

## Moderating Effect of Flexible Work Arrangements on The Relationship Between Self-Efficacy and Innovative Work Behavior: Evidence from The Logistic Sector

Handan Akkaş<sup>1</sup>

**Abstract:** This study examines the moderating effect of flexible work arrangements on the relationship between self-efficacy and innovative work behavior. Data were collected from 202 logistics employees working in Ankara, Türkiye. SPSS process macro plugin was used to test the moderation effect. The theoretical basis of the study was analyzed within the framework of Conservation of Resources (Hobfoll, 1989), Social Cognition Theory (Bandura, 1986), and Job-Demand Resources models (Bakker & Demerouti, 2007). Within the scope of the study, the perception of flexible working was examined in two sub-dimensions as time and structure flexibility perception. The results revealed that an increase in both structure and time flexibility perception dimensions increased the strength of the relationship between self-efficacy and innovative work behavior. The study is important because it is one of the few studies that examine logistics employees despite their significant contribution to the global economy. Understanding the behaviors of sector employees is of great importance in terms of optimizing operational efficiency and improving overall performance in the sector.

**Keywords:** Flexible Work Arrangements, Innovative Work Behavior, Self-Efficacy

**JEL:** M10, L20, J24

**Received :** 26 July 2023

**Revised :** 04 September 2023

**Accepted :** 15 September 2023

**Type :** Research

### 1. Introduction

Organizations today strive for high levels of innovation as well as productivity and excellent customer service (Akoğlu et al., 2022; Philips & Phandza, 2023). Therefore, researchers are increasingly investigating the factors that encourage both the generation and implementation of ideas (Li et al., 2022; Orhan & Yalçın, 2022). Innovative work practices among employees are valued as crucial human capital that enhances a company's competitive advantage (Hsu et al., 2007; Kor & Mahoney, 2000). Although the creativity literature has emphasized the significance of positive resources over the past three decades (Sweetman et al., 2011), little is known about whether people who have particular, such as self-efficacy (SE), can actually display innovative behaviors. Employees' innovative behaviors is widely related to SE, which is described as "an individual's belief in his or her capacity to perform the behaviors necessary to achieve certain performance gains" (Bandura, 1986: 1390; Culbertson et al., 2010). Despite the valuable and insightful conclusions of these earlier studies, we still don't fully comprehend the restrictions governing the connection between SE and innovative behavior.

According to some researchers, staff perform more creatively when they work in a fun and relaxed environment (Siyal et al., 2021; Wang & Xie, 2023; Xin Qi et al., 2023). According to these studies, a laid-back

**Cite this article as:** Akkaş, H. (2023). Moderating effect of flexible work arrangements on the relationship between self-efficacy and innovative work behavior: Evidence from the logistic sector. *Business and Economics Research Journal*, 14(4), 525-540. <http://dx.doi.org/10.20409/berj.2023.429>

**Copyright:** © 2023 by the author. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 (CC BY-NC) International License.

<sup>1</sup> Asst. Prof., PhD., Ankara Science University, Faculty of Human and Social Sciences, Management Information Sciences, Ankara, Türkiye, handan.akkas@ankarabilim.edu.tr

work environment promotes creativity and risk-taking, which results in more creative outcomes. Besides, a good environment at work can also encourage stronger teamwork and collaboration among employees, which can help them be more creative. Flexible work arrangements (FWA) increase job autonomy by granting employees more control over their work schedules and workplaces. Therefore, it is possible to grant employees the freedom to choose how to allocate their own resources. As a result, job autonomy fosters employee innovation to a greater extent the more empowered a company's workforce is (Gao et al., 2020; Mielniczuk & Laguna, 2020).

Employees face many risks during the innovation process because it is a risky endeavor (Yuan & Woodman, 2010). To deal with uncertainties and failures during the innovation process, a person needs resources. To increase the body of research on creativity, this study's main goal is to look at the relationship among self-efficacy as a personal resource and innovative behavior and moderator effect of flexible work arrangements as a job resource of logistics employees. It is possible to explain the research's theoretical framework by Conservation of Resources (Hobfoll, 1989), Social Cognition Theory (Bandura, 1986), and Job-Demand Resources models (Bakker & Demerouti, 2007). The degree of flexibility that employees perceive as having in their workplaces is believed to be important in the relationship between SE and Innovative Work Behavior (IWB) Employees feel empowered and confident in their ability to develop original ideas and solutions when their workplace offers flexibility. This allows them control over work schedules and explore different problem-solving approaches. Besides, it fosters trust and autonomy, allowing employees to take ownership of their work and contribute their unique perspectives. FWA is anticipated to enhance SE's beneficial effects on IWB (Hsu et al., 2011).

The logistics sector in the Turkish economy has a significant share of 11-13% of GDP, with 50% coming from logistics service providers and the remaining 50% from companies involved in goods trade. International transportation activities contribute significantly to the national economy, with a positive contribution in 2010, 2015, and 2016, and a continuous upward trend in freight revenue balances since 2013 (UTİKAD Logistics Sector Report, 2019: 18). The logistics sector's importance in the Turkish economy is expected to increase in the future, with a positive trend in freight revenue and other transportation activities. Therefore, understanding innovation behavior in the logistics sector and discovering the leading variables is very important in terms of increasing the profitability of the companies and the long-term development of the country.

The purpose of this study is to integrate organizational behavior research with creativity research by examining the relationship between SE, FWA and IWB in logistics firms. It explores how SE and FWA influence employees' IWB and the role of FWA as a potential moderator. This study brings some new perspectives to the field of creativity. First, it provides valuable insights for researchers and practitioners in understanding the factors driving innovation within organizations. Although it hasn't been proven yet, previous literature has implied this relationship. Second, few studies have examined the behavior of logistic employees, despite their significant contribution to the global economy. Understanding their behavior is crucial for optimizing operational efficiency and enhancing overall performance in the sector (Schneider et al., 2005). The study advances our understanding of organizational studies by investigating the theoretical relationship in a logistics environment. Last but not least, the study responds to the call for more focus on non-Western nations (Chen & Miller, 2010). A Turkish sample would be particularly valuable for external validation due to the country's strategic location as a major hub for international trade and its diverse logistics industry. Additionally, examining the relationship in a non-Western context would contribute to the generalizability and applicability of the findings beyond Western nations.

In the second section, variables, relationships between variables, and the theoretical infrastructure that forms the relationship are mentioned. The third section includes the methodology section, which consists of the research model, sample and data collection tool. The study's findings are discussed in the fourth section, and their appraisal, limitations, and suggested improvements are discussed in the fifth section, and section six discusses theoretical and practical contributions.

---

## 2. Literature Review and Development of Hypotheses

### 2.1. Self-Efficacy and Innovative Work Behavior

Many academics have recently researched the topic of innovation. Numerous studies (Akoğlu et al., 2022; Balsmeier et al., 2017; Coad et al., 2019; Orhan & Yalçın, 2022) examine its impact on big and small businesses, the value of it as a tool for business, and its influence across a variety of industries. One of the key elements in the growth of businesses and their commercial success is thought to be innovation (Gorgievski et al., 2011). An estimated 80% of new ideas that are implemented within organizations come from their employees, who are additionally important drivers of innovation (Getz & Robinson, 2003). Because of these advantages, a lot of attention should be paid to figuring out what motivates inventive behavior at work.

Although the term "innovative behavior" has a wide range of definitions in the literature, it can be defined as an extensive procedure by which a person detects a problem, discovers opportunities, observes, listens, generates, promotes, adopts, and implements ideas, and works to promote them and create allies (Carmeli et al., 2006; Messmann & Mulder, 2012; Scott & Bruce, 1994). In addition, in the literature, self-efficacy has been proposed as an antecedent characteristic of innovative behavior in recent empirical studies (Newman et al., 2018; Fiernaningsih & Pudji, 2021). Self-efficacy is the belief in one's ability to overcome obstacles and achieve goals, influencing success and motivation and it influences individuals to take on challenging tasks, persevere through setbacks, and achieve desired outcomes (Bandura, 1995). Innovative behavior, on the other hand, entails the deliberate development, dissemination, and use of fresh concepts (Janssen, 2004). The key to assessing if someone can successfully alter reality in the manner, they desire is self-efficacy (Hughes et al., 2011).

The Job Demands Resources (JD-R) model proposes that resources mainly lead to motivational effects. That self-efficacy as a personal resource affects the motivating outcome measure is consistent with our finding (i.e., innovative behavior). As they are more capable of generating ideas, using them in practical applications, and challenging and resolving uncertainty, people with high self-efficacy tend to exhibit innovative behaviors because employees with high self-efficacy are capable of meeting the demands of their jobs (Salanova et al., 2002; Xanthopoulou et al., 2008). According to previous research, creative self-efficacy and idea generation, creation, and implementation have a positive relationship (Hsiao et al., 2011; Hsu et al., 2011; Liao et al., 2010; Ng & Lucianetti, 2016). Basım et al. (2008), in their study on public employees, found a positive relationship between self-efficacy perception and innovative work behavior. Töre (2020), on the other hand, found that self-efficacy positively affected innovative work behavior in a study conducted in accommodation enterprises. The following hypotheses are proposed in this study based on the findings in the literature:

**H<sub>1</sub>:** *There is a positive and significant relationship between self-efficacy and innovative work behavior.*

### 2.2. Self-Efficacy – Flexible Work Arrangements – Innovative Work Behavior

The need for greater workplace flexibility is on the rise right now, particularly among millennials, who want options like telecommuting or flex time (Cohen, 2022). Employees who want more flexibility in their work are looking for flexible work arrangements (FWA) or alternative employment options such as telecommuting, working fewer hours, working weekdays (Chung & Van der Lippe, 2020: 368). Time flexibility and structural flexibility (Akpolat & Çetin, 2020: 142) FWAs are the two most common types. Structural flexibility, which often refers to working from home, is a more specific term than time flexibility, which refers to flexibility of working hours (Grzywacz et al., 2008: 1402; Jeffrey Hill et al., 2008: 152). Xanthopoulou et al. (2007) claim that flexible working is an example of a job resource and is connected to autonomy. Studies suggest that a relaxed and independent environment may encourage people to devote more time and resources to innovation (Wallace et al., 2016). Rapid changes in an evolving environment have increased the need for flexibility in the way work is done at the workplace. FWA present a different work design to address the dynamics of environmental change. In order to balance work and other commitments, and it gives

employees the ability to control their choice of working hours or location (Chen & Fulmer, 2018). Employees must have the flexibility to change their start and end times for work as well as how many hours they work each day or week, taking into account accrued vacation time (Chung & Van der Horst, 2018). There is a possibility that in this circumstance, employees' perceptions of flexible work schedules will motivate them to engage in more innovative work practices.

One of the key tactics to encourage creative behavior is to stimulate employees' intrinsic motivation (Hammond et al., 2011). Related investigations have shown that FWA can increase employees' intrinsic motivation to complete responsibilities and tasks by fostering a sense of job autonomy (Gao et al., 2020; Joo et al., 2014; Lott, 2020; Spivack & Woodside, 2019; Vega, 2015). Adoption of flexible working practices increases employees' initiative and willingness to experiment with different, more productive work environments and ultimately produce creative output (Mache et al., 2020; Sripirabaa & Maheswari, 2015). These procedures improve the intrinsic motivation of staff members, help them realize their inherent potential for personal development, and reinforce their behavioral self-determination.

FWA is emerging as a method by which businesses can mobilize employee motivation while responding to a dynamic and competitive environment. Research in developed countries has examined issues related to FWA, such as its antecedents and consequences and the majority of studies have found that employees have positive attitudes towards FWA and that FWA has positive outcomes for the organization and employees (Lambert et al., 2008; Peretz et al., 2018). While work-life balance and quality of life are the main topics of most studies on FWA, there is little empirical research on how FWA affects creativity and innovation (Hazak et al., 2017). FWA greatly aids workers' perceptions of a laid-back and welcoming workplace culture and lessens excessive and inefficient use of their psychological resources. The performance of employees in terms of creativity, according to some experts, is enhanced by a relaxed and enjoyable work environment (Bailey et al., 2017; Cropanzano et al., 2017). By allowing workers more control over their work schedules and workspaces, FWA enhances work autonomy. They have the authority to choose how to use their resources and make their own decisions.

Bandura's Social Cognition Theory (SCT) (1986) sees how environmental, behavioral, and personal factors interact to shape how people function. The idea at the heart of social cognitive theory is that "people's assessments of their capacity to plan and carry out the activities necessary to achieve specific levels of performance" affect how people act (Bandura, 1986: 391). Bandura (1997: 32) claims that SE has a variety of effects on human functioning. First, it has an impact on the tasks that people strive to perform, leading them to prefer things that they are confident in their ability to complete. Second, it affects the amount of work and persistence a person is willing to put up in order to successfully complete a task. A task will require more time and effort from those who have greater confidence in their abilities to execute it. Last but not least, SE influences how emotionally people react to activities, which has an effect on how well tasks are completed. According to this viewpoint, people's SE levels have an impact on their ability to engage in innovative work behaviors. It is possible to assert that FWA can strengthen this relationship because people can coordinate their resources to produce the results they want.

Resources are defined as things, situations, individual traits, and energies that people deem valuable in accordance with the Conservation of Resources Theory (COR) (Hobfoll, 1989). SE is considered as a personal resource by Hobfoll (1989). Individuals striving to acquire, maintain, and sustain resources is the fundamental tenet of COR theory (Hobfoll, 2001). According to Hobfoll (1989), resource loss has a more profound effect on a person's well-being than resource gain because loss has a disproportionately negative impact on well-being. Employees may experience a loss of resources, such as creative work behavior, if they don't have access to tools that can help them balance their work and personal lives, such as FWA or self-efficacy. Due to their capacity to invest resources, people with ample resources are more likely to experience resource gains in the future, which is known as the resource gain spiral. Resource caravans, a concept that can last throughout life, are groups of resources that frequently coexist or vanish together. For example, individuals with high levels of self-efficacy will tend to have higher levels of FWA and IWB, while those with lower levels of self-efficacy will tend to have lower levels of FWA and IWB (Hobfoll, 2001).

Job demands are those elements of a job that are physically demanding, socially engaging or organizationally challenging and consequently require sustained physical or mental effort (Demerouti et al., 2001). Job resources, on the other hand, are the organizational, social, psychological, and physical aspects of the job that can promote personal growth and development while helping employees achieve their work goals. In the context of Job Demand and Resources theory (JDR), SE is a personal resource and FWA are work resources. Job and psychological resources are the main drivers of employees' commitment to their work and thus their performance (Xanthopoulou et al., 2009). These resources are intrinsically motivating because they promote personal growth (Bakker & Demerouti, 2007; Deci & Ryan, 2000; Van den Broeck et al., 2008). Individuals will exhibit innovative work behaviors by using these resources (Bakker & Demerouti, 2007).

According to Mielniczuk and Laguna (2020), people who have confidence in their capacity to complete their duties successfully exhibit greater passion and comfort toward their work, which leads to the development of novel behaviors. By performing innovative jobs, employees with self-confidence can successfully deal with failures and uncertainty (Seligman & Csikszentmihalyi, 2000). Moreover, increases in SE beliefs encourage increases in idea generation, dissemination, and implementation over time (Fuchs et al., 2019; Gong et al., 2009).

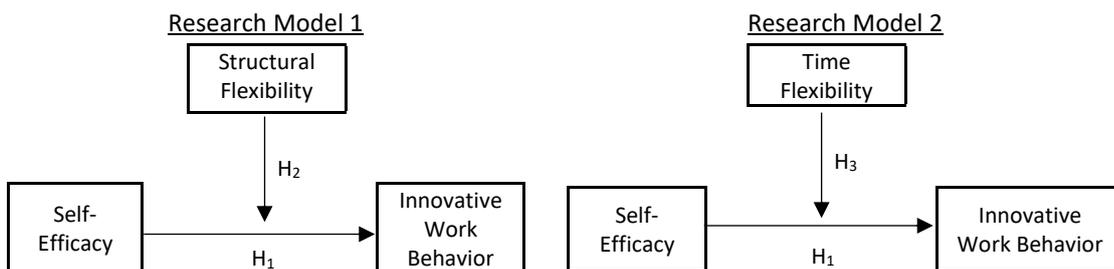
In one of the studies that examined the impact of FWA on creative work, it was discovered that FWA has advantages for creative research and development work, specifically that employees are more efficient and content with their job. An additional study discovered that flexible workspaces, or "structural flexibility," and teleworking had a positive impact on IWB, particularly during the idea generation stage (Moll & Leede, 2016). Time flexibility, or flexible working hours, helps the IWB during the development and promotion of ideas phases (De Spiegelaere et al., 2014). The following hypotheses are proposed in this study based on the findings in the literature:

**H<sub>2</sub>:** *Perceived structural flexibility has a moderating effect on the relationship between self-efficacy and innovative work behavior. When the level of perceived structural flexibility perceived by individuals is relatively high, the strength of the positive effect of self-efficacy on innovative work behavior will increase.*

**H<sub>3</sub>:** *Perceived time flexibility has a moderating effect on the relationship between self-efficacy and innovative work behavior. When the level of perceived time flexibility perceived by individuals is relatively high, the strength of the positive effect of self-efficacy on innovative work behavior will increase.*

Research models 1 and 2 are presented in Figure 1.

**Figure 1.** Research Models



### 3. Method

#### 3.1. Sample and Data

The study is conducted on logistics personnel because understanding the innovation behavior in the logistics sector and determining the variables affecting innovative business behavior are very important for increasing the profitability of companies and the long-term development of the country. In order to test the relationship between self-efficacy, flexible working hours, and innovative work behavior, SPSS 26 Process Macro (Model 1) and AMOS 24 programs were used. The data were collected face-to-face from the personnel

of four large cargo companies in Ankara using convenience sampling method. The questionnaire measured self-efficacy, flexible working arrangements, innovative work behavior, and demographic variables. FWA was included in the study with two dimensions: structural and time flexibility. 202 of the 250 questionnaires that were usable were included in the study. The number of collected data is 202. In order to determine the sufficient number of samples, the  $n > 8m+50$  rule was applied (Tabachnick & Fidell, 2007). In this formula, "m" shows the number of variables, and there are four variables in this study: Innovative work behavior, one dimension; flexible work arrangements, two dimensions (structural and time flexibility); and self-efficacy, one dimension. Since  $8 \times 4 + 50 = 82$ , it is considered sufficient to reach a minimum of 82 samples. Furthermore, the sample size must be at least 200 in order to analyze the sample using AMOS (Kline, 2011). The permission of Ankara Bilim University Ethics Committee dated 19.07.2023 and numbered 2023/14 was obtained for the research.

### 3.2. Measures

The questionnaire applied to the participants consists of two parts. The first part of the questionnaire includes self-efficacy, perception of flexible working arrangements, and innovative work behavior scales. The perception of flexible working arrangements is handled in two dimensions as time and structure flexibility. In the second part, there are statements regarding gender, age and total working time variables.

The 17-items "general self-efficacy scale" developed by Sherer et al. (1982) and adapted to Turkish culture by Yıldırım and İlhan (2010) was used to determine the self-efficacy of the participants. The scale is measured on a five-point Likert scale with responses ranging from "not at all good" to "very good". The scale has three sub-dimensions: initiation (nine items), persistence (five items), and effort (three items). The scale was included in the study as a single dimension. The reverse scored items in the scale are items 2, 4, 5, 6, 7, 10, 11, 12, 14, 16 and 17th items. Accordingly, the lowest score that can be obtained from the scale is 17 and the highest score is 85. A high score indicates a high level of self-efficacy. Sample item for this scale: "I am capable of handling difficult situations." "Innovative work behaviour scale" was used to determine the innovative work behavior of the participants. The scale developed by Janssen (2000) and translated into Turkish by Önhon (2016). The scale consists of nine items and three dimensions. The dimensions are idea generation (three items), idea promotion (three items), and idea realization (three items) (Janssen, 2000: 292). The scale uses a five-point Likert-type rating scale with 1: Strongly Disagree, 5: Strongly Agree. However, it was found that "idea development" and "idea realization" statements were gathered under a single dimension. For this reason, the first factor was similarly named "generating innovative ideas" and the second factor was named "implementing innovation" as it means the implementation and realization of innovation in an organization, respectively. In this study, the scale was used as a single dimension. An example item for this scale: "I generate new ideas for business development". "Flexible working scale" was used to determine the flexible work perception of the participants. The scale is developed by Akpolat and Çetin (2020). The scale consists of eight items. It has two dimensions as structural flexibility (four items) and time flexibility (four items). The two items in the time flexibility sub-dimension are reverse coded. A five-point Likert scale was used in the scale. An example item for structural flexibility: "The boundaries of my job description are not clear" and an example item for time flexibility: "I continue to work outside working hours".

## 4. Results

### 4.1. Demographics of Participants

The sample of the research consists of 202 logistics employees working in Ankara, Türkiye. According to the results of the analysis, out of the 202 participants, 42.5% (n=86) were female and 57.5% (n=116) were male. Age was asked as an open-ended question. The average age is 34.23 years. Of the individuals participating in the study, 30.7% (n=62) have been working in the same workplace for less than 1 year; 18.3% (n=37) for 1-4.99 years; 23.8% (n=48) for 5 to 9.99 years; 21.3% (n=43) for 10 to 14.99 years; 5.9% (n=12) for more than 15 years.

## 4.2. Preliminary Analysis

The first step in this stage is to include the means, standard deviations, kurtosis, skewness, item number, and cronbach's alpha. Before obtaining the tables of descriptive statistics, data cleaning was performed. During the data cleaning process, the order suggested by Tabachnick and Fidell (2001: 63) was followed, and the data were analyzed with the help of the SPSS 26 program. In this direction it was checked whether the data were entered correctly and whether there were any extreme values that would disrupt the normal distribution on the basis of expression. Necessary coding was made for the reverse coded items. Means and standard deviations were examined and it was determined that the means were greater than the standard deviations for each statement. Missing data analysis was conducted. No missing data were found in the questionnaires that were usable from the face-to-face data collected. Then, the linearity relationship between the dependent variable and independent variables was examined. Since the data will be subjected to Confirmatory Factor Analysis in AMOS, they must also pass the linearity assumption (Tabachnick & Fidell, 2001). Normality test was performed and accordingly, kurtosis and skewness coefficients of the scale items were checked first. Since the values for kurtosis  $> |3|$  and skewness  $> |3|$  for all statements (Tabachnick & Fidell, 2001), it can be said that the data are normally distributed. According to the Table 1, the mean of IWB was found to be higher than the mean of time and structural flexibility, and SE.

**Table 1.** Descriptive Statistics

| Variables          | SE    | SFI   | TFI   | IWB   | Item number | $\alpha$ |
|--------------------|-------|-------|-------|-------|-------------|----------|
| Mean               | 4.08  | 3.75  | 3.78  | 4.12  | 19          | 0.86     |
| Standard Deviation | 0.59  | 0.64  | 0.67  | 0.78  | 4           | 0.78     |
| Skewness           | 0.87  | 0.52  | -0.49 | 0.23  | 4           | 0.79     |
| Kurtosis           | -0.25 | -0.03 | 0.17  | -0.21 | 9           | 0.89     |

Note: SE: Self-Efficacy, SFI: Structural Flexibility, TFI: Time Flexibility, IWB: Innovative Work Behavior,  $\alpha$ : Cronbach's Alpha.

## 4.3. Confirmatory Factor Analysis

Confirmatory factor analyses (CFA) were conducted on the scales used in the study, following preliminary analyses. CFA is used to verify the proposed factor structure of a collection of variables. It enables us to decide if the scales' theoretical model is consistent with the facts that have been seen. Researchers may verify the scales they employed in their study and make sure they are precisely measuring the relevant components by using CFA.

**Table 2.** CFA Results for Model 1

| Scales                 | $\Delta X^2/df$ | RMSEA | CFI   | GFI   | AGFI  |
|------------------------|-----------------|-------|-------|-------|-------|
| Self-efficacy          | 1.766           | 0.068 | 0.986 | 0.982 | 0.959 |
| Structural Flexibility | 2.285           | 0.087 | 0.879 | 0.975 | 0.934 |
| IWB                    | 2.510           | 0.07  | 0.982 | 0.968 | 0.890 |

Note: IWB: Innovative Work Behavior, RMSEA: Root mean square error approximation, GFI: Goodness of fit index, AGFI: Adjusted goodness of fit index, CFI: Comparative fit index,  $\Delta X^2/sd$ : Chi-Square/degrees of freedom.

**Table 3.** CFA Results for Model 2

| Scales           | $\Delta X^2/df$ | RMSEA | CFI   | GFI   | AGFI  |
|------------------|-----------------|-------|-------|-------|-------|
| Self-efficacy    | 2.169           | 0.065 | 0.923 | 0.968 | 0.979 |
| Time Flexibility | 2.412           | 0.072 | 0.922 | 0.912 | 0.902 |
| IWB              | 2.532           | 0.079 | 0.92  | 0.941 | 0.901 |

Note: IWB: Innovative Work Behavior, RMSEA: Root mean square error approximation, GFI: Goodness of fit index, AGFI: Adjusted goodness of fit index, CFI: Comparative fit index,  $\Delta X^2/sd$ : Chi-Square/degrees of freedom.

The CFA results of the scales were analyzed and presented in Table 2 and 3. According to the analysis, the fit statistics of all scales were found to be within acceptable limits (GFI, CFI, AGFI >0.90; RMSEA < 0.08;  $\Delta X^2/sd < 3$ ). These fit statistics indicate that the scales used in the study have good reliability and validity. Additionally, the results suggest that the measurement model fits well with the observed data, supporting the use of these scales in future research (Şimşek, 2007: 14).

#### 4.4. Correlation Analysis

To discover the connections between the variables, a correlation analysis was carried out. The correlation analysis revealed the strength and direction of the relationships between the variables. This analysis helped identify any significant patterns or associations that exist among the variables under investigation. This demonstrates that there is no multicollinearity issue. Multicollinearity refers to the presence of high correlations between predictor variables in a regression analysis, which can lead to unstable and unreliable results. The absence of correlation coefficients above 0.70 indicates that the variables in this study are not highly correlated with each other (Tabachnick & Fidell, 2001: 65), suggesting that multicollinearity is not a concern.

**Table 4.** Correlation Analysis

| Variables                | 1 | 2     | 3     | 4      |
|--------------------------|---|-------|-------|--------|
| 1 Self-efficacy          | 1 | 0.26* | 0.32* | 0.38** |
| 2 Structural Flexibility |   | 1     | 0.23  | 0.28*  |
| 3 Time Flexibility       |   |       | 1     | 0.27*  |
| 4 IWB                    |   |       |       | 1      |

Note: SE: Self-Efficacy, SFI: Structural Flexibility, TFI: Time Flexibility,  $\alpha$ : Cronbach's alpha.

Table 4 shows the correlations between the scales. When the correlations between variables were analyzed, a positive and significant relationship was found between SE ( $r=0.26$ ,  $p<0.05$ ) and structural flexibility, time flexibility ( $r=0.32$ ,  $p<0.05$ ), and IWB ( $r=0.38$ ,  $p<0.01$ ). There is also a positive and significant relationship between IWB and structural flexibility ( $r=0.28$ ,  $p<0.05$ ), and time flexibility ( $r=0.25$ ,  $p<0.05$ ).

#### 4.5. Moderation Analysis

SPSS Process macro (Model 1) was used to test the moderating effects of structural and time flexibility on self-efficacy and innovative work behavior. The results of the analysis are presented in Tables 5 and 7. The results of the analysis reveal that there is a moderating effect in both models. After determining the moderating relationships, graphs were drawn to see how the moderating variables affect the relationship between self-efficacy and innovative work behavior when they are low, medium and high. Figures 3 and 4 show these graphs. In Tables 6 and 8, the conditional effects of the focal predictor at the values of the moderators are shown.

Regression analysis based on the bootstrap method was conducted to test the moderation effect of perceived structural flexibility on the relationship between SE and IWB of employees working in

the logistics sector (Hayes, 2013: 36). The results of the analysis are given in Table 5. The interactional effects of SE and perceived structural flexibility on IWB ( $b = -0.1648$ ;  $p < 0.01$ ) were found to be significant. Perceived structural flexibility has a moderating effect on the relationship between SE and IWB. According to the results,  $H_2$  is accepted. When the results of the analysis are examined, it is seen that the predictor variables explain approximately 12% of the IWB. The additional variance explained by the interactional term is about 4%.

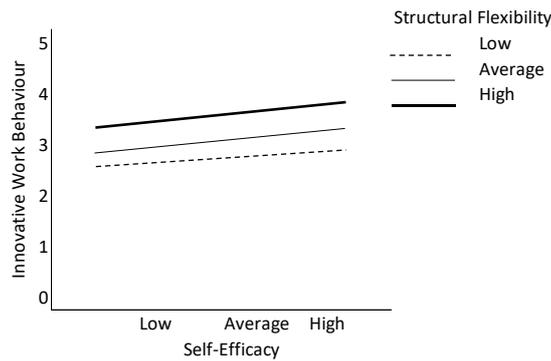
**Table 5.** SE-Structural Flexibility-IWB Moderation Analysis Results

|                          | B                | SE            | 0,95           |                |
|--------------------------|------------------|---------------|----------------|----------------|
|                          |                  |               | Lower          | Upper          |
| Constant                 | -1.7405          | 1.0483        | -3.8073        | 0.3264         |
| Self-efficacy            | 1.1733**         | 0.2537        | 0.6732         | 1.6735         |
| FWA                      | 0.8615**         | 0.2978        | 0.2743         | 1.4487         |
| <b>Self-Efficacy*SFI</b> | <b>-0.1648**</b> | <b>0.0712</b> | <b>-0.3052</b> | <b>-0.0244</b> |

b = Non-standardized regression coefficient, SE = Standard error, 95%CI, n = 202 (5,000 bootstrap samples), \* $p < 0,05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ ;  $\Delta R^2 = \%12$

When the graph in Figure 3 is examined, it is seen that the positive effect of self-efficacy on innovative work behavior strengthens as the level of structural flexibility increases.

**Figure 3.** The Moderator Role of Structural Flexibility in the SE-IWB relationship



When we examine the Table 6, it is revealed that, the level of structural flexibility is low, the positive relationship between SE and IWB is positive and significant ( $b = 0.4543$ , 95% CI [0.6005, 1.0098],  $t = 4.0005$ ,  $p < 0.001$ ). As structural flexibility was moderate, the relationship between SE and IWB was positive and significant ( $b = 0.6297$ , 95% CI [0.4821, 0.7774],  $t = 7.7557$ ,  $p < 0.05$ ). When the level of structural flexibility is high, the relationship between SE and IWB is positive and significant ( $b = 0.8051$ , 95% CI [0.2304, 0.6782],  $t = 8.4088$ ,  $p < 0.05$ ).

**Table 6.** Conditional Effects of The Focal Predictor at Values of Structural Flexibility

| SFI    | t      | p     | LLCI   | ULCI   |
|--------|--------|-------|--------|--------|
| 0.4543 | 4.0005 | 0.001 | 0.6005 | 1.098  |
| 0.6297 | 7.7557 | 0.012 | 0.4821 | 0.7774 |
| 0.8051 | 8.4088 | 0.011 | 0.2304 | 0.6782 |

SFI: Structural Flexibility, LLCI: Lower limit confidence interval, ULCI: Upper limit confidence interval

Regression analysis based on the bootstrap method was conducted to test the moderation effect of perceived perceived time flexibility on the relationship between SE and IWB of employees working in the logistics sector (Hayes, 2013: 36). The results of the analysis are given in Table 7. The interactional effects of

SE and perceived time flexibility on IWB ( $b = -0.1700$ , 95% CI  $[-0.3207, -0.0192]$ ,  $t = -2.6205$ ,  $p < 0.001$ ) were found to be significant. Perceived time flexibility were found to have moderating effects on the relationship between SE and IWB. According to the results,  $H_3$  is accepted.

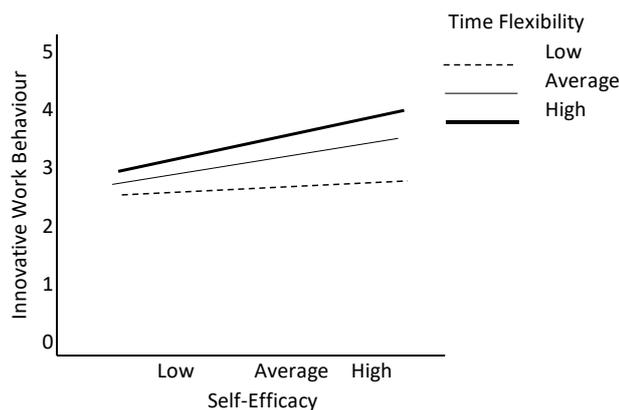
**Table 7.** SE-Time Flexibility-IWB Moderation Analysis Results

|                          | B                | SE            | 0,95           |                |
|--------------------------|------------------|---------------|----------------|----------------|
|                          |                  |               | Lower          | Upper          |
| Constant                 | -1.9528          | 1.1254        | -4.1716        | 0.2660         |
| Self-efficacy            | 1.2268**         | 0.2723        | 0.6899         | 1.7637         |
| FWA                      | 0.8821**         | 0.3197        | 0.2516         | 1.5124         |
| <b>Self-Efficacy*TFI</b> | <b>-0.1700**</b> | <b>0.0765</b> | <b>-0.3207</b> | <b>-0.0192</b> |

b = Non-standardized regression coefficient, SE = Standard error, 95%CI, n = 202 (5.000 bootstrap samples), \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ ,  $\Delta R^2 = 9\%$

When the graph in Figure 4 is examined, it is seen that the positive effect of self-efficacy on innovative work behavior strengthens as the level of time flexibility increases. As the results of the analysis are examined, it is seen that the predictor variables explain approximately 9% of the IWB. The additional variance explained by the interactional term is about 3%.

**Figure 4.** The Moderator Role of Time Flexibility in the SE-IWB relationship



When we examine the Table 8 is examined, it is revealed that the level of time flexibility is low, the positive relationship between SE and IWB is significant ( $b = 0.3246$ , 95% CI  $[0.7232, 1.1008]$ ,  $t = 3.023$ ,  $p < 0.001$ ). When time flexibility was moderate, the relationship between SE and IWB was positive and significant ( $b = 0.4123$ , 95% CI  $[0.3211, 0.6454]$ ,  $t = 4.123$ ,  $p < 0.05$ ). When the level of time flexibility is high, the relationship between SE and IWB is positive and significant ( $b = 0.5821$ , 95% CI  $[0.4435, 0.7142]$ ,  $t = 7.7263$ ,  $p < 0.05$ ). When the results are analyzed within the framework of  $H_1$ , it is seen that there is a positive and significant relationship between SE and IWB for both models ( $b = 1.1733$ ;  $p < 0.01$ ) and ( $b = 1.2268$ ;  $p < 0.01$ ).  $H_1$  is accepted.

**Table 8.** Conditional Effects of The Focal Predictor at Values of Time Flexibility

| TFI    | t      | p     | LLCI   | ULCI   |
|--------|--------|-------|--------|--------|
| 0.3246 | 3.023  | 0.003 | 0.7232 | 1.1008 |
| 0.4123 | 4.123  | 0.02  | 0.3211 | 0.6454 |
| 0.5821 | 7.7263 | 0.031 | 0.4453 | 0.7142 |

TFI: Time Flexibility, LLCI: Lower limit confidence interval, ULCI: Upper limit confidence interval

## 5. Conclusion and Discussion

In this study, we examined the moderator effect of perceived flexible work arrangements on self-efficacy and innovative work behavior. There are two dimensions of FWA: structural flexibility and time flexibility. To comprehend the impact of these subdimensions, two models were utilized. The research was carried out among logistics employees working in Ankara, Türkiye. First, the effect of SE on IWB was examined and similar to the literature (Basım et al., 2008; Hsiao et al., 2011; Rodrigues & Rebelo, 2023; Slåtten, 2014; Töre, 2020), it was observed that there is a significant positive relationship between SE and IWB. This can be interpreted as employees with high self-efficacy will show more innovative behaviors.  $H_1$  is accepted. There are no studies examining self-efficacy and innovative work behavior in studies on the logistics sector in Türkiye. However, Basım et al. (2008), in their study on samples including various sectors, argued that employees with high self-efficacy levels show more innovative work behaviors. Töre (2020), on the other hand, concluded that self-efficacy has a positive and significant effect on innovative work behavior in a study conducted in accommodation enterprises operating in the tourism sector. Second, within the parameters of the first model, a moderating analysis was conducted, it was revealed that the perception of structural flexibility has the ability to moderate the impact of SE on IWB. Namely, as the perception of structural flexibility increases, the strength of the positive relationship between SE and IWB increases. This finding is consistent with the findings in the literature (Coenen & Kok, 2014; Xin Qi et al., 2023; Wang & Xie, 2023).  $H_2$  is accepted. In the last model, the moderating effect of time flexibility on the relationship between SE and IWB was examined. In line with the literature, it was determined that time flexibility has a moderating effect (Coenen & Kok, 2014; Xin Qi et al., 2023; Wang & Zie, 2023). Namely, time flexibility has a buffering role in the relationship between SE and IWB.  $H_3$  is accepted. There are no studies examining self-efficacy, flexible work arrangements, and innovative work behavior in studies on the logistics sector in Türkiye. However, Bel (2022) found a positive and significant relationship between flexible working arrangements and innovative work behavior in his study on public employees. Using the perspective of Social Exchange Theory (Blau, 1965: 2), Conservation of Resources Theory (Hobfoll, 1989: 2), Broaden and Build Theory (Fredrickson, 1998: 301), and JDR Model (Schaufeli & Bakker, 2004: 294), this paper has identified the heterogeneous effects of different combinations of flexible work arrangements on IWB and clarified the complex relationship between FWA in both of its sub-dimensions and innovative employee behaviour.

The study has a few limitations. Its cross-sectional nature makes it difficult to prove that one variable caused another. To establish causal links between the variables, longitudinal or experimental designs may be required. It also uses self-reported data, which is prone to biases including social desire and response bias. To get around this restriction, future studies can employ different data collection techniques, such as objective measurements or peer review. 202 individuals were chosen at random from a variety of organizations. While it was a sufficient sample size for statistical analysis, it could not be a good representation of the overall population. To increase the generalizability of the results, larger and more diverse samples may be used in subsequent investigations. It did not take into account contextual factors like corporate culture, leadership style, or industry type that may have an impact on the connections between the variables. To provide a more thorough knowledge of the connections between SE, IWB, and FWA, future studies could investigate these contextual aspects. This research is concentrated on the individual-level effect of flexible working on innovative employee behavior. Future research should include cross-level investigations, exploring team and organizational factors, expanding the sample area, and strengthening comparisons between different types of flexible work.

The results of the study suggest that SE and FWA are important resources that can enhance employees' IWB. These findings are important for businesses that want to encourage IWB because the study shows that logistics sector employees whose self-efficacy level can be improved and who are allowed to work flexibly show more innovative behaviors. In addition, a positive and supportive work culture can encourage and reinforce innovative work behavior (Oukes, 2010). When managers provide their employees with an environment where they can take risks and share their new ideas, they will feel more comfortable and their tendency to act innovatively may increase. This study highlights the importance of considering both personal and work resources in fostering employees' innovative behavior and provides a comprehensive theoretical

framework for understanding the complex relationships among these factors. The findings of the study contribute to the literature and have reference value for similar research.

## 6. Theoretical Contributions and Practical Implications

This study focuses on the impact of FWA on innovative behavior, a job resource, and SE, a personal resource (Mache et al., 2020). No research has been conducted on the moderating effect of FWA on the interaction between SE and IWB. By focusing on specific antecedent factors, the results help to understand the reasons that drive employees to act innovatively. The study provides new perspectives on FWA and is very important in terms of showing how IWB level will change by influencing employee innovation and self-efficacy level. Since it has been suggested in previous studies that the antecedents of innovative work behaviors should be investigated on Western samples (Chen & Miller, 2010), the study is important to be conducted in Türkiye in the logistics sector.

In terms of its practical implications, this study demonstrates how critical it is to support high-resource logistic employees as a source of creative behavior. This includes both individual (self-efficacy) and organizational (flexible work engagement) resources. Organizations can promote and enhance high-resource employees by offering training programs, creating flexible work environments, and fostering a culture of innovation by boosting self-efficacy. Implementing FWA policies can improve work-life balance and employee satisfaction, fostering a supportive and flexible work environment. As a result, job performance and employee retention improve. FWA offers workers flexibility in working hours and workspace, benefiting organizational development. Some small firms in developing nations may lack the resources and innovative talent needed for innovation. By adopting FWA, they can attract skilled workers and attract top talent, enhancing innovation capabilities and global market competitiveness. Organizations should consider innovation potential in management systems and HRM policies. Flexible work arrangements (FWAs) can encourage employee innovation by providing freedom and autonomy to explore new ideas. HRM policies that prioritize continuous learning and development support employee innovation by equipping them with the necessary skills to think outside the box and contribute fresh perspectives.

## Declarations and Disclosures

**Ethical Responsibilities of Authors:** The author of this article confirms that her work complies with the principles of research and publication ethics.

**Ethical Approval:** Ethical approval was obtained from the Ankara Bilim University Ethics Committee, dated 19/07/2023, and numbered 2023/14.

**Conflicts of Interest:** No potential conflict of interest was reported by the author.

**Funding:** The author received no financial support for the preparation and/or publication of this article.

**Author Contributions:** The author confirms sole responsibility for conceptualization and design, data collection, analysis of data and interpretation of results, writing the first draft of the manuscript, and review and editing.

**Plagiarism Checking:** This article was screened for potential plagiarism using a plagiarism screening program.

## References

- Akoğlu, N., Civelek, M. E., & Başaran, Y. (2022). The role of information technology in the effect of innovation capability on logistics service quality. *İşletme Araştırmaları Dergisi*, *14*(1), 249-265.
- Akpolat, T., & Çetin, M. (2020). Esneklik ölçeğinin geliştirilmesine ilişkin geçerlilik ve güvenilirlik çalışması. *Türk Eğitim Bilimleri Dergisi*, *18*(1), 136-152.
- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management reviews*, *19*(1), 31-53.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, *22*(3), 309-328.

- Balsmeier, B., Fleming, L., Manso, G. (2017). Independent boards and innovation. *Journal of Financial Economics*, 123(3), 536-557.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4(3), 359-373.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175-1186.
- Bandura, A. (1995). Comments on the crusade against the causal efficacy of human thought. *Journal of Behavior Therapy and Experimental Psychiatry*, 26(3), 179-190.
- Bandura A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Basım, H. N., Korkmazıyrek, H., & Tokat, A. O. (2008). Çalışanların öz-yeterlilik algılamasının yenilikçilik ve risk alma üzerine etkisi: Kamu sektöründe bir araştırma. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 19, 121- 130.
- Bel, M. (2022). *Bilişim çağında yenilikçi iş davranışı öznel iyi oluş ilişkisinde çalışan yaratıcılığının (inovatif yeteneğinin) aracılık etkisi* [Unpublished master's thesis]. Karamanoğlu Mehmetbey University.
- Blau, P. M. (1965). The comparative study of organizations. *ILR Review*, 18(3), 323-338.
- Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-leadership skills and innovative behavior at work. *International Journal of Manpower*, 27(1), 75-90.
- Chen, G., & Miller, A. N. (2010). Socioeconomic status and health: Mediating and moderating factors. *Annual Review of Clinical Psychology*, 6, 421-448.
- Chen, Y., & Fulmer, I. S. (2018). Fine-tuning what we know about employees' experience with flexible work arrangements and their job attitudes. *Human Resource Management*, 57(1), 381-395.
- Chung, H., & Van der Horst, M. (2018). Women's employment patterns after childbirth and the perceived access to and use of flexitime and teleworking. *Human Relations*, 71(1), 47-72.
- Chung, H., & Van der Lippe, T. (2020). Flexible working, work-life balance, and gender equality: Introduction. *Social Indicators Research*, 151(2), 365-381.
- Coad, A., Grassano, N., Hall, B. H., Moncada-Paternò-Castello, P. Vezzani, A. (2019). Innovation and industrial dynamics. *Structural Change and Economic Dynamics*, 50, 126-131.
- Coenen, M., & Kok, R. A. (2014). Workplace flexibility and new product development performance: The role of telework and flexible work schedules. *European Management Journal*, 32(4), 564-576.
- Cohen, L. N. (2022). *Flexible work arrangements and millennial engagement: a study of the engagement outcomes of the perceptions, tools, and usage of flexible work arrangements* [Doctoral dissertation]. Fielding Graduate University.
- Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, 11(1), 479-516.
- Culbertson, S. S., Fullagar, C. J., & Mills, M. J. (2010). Feeling good and doing great: The relationship between psychological capital and well-being. *Journal of Occupational Health Psychology*, 15(4), 421-433.
- De Spiegelaere, S., Van Gyes, G., De Witte, H., Niesen, W., & Van Hoote gem, G. (2014). On the relation of job insecurity, job autonomy, innovative work behaviour and the mediating effect of work engagement. *Creativity and Innovation Management*, 23(3), 318-330.
- Deci, E. L., & Ryan, R. M. (2000). The " what " and " why " of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512.
- Fiernaningsih, N., & Pudji Herijanto, M. (2021). Antecedents of variables that affect innovative behavior in the era of the covid-19 pandemic. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(7), 1492-1498.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2(3), 300-319.
- Fuchs, C., Sting, F. J., Schlickel, M., & Alexy, O. (2019). The ideator's bias: How identity-induced self-efficacy drives overestimation in employee-driven process innovation. *Academy of Management Journal*, 62(5), 1498-1522.
- Gao, Q., Wu, C., Wang, L., & Zhao, X. (2020). The entrepreneur's psychological capital, creative innovation behavior, and enterprise performance. *Frontiers in Psychology*, 11, 1651-1663.
- Getz, I., & Robinson, A. G. (2003). Innovate or die: is that a fact?. *Creativity and Innovation Management*, 12(3), 130-136.

- Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52(4), 765-778.
- Gorgievski, M. J., Ascalon, M. E., & Stephan, U. (2011). Small business owners' success criteria, a values approach to personal differences. *Journal of Small Business Management*, 49(2), 207-232.
- Grzywacz, J. G., Casey, P. R., & Jones, F. A. (2008). The effects of workplace flexibility on health behaviors: A cross-sectional and longitudinal analysis. *Journal of Occupational and Environmental Medicine*, 50(12), 1401-1407.
- Hammond, M. M., Neff, N. L., Farr, J. L., Schwall, A. R., & Zhao, X. (2011). Predictors of individual-level innovation at work: A meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts*, 5(1), 90-105.
- Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. NY: Guilford Press.
- Hazak, A., Männasoo, K., & Virkebau, M. (2017). Effects of work arrangements on creative R&D work outcomes. *Eastern European Economics*, 55(6), 500-521.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, 50(3), 337-421.
- Hsiao, H. C., Chang, J. C., Tu, Y. L., & Chen, S. C. (2011). The impact of self-efficacy on innovative work behavior for teachers. *International Journal of Social Science and Humanity*, 1(1), 31-36.
- Hsu Michael, L. A., Hou, S. T., & Fan, H. L. (2011). Creative self-efficacy and innovative behavior in a service setting: Optimism as a moderator. *Journal of Creative Behavior*, 45(4), 258-272.
- Hsu, I. C., Yeh-Yun Lin, C. A. R. O. L., Lawler, J. J., & Wu, S. H. (2007). Toward a model of organizational human capital development: Preliminary evidence from Taiwan. *Asia Pacific Business Review*, 13(2), 251-275.
- Hughes, A., Galbraith, D., & White, D. (2011). Perceived competence: A common core for self-efficacy and self-concept? *Journal of Personality Assessment*, 93(3), 278-289.
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287-302.
- Janssen, O. (2001). Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. *Academy of Management Journal*, 44(5), 1039-1050.
- Janssen, O. (2004). How fairness perceptions make innovative behavior more or less stressful. *Journal of Organizational Behavior*, 25(2), 201-215.
- Jeffrey Hill, E., Grzywacz, J. G., Allen, S., Blanchard, V. L., Matz-Costa, C., Shulkin, S., & Pitt-Catsoupes, M. (2008). Defining and conceptualizing workplace flexibility. *Community, Work and Family*, 11(2), 149-163.
- Joo, B. K., Yang, B., & McLean, G. N. (2014). Employee creativity: The effects of perceived learning culture, leader-member exchange quality, job autonomy, and proactivity. *Human Resource Development International*, 17(3), 297-317.
- Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling. *The SAGE Handbook of Innovation in Social Research Methods*, 562-589.
- Kor, Y. Y., & Mahoney, J. T. (2000). Penrose's resource-based approach: the process and product of research creativity. *Journal of Management Studies*, 37(1), 109-139.
- Lambert, A. D., Marler, J. H., & Gueutal, H. G. (2008). Individual differences: Factors affecting employee utilization of flexible work arrangements. *Journal of Vocational Behavior*, 73(1), 107-117.
- Li, B., Yu, W., Lei, Y., & Hu, M. (2023). How does spiritual leadership inspire employees' innovative behavior? The role of psychological capital and intrinsic motivation. *European Review of Applied Psychology*, 73(6), 100-123.
- Liao, H., Liu, D., & Loi, R. (2010). Looking at both sides of the social exchange coin: A social cognitive perspective on the joint effects of relationship quality and differentiation on creativity. *Academy of Management Journal*, 53(5), 1090-1109.
- Lott, Y. (2020). Does flexibility help employees switch off from work? Flexible working-time arrangements and cognitive work-to-home spillover for women and men in Germany. *Social Indicators Research*, 151(2), 471-494.

- Mache, S., Servaty, R., & Harth, V. (2020). Flexible work arrangements in open workspaces and relations to occupational stress, need for recovery and psychological detachment from work. *Journal of Occupational Medicine and Toxicology*, 15(1), 1-11.
- Messmann, G., & Mulder, R. H. (2012). Development of a measurement instrument for innovative work behaviour as a dynamic and context-bound construct. *Human Resource Development International*, 15(1), 43-59.
- Mielniczuk, E., & Laguna, M. (2020). Positive affect mediates the relationship between self-efficacy and innovative behavior in entrepreneurs. *The Journal of Creative Behavior*, 54(2), 267-278.
- Moll, F., & de Leede, J. (2016). Fostering innovation: The influence of new ways of working on innovative work behavior. In *New ways of working practices: Antecedents and outcomes* (pp. 95-143). Emerald Group Publishing Limited.
- Newman, A., Ucbasaran, D., Zhu, F., & Hirst, G. (2018). Psychological capital: A review and synthesis. *Journal of Organizational Behavior*, 39(5), 622-645.
- Ng, T. W. H., & Lucianetti, L. (2016). Within-individual increases in innovative behavior and creative, persuasion, and change self-efficacy over time: A social-cognitive theory perspective. *Journal of Applied Psychology*, 101(1), 14-34.
- Orhan, M., & Yalçın, İ. (2022). Comparison of innovation capacities of manufacturing sectors of OECD member countries. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 15(1), 208-226.
- Önhon, Ö. (2016). *The relationship between organizational climate for innovation and employees' innovative work behavior; The mediating effects of leadership behavior; Ict Sector in Turkey* [Unpublished doctoral dissertation]. Marmara University.
- Peretz, H., Fried, Y., & Levi, A. (2018). Flexible work arrangements, national culture, organisational characteristics, and organisational outcomes: A study across 21 countries. *Human Resource Management Journal*, 28(1), 182-200.
- Phillips, M. A., & Pandza, K. (2023). Could an incumbent firm develop a radically new medical technology with an old organizational capability? *Innovation*, 1-27.
- Qi, X., Liu, H., Li, X., & Liu, H. (2023). The influence of flexible work arrangements on innovative employee behaviour in China: A perspective of person-job fit. *Asia Pacific Business Review*, 29(3), 479-500.
- Ramírez Montoya, M. S., Valenzuela González, J. R. (Eds.) (2017). Innovación educativa. Investigación, formación, vinculación y visibilidad. Madrid: Síntesis, 272 pp. *Estudios Sobre Educación*, 37, 226.
- Rodrigues, N., & Rebelo, T. (2023). Can employees capitalize upon their role breadth self-efficacy and innovative work behaviour to enhance their prospects of promotion?. *European Journal of Work and Organizational Psychology*, 1-13.
- Salanova, M., Bakker, A. B., & Llorens, S. (2002). Flow at work: Evidence for an upward spiral of personal and organizational resources. *Journal of Happiness Studies*, 3(2), 153-175.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293-315.
- Schneider, B., Ehrhart, M. G., Mayer, D. M., Saltz, J. L., & Niles-Jolly, K. (2005). Understanding organization-customer links in service settings. *Academy of Management Journal*, 48(6), 1017-1032.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580-607.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports*, 51(2), 663-671.
- Şimşek, Ö. F. (2007). *Yapısal eşitlik modellemesine giriş: Temel ilkeler ve LISREL uygulamaları*. Ekinoks Yayınevi.
- Siyal, S., Xin, C., Umrani, W. A., Fatima, S., & Pal, D. (2021). How do leaders influence innovation and creativity in employees? The mediating role of intrinsic motivation. *Administration & Society*, 53(9), 1337-1361.
- Slåtten, T. (2014). Determinants and effects of employee's creative self-efficacy on innovative activities. *International Journal of Quality and Service Sciences*, 6(4), 326-347.
- Spivack, A. J., & Woodside, A. G. (2019). Applying complexity theory for modeling human resource outcomes: Antecedent configurations indicating perceived location autonomy and work environment choice. *Journal of Business Research*, 102, 109-119.

- Sripirabaa, B., & Maheswari, S. T. (2015). Individual creativity: Influence of job autonomy and willingness to take risk. *SCMS Journal of Indian Management, 12*(4), 110-118.
- Sweetman, D., Luthans, F., Avey, J. B., & Luthans, B. C. (2011). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration, 28*(1), 4-13.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Allyn & Bacon. Needham Heights, MA.
- Töre, E. (2020). Öz-yeterlilik ve iç denetim odağının yenilikçi iş davranışına etkisi: Konaklama işletmelerine yönelik bir araştırma. *MANAS Sosyal Araştırmalar Dergisi, 9*(1), 155-167.
- UTİKAD. (2020). *2019 Sektör Raporu*. UTİKAD, İstanbul.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*(3), 277-294.
- Vega, R. P. (2015). *Why use flexible work arrangements? A policy capturing study examining the factors related to flexible work arrangement utilization* [Doctoral dissertation]. George Mason University.
- Wallace, J. C., Butts, M. M., Johnson, P. D., Stevens, F. G., & Smith, M. B. (2016). A multilevel model of employee innovation: Understanding the effects of regulatory focus, thriving, and employee involvement climate. *Journal of Management, 42*(4), 982-1004.
- Wang, L., & Xie, T. (2023). Double-edged sword effect of flexible work arrangements on employee innovation performance: From the demands–resources–individual effects perspective. *Sustainability, 15*(13), 1-27.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management, 14*(2), 121-141.
- Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology, 13*(4), 345-356.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior, 74*(3), 235-244.
- Yildirim, F., & İlhan, İ. Ö. (2010). The validity and reliability of the general self-efficacy scale-Turkish form. *Türk Psikiyatri Dergisi, 21*(4), 301-308.
- Yuan, F., & Woodman, R. W. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal, 53*(2), 323-342.