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경영학 석사 학위논문

The Impact of Flexible Work Arrangement on Radical and Incremental Creativity

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Abstract

THE IMPACT OF FLEXIBLE WORK ARRANGEMENT ON RADICAL AND INCREMENTAL CREATIVITY

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Until now, research related to flexible work arrangements has mainly focused on examining job productivity and organizational performance. However, with the advent of post-COVID, companies are encouraging office work for increased efficiency, while organizational members persistently advocate that flexible work arrangements enhance productivity. Consequently, there is a growing need for research to explore how flexible work arrangements impact the creativity of organizational members for the sustainable growth of modern companies.

The objective of this study is to investigate how flexible work arrangements influence task autonomy and task uncertainty depending on the proficiency level of employees. Moreover, we aim to determine how task autonomy and task uncertainty, in turn, affect the radical and incremental creativity of organizational members in the context of flexible work arrangements. The analysis revealed that flexible work arrangements positively influence task autonomy and task uncertainty. Particularly, task autonomy was found to have a significantly positive impact on radical creativity. However, the effect of task uncertainty on incremental creativity was marginal, and the proficiency level of employees did not moderate the influence of flexible work arrangement on task autonomy and task uncertainty. As a result, this study proposes a research model to examine the impact of flexible work arrangement on the

radical and incremental creativity of organizational members, contributing to scholarly understanding by taking a nuanced approach to exploring how flexible work arrangements affect the creativity of organizational members.

keywords : Flexible Work Arrangement, Creativity, Radical creativity, Incremental creativity, Remote work, Task autonomy, Task uncertainty, Task proficiency

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Impact of flexible work arrangement on radical and incremental creativity: A moderated mediation model of task autonomy, task uncertainty, and task proficiency

INTRODUCTION

Given the need for social distancing to fight the COVID-19 pandemic, flexible work arrangement is no longer only an option but has become an essential tool for maintaining activities for many companies. With the advancements in information and communication technology and the widespread adoption of the Internet, new working arrangements have become a popular possibility (Allen, Golden, & Shockley, 2015).

Moreover, current workforce increasingly comprises workers who actively want additional freedom of choice and seek the opportunity to work flexibly considering time and location (Pitt-Catsouphes, Matz-Costa, & Besen, 2012; Regus, 2017). Some of the largest drivers behind the growth in flexible working arrangements (FWAs) include the need of employees for effective work–life balance (Spreitzer et al., 2017), a drive to resolve family–work conflict (Putnam, Myers, & Gailliard, 2014), and a desire to reduce “wasted” time in commuting (Regus, 2017). Therefore, employers worldwide have increasingly adopted FWAs to attract and retain talented employees and enhance their competitiveness (Peretz et al., 2018; Stavrou & Kilaniotis, 2010).

FWA has become a significant issue because of the COVID-19 pandemic; thus, returning to the office for work is currently a popular topic of discussion between companies and employees as the pandemic ends. Therefore, this study aims to explore the impact of FWA on companies and employees comprehensively and provide insights into the effective utilization of FWA.

FWA provides workers with flexibility and control over the temporal and physical boundaries between their work and home domains, allowing workers to adapt work to fit around family demands (Chung, 2017). Moreover, FWA provides workers additional control

over their work, increasing family friendliness of the company and enhancing its performance (Ortega, 2009). Companies are keen to introduce FWAs mainly due to their superior performance outcomes. For example, FWAs can be used as a part of a high-involvement system (Wood and de Menezes, 2010) or a high-performance strategy. The high-performance approach provides workers additional discretion and influences over their work to help increase performance (Appelbaum, 2000; Davis and Kalleberg, 2006).

However, with the entrance of COVID-19 to an endemic phase and the slowing down of the economy, companies have instructed their employees to return to the office to work. Employees who have had FWAs for the past two years are protesting, saying that remote work is highly efficient (Yoon, 2023). Employees at Kakao, which announced the abolition of its FWA policy in March, even joined labor unions in large numbers (Park, 2023). Kakao Entertainment is also transitioning to an “office-first” work system in April, following in the footsteps of Kakao and Kakao Games (Park, 2023). Starting in early 2023, SK Telecom will limit remote work to one day a week (Ann, 2023). The Carrot Market has changed its work style by reducing the proportion of FWA and requiring employees to come to the office thrice a week starting in 2023 (Shin, 2023). Similarly, leisure platform Yanolja is reducing its FWA policy beginning in April (Shin, 2023). As FWA ends, labor management conflicts emerge in various places.

However, Ann (2023) states that Naver has allowed employees to choose between partial and full FWA since July of the previous year. Line Plus, a Naver affiliate, also operates a mixed working system enabling employees to choose between full FWA and office attendance independently, following last year’s introduction of full FWA and office attendance based on self-determination. Line Plus allowed “remote work overseas” from July of last year, indicating that employees can work in overseas countries within a four-hour time difference. Woowa Brothers, which operates Baedal Minjok, has also introduced a “flexible

work system” that allows members to work in Jeju and overseas from January 1, 2023, as long as collaboration is not hindered (Woo, 2023). Therefore, companies respond differently to FWA. Employees of companies that have reduced FWA are currently accustomed to them. Complaints are pouring in on the anonymous job forum Blind, such as “wasting time commuting is more inefficient” and “now that we've gotten used to it, they want us to return to the office. I want to move to a company that doesn't require office attendance” (Myeong, 2023).

FWA is considered a “benefit,” and employees seem to have no dissent. In addition to saving commuting time and having additional personal time, unnecessary company gatherings and emotional labor are also eliminated. Management views telecommuting as inefficient. In a survey of the top 100 companies in sales (66 companies responded) conducted by the Federation of Korean Industries, the largest percentage (30.6%) responded that worker productivity in telecommuting was only 80%–89% compared to normal attendance. Research has indicated that FWA is popular; that is, its implementation is cheap and mainly yields positive benefits (Berkery et al., 2017; Regus, 2017), such as high performance (De Menezes & Kelliher, 2017) and increased engagement (Anitha, 2014; Bailey, Madden, Alfes, & Fletcher, 2017). However, other studies noted that FWA is detrimental to employees (Chung, 2017; Taskin and Edwards, 2007). FWA can promote isolation (Croucher & Rizov, 2014) and increase work–family conflict (Golden et al., 2006). The literature has discussed the potential of FWA for relational impoverishment at work (Gajendran and Harrison, 2007). FWA could have detrimental effects on performance, such as curtailing employee interactions, knowledge sharing, team collaboration, and creativity (Allen et al., 2015; Thorgeirsdottir & Kelliher, 2017). The reduction in face-to-face interactions and the low frequency and richness of communication between FWA workers and other organization members have weakened their interpersonal bonds with their

coworkers or supervisors (Daft and Lengel, 1986).

The outcomes of FWA have various conflicting studies, but only relatively few studies on creativity are available. The creativity aspect of FWA is of considerable interest to companies. However, a clear conclusion on the advantages and disadvantages of FWA cannot be reached, leading to uncertainty in its implementation. From this perspective, the need for this study has been raised. Therefore, this paper investigates the effect of FWA on creativity, which is essential for modern organizations. Encouraging creativity at work has become an ongoing challenge for modern organizations seeking organizational effectiveness (Gilson et al., 2015). According to Florida and Goodnight (2005), creative employees pioneer new technologies, birth new industries, and power economic growth. Creativity and innovation are increasingly becoming crucial in helping organizations survive, grow, and prosper in the 21st century marketplace (American Management Association, 2010; Shalley, Gilson, & Blum, 2009). Creativity allows individuals to discover and exploit opportunities that enable their organization to be highly competitive and innovative (Fillis & Rentschler, 2010). Different contextual factors in the workplace affect creativity (Oldham & Cummings, 1996). FWA provides an environment where employees can exercise their creativity by increasing job autonomy. A meta-analytic result revealed that FWA is positively associated with autonomy (Gajendran and Harrison, 2007). However, FWA can also cause task uncertainty for employees because it curtails employee interactions (Allen et al., 2015) and reduces face-to-face communication. Moreover, personal factors of an individual, such as task proficiency, can interact with the work environment provided by FWA, affecting creativity.

Thus, this study sets the task proficiency of employees as a moderator in the relationships between (1) FWA and task autonomy and (2) FWA and task uncertainty. The relationships are explained on the basis of studies on job demand–resource theory (Bakker,

2015; Bakker & Demerouti, 2017), self-determination theory (SDT; Deci & Ryan, 2000), and resource conservation theory (Hobfoll, 2001).

The present study contributes to the current literature in three ways. First, extant research on FWA has primarily focused on outcomes, such as reductions in stress, turnover, and absenteeism and increases in retention, job satisfaction, and productivity (Galinsky et al., 2008). Creative solutions that combine various perspectives, knowledge, and efforts are required to solve problems in current uncertain and complex business environment (Hargadon and Bechky, 2006; Van Knippenberg et al., 2004). At this time, differentiated and creative solutions are needed, rather than daily and standardized ones. Therefore, understanding work environments where creativity can be well expressed is crucial for the survival of organizations. However, research on FWA related to private companies and creativity in South Korea is limited. For example, Lee et al. (2022) and Lim (2013) focused on public organizations. Empirical research on the relationship between FWA and creativity is still remarkably inadequate. This study fills this inadequate part through investigation on how FWA affects creativity. Second, this study aims to provide academic and practical implications for FWA by analyzing the relationship between FWA and creativity perceived by employees based on their task proficiency levels. Specifically, this study aims to suggest practical implications based on the value and usefulness of FWA. Third, previous studies have focused unilaterally on the positive or negative aspects of FWAs. Arguably, FWA does not automatically result in better or worse outcomes, but personal resources and perception toward FWA might lead various outcomes. This study claims that FWA can provide either a positive or negative work environment for employees. Thus, this study examines FWA not from a unitary perspective but from a bipolar perspective to understand how different types of creativity can be expressed and present a balanced perspective.

THEORETICAL BACKGROUND AND HYPOTHESES

1. Flexible Work Arrangement

Flexible work arrangement, also known as nonstandard or alternative work arrangements, are primary alternatives that permit an employee to work outside the traditional confines of a formal organization of work regarding paradigms, such as amount, distribution of working time, and place of work (Austin-Egole, Iheriohanma, & Nwokorie, 2020). HR practices labeled as FWA include part-time work, flexitime, compressed work week, job sharing, and working from home (Beauregard and Henry, 2009; Masuda et al., 2012).

A highly precise definition of FWA is needed to continue the discussion of this study. For example, FWA was defined as “the arrangements that allow work to be accomplished outside of the traditional temporal and/or spatial boundaries of the standard workday” (Rau and Hyland, 2002). Two of the most popular types of FWA for full-time employees are flexitime and flex workplace (Onken-Menge et al., 2018; Peretz et al., 2018; Spreitzer et al., 2017). Flexibility in the workplace refers to “giving employees varying degrees of control over where their work is done” (Hill et al., 2001, p.51). Several methods could be used; for example, remote work is when individuals perform most of their work at home during regular office hours using computers and telecommunications (Duxbury et al., 1992, Hill et al., 2001). Flexibility in work time refers to a flexitime schedule, where employees exercise a decision. Numerous methods can be utilized regarding the time of day they will arrive and leave work, such as flexitime, compressed work week, and shift work. Organizations that use flexitime employer create a band of core time where each employee must be present (Balets et al., 1999; Rau and Hyland; O'Brien and Hayden, 2008). In this study, FWA is a concept that includes the flexitime, remote work, and hybrid work types currently occurring in the workplace.

The application of FWA has several advantages. FWA leads to many dramatic changes, which have elicited a recent surge of research on the impact of FWA on various dimensions of outcomes regarding behavioral, psychological, relational, and job performance consequences (e.g., Bloom, Han, & Liang, 2022; Choudhury, 2022; Methot, Rosado-Solomon, Downes, & Gabriel, 2021; Shifrin & Michel, 2022). FWA can also provide employees with mental and physical resources and improve their outcomes by relaxing time and location constraints (Onken-Menke, Nuësch, & Kroßl, 2018; ten Brummelhuis & Bakker, 2012). Extant research regarding the outcomes of FWA is available. Among the top outcomes of interest to organizations include productivity, retention, organizational commitment, and performance, which are the main factors of organization competence (Bailey and Kurland, 2002; Byrd, 2005; Mokhtarian and Sato, 1994; Verbeke et al., 2008).

This study classified the advantages of FWA found in previous studies. The advantages of FWA can be broadly categorized into individual psychology, work–life balance, job attitudes, performance, and autonomy. First, the advantages of FWA considering individual psychology are as follows: research has shown that FWPs relieve stress and anxiety (Halpern, 2005). FWA also demonstrates the trust that organizations have in their employees. Employees who exhibit a high perceived trust in their management are less strained and anxious and highly content with and committed to their jobs (Humphrey et al., 2007). FWA is connected to several positive outcomes for employees who access them, including improved mental health and stress reduction (Galinsky, Bond, Sakai, Kim & Giuntoli, 2008). FWA can provide employees with mental and physical resources and improve their outcomes by relaxing time and location constraints (Onken-Menke, Nuësch, & Kröhl, 2018; ten Brummelhuis & Bakker, 2012).

The second advantage considering work–life balance is as follows: FWA decreases the conflict between work and nonwork demands (Hughes and Bozionelos, 2007) and improves

employee well-being (Hoeven and Van Zoonen, 2015; Wang et al., 2011). FWA provides workers with flexibility and control over the temporal and physical boundaries between their work and home domains, allowing workers to adapt work to fit around family demands (Chung, 2017). Several studies argue that FWA can relieve work–family conflict of workers (Chung, 2011; Kelly et al., 2014). The third advantage lies in job autonomy. A previous study indicated that FWA lowers turnover and absence due to sickness (Hughes and Bozionelos, 2007).

Moreover, FWA facilitates high organizational commitment and minimizes quitting intentions (Grover and Crooker, 1995). FWA allows employees to work effectively, with fewer days of sickness and absenteeism; thus, they are generally productive (Kerkhofs et al., 2008; Chung, 2009). Furthermore, companies may experience recruitment and retention benefits, that is, workers are less likely to leave the workplace (for a review, refer to de Menezes and Kelliher, 2011).

The fourth advantage considering performance is as follows: flexible working or providing workers additional control over their work increases the family friendliness of the company and enhances its performance (Ortega, 2009). FWA can be used as a part of a high-involvement system or a high-performance strategy (Wood and de Menezes, 2010). The fifth advantage of autonomy is as follows: employees under FWA possess discretion regarding completion of tasks, duration of task completion, and/or which tasks are completed first (Jackson, 1989). Extant studies have also found that FWA gives employees additional job discretion, which can promote intrinsic motivation and creative activities (Coenen and Kok 2014; Sripirabaa and Maheswari 2015). FWA creates an empowering sense of personal freedom and autonomy regarding structuring one's work and day, supported by an encouraging signal of concern from the organization (Chen & Fulmer, 2018; Onken-Menge et al., 2018; Peretz et al., 2018). Discretion over time and place of work may help reduce time

spent in unnecessary commutes, devise work schedules that are highly conducive to personal productivity, and concentrate on finishing urgent tasks, all of which will contribute to reduced anxiety (Allen et al., 2013).

The advantages of FWA examined in previous studies as presented above indicate that these advantages are not fragmented but influence each other. However, FWA also has negative effects. For example, FWA can promote isolation and lack of support experienced by the organization (Croucher & Rizov, 2014). Moreover, it can reduce well-being through increased workload (Onken-Menge et al., 2018; Regus, 2017; Ter Hoeven & Van Zoonen, 2015). An unsupportive culture may cause stigmatization of those who take advantage of FWA (Den Dulk, Groeneveld, Ollier-Malaterre, & Valcour, 2013; Putnam et al., 2014), resulting in increased stress (Vahle-Hinz et al., 2013). The previous studies on the negative effects of FWA are also classified in the current study. The most negative effects are work–life balance, personal psychology, work intensity, and others. The first negative impact of FWA is related to work–life balance as follows: FWA leads to extended working hours and work–life imbalance among the workforce (Bone, 2006; Whittle and Mueller, 2009). Other studies note that FWA has minimal influence over the work–family conflict of workers (Allen et al., 2013). Michel et al. (2011) indicated that the relationship between FWA and work–life balance is insignificant. Golden et al. (2006) even argued that FWA can increase work–family conflict. The second negative impact is related to personal psychology: FWA promotes isolation (Bone, 2006; Whittle and Mueller, 2009). The third negative impact is work intensity. Boundaries between work and family life become blurred and can lead to additional attention to work (Clark, 2000). FWA can lead to increased performance outcomes but does not necessarily reduce work–family conflict because it leads to the extended and intensive work of employees (Kelliher and Anderson, 2010; Glass and Noonan, 2016).

Finally, other negative effects include job insecurity and reduced career prospects (Bone, 2006; Whittle and Mueller, 2009).

Therefore, studies on the outcomes of FWA are conflicting. These inconsistent conclusions are confusing for scholars and mislead practitioners. FWA is becoming increasingly popular, but information on its effects on creativity is limited. Thus, the current study will investigate these effects. This study focused on task autonomy and uncertainty as positive and negative aspects of FWA, respectively. Task autonomy and uncertainty will be comprehensively discussed later in the section explaining the mediating effect.

2. Job Demand–Resource model

The job demand–resource model (JD–R) model was introduced approximately 20 years ago (Demerouti, Bakker, Nachreiner, Schaufeli, 2001). Job demands and resources are the most important correlates of exhaustion and cynicism, respectively (Bakker & Demerouti, 2017). Job demands pertain to the physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort and are therefore associated with specific physiological and/or psychological costs (Demerouti et al., 2001). Examples of job demands are high work pressure and emotionally demanding interactions with clients or customers (Bakker & Demerouti, 2007). Meanwhile, job resources refer to the physical, psychological, social, or organizational aspects of the job that are functional in achieving work goals, reducing job demands and the associated physiological and psychological costs, or stimulating personal growth, learning, and development (Bakker, 2011; Bakker & Demerouti, 2007). Job resources include autonomy, skill variety, performance feedback, and growth opportunities (Bakker & Demerouti, 2007).

Drawing on the JD–R (Demerouti et al. 2001), some researchers have argued that FWA can increase the work resources of employees by empowering them with increased autonomy

and thus promoting innovative behavior (Coenen and Kok 2014; Sripirabaa and Maheswari 2015). Arguably, autonomy is a resource associated with FWA. An increased feeling of autonomy is considered an FWA resource and is induced by control over work schedule (Kelly et al., 2011; Putnam et al., 2014) and work location (Gajendran and Harrison, 2007; Kelliher and Anderson, 2008). Employees who report additional control over their work schedules experience increased work–life balance based on the possibility of accommodating work and nonwork responsibilities (Gajendran and Harrison, 2007; Kelliher and Anderson, 2008; Kelly et al., 2011). The availability of job resources leads to organizational commitment and work engagement (Schaufeli & Bakker, 2004). Job resources foster employees to meet their goals due to their motivational potential.

However, some researchers have argued that FWA leads to the decrease or lack of social context that employees typically experience in the workplace, which is related to the perception of social isolation (Galanti et al., 2021). This facet of FWA can be perceived as a job demand that can deplete employees. Numerous empirical studies have supported that job demands often lead to exhaustion, diminished task effectiveness, increased burnout, and long and frequent sick leaves (Bakker et al., 2003a; 2004; 2014; Ten Brummelhuis et al., 2011b). FWA can be perceived as a job demand or a job resource for an employee. This study will use the JD–R model to address both situations.

3. Creativity

Creativity refers to the generation of new and useful ideas (Amabile et al., 1996). Creativity serves as the foundation for developing innovative products, services, solutions, and processes (Woodman, Sawyer, & Griffin, 1993). Moreover, creativity aims to discover new ideas for changing products, services, and processes to achieve the goals of a firm and has been considered a key to enduring advantage (Amabile et al., 2005). Therefore,

recognizing the impact of organizational factors on employee creativity, research has increasingly focused on studying these external attributes (Amabile and Conti, 1999), identifying organizational elements that can either hinder or foster creativity (Miron et al., 2004). This study considers FWA as a potential catalyst for fostering creativity and investigates the specific types of creativity encouraged by FWA. Individual innovative behavior depends on the individual and the job environment and cannot be independently examined through individual or organizational factors alone (Zhou and Hoever 2014). This study considered organizational factors as FWA and viewed individual factor as task proficiency for further discussion.

Research on creativity has been dynamic and has led to various subdivisions of the concept. Two prominent conceptualizations are as follows: the distinction between incremental and radical creativity and Unsworth's (2001) classification of responsive, expected, contributory, and proactive creativity. Incremental creativity involves expanding upon or improving existing paradigms, while radical creativity entails generating completely novel paradigms and breaking new ground (Gilson & Madjar, 2011). The current study focuses on radical and incremental creativity because FWA has positive and negative aspects that affect creativity. The positive and negative sides of FWA are expected to lead to breaking existing ideas and minimal changes in these ideas, respectively.

In a pandemic context, remote work, which is a form of FWA, has been positively associated with employee creativity due to its flexibility, comfort, and lack of distractions in the FWA environment (Fukumura et al., 2021; Tønnessen et al., 2021; Vega et al., 2015). FWA provides opportunities for flexible time and place, granting employees high task autonomy and discretion. Previous studies have predominantly viewed creativity from a singular perspective. However, the current study proposes that FWA has a positive association with radical and incremental creativity. The dual pathway to creativity model

(Nijstad et al., 2010) will be utilized to support claim that FWA has a positive impact on radical creativity.

The dual pathway to creativity model by Nijstad et al. (2010) suggests that creative output can be achieved through two distinct cognitive pathways: cognitive flexibility and cognitive persistence. The positive aspects of FWA are believed to be closely related to the flexibility pathway. As proposed by researchers, such as Amabile (1983), Eysenck (1993), and Mednick (1962), the flexibility pathway represents a promising approach to fostering creative insights, problem solutions, and innovative ideas. This pathway emphasizes the utilization of broad and inclusive cognitive categories as well as flexible switching among categories, approaches, and sets. This concept is often associated with breaking set or overcoming functional fixedness, as noted by Duncker (1945), Smith and Blankenship (1991), and Wertheimer (1945).

Recent studies by Vega et al. (2015), Dzhingaror (2017), and Orishede and Ndudi (2020) have provided empirical evidence showing that FWA can significantly enhance creativity by reducing obstacles and interruptions. When working in a private context with fewer disruptions, individuals are afforded the freedom to think independently, which is crucial for divergent thinking and generating novel ideas, as highlighted by Nouri et al. (2015). Moreover, the flexibility of work hours enables employees to find their work stimulating and memorable, exposing them to different experiences and enabling them to approach problems in new and innovative ways, as pointed out by Orishede and Ndudi (2020). As argued by Tan (2017), granting employee discretion and autonomy in their task performance through FWA provides them with a valuable resource for exploring new approaches and ultimately leads to improved outcomes in their creative endeavors. Caldwell and O'Reilly (1990) have also emphasized the importance of a fit between personal characteristics and the work environment in enhancing work performance. Flexible work

time, a key component of FWA, is a contributing factor to creating a suitable work environment. FWA enables individuals to work when they are most productive by allowing employees to adjust their working hours according to their circadian rhythms and peak productivity times, leading to high performance levels.

FWA offers the advantage of reducing the pressure for constant conversational engagement. This allows individuals to focus more easily on generating ideas without the constraints of conformity. Conformity, which occurs when individuals feel the need to align their behavior to gain acceptance from their group, is less prevalent in virtual collaboration settings. Additionally, individuals in FWA are likely to express themselves freely and are less concerned about being liked by others.

Furthermore, FWA empowers employees to take initiative, be resourceful, and exhibit flexibility in response to varying task requirements. This autonomy enables their navigation through the flexibility pathway, which can lead to radical creativity

H1. FWA is positively related to radical creativity.

By contrast, creative performance is widely acknowledged to rely on expertise, as noted by Amabile (1988) and Mumford et al. (2002). Employees feel confident in expressing their creativity when they possess domain-specific knowledge and skills (Tierney & Farmer, 2002). Research conducted by Ericsson and Smith (1991) and Bereiter and Scardamalia (1993) further elucidated the relationship between expertise and creative achievement. Once expertise is acquired, experts can solve problems and generate new designs, products, or inventions with fluency, ease, and confidence (Ericsson, 1996). Vincent et al. (2002) also demonstrated that expertise positively predicted idea generation and implementation. However, considering that expertise is not solely dependent on intellectual ability but

primarily on instruction and practice is important, as postulated by Ericsson (1993). In the context of FWA, limitations in providing sufficient instruction and guidance may emerge, potentially leading to a lack of expertise development. Consequently, employees in FWA situations may be more inclined to pursue incremental changes rather than revolutionary transformations because it is challenging to generate entirely new alternatives without the foundation of expertise. This finding suggests that the negative aspects of FWA, such as limited immediate feedback and specific instructions, may hinder the development of expertise of employees. Therefore, the following hypothesis, which suggests that FWA has a positive relationship with incremental creativity, is proposed.

H2. FWA is positively related to incremental creativity.

4. Mediating Effect of Task Autonomy with Self Determination Theory

Task autonomy is the degree or level of freedom and discretion an employee has over the job (Hackman & Oldham, 1976). Spreitzer (1995) indicated that task autonomy refers to the extent to which employees have the freedom or discretion to make decisions and perform a job in their way. FWA workers are likely to experience increased feelings of freedom and control because they are spatially and psychologically removed from direct, face-to-face supervision (DuBrin, 1991). Virick et al. (2010) also demonstrated that FWA allows increased flexibility and autonomy to the workers.

Many studies have found positive impacts of FWA on autonomy (e.g., Gajendran et al., 2015; Ter Hoeven & Van Zoonen, 2015). The met-analysis of Gajendran and Harrison (2007) also supported the beneficial effect of FWA on perceived autonomy, which was associated with desirable individual outcomes (e.g., task performance and job satisfaction). Employees accessing FWA can decide when and how to accomplish their tasks based on their autonomy.

Employees with high task autonomy can balance work and rest and choose the most productive ways to perform their job. Empirical research also supported the positive role of task autonomy in the FWA context (e.g., Kossek et al., 2009). Similarly, task autonomy positively correlates with radical creativity because the flexibility and autonomy of FWAs increase the motivation and engagement of employees (Gallie et al., 2012). Deci and Ryan developed a theory of human motivation, called self-determination theory (SDT), which identifies the core principles underlying sustainable motivation (e.g., Deci and Ryan 1985, 2007; Ryan and Deci 2000). SDT focuses on and nurtures an interest in the intrinsic importance of work. This approach is linked to superior performance, especially in the complex, creative, and heuristic tasks (McGraw, 1978), which gradually characterize modern work.

Intrinsic motivation refers to behaviors without external impetus that are inherently interesting and enjoyable (Ryan and Deci, 2000a). SDT (Deci & Ryan, 2000) indicates that humans have three core psychological needs: competence, relatedness, and autonomy. Competence is the belief that one can influence important outcomes. Relatedness is the experience of having satisfied and supportive social relationships. Autonomy focuses on the experience of acting with a sense of choice, volition, and self-determination. FWA is assumed to fulfill the need for autonomy, which is positively related to intrinsic motivation.

SDT posits that satisfying the basic psychological needs for autonomy and competence sustains intrinsic motivation. To date, dozens of experimental studies have supported the SDT postulate that autonomy and competence are necessary for maintaining intrinsic motivation (Deci et al., 1999). Two studies of large US banks found that employees who perceived substantial autonomy support from their managers felt a considerable need for satisfaction at work, performed effectively at their jobs, and demonstrated low levels of anxiety and depression (Baard, Deci, and Ryan 2004). Intrinsically motivated employees work for

passion, pleasure, and interest. Moreover, employees with high job autonomy feel responsible for their jobs (Parker & Sprigg, 1999); therefore, they are more likely to choose creative work. The seminal work of Amabile (1983) also confirmed that creativity is high when employees have a choice in task performance.

Moreover, past studies have reported that job autonomy positively affects employee creativity and innovation behavior (Volmer, 2012; Lee, 2021). For instance, in their seminal work, Zhou (1998) indicated that a firm that facilitates its employees with a high level of task autonomy positively influences their capability to think in novel ways. Therefore, employees will become intrinsically motivated when they feel that their decisions or actions are made at their discretion. Thus, task autonomy mediates the relationship between FWA and radical creativity.

H3. FWA is positively related to task autonomy

H4. Task autonomy is positively related to radical creativity

H5. Task autonomy mediates the relationship between FWA and radical creativity

5. Mediating Effect of Task Uncertainty with Conservation of Resources Theory

Hypothesis 4 is derived from a basic tenet of the Conservation of Resources (COR) theory described by Hobfoll (2001). COR theory is one of the resource-based theories of stress, which attempts to explain how individuals encounter stress and provides a broad picture of the coping process (Cordery et al., 2010). The basic tenet of COR theory is that humans are motivated to protect their current resources and acquire new resources (Halbesleben et al., 2014). This study focuses on the aspect of protecting current resources (conservation). COR theory indicates that people feel threatened when they face loss or perceive the unknown potential for loss (Hobfoll et al., 2018). Numerous empirical studies

have found that individuals are likely to experience strain in the form of burnout (Shirom, 1989), depression (Kessler, Turner, & House, 1988), and physiological outcomes (DeVente, Olf, Van Amsterdam, Kamphuis, & Emmelkamp, 2003; Melamed, Shirom, Toker, Berliner, & Shapira, 2006) when they lose resources at work.

Task uncertainty is defined as lacking previous knowledge on which operational problems will arise and how these problems will be handled (Cordery et al., 2010). Galbraith (1974) asserted that a significant task uncertainty leads to the analysis of a large amount of information by decision makers throughout the task to accomplish a certain degree of performance. Earlier studies have identified a concern regarding professional isolation among FWA workers because of the reduced informal social interactions with colleagues in the home office (Cooper & Kurland, 2002). Moreover, Paden and Stell (1997) described perceptions of uncertainty as one facet of perceived task difficulty due to unclear or insufficient instructions. Furthermore, the individual's perception of the uncertainty level within the task can ultimately affect their role perception, leading to role ambiguity (Eys & Carron, 2001). Role ambiguity has been related to employee outcomes, such as reduced work satisfaction, high levels of anxiety, and job stress when experiencing such an ambiguity (Getzels & Guba, 1954; Kahn et al., 1964; Kelloway & Barling, 1990; Quah & Campbell, 1994). Therefore, employees have no choice but to react passively when they feel task uncertainty under FWA. Sufficient communication may not be achieved under FWA than regular work; thus, task uncertainty may occur because the supervisor does not provide sufficient information for conducting the job. Bakker et al. (2007) found that supervisor support, innovativeness, appreciation, and organizational climate are necessary job resources that helped teachers cope with demanding interactions with students. However, obtaining these resources is difficult for employees under FWA. Therefore, FWA can potentially degrade the quality of the manager–subordinate relationship (Reinsch, 1999). Moreover,

FWA could diminish the richness of connection of a focal employee with peers by increasing the difficulty of daily encounter transmission of symbolic and nonverbal, personalized cues (Rice, 1992). Researchers consistently agree that creativity requires resources (e.g., time, energy; Amabile, 1996; Amabile & Pratt, 2016; Binnewies & Wornlein, 2011). COR theory suggests that individuals strive to maintain and gain resources (Hobfoll, 1989). In an FWA situation, employees can perceive that they have lost the resource of sufficient information or instructions; they, the FWA situation is accepted as a demand. In a situation where they do not know how to perform their duties, the conservation aspect of COR theory indicates that employees will attempt to save currently possessed mental energy or time. Individuals feel depleted when resources are lost and not regained, reducing the expenditure of their remaining resources (Hobfoll, 1989). Task uncertainty might lead individuals to reduce the expenditure of their resources, such as time and energy. Therefore, individuals might prefer less risky ways when they feel task uncertainty. Thus, the following hypotheses are proposed.

H6. FWA is positively related to task uncertainty

H7. Task uncertainty is positively related to incremental creativity

H8. Task uncertainty mediates the relationship between FWA and incremental creativity

6. Moderated Mediating Effect of Task Proficiency

Personal resources are defined as an “individual's sense of their ability to control and influence their environment successfully” (Hobfoll et al. 2003; Xanthopoulou et al. 2007). Personal resources were found to mediate the relationship between job resources and work engagement partly, suggesting that job resources foster the development of personal resources (Bakker & Demerouti, 2017). Previous studies have shown that personal resources

are related to stress resilience and positively affect physical and emotional well-being (Chen et al., 2001; Pierce et al., 1989; Scheier & Carver, 1992). LePine et al. (2005) suggested that individual differences, such as knowledge, ability, skill, or personality, would affect how an employee appraises a job stressor. A recent development in the JD–R model suggests the importance of personal resources in coping with a draining work environment (Boudrias et al. 2011; Karatepe and Olugbade 2009). This study focused on the task proficiency of employees. Task proficiency refers to “the degree to which an employee meets the known expectations and requirements of his or her role as an individual” (Griffin, Neal, & Parker, 2007).

The employee with high task proficiency believes in the competence and ability of an individual to perform the job (e.g., Bandura 1997). COR theory states that in addition to organizational resources, employees often also have important personal resources, such as conscientiousness, political skill, self-esteem, and a tendency for optimistic action (Hobfoll, 1989). Task proficiency can be viewed as a valuable individual resource that enables employees to enhance their confidence in their skills and abilities and fulfill their need for competence (Boon & Kalshoven, 2014). The belief of an individual in their ability is an essential personal resource that affects human functioning (Bakker 2011; Bandura 2000). Employees with high task proficiency will likely have sufficient motivational and psychological abilities to withstand unfriendly work situations that otherwise drain emotional resources and energy (e.g., Stajkovic and Luthans 1998). Experienced employees will believe they can perform their tasks themselves, and specific instructions are unnecessary in an FWA situation. Therefore, employees with high task proficiency are likely to gain additional resources effectively, creating a positive spiral of resources (Hobfoll, 1989; Mauno et al., 2007). Moreover, task proficiency has a motivating effect on individuals (Lawler & Porter,

1967; Locke & Latham, 1990) and can ensure confidence of employees in their skills and abilities (Dreher, 1982), fulfilling their need for competence (Deci, 1971). Furthermore, employees with high self-efficacy will perceive FWA as a job resource than a demand, thereby demonstrating high levels of work engagement.

However, employees with low task proficiency will perceive FWA as a job demands because they may become anxious or depressed due to sufficient instruction. Task proficiency is related to the experience of stress and occupational burnout. Thus, low task proficiency can lead to a sense of dependence and ineptitude regarding the ability of an employee to learn how to cope effectively with the challenges and demands of one's work (Heslin & Klehe, 2006). Low task proficiency employees are highly likely to perceive FWA as something that thwarts their work goals (Liu and Li, 2018).

H9. Employees' level of task proficiency moderates the relationship between FWA and task autonomy.

H10. Employees' level of task proficiency moderates the relationship between FWA and task uncertainty.

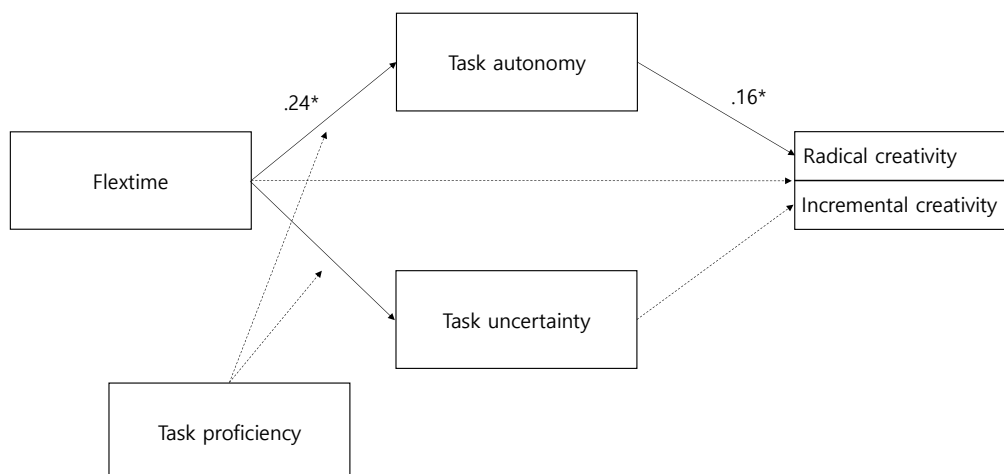


Figure 1. Flextime research model

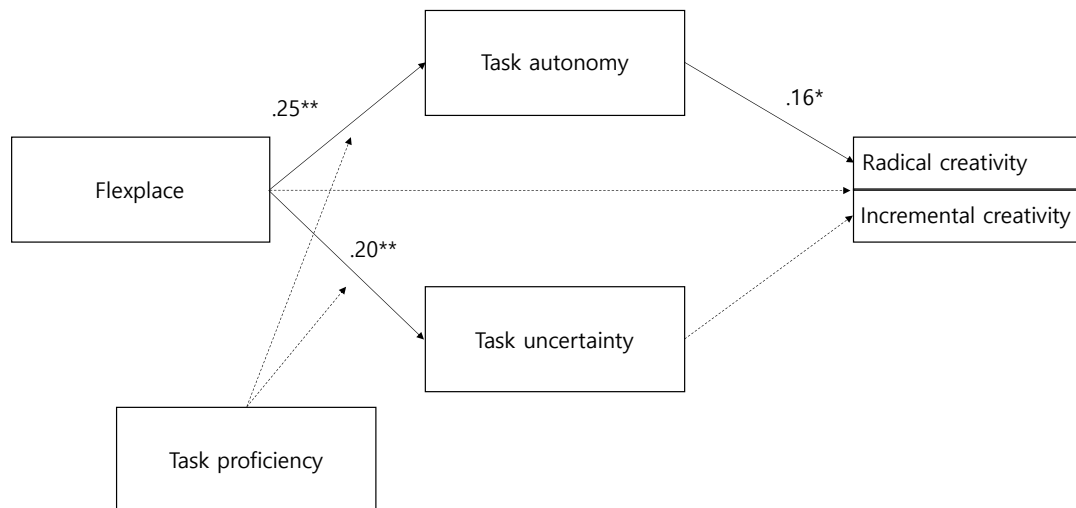


Figure 2. Flexplace research model

METOH

1. Samples

The data were collected from companies located in Korea. Online and offline surveys were conducted. Surveys were performed by matching one leader with one member. For online surveys, a brief explanation regarding the research was provided, and the names and phone numbers of the participants were collected to send the survey link via text message. For offline surveys, printed questionnaires were distributed to the leader and members, which were then collected after the survey was completed.

A total of 209 online survey links were sent to participants. In this study, 167 leaders and 152 members demonstrated response rates of 80% and 73%, respectively. The survey was directly delivered to the 57 leaders and members. I initially reached out to 65 dyads of leader and member and got 57 responses from them. (response rate = 87%). From this initial sample, the final analysis samples were procured from 224 leaders and 209 members by eliminating participants with incomplete responses, unreliable responses, and those without

matching leader ratings. Therefore, the final sample of 167 came from representing a wide range of industries, including financial and insurance (6.4%), manufacturing (46.5%), telecommunication (5.2%), service (20.3%), public services (1.7%), and others (19.8%).

The sample of team members for the final analysis had an average age of 33.05 years ($SD = 5.78$), an average organizational tenure of 3.23 years ($SD = 3.01$) and included 36.6% females. The education levels of the members were high school (4.1%), two years of college (1.2%), undergraduate degrees (89%), and graduate degrees (5.8%). In addition, the members performed various functions, such as general management (51.7%), sales (15.7%), research and development (14%), production/engineering (7%), service (5.8%), and others (5.8%).

The data also included the ratings of creative performance of members by leaders, which comprised 76.7% males with an average age of 43.67 years ($SD = 6.08$) and an average organizational tenure of 6.54 years ($SD = 5.12$). Furthermore, the education levels of the leaders included high school (0.6%), two years of college (4.1%), undergraduate degrees (76.7%), and graduate degrees (18.6%).

2. Data analysis

Table 1 presents the descriptive statistics results, which include descriptive data and correlation coefficient for all the variables in the study. The statistical significance of the model was tested through the SPSS add-on software developed by Hayes (2018). The hypotheses were tested with a series of multiple regression analyses. Before the hypotheses testing, all assumptions were verified to ensure that the data set does not violate any assumptions of multi regression analyses. Upon the bootstrap method, the indirect mediating effects of variables are evaluated on the basis of the zero-point estimate condition of the

mediating variable within a 95% bias-corrected and accelerated confidence interval.

Bootstrap analyses in this study were conducted through PROCESS Macro with the model 7.

Data obtained from 10,000 bootstrap samples were used in the current study, and the significance level was set at 95% confidence level. The data analysis was conducted through SPSS version 29.

3. Measures

The independent variable, mediating variable and moderating variable were assessed with self- reports of team members, and the dependent variable was measured from their leaders. Most variables were measured with a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Flexible work arrangement. It was measured by flextime ($\alpha = .68$) and flexplace ($\alpha = .78$). Flextime was measured by three items by Swanberg et al. (2005). Respondents were asked questions, such as “Are you allowed to choose your own starting and quitting times within some range of hours, or not?”, “How hard is it for you to take time off during your workday to take care of personal or family matters?”, “Overall, how much control would you say you have in scheduling your work hours?” Flexplace was measured by two items developed by Atkyns et al. (2002). These items include the following: “Do you currently have any flexible work arrangements where you work away from the office such as telecommuting, virtual Office, smart work center” and “How often do you work outside your conventional workplace?” These two items were measured with frequency.

Task autonomy. It was measured in four items ($\alpha = .75$) by Morgeson & Humphrey (2006), which determines the control perceptions of employees over their work performance. The following questions were asked to measure task autonomy: “The job allows me to plan how I do my work.”; “The job provides me with significant autonomy in making decisions.”; “The job gives me a considerable opportunity for independence and freedom in how I do the work.”; “The job allows me to decide on my own how to go about doing my work.”

Task uncertainty. Five items ($\alpha = .81$) are considered for task uncertainty measurement. The five items are developed by Leuteritz & Navarro & Berger (2019). Respondents were asked the following questions: “To achieve our goals, I need to handle a lot of different information.”; “I frequently encounter new problems and situations in which I feel confused about the best way to work.”; “It becomes confusing to know what I must achieve with our work.”; “I have clear and well-defined objectives.”; “There is clear knowledge regarding the processes required to achieve my goals.”

Radical and incremental creativity. Both creativities were measured by using the team leaders’ evaluation of radical ($\alpha = .84$) and incremental creativity ($\alpha = .81$) of their employees during the past month. Item scale was developed by Madjar et al. (2011). The following questions were asked to measure radical creativity: “Is this employee a good source of highly creative ideas,” “This employee demonstrates originality in his/her work,” and “This employee suggests radically new ways for doing advertising.” Meanwhile, the measurement of incremental creativity involved the following questions: “This employee uses previously existing ideas or work in an appropriate new way,” “Is this employee very good at adapting already existing ideas or ads,” and “This employee easily modifies previously existing work processes to suit current needs.”

Task proficiency. Employees completed the four-item scale ($\alpha = .67$) developed by Hamilton et al. (2017) to assess their task proficiency: “I feel confident about the capability of myself to perform the simulation very well,” “I can solve difficult events if I invest the necessary effort,” “I feel confident that I will be able to manage effectively unexpected trouble,” and “I am totally competent to solve events in the simulation.” These items were used to measure task proficiency.

RESULT

The hypotheses were tested with a series of multiple regression analyses. The study participants were matched, and the leader evaluated the creativity of members from the same team. The Process macro developed by Hayes (2013) was utilized to analyze mediation and moderation effects in IBM SPSS Statistics 29 software program. Before testing the hypotheses, I examined the empirical distinctiveness of the variables in data by performing confirmatory factor analysis (CFA). The CFA results indicate that the hypothesized Six-factor model neatly fits the data ($\chi^2 = 431.299$, $df = 231$, CFI = .836, TLI = .787, and RMSEA = .071). The six-factor model outperformed any of the alternative factor structures (Chi-square difference tests, all $p < .001$), thereby confirming the divergent validity of the current study variables.

Hypotheses 1 and 2 posit that FWA is positively related to radical and incremental creativity. The hypothesized effects of flextime and flexplace on creativity were examined using multi regression equations. Four control variables (gender, education, tenure, age) were inputted, and then flextime and flexplace were entered as the main predictor to equations that

predict radical and incremental creativity, respectively. The results are reported in Model 2 and 7 in Table 4 and 5. Flextime ($\beta = .04$, ns; $\beta = .05$, ns) and flexplace ($\beta = .04$, ns; $\beta = -.02$, ns) had no significant positive effect on radical creativity and were not significantly related to incremental creativity. Thus, Hypotheses 1 and 2 were not supported.

Hypotheses 3, 4, and 5 reveal that positive relationships between flextime and flexplace (FWA) and task autonomy were observed. Model 2 and model 6 in tables 2($\beta = .24$, $p < .05$; $\beta = .25$, $p < .01$) present the regression results, which demonstrate the effects of flextime and flexplace on task autonomy. Model 3 and model 4 confirmed that task autonomy is positively related to radical creativity ($\beta = .15$, $p < .05$; $\beta = .16$, $p < .05$). Model 5($\beta = .16$, ns; $\beta = .13$, ns; $\beta = .02$, ns) and model 10($\beta = .17$, ns; $\beta = .13$, ns; $\beta = .13$, ns) in table 4 demonstrate the mediation effect. Table 6 FT->TA->RC model ($[-.00, .09]$, CI 95%, containing zero) also confirm hypothesis 5 is not supported. Thus, hypotheses 3 and 4 were supported.

Hypotheses 6, 7, and 8 expect the positive relationship between flextime and flexplace on task uncertainty. Hypothesis 8 also reveal that task uncertainty mediates the relationship between FWA and incremental creativity. However, only flexplace is positively related to task uncertainty ($\beta = .20$, $p < .01$). As previously presented, flextime and flexplace showed significant positive effects on task autonomy. Model 4 in Table 4 further exhibits that radical creativity was significantly predicted by task autonomy ($\beta = .16$, $p < .05$) but not by task uncertainty ($\beta = .12$, ns.). In addition, incremental creativity was not significantly related to task autonomy ($\beta = -.09$, ns; $\beta = -.09$, ns) and task uncertainty ($\beta = -.04$, ns; $\beta = -.04$, ns) (Model 4 and 9, Table 5). Thus Hypothesis 6 was partly supported.

Hypotheses 9 and 10 predicted that task proficiency moderates the relationship between FWA and task autonomy and uncertainty. The regression results of Models 4 and 8 in Tables 2 and 3 indicate that the interaction between FWA and task proficiency of

employees is not significant flextime ($\beta = -.50$, ns; $\beta =, -.05$, ns) and ($\beta = -.07$, ns; $\beta =, -.92$, ns). Also, table 7 confirmed that there were no significant moderating effects of task proficiency ($[-.01, .08]$, CI 95%, containing zero; $[-.00, .05]$, CI 95%, containing zero; $[-.04, .02]$, CI 95%, containing zero; $[-.03, .06]$, CI 95%, containing zero)

Table1. Descriptive statistics and intercorrelations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	0.63	0.485	-											
2.Tenure	11	4.3	0.04	-										
3. Age	33	5.8	.19*	.44**	-									
4.Education	4	0.5	0.04	-0.05	.18*	-								
5. FWA	2.87	0.776	0.13	-0.01	-.16*	0.04	-							
6. Flextime	3.15	0.801	0.13	0.06	-0.11	0.09	.83**	-						
7. Flexplace	2.46	1.164	0.09	-0.08	-.16*	-0.04	.81**	.34**	-					
8. Task autonomy	3.33	0.699	0.12	0.11	.16*	0.07	.29**	.24**	.24**	-				
9. Task uncertainty	2.79	0.803	-0.02	-0.06	-.21**	0.12	0.07	-0.08	.20**	-.18*	-			
10. Task proficiency	3.52	0.582	0.12	0.06	.23**	-0.06	.21**	.20**	0.14	.58**	-.38**	-		
11. Radical creativity	3.31	0.735	0.13	0.08	0.13	0.07	0.03	0.03	0.01	.16*	0.09	.16*	-	
12. Incremental creativity	3.72	0.688	-0.07	0.01	0.04	0.11	0.01	0.04	-0.03	-0.08	0.05	-0.01	.52**	-

Table2. Regression results predicting task autonomy

Predictors	Task autonomy			
	Model 1	Model 2	Model 3	Model 4
Gender	.12	.08	.05	.04
Tenure	.06	.02	.08	.09
Age	.10	.16	-.02	-.03
Education	.03	.00	.08	.08
Flexitime(FT)		.24*	.10	.50
Task proficiency(TP)			.55**	.78**
FT*TP				-.50
R ²	.04	.09	.35	.36

Predictors	Task autonomy			
	Model 5	Model 6	Model 7	Model 8
Gender	.12	.09	.05	.05
Tenure	.06	.07	.10	.10
Age	.10	.14	-.02	-.02
Education	.03	.03	.10	.10
Flexplace(FP)		.25**	.16**	.21
Task proficiency(TP)			.55**	.56**
FP*TP				-.05
R ²	.04	.10	.37	.37

Note. Standardized beta coefficients are shown. *p < .05. **p < .01.

Table3. Regression results predicting task uncertainty

Predictors	Task uncertainty			
	Model 1	Model 2	Model 3	Model 4
Gender	-.01	.01	.03	.03
Tenure	.07	.09	.06	.06
Age	-.27*	-.30	-.20*	-.20
Education	.19*	.21*	.16*	.16
Flextime(FT)		-.13	-.05	.00
Task proficiency(TP)			-.31**	-.28
FT*TP				-.07
R ²	.08	.09	.18	.18

Predictors	Task uncertainty			
	Model 5	Model 6	Model 7	Model 8
Gender	-.01	-.03	.00	-.02
Tenure	.07	.07	.05	.06
Age	-.27*	-.23*	-.13	-.15
Education	.19*	.19*	.14*	.15*
Flexplace(FP)		.20**	.26**	1.1*
Task proficiency(TP)		-.37**		-.12
FP*TP				-.92
R ²	.08	.12	.24	.25

Note. Standardized beta coefficients are shown. *p < .05. **p < .01.

Table4. Regression results predicting radical creativity

Predictors	Radical creativity				
	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	.09	.08	.07	.07	.07
Education	.06	.05	.05	.12	.02
Age	.09	.10	.08	.11	.12
Tenure	.03	.02	.05	.01	.01
Flextime		.04			.16
Task autonomy			.15*	.16*	.13
Task uncertainty				.12	.02
R ²	.03	.03	.05	.64	.64

Predictors	Radical creativity				
	Model 6	Model 7	Model 8	Model 9	Model 10
Gender	.09	.09	.07	.07	.07
Education	.06	.06	.05	.03	.03
Age	.09	.10	.08	.11	.11
Tenure	.03	.03	.02	.01	.01
Flexplace		.04			-.03
Task autonomy			.15*	.16*	.17
Task uncertainty				.12	.13
R ²	.03	.03	.05	.16	.06

Note. Standardized beta coefficients are shown. *p < .05. **p < .01.

Table5. Regression results predicting incremental creativity

Predictors	Incremental creativity				
	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-.10	-.11	-.09	-.09	-.10
Education	.11	.10	.11	.10	.09
Age	.04	.05	.05	.05	.08
Tenure	.00	-.01	.01	.00	-.01
Flextime		.05			-.10
Task autonomy			-.09	-.08	.04
Task uncertainty				.04	.08
R ²	.21	.2	.29	.3	.36

Predictors	Incremental creativity				
	Model 6	Model 7	Model 8	Model 9	Model 10
Gender	-.10	-.10	-.09	-.09	-.09
Education	.11	.11	.11	.10	.10
Age	.04	.03	.05	.05	.05
Tenure	.00	.00	.01	.00	.00
Flexplace		-.02			-.01
Task autonomy			-.09	-.08	-.08
Task uncertainty				.04	.04
R ²	.02	.02	.03	.03	.03

Note. Standardized beta coefficients are shown. *p < .05. **p < .01.

Table6. Mediation effects of task autonomy and task uncertainty

Model	Effect	BootSE	Bootstrapping	
			LLCI 95%	ULCI 95%
FT->TA->RC	0.03	0.02	-.00	.09
FP->TA-RC	.02	.01	-.12	.08
FT->TU->IC	-.00	.01	-.02	.01
FP->TU->IC	-.00	.01	-.02	.01

Note.n=167, (PROCESS model 4) FT(Flextime), FP(Flexplace), TA(Task autonomy),TU(Task uncertainty)

Table7. Moderating effects of task proficiency

Moderation effect of Task proficiency	Effect	BootSE	BootLLCI 95%	BootULCI 95%
Conditional indirect effect of task proficiency on radical creativity				
Flextime				
-1 SD	.03	.02	-.01	.08
+1 SD	.01	.01	-.02	.04
Flexplace				
-1 SD	.02	.01	-.00	.05
+1 SD	.01	.01	-.00	.04
Conditional indirect effect of task proficiency on incremental creativity				
Flextime				
-1 SD	-.00	.01	-.04	.02
+1 SD	-.00	.01	-.02	.02
Flexplace				
-1 SD	.01	.02	-.03	.06
+1 SD	.00	.01	-.01	.03

Note. n=167, (PROCESS model 7)

DISCUSSION

Drawing on the insights from the JD–R model, SDT theory, and COR theory, this study explores how FWA influences the creativity of employees and determines the types of creativity that can be fostered depending on their perceptions of FWA. The findings suggest that task autonomy is the critical antecedent of radical creativity. This finding confirms previous research findings that task autonomy is positively related to FWA because of the flexibility afforded to employees over the location of their work (Shamir & Salomon, 1985) and scheduling particular tasks to increase control over their completion means (Duxbury et al., 1998). In the rapidly changing market conditions, breaking away from typical thinking and possessing the ability to implement unique ideas are crucial for companies to respond to various customer needs and consistently generate organizational performance (Runco & Jaeger, 2012). In other words, the creative ability of employees is highly important (Errichiello & Pianese, 2018; Sia & Appu, 2015; Sik, 2016). Therefore, this study tested a mechanism of the relationship between FWA and creativity. The findings revealed that FWA is positively related to task autonomy and uncertainty, suggesting that extending flextime or flexplace can both provide task autonomy to employees, but only flexplace was positively related to task uncertainty. These results are consistent with previous research demonstrating the positive and negative effects of FWA with large productivity, autonomy (Baltes et al., 1999; Gajendran & Harrison, 2007), communication problems (Daft and Lengel, 1986), and promoting isolation (Bone, 2006; Whittle and Mueller, 2009). This study found that employees could perceive FWA as either a resource or a demand. Hypotheses were empirically tested with data collected from 167 employees from various Korean companies and were partly supported. The perspective of employees toward FWA might be affected on the basis of their level of task proficiency. However, a significant moderating effect of task

proficiency could not be obtained. The obtained result can be different with a significant number of samples considering the sample size.

1. Theoretical Implications

The present findings extend previous research in three ways. First, the results support that task autonomy is an important factor for radical creativity. This finding also supports arguments that the task autonomy of employees is positively related to their creative performance (Oldham & Cummings, 1996). They also stressed that controlling the work environment will negatively influence the creative task performance of employees.

Second, the present study enhances the FWA and creativity literature by testing a model that examines the type of creativity that can be fostered by FWA. Previous studies have focused on either the positive aspects of FWA, such as work–life balance and autonomy, or the negative aspects, such as isolation and communication problems. However, the current study addresses both opposing mechanisms to provide a balanced perspective.

Another theoretical contribution of this study lies in the nuanced understanding of the relationship between FWA and creativity. Creativity is a crucial element for organizations in modern society, and FWA is becoming increasingly important for enhancing employee satisfaction and organizational productivity. Therefore, this study adds depth to the literature on creativity and FWA.

2. Practical Implications

The obtained findings also offer important practical implications. The study results may help companies in developing a successful FWA model. The dissatisfaction of individuals with the work arrangement may lead to the downfall of the effectiveness of organizations. These organizations have devoted a considerable amount of resources and time to setting up FWA. However, they have largely neglected the satisfaction of their members

with the FWA. Having individuals in the workplace that acknowledge FWA is crucial; thus, ways to overcome the various challenges associated with FWA must be developed and satisfaction with FWA must be increased.

FWA could be used to help organizations tailor FWA programs specifically to individuals. Such customization may increase person–environment fit and enhance the organization perception of employees (Lamm & Schwinger, 1983). These positive perceptions may, in turn, relate to improved individual and organizational outcomes, such as job satisfaction, commitment, and performance (Grover & Crooker, 1995; Kristof-Brown, Zimmerman, & Johnson, 2005).

Incremental creativity can still be fostered with task uncertainty, but creativity did not emerge. Therefore, HR must avoid the isolating social impact of FWA by institutionalizing regular face-to-face social and informal gatherings, which will help build trust, camaraderie, and effective working relationships, thus facilitating successful accomplishment of work tasks (Golden, 2009). A recent survey from Saramin revealed that more than 75% of employees do not want to return to full-time office work, whereas a large percentage asks for flexibility in workplace and schedule. HR strategies may be adjusted considering work flexibility to reflect the changing demands of the workforce. HR is also being challenged to find solutions to meet the needs of employees, attract and retain talent, and nurture employee engagement. Various contexts of employees must be considered when designing an effective FWA. Thus, FWA should be designed with the mutual benefits of employees and organizations.

Second, leaders must focus on the uncertainty in the workplace when employees have FWA. Incremental creativity can still be fostered by employees under uncertainty. However, this study confirmed that radical and incremental creativity could not be generated when employees felt uncertainty. Reducing the uncertainty of employees regarding the task is

important to foster their creativity. Leaders must provide specific instructions to their employees and regularly conduct one-on-one sessions or face-to-face meetings to avoid task uncertainty. Moreover, providing sufficient OJT and training sessions to the employees is important. OJT includes providing employees with spontaneous explanations or demonstrations related to their job responsibilities and subsequently enabling them to hone their skills by trial-and-error learning or observing and imitating the behaviors of others (Jacobs & Osman-Gani, 1999). Benson (2006) reported that OJT was positively associated with the organizational commitment of employees and negatively correlated with intention to leave. Barron, Berger, and Black (1999) also reported that OJT was positively correlated with growth in the productivity of firms.

3. Limitations and Future Research Directions

This study is conducted in a specific national context. The sample was collected from various Korean companies. Therefore, the results of this thesis should not be generalized in the western context, and future research is required to obtain data from various nations

The present thesis provides a comprehensive framework for understanding the relationship between FWA and radical and incremental creativity. However, several limitations should be articulated. This cross-sectional research design does not provide an understanding of the causality between FWA and radical and incremental creativity. Future research must adopt a longitudinal analysis through fixed and random effects or conduct experimental studies.

Future study must investigate how other variables moderate the effects of the relationship between FWA and creativity. This study could not determine a significant moderating effect of task proficiency. However, the result might be different with sufficient

samples or other samples. With the increasing prevalence of FWA, understanding their effects accurately is becoming increasingly important. The extent of feedback inquiry from employees moderates the relationship between FWA, task autonomy, and task uncertainty. The relationship between FWA and creativity can be influenced by individual characteristics, job characteristics, and contextual factors. Thus, conducting future research that considers various factors, such as task interdependence, performance pressure, and other relevant aspects, would be beneficial. A highly comprehensive understanding of the relationship between FWA, task autonomy, task uncertainty, and creativity can be developed by exploring these additional variables and conducting further research. This study will contribute to a deep understanding of how organizations can effectively leverage FWA to foster creativity and innovation among their employees.

4. Conclusion

This study supports that FWA significantly influences task autonomy and uncertainty of employees. The main argument in this thesis is as follows: FWA can be perceived on job resources and demand, which can affect employee creativity because it constructs motivation, attitudes, and behaviors toward the job. This study also reports a significant relationship between task autonomy and radical creativity. This thesis is among a few studies in creativity and FWA that investigated positive and negative effects of FWA.

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국문초록

지금까지의 연구는 유연근무제와 연관된 연구는 직무생산성이나 조직의 성과를 확인하는 연구가 주를 이루었다. post-covid를 맞이하여 기업들은 업무의 효율을 위한 오피스 근무를 독려하고 있지만 조직 구성원들은 유연근무제가 업무의 효율을 제고한다는 입장을 고수하고 있다. 이에 유연근무제가 현대 기업의 지속가능한 성장을 위한 조직구성원들의 창의성에 어떠한 영향을 미치는 지에 대한 연구의 필요성이 대두되었다. 본 연구의 목적은 유연근무제가 조직구성원의 숙련도에 따라서 직무자율성, 직무불확실성에 어떠한 영향을 미치고 직무자율성과 직무불확실성을 통해 유연근무제가 조직 구성원들의 급진적 그리고 점진적 창의성에 어떠한 영향을 미치는지를 규명하고자 한다. 분석결과, 유연근무제는 직무자율성과 직무불확실성에 정(+)의 영향을 미치는 것으로 확인하였다. 특히 직무자율성이 급진적 창의성에 정(+)의 영향을 미치는 것으로 확인하였다. 하지만 직무불확실성의 경우 점진적 창의성에 미치는 영향이 미미하였으며 직무숙련도 역시 유연근무제가 직무자율성과 직무불확실성에 미치는 영향을 조절해주지 못하는 것으로 확인했다. 결과적으로 본 연구는 유연근무제가 조직구성원들의 급진적 점진적 창의성에 미치는 영향을 살펴보기 위한 연구모형을 제안하였으며, 유연근무제가 조직구성원들의 창의성에 미치는 영향을 세분화해서 바라보았다는 점에서 학문적 이해에 기여한다.

주요어 : 유연근무제, 창의성, 급진적창의성, 점진적창의성, 재택근무, 직무 자율성, 직무 불확실성, 직무 숙련도

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