previous studies suggested considering chronological age to be replaced with subjective age [39]–[41]. However, the literature on workplace diversity suggested that the role of chronological age still needs to be considered since it has important outcomes on work attitude and behaviour as workers become more diverse in today’s workforce [42].

To the best of our knowledge, no prior study has yet investigated OFTP as a moderator in the relationship of chronological age and work engagement. Our findings enrich the literature on the aging workforce and occupational well-being in several ways. First, the present study contributes to the engagement literature by considering OFTP as a compensatory condition between chronological age and work engagement. Second, drawing on the COR theory [23], OFTP work as a motivational resource and are therefore more likely to feel higher levels of vigor, dedication, and absorption at work. A set of practical implications can be drawn to some levels. At the individual level, the implementation of self-regulation strategies such as selective, optimization, and compensation (SOC) strategy are expected to be able to broaden the future perspective of individuals in the organization. The SOC strategy is a behavioural coping strategy by selecting the most important goals in life, setting goals according to the priorities, optimizing the options that have been selected, and thinking about strategies for achieving alternative goals if the previous strategy is not successful or reduced resources [43]. However, managers need to assist workers to acquaint the strategy by providing SOC strategy training. SOC strategy training has been confirmed in previous empirical studies has a positive influence on work behaviour,

especially in a sample of healthcare workers. Research conducted by Muller [44] for instance, the SOC strategy training conducted on nurses generates a broader perspective on the perceived opportunity of senior workers four months after the intervention. At the organizational level, the Human Resources Department can offer activities that focus on learning, growth, and development such as regular skill training to improve employee capabilities, especially in dealing with technological developments [6]. This training aims to increase self-efficacy towards work demand, and the most important thing is to make individuals have a sense of broad future perspective. This training is an enhancement to the job resources that can simulate as intrinsic motivation, especially for senior workers. Another strategy that can be carried out by organizations is to facilitate workers by creating an online room platform to connect workers who are still actively working with its retired workers as a form of mentorship. In this case, individuals who are still actively working will perceive their working time will not stop at a certain age because once they retire, they still have an active working role in the organization.

We suggest several ways to address the limitation of this study in future research. First, the problem of common method bias could exist because this study tested a moderated model using a cross-sectional, single-source dataset. To reduce such problems, we implemented an item randomized response. However, we suggest future research to employ a longitudinal study design with a diary study to see the fluctuation of work engagement at any given time. Second, the generalization of the findings might be limited due to the female participants dominating the sample of this study (81,5 percent). We expect that further empirical study can overcome this limitation by expanding the coverage of surveyed industries.

## **5. CONCLUSION**

This research shows that there is a positive significant relationship between chronological age and work engagement. Moreover, OFTP was found to be a significant moderator of the relationship between the two variables. This study emphasizes that it is crucial for an organization to highlight the characteristics of employees in different ages because it will influence their attitude, behaviour, and expectations at work. Furthermore, this study revealed that subjective time horizon or in this case OFTP, could help employees to strengthen their work engagement because it played as a compensatory resource to enhance their motivation to be more engaged. The results of this study are able to show that organizations need to consider age-related variables such as subjective age but do not neglect the role of chronological age in order to be able to really see the

pattern of aging workforce and work behaviour outcomes such as work engagement.

## REFERENCES

- [1] Badan Pusat Statistik, "Keadaan angkatan kerja di Indonesia, Labor force situation in Indonesia, Agustus/August 2010," Jakarta, 2010. [Online]. Available: <https://www.bps.go.id/publication/>.
- [2] Badan Pusat Statistik, "Keadaan angkatan kerja di Indonesia, Labor force situation in Indonesia, Februari/February 2020," Jakarta, 2020. [Online]. Available: <https://www.bps.go.id/publication/>.
- [3] Badan Pusat Statistik, "Keadaan angkatan kerja di Indonesia, Labor force situation in Indonesia, Agustus/August 2017," Jakarta, 2017. [Online]. Available: <https://www.bps.go.id/publication/>.
- [4] B. Jiří, "The employees of baby boomers generation, generation X, generation Y and generation Z in selected Czech Corporations as conceivers of development and competitiveness in their corporation," *J. Compet.*, vol. 8, no. 4, pp. 105–123, Dec. 2016, doi: <http://dx.doi.org/10.7441/joc.2016.04.07>.
- [5] W. Loretto and S. Vickerstaff, "The domestic and gendered context for retirement," *Hum. Relations*, vol. 66, no. 1, pp. 65–86, Jan. 2013, doi: 10.1177/0018726712455832.
- [6] L. Denaro, G. Giorgi, F. Sderci, and J. F. Perez, "Age power: Work engagement in different generations," *Qual. - Access to Success*, vol. 19, no. 166, pp. 145–150, 2018.
- [7] A. B. Bakker, S. L. Albrecht, and M. P. Leiter, "Key questions regarding work engagement," *Eur. J. Work Organ. Psychol.*, vol. 20, no. 1, pp. 4–28, 2011, doi: 10.1080/1359432X.2010.485352.
- [8] A. B. Bakker and S. Albrecht, "Work engagement: current trends," *Career Dev. Int.*, vol. 23, no. 1, pp. 4–11, 2018, doi: 10.1108/CDI-11-2017-0207.
- [9] C. qin Lu, H. jiang Wang, J. jing Lu, D. yang Du, and A. B. Bakker, "Does work engagement increase person-job fit? The role of job crafting and job insecurity," *J. Vocat. Behav.*, vol. 84, no. 2, pp. 142–152, 2014, doi: 10.1016/j.jvb.2013.12.004.
- [10] L. Eldor, "Work engagement: Toward a general theoretical enriching model," *Hum. Resour. Dev. Rev.*, vol. 15, no. 3, pp. 317–339, 2016, doi: 10.1177/1534484316655666.
- [11] W. B. Schaufeli, "Work engagement. What do we know and where do we go?," *Rom. J. Appl. Psychol.*, vol. 14, no. 1, pp. 3–10, 2012.
- [12] M. Gupta and P. K. Reddy, "Impact of psychological capital on organizational citizenship behavior Mediation by work engagement," *J. Manag. Dev.*, vol. 36, no. 7, pp. 973–983, 2017, doi: 10.1108/JMD-06-2016-0084.
- [13] C. Sulea, D. Virga, L. P. Maricutoiu, W. Schaufeli, C. Z. Dumitru, and F. A. Sava, "Work engagement as mediator between job characteristics and positive and negative extra-role behaviors," *Career Dev. Int.*, vol. 17, no. 3, pp. 188–207, 2012, doi: 10.1108/13620431211241054.
- [14] W. B. Schaufeli, A. B. Bakker, and M. Salanova, "The measurement of work engagement with a short questionnaire: A cross-national study," *Educ. Psychol. Meas.*, vol. 66, no. 4, pp. 701–716, 2006, doi: 10.1177/0013164405282471.
- [15] B. Gostautaite and I. Buciuniene, "Work engagement during life-span: the role of interaction outside the organization and task significance," *J. Vocat. Behav.*, pp. 1–28, 2015, doi: 10.1016/j.jvb.2015.05.001.
- [16] N. Kim and S. Kang, "Linked Resources on work engagement," *Hum. Resour. Manage.*, vol. 53, no. 1, pp. 1–16, 2016, doi: 10.1002/hrm.
- [17] O. ling Siu *et al.*, "Role resources and work-family enrichment: The role of work engagement," *J. Vocat. Behav.*, vol. 77, no. 3, pp. 470–480, 2010, doi: 10.1016/j.jvb.2010.06.007.
- [18] A. B. Bakker and E. Demerouti, "Towards a model of work engagement," *Career Dev. Int.*, vol. 13, no. 3, pp. 209–223, 2008, doi: 10.1108/13620430810870476.
- [19] W. Schaufeli and A. Bakker, "Utrecht work engagement scale preliminary manual version 1.1," *Occup. Heal. Psychol. Unit Utr. Univ.*, no. December, pp. 1–60, 2004, doi: 10.1037/t01350-000.
- [20] B. Barak, "Age identity: A cross-cultural global approach," *Int. J. Behav. Dev.*, vol. 33, no. 1, pp. 2–11, 2009, doi: 10.1177/0165025408099485.
- [21] H. Zacher and M. Frese, "Remaining time and opportunities at work: Relationships between Age, work characteristics, and occupational future time perspective," vol. 24, no. 2, pp. 487–493, 2009, doi: 10.1037/a0015425.
- [22] R. A. Satterson and B. Godlewski, "Concepts and Theories of Age and Aging," in *Handbook of Theories of Aging*, 3rd Editio., V. L. Bengtson and Richard A. Satterson, Eds. New York, NY: Springer Publishing Company, LLC, 2016, pp. 9–25.

- [23] S. E. Hobfoll, "Conservation of resources: A new attempt at conceptualizing stress," *Am. Psychol.*, vol. 44, no. 3, pp. 513–524, Mar. 1989, doi: 10.1037/0003-066X.44.3.513.
- [24] J. R. B. Halbesleben, J. P. Neveu, S. C. Paustian-Underdahl, and M. Westman, "Getting to the 'COR': Understanding the role of resources in conservation of resources theory," *J. Manage.*, vol. 40, no. 5, pp. 1334–1364, 2014, doi: 10.1177/0149206314527130.
- [25] S. E. Hobfoll and J. R. Leiberhan, "Personality and social resources in immediate and continued stress resistance among women," *J. Pers. Soc. Psychol.*, vol. 52, no. 1, pp. 18–26, 1987, doi: 10.1037/0022-3514.52.1.18.
- [26] S. K. Sia, B. C. Sahoo, and P. Duari, "Gender Discrimination and work engagement: Moderating role of future time perspective," *South Asian J. Hum. Resour. Manag.*, vol. 2, no. 1, pp. 58–84, 2015, doi: 10.1177/2322093715577443.
- [27] T. I. J. van den Berg, J. A. Landeweerd, G. E. R. Tummers, and G. G. van Merode, "A comparative study of organisational characteristics, work characteristics and nurses' psychological work reactions in a hospital and nursing home setting," *Int. J. Nurs. Stud.*, vol. 43, no. 4, pp. 491–505, May 2006, doi: 10.1016/j.ijnurstu.2005.06.007.
- [28] C. W. Rudolph, D. T. A. M. Kooij, R. S. Rauvola, and H. Zacher, "Occupational future time perspective: A meta-analysis of antecedents and outcomes," *J. Organ. Behav.*, vol. 39, no. 2, pp. 229–248, 2018, doi: 10.1002/job.2264.
- [29] D. E. Froehlich, S. A. J. Beusaert, and M. S. R. Segers, "Great Expectations: The Relationship Between Future Time Perspective, Learning from Others, and Employability," *Vocat. Learn.*, vol. 8, no. 2, pp. 213–227, 2015, doi: 10.1007/s12186-015-9131-6.
- [30] F. Gravetter and L. Forzano, *Research Methods for the Behavioral Sciences*, 5th Editio. Stamford, CT.: Cengage, 2016.
- [31] S. Colina, N. Marrone, M. Ingram, and D. Sánchez, "Translation quality assessment in health research: A functionalist alternative to back-translation," *Eval. Heal. Prof.*, vol. 40, no. 3, pp. 267–293, 2017, doi: 10.1177/0163278716648191.
- [32] W. Schaufeli and M. Salanova, "Work engagement," *Manag. Soc. ethical issues Organ.*, vol. 135, p. 177, 2007.
- [33] I. F. Kristiana, F. Fajrianti, and U. Purwono, "Analisis Rasch Dalam Utrecht Work Engagement Scale-9 (Uwes-9) Versi Bahasa Indonesia," *J. Psikol.*, vol. 17, no. 2, p. 204, 2019, doi: 10.14710/jp.17.2.204-217.
- [34] L. T. Hu and P. M. Bentler, "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives," *Struct. Equ. Model.*, vol. 6, no. 1, pp. 1–55, 1999, doi: 10.1080/10705519909540118.
- [35] K. Potocnik, "Healthy Ageing and Well-Being at Work," in *The Palgrave Handbook of Age Diversity and Work*, P. Emma and J. Mccarthy, Eds. London: Springer Nature, 2017, pp. 171–193.
- [36] H. . Weiss and R. Cropanzano, "Affective events theory: a theoretical discussion of the structure causes and consequences of affective experiences at work," *Res. Organ. Behav.*, vol. 18, pp. 1–74, 1996, [Online]. Available: [http://web.mit.edu/curhan/www/docs/Articles/1534\\_1\\_Readings/Affect/AffectiveEventsTheory\\_Weiss\\_Cropanzano.pdf](http://web.mit.edu/curhan/www/docs/Articles/1534_1_Readings/Affect/AffectiveEventsTheory_Weiss_Cropanzano.pdf).
- [37] R. A. Cate and O. P. John, "Testing models of the structure and development of future time perspective: Maintaining a focus on opportunities in middle age," *Psychol. Aging*, vol. 22, no. 1, pp. 186–201, Mar. 2007, doi: 10.1037/0882-7974.22.1.186.
- [38] H. Zacher, S. Heusner, M. Schmitz, M. M. Zwierzanska, and M. Frese, "Focus on opportunities as a mediator of the relationships between age, job complexity, and work performance," *J. Vocat. Behav.*, vol. 76, no. 3, pp. 374–386, 2010, doi: 10.1016/j.jvb.2009.09.001.
- [39] L. Carstensen, "The Influence of a Sense of Time on Human Development," *Natl. Inst. Heal.*, no. 1, pp. 1–7, 2006, doi: 10.1038/jid.2014.371.
- [40] N. Kochoian, I. Raemdonck, M. Frenay, and H. Zacher, "The Role of Age and Occupational Future Time Perspective in Workers' Motivation to Learn," *Vocat. Learn.*, vol. 10, no. 1, pp. 27–45, 2017, doi: 10.1007/s12186-016-9160-9.
- [41] D. T. A. M. Kooij and H. Zacher, "Why and when do learning goal orientation and attitude Decrease with aging? The Role of perceived remaining time and work centrality," *J. Soc. Issues*, vol. 72, no. 1, pp. 146–168, 2016, doi: 10.1111/josi.12160.
- [42] D. T. A. M. Kooij, A. H. De Lange, and P. G. W. Jansen, "Beyond chronological age Examining perceived future time and subjective health as age related mediators in relation to work related motivations and," *Int. J. Work. Heal. Organ.*, vol.

- 27, no. 1, pp. 88–105, 2013, doi: <https://doi.org/10.1080/02678373.2013.769328>.
- [43] B. B. Baltes, K. Wynne, M. Sirabian, D. Krenn, and A. D. E. Lange, “Future time perspective, regulatory focus, and selection, optimization, and compensation: Testing a longitudinal model,” *J. Organ. Behav.*, vol. 1133, no. May, pp. 1120–1133, 2014, doi: 10.1002/job.1970.
- [44] A. Müller *et al.*, “Bringing successful aging theories to occupational practice: Is selective optimization with compensation trainable?,” *Work. Aging Retire.*, vol. 4, no. 2, pp. 161–174, Apr. 2018, doi: 10.1093/workar/wax033.