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# Management Characteristics as Determinants of Employee Creativity: The Mediating Role of Employee Job Satisfaction

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**Abstract:** Purpose/Research Question: Managers of organizations play a significant role in promoting sustainability by enhancing employee job satisfaction and employee creativity. Despite the number of studies on employee job satisfaction, much remains unknown regarding the mediating role of employee job satisfaction in the relationship between management characteristics (such as supervisor humility and abusive supervision) and employee creativity. Thus, the purpose of this study is to investigate how the links between supervisor humility, abusive supervision, and employee creativity are mediated by employee job satisfaction. Design/Methodology: We collected data from 352 highly skilled employees of manufacturing organizations in the Republic of Korea by conducting an online survey. A structural equation modeling procedure was used to evaluate the validity of the proposed hypotheses. Findings/Results: The results demonstrated that supervisor humility is positively related to employee job satisfaction, while abusive supervision is negatively related to employee job satisfaction. The findings also indicated that employee job satisfaction mediates the relationships between supervisor humility, abusive supervision, and employee creativity. Originality/Value: This work is the first to evaluate employee job satisfaction as a mediator of the link between characteristics of management (such as supervisor humility and abusive supervision) and employee creativity.

**Keywords:** supervisor humility; abusive supervision; employee job satisfaction; employee creativity; sustainability

## 1. Introduction

In recent years, interest in innovation and sustainability has considerably increased. Managers of organizations are becoming aware of the importance of sustainability [1], which can be defined as an approach to business that realizes economic, environmental and social problems in equalized, holistic and continuing ways that advantage both present and future generations of concerned stakeholders [2]. Thus, many organizations have expanded their innovation efforts to maintain sustainable growth [3]. As creativity is an initial step of innovation [4], employee creativity has become a significantly important factor in achieving competitive advantages for organizational innovation, long-term success, and sustainability [5]. Creative employees generate new ideas or offer unique products and operations, which can later be implemented and promote the survival and effectiveness of organizations [6]. Supervisors play a critical role in achieving the sustainability goals of organizations by driving creative effort toward innovation [7] and dealing with social and environmental problems [8]. Ethical leaders who respect followers' divergent views and values via their advancement of trust

and consideration in their relationships can create a sustainable, healthy work environment where subordinates feel more motivated and satisfied [9]. However, when supervisors undermine employees, these followers feel less satisfied and have lower trust in their supervisors [10]. Moreover, followers' perceptions of the existence of undermining by their supervisor leads them to consider that their supervisors do not "walk the talk" [11]. Thus, characteristics of supervision are a significant factor that may enhance employees' willingness to put in extra effort to achieve the sustainability goals of the organization by making them satisfied and boosting their creativity.

Many previous studies reported direct effects of management characteristics such as supervisor humility [12] and abusive supervision [13,14] on employee creativity. For instance, Owens and his colleagues' study [15] showed that when managers have a realistic view of themselves, are open to the ideas of others and provide employees with credit for their contributions and strengths, employees are more likely to have sustainable positive feelings about their jobs. In contrast, when supervisors are abusive [16,17] and do not recognize the contributions and strengths of employees [15], employees are less likely to be satisfied with their jobs. With this lower level of job satisfaction, employees become reluctant to generate novel and useful ideas [18]. Hence, we assume that employee job satisfaction mediates the link between characteristics of management (e.g., supervisor humility and abusive supervision) and employee creativity.

Despite the critical role of employee job satisfaction in mediating the link between characteristics of management (such as supervisor humility and abusive supervision) and employee creativity, very little is known about this dynamic. For example, Owens et al. [15] examined the relationship between supervisor humility and employee job satisfaction; however, they did not consider employee creativity as an outcome of employee job satisfaction. Similarly, Tepper [19] studied the link between abusive supervision and employee job satisfaction, but his study also did not include employee creativity. Liu et al. [13] investigated the connection between abusive supervision and employee creativity, but they did not involve employee job satisfaction in their research. Although Nerkar et al. [20] investigated the link between employee job satisfaction and employee creativity, they ignored the characteristics of management as an antecedent of employee job satisfaction in their research.

We believe that examining the mediating role of employee job satisfaction on the relationship between characteristics of management (such as supervisor humility and abusive supervision) and employee creativity is important. The results from this investigation can help managers of organizations to understand what characteristics of management should be selected and managed to influence the level of employee job satisfaction, which in turn will foster employee creativity. In other words, by understanding the effects of these dynamics on maintaining the sustainability of organizations, managers will be able to foster employee creativity by controlling the characteristics of management that impact employee creativity via employee job satisfaction. Therefore, to address the existing gaps in the literature, our study aims to investigate the mediating role of employee job satisfaction on the link between characteristics of management (such as supervisor humility and abusive supervision) and employee creativity.

This study is organized into five sections. Following the introduction section, the second section is devoted to the literature review and hypotheses development. In this section, the concepts of employee job satisfaction, supervisor humility, abusive supervision, and employee creativity are described, and the relationships between these variables are hypothesized. The third section is the methodology, which explains the data collection and measurement tools. The fourth section includes the analysis and results. The last section covers the summary and conclusions.

## 2. Literature Review and Hypotheses

### 2.1. Employee Job Satisfaction

Organizations are now gaining sustainable advantage through stakeholder relationships specially structured to provide a strategic advantage, and one of the main stakeholder groups, which are

considered key to strategic success, is employees of organizations [21]. Thus, employee job satisfaction, which has been defined as a pleasant or positive emotional state arising from the assessment of one's job or job experiences [20], has a substantial impact on the economic and social sustainability of organizations [22]. Employee job satisfaction, in other words, can be understood as one's positive affective response toward his or her job as a whole [23]. In the job satisfaction literature, two theories have dominated, namely, two-factor theory and expectancy theory. The two-factor motivator-hygiene theory developed by Herzberg et al. [24] suggested that job satisfaction was a result of the existence of motivator factors (elements of work itself) and that job dissatisfaction was a result of the lack of hygiene factors (elements of the context of work). Expectancy theory [25,26] indicated that individuals' evaluation of job satisfaction is a function of the inconsistency between what individuals expect from the job and what the individuals receive. In other words, job satisfaction is the extent to which expectations are matched with real achievements [27]. Individuals design their attitudes toward their jobs by considering their feelings, beliefs, and behaviors [28]. When employees believe that their jobs are fulfilling and rewarding, they are more likely to be satisfied with their jobs [29]. Glisson and Durick [30] categorized the variables that lead to job satisfaction into three groups: the first group is the variables that explain characteristics of the job tasks carried out by the individuals, the second group is the variables that explain characteristics of the organizations in which tasks are completed, and the third group is the variables that demonstrate the characteristics of the individuals who act on the tasks. Kalleberg [31] viewed employee job satisfaction as a function of the various specific satisfactions and dissatisfactions that individuals experience regarding the various dimensions of the work. His study suggested two specific dimensions of job satisfaction: intrinsic and extrinsic. Intrinsic job satisfaction was described as individuals' feelings about the characteristics of the job task itself [32], whereas extrinsic job satisfaction was defined as employees' feelings about facets of the working conditions, which are external to the job tasks [33]. Locke's [34] study considered several common facets of job satisfaction, such as quality and quantity of work, satisfaction with payment, promotional opportunity and fairness, recognition and benefits, working conditions, nature and style of supervision, and satisfaction with company and management. Among antecedents of employee job satisfaction, supervisors are considered a critical determinant and play a central role in influencing individuals by their ethical supervision in organizations [35]. When supervision is sustainability oriented, demonstrates humility, and is not abusive, individuals are more likely to put in further efforts to carry out the economic, social and environmental goals of the organization [9].

## 2.2. Hypotheses

### 2.2.1. Supervisor Humility and Employee Job Satisfaction

The concept of humility was conceptualized as an interpersonal characteristic that emerges in social contexts and that implies a clear enthusiasm to view oneself accurately, with a displayed appreciation of others' strengths and contributions and teachability [15]. Supervisor humility is considered an eagerness to attempt to precisely evaluate oneself and a recognition of the evidence that nobody is ideal [36]. Therefore, humility was suggested as one of the important characteristics of leaders that is necessary to achieve the economic, social and environmental goals of organizations [37]. Scholars stated that leaders who achieved sustainable greatness in the organization were not high performers but rather extremely humble individuals with intense professional desire [38]. Humble leaders who have a realistic view of themselves (i.e., awareness of weaknesses and mistakes), who are open to the ideas of others and who give employees due credit for their contributions and strengths will help employees to have more positive feelings about their jobs [15]. Aristovnik and his colleagues' study [39] demonstrated the power of supervisors in influencing followers' job satisfaction. As almost all job satisfaction measurements include a dimension that refers to one's satisfaction with supervision, job satisfaction is more likely to be shaped by positive perceptions of supervisors [40]. Many studies on leader humility [38,41] have indicated the relationship between leader humility and employee

positive job outcomes. For instance, Hogan and Kaiser's [42] research on leader humility showed that almost 75 percent of employees reported their immediate supervisors as the worst part of their job; employees have complained that their managers display the opposite of the proposed dimensions of expressed humility, such as arrogance [43]; devalue the opinions or views of others [44]; and think that they have all the answers or have an inflated self-view [45]. In other words, employees tend to be dissatisfied when their supervisors display unpleasantly proud behavior, consider themselves to be more important than others or undervalue the ideas or viewpoints of followers. Hence, we propose the following hypothesis:

**Hypothesis 1.** *Supervisor humility is positively related to employee job satisfaction.*

### 2.2.2. Abusive Supervision and Employee Job Satisfaction

Job satisfaction combines employees' feelings related to a variety of both intrinsic and extrinsic job dimensions, and as mentioned earlier, it involves specific facets of satisfaction, including supervision [46]. Thus, job satisfaction can be affected by several factors, such as supervisors' communication styles [47]. Hence, abusive supervision, which is defined as subordinates' perceptions of the extent to which supervisors display verbal and nonverbal hostile behaviors, excluding physical contact [19], has been studied as an essential element that may influence employees' attitudes, which consequently affects the sustainability of organizations [48]. In achieving the sustainability goals of organizations, employee job satisfaction is important, while ethical supervision plays a critical role in ensuring employee satisfaction [15]. However, abusive characteristics of supervision lead to a number of negative attitudinal outcomes among subordinates, such as reduced job satisfaction [49]. Abusive supervision serves to decrease the sense of justice [50] that restrains job satisfaction, as perceived injustices appearing under an abusive supervisory style are more likely to be a reason for subordinates disliking their jobs [51]. Several studies [52,53] tested the interaction between employee job satisfaction and supervisor behavior in different organizations, such as healthcare, the military, education, and business. A number of empirical studies [16,54] suggested that subordinates who experienced abusive supervision more often report higher job and life dissatisfaction, intention to leave their jobs, role conflict and psychological distress than their peers who have no experience with abusive supervision. Similarly, several studies [55,56] also indicated that abusive supervision was associated with elevated levels of psychological distress and with job dissatisfaction. Additionally, Keashly et al. [17] emphasized that nonphysical abuse occurs frequently and that individuals who experience more supervisory abuse are less satisfied with their jobs. Therefore, based on the discussions above, we propose the following hypothesis:

**Hypothesis 2.** *Abusive supervision is negatively related to employee job satisfaction.*

### 2.2.3. Employee Job Satisfaction and Employee Creativity

Employee job satisfaction and employee creativity are both drivers of sustainability in organizations [5,22]. As mentioned earlier, creativity refers to idea generation, whereas innovation demonstrates idea implementation; therefore, creativity is often considered the initial step of innovation [57]. Locke's [34] definition explains job satisfaction as positive feelings based on an assessment of one's job experiences. Isen and Baron [18] suggested that when individuals have good feelings in an organization, they are more likely to display creative behavior. Shipton et al. [58] proposed that employee job satisfaction affects organizational innovation. That is, when employees have good feelings at their work, the chance of having more positive expectancies and beliefs is likely to be higher, which leads to greater performance and beneficial outcomes such as innovation [59]. As creativity is an essential element of innovation, the studies mentioned above and several other works [20,28]

can prove the existence of a positive relationship between employee job satisfaction and employee creativity. Furthermore, employees' positive feelings about their jobs drive an increase in their intrinsic motivation, which advances employee creativity [60]. Thus, we propose the following hypothesis:

**Hypothesis 3.** *Employee job satisfaction is positively related to employee creativity.*

### 2.2.4. Mediating Role of Employee Job Satisfaction

A number of scholars [12,14] have indicated that management characteristics (such as supervisor humility and abusive supervision) influence employee creativity. We assume that employee job satisfaction has a mediating role in the relationships between management characteristics such as supervisor humility, abusive supervision, and employee creativity. In other words, sustainability-oriented, ethical supervisors who demonstrate a realistic view of themselves, who are open to the ideas of others and who provide employees with recognition of their contributions and strengths are more likely to lead employees to have positive feelings about their jobs [15]. In contrast, when supervisors are abusive [16,17] and do not give employees due credit for their efforts [15], employees are less likely to feel satisfied with their jobs. Consequently, this lower level of job satisfaction leads individuals to become reluctant to generate unique and useful ideas that serve to develop sustainability in the organization [18]. Therefore, we believe that employee job satisfaction mediates the link between management characteristics, such as supervisor humility and abusive supervision, and employee creativity. Thus, we propose the following hypotheses:

**Hypothesis 4.** *Employee job satisfaction mediates the relationship between supervisor humility and employee creativity.*

**Hypothesis 5.** *Employee job satisfaction mediates the relationship between abusive supervision and employee creativity.*

Based on the literature discussed above, our study proposed the research model shown in Figure 1.



**Control Variables:** gender, age, work experience, and education level

**Figure 1.** Research model.

## 3. Methodology

### 3.1. Sample and Data Collection

The data were collected from highly skilled employees of South Korean companies. To collect the data, we conducted an online survey from May to July 2019. We sent the link for the online survey to the human resource departments of 28 manufacturing companies located in different locations. The HR departments helped us to deliver the link for the questionnaire to their employees. The questionnaire was intended for white-collar workers. Creativity is more likely to be displayed by white-collar employees than by blue-collar workers, as white-collar tasks usually rely on the generation of creative solutions or a mixture of previously unrelated ideas [61], whereas blue-collar tasks consist of repetitive activities completed by known methods in familiar situations. Therefore, we excluded blue-collar workers from our study. In the cover letter of the questionnaire, the purpose of the research was explained, and the confidentiality and anonymity of responses were ensured. The participants were not asked to identify themselves in any part of the survey. In total, 558 employees participated in the survey. Out of 558 responses, 206 were excluded because of incomplete data, and the remaining 352 valid responses were used for the final analysis. The overall response rate was 63 percent (61.9 percent male and 38.1 percent female). The sample characteristics (Table 1) demonstrate that 23.0 percent of respondents were between 25 and 35 years of age, 33.8 percent were between 36 and 45 years of age, 32.7 percent were between 46 and 55 years of age, and 10.5 percent were between 56 and 65 years of age. With respect to participants' work experience, 4.5 percent had less than 1 year, 24.4 percent had between 1 and 4 years, 43.8 percent had between 5 and 9 years, and 27.3 percent had between 10 and 15 years of experience. Regarding education level, 55.4 percent of participants had a bachelor's degree and 36.6percent had a master's degree; the proportion of PhDs was the lowest, at 8 percent.

**Table 1.** Sample characteristics.

| Variables | Number | Percentage |
|---|---|---|
| **Gender** | | |
| Male | 218 | 61.9 |
| Female | 134 | 38.1 |
| **Age** | | |
| 25–35 | 81 | 23 |
| 36–45 | 119 | 33.8 |
| 46–55 | 115 | 32.7 |
| 56–65 | 37 | 10.5 |
| **Work experience** | | |
| Under 1 year | 16 | 4.5 |
| 1 to under 4 years | 86 | 24.4 |
| 5 to under 9 years | 154 | 43.8 |
| 10 to under 15 years | 96 | 27.3 |
| **Education level** | | |
| Bachelor's degree | 195 | 55.4 |
| Master's degree | 129 | 36.6 |
| PhD degree | 28 | 8.0 |

### 3.2. Variables and Measures

The measures used in our study came from scales that were originally developed for use in an English-language context. Therefore, all of the items were translated from English into the Korean language by professional experts. Then, by following Brislin's [62] suggestion, we translated the scale items back into English to ensure the accuracy of the translation. Furthermore, to assess the appropriateness and semantic equivalence of the scales, bilingual experts repeatedly reviewed both the English and Korean versions of the scales until no further inaccuracies were found in the

translations [63]. In our study, all scale items were rated on a 5-point Likert scale ranging from "1 = strongly disagree" to "5 = strongly agree".

Supervisor humility: We measured supervisor humility using nine items (e.g., "my supervisor admits it when he or she does not know how to do something," and "my supervisor acknowledges when others have more knowledge and skills than him or herself ") developed and validated by Owens et al. [15]. The Cronbach's alpha coefficient for this scale was 0.941.

Abusive supervision: Abusive supervision was measured using a fifteen-item scale developed by Tepper [19]. The sample included items such as "my supervisor does not give me credit for jobs requiring a lot of effort," and "my supervisor is rude to me." The Cronbach's alpha coefficient for this scale was 0.965.

Employee job satisfaction: We measured employee job satisfaction using three items from the study by Morris and Venkatesh [64]. Example items from this scale included "overall, I am satisfied with my job" and "I am satisfied with the important aspects of my job." The Cronbach's alpha coefficient for this scale was 0.885.

Employee creativity: Employee creativity was measured using five items taken by Ganesan and Weitz [65]. Example items from this scale included "I experiment with new approaches in performing my job" and "on the job, I am inventive in overcoming barriers." The Cronbach's alpha coefficient for this scale was 0.915.

Control variables: We controlled for individuals' age, gender [66], work experience [67] and education level [68] because previous studies indicated that there were positive relationships between individuals' age, gender, work experience, education level, and employee creativity.

### 3.3. Assessing Common Method Bias and Non-Response Bias

Podsakoff et al.'s study [69] stated that the associations between constructs can be increased or decreased by common method bias when data are collected from a single source. Thus, to minimize common method bias, we used Podsakoff et al.'s [69] instructions. To reduce any potential evaluation anxiety, on the cover letter of our online questionnaire, we ensured the confidentiality and anonymity of participants' responses and emphasized that there were no true or false answers. We assessed the effects of common method bias by conducting Harman's single-factor test [70]. As reported by the principles of Harman's one-factor test, if a considerable amount of common method bias exists, either a single factor will describe the majority of the covariance or a general factor will describe the majority of the covariance. Common method bias can be a critical issue if a first factor accounts for more than 50 percent of the variance among variables [71]. In the results of the test, no single factor appeared, and there was no general factor that described the majority of the variance. An unrotated factor analysis picked four distinct factors, and the largest factor indicated 34.771 percent of the variance. Therefore, the results indicated that common method bias was not a serious issue in this study because no single factor appeared in the results and because there was no general factor that described the majority of the variance.

## 4. Analysis and Results

### 4.1. Measurement Model Results

Several studies [72,73] recommended analyzing the measurement model before the construction of a structural model. Therefore, we conducted a confirmatory factor analysis (CFA) to test the overall measurement model before analyzing the hypotheses. The CFA results indicated that the $X^2$ value was statistically significant ($X^2 = 651.856$; $p = 0.001$). As the sample size was large, this measure might be biased; therefore, a number of indicators should be considered when evaluating the overall model fit [74]. According to Kline [75], the chi-squared test ($X^2$), the root means square error of approximation (RMSEA), the standardized root means square residual (SRMR), and the comparative fit index (CFI) should be included in the assessment of model fit. Hooper et al. [76] recommended involving the results

of the chi-squared test ($X^2$), RMSEA, the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the root mean square residual (RMR), and SRMR indicators when evaluating overall model fit. If the values of CFI and GFI [77] are higher than 0.90, they demonstrate good model fit, whereas values smaller than 0.08 and 0.05 for RMSEA and SRMR, respectively [78], indicate good model fit. All these model fit indices indicated that the measurement model had acceptable fit ($X^2$ = 651.856; $X^2$/df =1.423; $p$ = 0.001; CFI = 0.977; GFI = 0.897; AGFI = 0.882; RMSEA = 0.035; RMR = 0.060 and SRMR = 0.0406) with the dataset.

To evaluate the validity of the measurement model, we assessed the convergent validity and discriminant validity. The values of average variance extracted (AVE) and the composite reliabilities (CR) exceeded the sufficient degree of 0.50 and 0.70 [79], respectively (Table 2). Thus, the research model of our study fulfilled the requirements of convergent validity. We used Fornell and Larcker's [79] approach to check the discriminant validity. As stated in this method, the AVE for each variable should exceed the squared correlation between the constructs and any of the other constructs [78]. In this study, the AVE values of all the constructs exceeded the squared correlations between the construct and the other constructs. Therefore, the measures provided discriminant validity.

**Table 2.** Means, standard deviations, and intercorrelations among the study variables.

|   | Variables | M | SD | AVE | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|---|---|
| 1 | Supervisor humility | 3.19 | 1.16 | 0.677 | 1 | | | |
| 2 | Abusive supervision | 3.13 | 1.13 | 0.680 | −0.195 ** | 1 | | |
| 3 | Employee job satisfaction | 3.22 | 1.29 | 0.718 | 0.275 ** | −0.240 ** | 1 | |
| 4 | Employee creativity | 3.17 | 1.16 | 0.687 | 0.130 * | −0.110 * | 0.234 ** | 1 |
|   | CR values | | | | 0.918 | 0.938 | 0.791 | 0.862 |

Note. AVE = average variance extracted. * $p < 0.05$, ** $p < 0.01$.

### 4.2. Hypothesis Testing

Table 2 indicates the correlations among the variables. The results demonstrate that employee job satisfaction is positively associated with supervisor humility (r = 0.275, $p < 0.01$) but is negatively associated with abusive supervision (r = −0.240, $p < 0.01$). Employee creativity has a positive correlation with supervisor humility (r = 0.130, $p < 0.05$) and job satisfaction (r = 0.234, $p < 0.01$) but has a negative correlation with abusive supervision (r = −0.110, $p < 0.05$).

The structural equation modeling procedure was used to evaluate the validity of the proposed hypotheses. The results of the structural model analysis indicated a good fit by judging the goodness-of-fit indices ($X^2$ = 778.199, $X^2$/df = 1.319, $p$ = 0.001, CFI = 0.978, GFI = 0.893, AGFI = 0.879, TLI = 0.976, RMSEA = 0.030, and SRMR = 0.0406).

The results indicated that supervisor humility was positively and significantly associated with employee job satisfaction (β = 0.276, $p < 0.01$), whereas abusive supervision was negatively and significantly correlated with employee job satisfaction (β = −0.202, $p < 0.01$). Therefore, hypotheses 1 and 2 are both empirically supported. Moreover, structural equation modeling analysis revealed that employee job satisfaction was positively and significantly associated with employee creativity (β = 0.269, $p < 0.01$). Therefore, hypothesis 3 is empirically supported. We evaluated the mediation in Amos 21 using the bootstrapping procedure [80] with maximum likelihood estimation. The findings indicate that employee job satisfaction mediates the relationships between supervisor humility (indirect effect = 0.074, $p < 0.05$; $CI_{0.95}$ = 0.045, 0.122), abusive supervision (indirect effect = −0.054, $p < 0.05$; $CI_{0.95}$ = −0.089, −0.024) and employee creativity (Table 3). Therefore, hypotheses 4 and 5 are both supported. Furthermore, SEM analysis demonstrates that control variables such as individuals' age, gender, work experience, and education level do not influence their creativity (Table 3).

**Table 3.** Standardized structural estimates from the structural model.

| Path | Standardized Coefficient | T-Value |
|---|---|---|
| **Direct Effect** | | |
| Supervisor Humility—Employee Job Satisfaction | 0.276 | 4.877 ** |
| Abusive Supervision—Employee Job Satisfaction | −0.202 | −3.620 ** |
| Employee Job Satisfaction—Employee Creativity | 0.269 | 4.662 ** |
| Age—Employee Creativity | 0.010 | 0.182 |
| Gender—Employee Creativity | −0.021 | −0.401 |
| Work Experience—Employee Creativity | 0.056 | 1.043 |
| Education Level—Employee Creativity | 0.030 | 0.556 |
| **Indirect Effect** | | |
| | *p*-Value | Standardized Coefficient |
| Supervisor Humility—Employee Job Satisfaction—Employee Creativity | 0.005 | 0.074 ** |
| Abusive Supervision—Employee Job Satisfaction—Employee Creativity | 0.003 | −0.054 ** |

Notes. * $p < 0.05$, ** $p < 0.01$.

## 5. Conclusions

### 5.1. Summary and Implications

This study tested the links between characteristics of management (such as supervisor humility and abusive supervision) and employee job satisfaction, the relationship between employee job satisfaction and employee creativity, and the mediating role of employee job satisfaction in the relationships between characteristics of management (such as supervisor humility and abusive supervision) and employee creativity. This study examined the data collected from 352 employees. The following paragraph summarizes the empirical findings of this study.

First, the results suggested that the supervisor humility has a positive relationship with employee job satisfaction. That is, when supervisors exhibit more open-mindedness and humbleness, employees become more satisfied with their jobs. These results are consistent with the findings of Owens et al. [15], who reported a positive association between leader humility and employee job satisfaction. Second, the findings indicated that abusive supervision might reduce employee job satisfaction. In other words, when supervisors display rudeness to their subordinates, do not give credit for employees' efforts, do not keep their promises to followers or express anger for reasons that are not related to the job, individuals become less satisfied with their jobs. This finding is in accordance with Tepper et al.'s [49] study, which proposed that abusive supervision reduces job satisfaction. Third, empirical analyses found that employee job satisfaction is positively related to employee creativity. That is, when individuals have positive feelings about the important aspects of their jobs and would not prefer another more idealistic job, they tend to be inventive in solving economic, social and environmental issues and experiment with new approaches in performing their jobs. Hence, the more satisfied employees are, the more creative ideas they generate in their jobs and help to achieve the financial, social and environmental goals of their organizations. This finding is consistent with those of previous studies [18,20,58], which considered that having a higher level of good feelings in an organization is more likely to lead employees to present a higher degree of creative behavior. Moreover, the findings revealed that employee job satisfaction mediates the relationships between supervisor humility, abusive supervision, and employee creativity. In other words, when supervisors appreciate subordinates' strengths and contributions, respect followers' thoughts and feelings and do not lie or invade their privacy, employees in such organizations become more satisfied in their jobs, which in turn drives them to generate creative ideas or to discover new methods and technologies for completing their tasks that help to accomplish the sustainability goals of their organization. Therefore,

characteristics of management, namely, supervisor humility and abusive supervision, do not directly enhance employee creativity. Instead, these structural elements affect employee job satisfaction and, via employee job satisfaction, influence employee creativity. Thus, employee job satisfaction is a critical significant mechanism that explains the links between supervisor humility, abusive supervision, and employee creativity.

There are some implications for this study. First, this study contributes to the literature by suggesting empirical justifications about the mediating role of employee job satisfaction on the relationships between supervisor humility, abusive supervision, and employee creativity. Thus, we consider that the findings of our study have expanded the knowledge of organizational management with regard to the characteristics of management that should be controlled to enhance employee job satisfaction, which in turn can foster employee creativity. Moreover, the results of this study have indicated that supervisor humility advances the level of satisfaction of employees in their jobs, whereas abusive supervision reduces employee job satisfaction, which in turn enhances employee creativity. Leaders of organizations may lack knowledge about the impact of ethical leadership behavior on the sustainability of their organizations. Therefore, with this knowledge, organizational managers may create a sustainable environment that facilitates creativity by reviewing their characteristics of management, and they may advance the creativity of their employees by increasing employee job satisfaction. Specifically, we suggest that companies implement training programs to teach management how to develop supervisor humility and prevent abusive supervision. In this way, supervisors will become more open to subordinates' opinions and comments, view themselves accurately and appreciate others' strengths and contributions [12,13]. By supporting supervisory training programs, organizations may enhance the communicative behavior of supervisors, which in turn may lead employees to feel greater satisfaction in their jobs [81]. Furthermore, the findings of this study have revealed that employee job satisfaction explains the associations between supervisor humility, abusive supervision, and employee creativity. Thus, we suggest that organizations support the job satisfaction of their employees, which potentially fosters employee creativity. Finally, as the results of the study indicated, when individuals feel satisfied in their jobs, they generate creative and unique ideas, products, services or methods to overcome economic, environmental and social problems of an organization, thus promoting sustainable development. Therefore, we recommend that organizations create a sustainable, inspiring environment to strengthen employees' creativeness by making employees feel proud to contribute and take part in innovative processes [82].

*5.2. Limitations and Avenues for Future Research*

Despite the fact that our study extends the literature, it still has several limitations, and thus, we have made recommendations for future study. First, our study tested the mediating role of employee job satisfaction between two characteristics of management (i.e., supervisor humility and abusive supervision) and employee creativity. Previous studies [83,84] stated that transformational leadership includes various behaviors that can be applied to enhance environmental sustainability within organizations. Transformational leaders create a chance for personal and professional growth of individual employees and encourage their followers to look beyond self-interest and work together toward collective goals, which consequently enables the organization to achieve sustainability [85]. In addition, regarding the relationship between leadership and sustainability, Western [86] suggested the concept of "eco-leadership," which focuses on the relationship between leadership and the environment. Therefore, we suggest that future research might explore the effect of other sustainability-oriented management styles, such as transformational or eco-leadership, on employee job satisfaction and whether this consequently enhances employee creativity.

Moreover, our study tested the effect of the characteristics of management on employee job satisfaction. Scholars [87] have suggested that personality traits are critical in understanding employee job satisfaction. However, we did not include any personality traits that might have an influence on the relationship between the characteristics of management and employee job satisfaction. For instance,

individuals who score high on agreeableness are considered good-natured, forgiving, courteous, helpful, generous, and cooperative [88]. We assume that these characteristics of agreeableness may enhance the relationship between abusive supervision and employee job satisfaction by reducing the negative effect of abusive supervision on employee satisfaction. Hence, we suggest that future researchers include personality traits such as agreeableness as a moderator of the associations between characteristics of management and employee job satisfaction.

Furthermore, this study was conducted as cross-sectional research. Therefore, we recommend that future scholars conduct longitudinal research with a time gap between employee job satisfaction and employee creativity, as the relationship between employee job satisfaction and employee creativity develops over time.

Finally, this study collected data from manufacturing companies located in a single country, the Republic of Korea. Hence, the generalizability of the results might be another limitation. As South Korea is characterized by high power-distance culture [14], to increase generalizability, future studies should collect data from European countries where a low power-distance culture is dominant.

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