Article

Sustainable Workplace: The Moderating Role of Office Design on the Relationship between Psychological Empowerment and Organizational Citizenship Behaviour in Uzbekistan

Rushana Khusanova [1], Suk Bong Choi [2],* and Seung-Wan Kang [1],*

[1]   College of Business, Gachon University, Seongnam 13120, Korea; rushanakhusanova29@gmail.com
[2]   College of Global Business, Korea University, 2511 Sejong-ro, Sejong 30019, Korea
*   Correspondence: sukchoi@korea.ac.kr (S.B.C.); global7@gachon.ac.kr (S.-W.K.)

check for updates

Abstract: The physical format of office configuration has advanced to mirror the intricacy of modern work and the transitory nature of contemporary employment. Drawing on the social exchange theory, this study examines the effect of office design and psychological empowerment on the relationship between transformational leadership and employee organizational citizenship behaviour (OCB). A total of 216 subordinates and 49 supervisors completed questionnaire items from ten organizations in Uzbekistan. The survey was conducted in two waves and designed to have multi-source respondents. Confirmatory factor analysis was run to examine the discriminant validity of our measurement model. Ordinary least square regression-based analysis was used to analyze direct and interaction effects, and then it was followed by bootstrapping tests to identify mediation effects. Results reveal that transformational leadership is significantly related to psychological empowerment, and that psychological empowerment mediates the relationship between transformational leadership and OCB. Furthermore, the relationship between psychological empowerment and OCB is stronger in an open-plan office type. This study confirms that transformational leaders are adept at bringing out the best in their followers, influencing their OCB by increasing intrinsic motivation (psychological empowerment). Office type—specifically, open-plan offices—will intensify employee willingness to engage in extra-role behaviour.

Keywords: Transformational leadership; psychological empowerment; organizational citizenship behaviour; office setting; cellular and open-plan office

1. Introduction

Rapid economic changes and continuous challenges such as globalization and unstable labour markets pose significant risks to the well-being of individuals [1]. Due to this complexity, the interest in sustainability and sustainable development is increasing [2]. The primary focus of psychology of sustainability and sustainable development is the well-being of the person, the environment and also of the person in the environment [3]. Positive relationships are an important resource category that can be promoted to improve well-being and sustainability. The experience of positive and supportive connections to promote well-being at work and all through life has been well-established [4]. Designing the office in a way that facilitates better interactions to develop positive relationships between employees can enhance employee well-being and ultimately organizational sustainability.

There is no doubt that the office environment, including its architectural features, is considered one of the most influential management tools facilitating higher work efficiency, a change in managerial behaviour and better interaction among employees [5]. One such architectural feature is the division of

office space into different formats such as cellular and open-plan offices. An open-plan office does not have interior walls, resulting in employees having greater opportunities to see one another working and engage in face-to-face interaction. In contrast, a cellular office setting is designed so that employees have some privacy; possessing their own cubicle, employees do not have to share their space or interact with colleagues.

The traditional view of research of the open-plan design held that this type of design would facilitate more interaction and collaboration between employees, thereby contributing to increased productivity and performance [6–8]. However, a recent trend of research has started associating open-plan office design with negative outcomes such as increased sick leave; higher levels of stress, distraction and disturbance; as well as reduced job satisfaction and performance [9–13]. The underlying argument among most of these studies has been the effects of noise and distraction. Specifically, the open-plan design is presented as more disruptive due to uncontrollable noise and loss of privacy [14]. Ringing telephones, air conditioning, office machinery and human speech have been suggested to induce interruption, irritation and reduced performance among employees, and are the most common grounds for complaints in open-plan environments [13,15–17]. Danielson and Bodin [9] pointed to noise and lack of privacy as the key sources of dissatisfaction in open-plan office layouts. Studies based on occupant surveys and laboratory experiments suggest that noise, especially irrelevant yet audible and intelligible speech by employees, disturbs individual performance and adversely impacts tasks requiring cognitive processing [14]. While these negative effects may hold true, an argument can also be made that, by providing opportunities for better interactions, open-plan design plays an important role in the development of positive relationships within an organization [18,19]. Accordingly, psychosocial work characteristics such as the quality and amount of social interaction have been associated with increased performance via well-being and satisfaction [4].

Referring to an individual's voluntary commitment within an organization, the concept of organizational citizenship behaviour (OCB) comprises three aspects. First, OCB refers to the willingness of employees to engage in discretionary behaviour as a result of personal choice and perform the tasks that are not part of the job description. Second, employees exhibiting OCB are willing to go above and beyond the requirements of their job description. Third, organizational effectiveness is enhanced via OCB [20]. We argue that OCB can be considered as behaviours that facilitate sustainable well-being of employees. That is, by displaying OCB, employees could be understood and supported by colleagues, which could further increase the high quality interactions with others and express their positive self to others [21]. In support of this argument, Yu et al. and Fabio and Maureen confirm that social support [22] and positive social relationships [4] within organization are positively related to psychological well-being.

Several studies have examined the impact of psychological empowerment (i.e., intrinsic motivation) on work satisfaction [23,24], organizational commitment [25,26] and performance [27,28]. Moreover, recent studies have confirmed that the higher the level of employees' psychological empowerment, the more motivated employees are to perform well and demonstrate more at work [29–31]. However, Vischer [32] and Gerdenitsch et al. [33] suggested that the type of office used for task implementation can have an influence on employee work outcomes. Additionally, empirical evidence by Soriano et al. [34] confirmed that an adequate office type for the task can boost employees' well-being, which in turn impact on their in-role and extra-role performance. While psychological empowerment [35] and office design have been separately linked to OCB [34], to date, no study has illuminated how these two types of relationships interact to influence employee OCB. In this study, we examine the moderation effect of office setting on the relation between psychological empowerment and OCB. We argue that the relationship between psychological empowerment and OCB is stronger when the office design is open-plan.

The psychology of sustainability and sustainable development also calls for management styles and leadership approaches that understand and value the importance of relationships in organizational contexts for employees' well-being. Leadership styles are believed to be the key to mobilizing energy,

coping with challenges and unpredictable environments of the 21st century and promoting sustainable development and employees' well-being [36].

Transformational leadership has been the most studied leadership style within the field of leadership studies for the past several decades [37–39]. According to the SCOPUS database, 476 articles were published on this topic between 2000 and 2010 [40]. This interest is rooted in the importance of transformational leadership for organizational productivity. Most studies have confirmed that followers of transformational leaders are more productive and effective, regardless of whether performance is measured at the individual, team or firm level [41]. Transformational leadership behaviours motivate followers to perform at higher levels. There is extensive research examining the positive influence of transformational leadership on OCB [42–44], job satisfaction [45], well-being [46,47], innovative work behaviour [48,49] and psychological empowerment [50].

Many researchers have explored the mediating role of psychological empowerment on the relationship between transformational leadership and job satisfaction [51], and motivation [52]. However, in the case of the relationship between transformational leadership and OCB, scholars have tended to study the influence of psychological empowerment as a moderator, but not as a mediator. For example, Jha [50] has argued that employees with a higher level of psychological empowerment supervised by transformational leaders are more willing to implement extra-role performance. In this study, we explored the mediating role of psychological empowerment on the relationship between transformational leadership and OCB.

We applied social exchange theory (SET) [53] as a theoretical framework to explain the relationships between proposed study variables. When transformational leaders exhibit charisma as well as confidence in their followers and use individual approach to meet their followers' needs, social exchange and the norm of reciprocity [32] dictate that empowered employees reciprocate such treatment. As Organ [10] suggests, OCB is a likely avenue for employee reciprocation. In this regard, an open-plan office design could play an essential role in creating an environment that facilitates close communication between supervisors and their subordinates, as well as good relationships between co-workers. The improved relationships are likely to engender positive attitudes and behaviours including OCB among employees.

Our study makes several contributions to the existing literature. First, we examine the moderating effect of office setting on the relation between psychological empowerment and OCB. We argue that the relationship between psychological empowerment and OCB is stronger when the office design is open-plan rather than cellular. Second, this study addresses a gap in the literature by examining psychological empowerment as an intervening mechanism—that is, as a mediator—in demonstrating how transformational leadership might effect on employee OCB. We argue that transformational leadership behaviours influence employees' sense of intrinsic motivation to enhance employees' helping behaviour. By doing so, we extended the explanatory mediating mechanisms and attempt to open another "black box" in the relationship between transformational leadership and employee discretionary behaviour. Third, we posit transformational leadership to be positively associated with psychological empowerment, and psychological empowerment to be related to employee OCB. By analyzing the influence of transformational leadership on psychological empowerment and the influence of intrinsic motivation on helping behaviour, our study provides a substantial support to the previous empirical findings in a new context, namely Uzbekistan, and in doing so it contributes to the generalizability of the previous research results. Fourth, the majority of extant studies have emphasized the influence of open-plan design on employee mental health and well-being in relation to noise annoyance, and associated these factors with resulting negative work outcomes such as decreased job performance/satisfaction and productivity. However, we examine a context where open-plan office can still be effective, and influential in encouraging employees to engage in helping behaviour compared to enclosed office type. Lastly, we contribute to the SET [53] by arguing that the work and environment, specifically in close proximity as exists in open-plan office designs, can engender reciprocity in work groups in the form of OCB.

In sum, we draw on SET [53] to propose a fine-grained model that illustrates how transformational leadership impacts employee OCB via psychological empowerment, and most importantly how psychological empowerment and office design interact to influence extra-role performance.

2. Theoretical Background and Hypotheses

2.1. Transformational Leadership and Psychological Empowerment

Podsakoff et al. [54] describe a transformational leader as a motivator who encourages their subordinates to perform beyond the minimum requirements and often beyond their own expectations. Transformational leadership encompasses four influential components that help shape employee behaviour and competitiveness: Namely, individualized consideration, intellectual stimulation, inspirational motivation and idealized influence [55].

Transformational leaders exhibit individualized consideration behaviour and tend to act as coaches, keeping communication with employees open in order to determine their needs as well as feelings and using an individual approach toward each follower accordingly. According to Bass [55], when leaders behave in intellectually stimulating ways, their subordinates are encouraged to develop with new and unique ideas to go beyond existing routines and norms. Using inspirational motivation, a transformational leader articulates organizational goals, communicates high expectations, and convinces followers of the importance of these goals. Given the idealized influence of their leadership, a transformational leader exhibits confidence and charisma, thereby evoking strong emotions and loyalty in followers.

Psychological empowerment has been defined as a psychological state that manifests in four cognitions: Meaning, competence, self-determination and impact [56]. More specifically, psychological empowerment refers to how employees see themselves in the work environment and the extent to which they feel capable of shaping their role. Psychologically empowered employees believe that they have their own roles and influence in an organization, making them feel confident and enthusiastic about their work. Spreitzer [56] defines meaning as an individual's belief that their work is important and meaningful. Competence indicates self-efficacy, an individual's belief in their ability to complete tasks successfully. Impact refers to the degree to which an individual believes that they can influence work outcomes. Finally, self-determination refers to individual's perception of freedom; specifically, the sense that they have the ability to choose how to initiate and complete tasks.

Transformational leaders exhibit four characteristic behaviours—namely, idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. By exhibiting these components, transformational leaders have a greater ability to empower their followers. Most scholars suggest a close relationship between transformational leadership and psychological empowerment [50,57,58]. The empowering characteristic of transformational leaders is considered one of the main features distinguishing them from transactional leaders, who do not make an effort to empower their followers and influence their behaviour. Indeed, Dvir et al. [59] have confirmed the direct effect of transformational leadership on followers' motivation, morality and empowerment.

Transformational leaders are considered inspirational motivational managers able to establish high expectations that challenge and stimulate employees to achieve more than they thought possible [60]. Such motivational leaders depend on idealistic visions and persuasive communication, which are highly likely to increase the intrinsic motivation of employees. Shamir et al. [61] have confirmed that supervisors capable of using verbal persuasion and emotional appeals toward have a greater ability to motivate their subordinates. Accordingly, we can infer that transformational leaders' inspirational motivational behaviour is likely linked to the psychological empowerment of employees. Conger and Kanungo [62] indicate that transformational leadership behaviours have clear empowering effects on followers in the case of their self-efficacy beliefs. The followers of transformational leaders are stimulated to question the status quo and think outside the box. They also showed greater confidence in their abilities, which, as noted, satisfies their need for competence [63,64]. In this

regard, Walumbwa et al. [65] have confirmed the positive effect of transformational leadership on followers' self-efficacy.

Arnold et al. [66] have shown that employees construct meaning in work when they have a goal, purpose and value, as well as when there is an interactional relationship between personal values and goals on the one hand, and organizational and work values and goals on the other [67]. Therefore, transformational leaders—via inspirational motivation and optimism—articulate future objectives and inspire subordinates to work on common goals, thereby making their followers' work more personally meaningful. The significant effect of transformational leadership on finding meaning in work is supported by the empirical findings of Ghadi et al. [68], who argue that subordinates' perceptions of their work as meaningful is influenced by specific goals, missions and identities developed by supervisors for the organization.

By encouraging employees to make independent decisions in response to various challenges and develop individual solutions to existing problems, transformational leaders create an environment in which the need for autonomy can be satisfied [63]. Transformational leaders have high expectations of their followers, express their confidence in their followers' abilities, and show how the mission reflects their followers' values. In doing so, they influence their followers' self-esteem [48,61]. Subordinates who have high organizational-based self-esteem (OBSE) consider themselves important, influential and worthwhile members of their organizational units [69]. According to Gardner and Pierce [70], employees with high levels of OBSE are described by their co-workers as motivated, capable and empowered. A psychological construct impact is evident in followers' OBSE in terms of how they perceive of themselves as important in and worthwhile to the organization.

Piccolo and Colquitt [71] argue that when transformational leaders demonstrate inspirational motivational behaviour, they create a picture of the future comprising values, hopes and ideals that appeals to followers and makes them believe that they are an important part of the organization. Through their individualized consideration behaviour, transformational leaders address the issues of competence, meaningfulness and impact with each team member stimulating continual individual development [52]. As such, through the four characteristic behaviours explained above, transformational leaders have greater influence on their followers' psychological empowerment. Therefore, based on the aforementioned empirical findings, we posit the following hypothesis:

Hypothesis 1. *Perceived transformational leadership is positively related to psychological empowerment.*

2.2. Psychological Empowerment and OCB

The concept of OCB was coined by Organ [20] (p. 4) as "behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization". Most scholars understand OCB as employees' voluntary behaviour or willingness to go beyond formal employment requirements in order to contribute to organizational effectiveness, despite their being no formal rewards or additional monetary compensation offered [72–74]. Scholars have grouped 30 different employee behaviours considering acts of OCB into seven overstretching themes, as follows: (a) Helping behaviours; (b) sportsmanship; (c) organizational loyalty; (d) organizational compliance; (e) individual initiation; (f) civic virtue; and (g) self-development [75,76]. Several scholars touched upon the importance of OCB for organizational effectiveness [77,78].

One of the first to consider the influence of psychological empowerment on individual performance, Spreitzer [56] uncovered the positive relationship between psychological empowerment and managerial effectiveness. The positive association between psychological empowerment and employee effectiveness was determined two years later [79]. In line with these findings, Spreitzer et al. [79] identified competence and impact dimensions as the strongest drivers of performance. When examined as a composite measure, individual psychological empowerment appears to be positively associated with both individual performance and OCB. According to Peccei and Rosenthal [80], due to the

components of psychological empowerment—such as self-determination and work value—employees value their work and behave altruistically. Yusof et al. [81] and Noranee et al. [82] have also confirmed the positive impact of psychological empowerment on OCB.

Furthermore, Byaruhanga and Othuma [83] have revealed a significant positive relationship between empowerment and OCB, and indicated that empowerment is the most significant predictor of OCB. Meanwhile, Jha [50] has demonstrated that employees with a higher level of psychological empowerment are more willing to voluntarily meet and exceed expectations by being engaged in altruistic behaviours (e.g., helping co-workers in need of help). As such, we propose the following hypothesis:

Hypothesis 2. *Psychological empowerment is positively related to OCB.*

2.3. The Mediating Role of Psychological Empowerment in the Relationship between Transformational Leadership and OCB

Considered one of the most effective types of leader, transformational leaders encourage positive in-role and extra-role behaviours in employees [84]. Organizations can obtain maximum beneficial output at the individual and team levels via transformational leadership [85,86]. Pieterse et al. [87] view a transformational leader as an influential person who motivates their followers to rise above self-interest by changing their interests, values, ideals and morale, thereby encouraging followers to perform better than initially expected. This leadership approach has a higher tendency to make followers feel that they are important and worthwhile in their organization. They also increase their followers' self-confidence in their ability to perform successfully, as well as find their work more personally meaningful and purposeful. Transformational leaders notice and feel the individual differences of their subordinates, while inspiring them to achieve their full potential [86,88]. Additionally, when transformational leaders exhibit personalized attention towards their followers, their employees tend to develop greater self-confidence and accomplish tasks successfully [89].

Through individualized consideration behaviour, transformational leaders communicate with their followers in order to discern their needs. According to Siegall and Gardner [90], employee communication with their supervisor is positively related with the self-determination, meaning and impact dimensions of psychological empowerment. As an empowering leader, a transformational leader influences their followers' self-esteem [48,61]. As Gardner and Pierce [70] have shown, employees with a high level of OBSE are depicted as motivated and empowered workers in the organization. Haider et al. [91] have demonstrated the positive association between OBSE and OCB.

As empowered employees perceive themselves as competent and able to influence their jobs and workplace environment in meaningful ways, they are more likely to proactively execute their duties beyond the job requirements and engage in discretionary citizenship performance despite knowing that the extra effort will not be rewarded. Wat and Shaffer [92] show that the tendency of employees to engage in OCB depends on the quality of social exchange relationship with their managers; in other words, empowered workers who perceive a high-quality social exchange relationship are more likely to perform OCB. In this regard, SET [53] explains why employees perform OCB. When leaders provide important personal resources—such as consideration, care and respect—to their subordinates, they are more likely to create positive leader–follower relationships and the perception of a supportive workplace. As a result, followers feel a sense of obligation to reciprocate this support and care in a positive way. As noted earlier, motivated by their leader's approach, followers tend to reciprocate through enhanced job performance. As Gouldner [93] notes, reciprocity is a critical element of OCB, and empowered employees are more likely to engage in OCB.

Noting that psychological empowerment is likely to enhance transformational leadership effects, Bass [94] has demonstrated that transformational leadership acts through empowerment to influence employees' work outcomes. The work of Piccolo and Colquitt [71] evidences the positive influence

of transformational leadership styles on both follower task performance and OCB. Furthermore, as Walsh et al. [95] and Dust et al. [96] have argued, the relationship between transformational leadership and employee job-related behaviours is better explained by psychological empowerment. Accordingly, we posit the following hypothesis:

Hypothesis 3. *The relationship between transformational leadership and OCB is mediated by psychological empowerment.*

2.4. The Moderating Role of Office Design (Cellular vs. Open-Plan) in the Relationship between Psychological Empowerment and OCB

There is growing academic interest in the influential role of workplace office design, particularly in regard to its impact on different work outcomes [8,9,97]. The history of open office design dates back to the 1950s and became widespread in the 1970s, when many companies converted their office space to an open-space design [98]. Open-plan offices are associated with cost efficiency and financial savings. As Hedge [97] has noted, open-plan offices are approximately 20% cheaper to create and maintain. Designers claim that an open-space design creates a flexible space, allowing the layout to be more sensitive to size constraints and structural shifts within the organization. Additionally, the absence of internal physical barriers is thought to encourage communication between individuals, groups and even whole departments, thereby enhancing morale and work productivity. This belief is based on social facilitation theory, which holds that the performance of routine tasks will be improved in communal areas as employees who find their jobs boring can be stimulated by contact with people around them [99].

The absence of walls and partitions provides an opportunity for employees to observe internal and external work activities carried out by their organizations, and in doing so, employees form perceptions about their organization, which subsequently influence their attitudes and behaviour [100,101]. Employees feeling that their organization does not hide work activities from them may develop a positive effective behaviour such as OCB [100,101].

Placing staff from all levels of the organization in the same work environment creates an egalitarian system with equal working conditions for all employees [97]. Employees who believe that they are treated equally in the organization tend to communicate more effectively with their co-workers and supervisors, enhancing social cohesion and office productivity [6,8]. Organ [20] emphasizes the importance of fairness cognitions explaining that when employees feel that they are being treated fairly, they will be more likely to hold positive attitudes about their work, outcomes and supervisors. The findings of Organ and Konovsky [102] confirmed that employees' perceptions of fairness are closely related to their extra-role behaviour. Because fair organizational procedures enhance the level of confidence and trust employees have in the organization, employees in response feel obligated to reciprocate by displaying positive attitudes and behaviours in their work [53,100,101]. According to Tziner and Sharoni [103], employees who consider their workplace fair tend to be more satisfied and committed to the organization, leading to greater engagement in OCB. In line with this finding, a recent study by Farid et al. [104] demonstrates the mediating effect of distributive and procedural justice on the relationship between corporate social responsibility and OCB.

Allen and Gerstberger [105] have shown that employees who have shifted from a traditional to an open-plan office design tended to feel favourably toward their new workspace, while extending increased communication and coordination with co-workers and departments. Studies have shown that the open-plan office design to be the main predictor of increased communication between co-workers [105,106] and supervisors [107], as well enhanced group sociability [108]. Communication between employees plays an important role in the development of positive relationships within an organization. When employees are happy and satisfied with their co-worker relationships, they are more likely to show better job performance in the organization because satisfaction and happiness are positively associated with better performance [109]. Fisher [109] identified OCB to be an aspect of job

performance. Thus, as an aspect of job performance, communication satisfaction is positively related to OCB in the work environment. This positive relationship is further supported by the findings of Kandlousi et al. [110].

SET [53] can be applied to explain the relationship between communication satisfaction and OCB. The main concept of this SET [53] is that employees reciprocate the advantages that they receive from their organization. More specifically, if employees have positive attitudes regarding their co-workers and adequate satisfaction within their organization and motivated, they will try to reciprocate by engaging in OCB [111]. An easy way to achieve positive attitude is through communication practices. Several researchers have used SET [53] to explain why employees perform OCB [20,112,113].

When the open-plan office design first emerged, most studies associated the design with positive work outcomes. However, recent trends show a shift in thinking regarding open-plan office designs with the emergence of significant criticism. In this regard, key issues identified by researchers include distraction, noise and consequent difficulties in concentration [114]; increased cognitive workload [115]; decreased job performance; and increased sickness absence [9]. Furthermore, a recent study by Di Blasio et al. [116] demonstrates that noise from conversation, equipment and other sources annoys employees, decreasing work productivity, exacerbating mental health problems and negatively impacting well-being. However, the experiment conducted at a public university in Denmark by Brem [117] indicates that the open-plan office design is not the main cause of all negative work outcomes in an organization. Rather, the issue is rooted in the inability to design an open-plan office suitable for working conditions depending on the specific occupation, and wrong usage of these office types. After designing better open-plan spaces following strict rules, Brem [117] identified numerous positive aspects of the open-plan office design, including improved teamwork, spontaneous collaboration and the cross-fertilization of ideas. As such, the problem does not lie in the open-plan office design itself, but in the individuals utilizing the space and how these designs are utilized.

Based on the aforementioned factors, we suggest that employees are more likely to engage in helping behaviour when they are psychologically empowered, and possess a positive attitude, are satisfied in the organization and communicate effectively with their co-workers. Therefore, the following hypothesis proposes the moderating role of office type on the relationship between employees' psychological empowerment and OCB:

Hypothesis 4. *Office setting moderates the relationship between psychological empowerment and organizational citizenship behaviour such that the relationship is stronger when the office design is open-plan rather than cellular.*
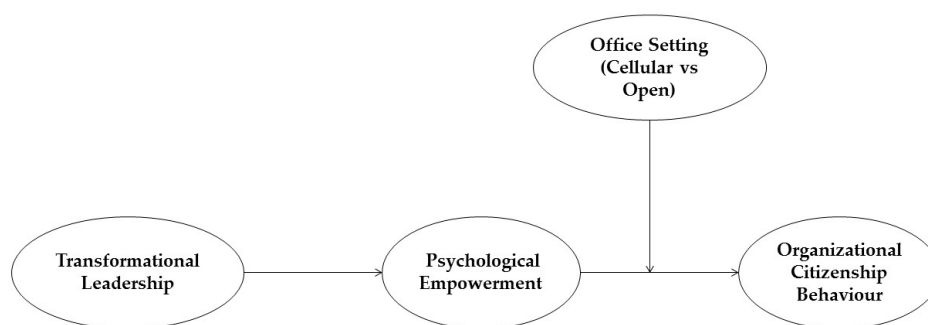
Figure 1 presents the theoretical model of this study.

Figure 1. Framework of research model.

3. Method

3.1. Sample and Data Collection

Participants were recruited from ten organizations in Uzbekistan. Prior to data collection, research assistants inspected several offices to examine and identify offices that were designed as

open-plan, since organizations in Uzbekistan have recently begun shifting from the traditional cellular to open-plan office design. Once the target offices were identified, the managers of the relevant organizations were emailed a letter of request regarding this study; a supervisor letter confirming the confidentiality of all data collected was attached. Managers were also contacted personally to obtain permission to conduct the survey in their organizational units. Paper and pencil surveys were used throughout the study. The English language survey was translated into the Uzbek and Russian languages.

In order to reduce concerns regarding common method bias (CMB) [118], the survey was conducted in two waves and designed to have multi-source respondents. In the first wave, questionnaires comprising an independent variable (i.e., transformational leadership), mediating variable (i.e., psychological empowerment) and demographic questions were distributed to 307 employees. During the first wave, 269 responses were collected, resulting in a response rate of 88%. The second wave of data collection was conducted almost three weeks after the first wave. During the second wave, 49 immediate supervisors rated the OCB of the 269 employee respondents. Each survey respondent was made aware of the purpose of the study and assured that the data were confidential and would not be shared with their supervisor or organization. Instructions regarding how to complete the survey were provided to all survey respondents. Upon finishing, respondents sealed the completed questionnaire and returned them to the research assistants individually.

Following the data cleaning process, 216 matched dyads were found to be useful for this analysis (a response rate of 70%). The sample comprised approximately 46% men and 54% women, with an average age of 33.30. In the case of participants' education, 40% of respondents held vocational college degrees, 42% held a bachelor's degree, while 18% held a master's degree. The average employee had been with the company for 5.61 years (S.D. = 4.63). Approximately 84% of the employees who participated in our survey worked in open-plan offices. The number of employees working per open-plan office ranged from 3 to 24. Table 1 presents the survey participants' sociodemographic data.

Table 1. Survey respondents' personal characteristics.

Personal Characteristics		No.	Percentage
Office Design	Open-plan	181	83.80
	Cellular	35	16.20
Gender	Male	99	45.83
	Female	117	54.17
Age (years)	18–24	33	15.29
	25–31	70	32.41
	32–38	54	25
	39–45	41	18.98
	46–55	16	7.41
	56–65	2	0.92
Education level	Upper-secondary school	1	0.46
	3-years college	86	39.81
	Bachelor's degree	91	42.13
	Master's degree	38	17.59
Organizational tenure (years)	<1	39	18.06
	1–3	57	26.4
	4–6	35	16.19
	7–10	51	23.6
	11–15	28	12.96
	16–20	6	2.77

Note: N = 216.

3.2. Measures

The questionnaire used a five-point Likert scale ranging from 1 = "strongly disagree" to 5 = "strongly agree." Questionnaires originally constructed in English were translated into the Russian and Uzbek languages (the complete questionnaire items used for the survey are provided in Appendix A). We utilized a standard translation and back-translation procedure [119] to ensure the reliability and validity of the research tool.

3.2.1. Transformational Leadership

We measured employees' perceptions of transformational leadership using Carless et al.'s [120] seven-item scale ($\alpha = 0.89$). A sample item is: "*My supervisor communicates a clear and positive vision of the future*".

3.2.2. Psychological Empowerment

Employees indicated the level of psychological empowerment they experienced at work using Spreitzer's [56] 12-item measure ($\alpha = 0.84$). A sample item is: "*I am confident about my ability to do my job*".

3.2.3. Organizational Citizenship Behaviour

Supervisors rated their employees' helping behaviour using Buil et al.'s [44] three-item measure ($\alpha = 0.79$). A sample item is: "*I attend functions that are not required but that help organizational image*".

3.2.4. Control Variables

We included age, gender, education and tenure as control variables, because each of these demographic characteristics may have an impact on employee attitudes toward an organization [121]. Additionally, Rego and Cunha [122] found that organizational tenure, schooling years and gender are significantly correlated with OCB dimensions. Sociodemographic variables were measured as follows. First, we asked participants to indicate their age and organizational tenure in years. Sex was coded as 0 for male and 1 for female. With regard to office setting, we coded cellular as 0 and open-plan as 1. Finally, regarding educational level, participants chose from the following options: Upper secondary school, 3-years college, bachelor's degree, master's degree or PhD.

3.3. Statistical Analysis

All statistical analyses were performed using the STATA 14.2 software program. Before testing the hypotheses, we conducted a series of confirmatory factor analysis (CFA) to examine the construct validity of the variables. Various fit indices (CFI, TLI and RMSEA) were utilized to evaluate the model fit for our hypothesized model. According to previous studies [123], in order to consider a certain model adequate, the model's CFI and TLI should be greater than 0.90 and the RMSEA value less than 0.06. Ordinary least square regression-based analysis was used to examine the direct and interaction effects. To examine the moderating effect, we mean centered the values for the independent variable and moderator, then created interaction terms using the centered variables. We also calculated variance inflation factor (VIF) scores; VIF scores of all variables were below 10 [124]. Additionally, bootstrapping analysis with 5000 resamples was conducted to confirm the statistical significance of the indirect effect predicted by Hypothesis 3.

4. Results

4.1. Descriptive Statistics

The means, standard deviations and correlations of the variables are summarized in Table 2. A significant correlation between office setting and age and gender was emerged. Organizational

tenure and psychological empowerment had a significant correlation with transformational leadership. Psychological empowerment was also positively correlated with OCB (Table 2).

Table 2. Means, standard deviations and correlations between variables.

Variable	Mean	S.D.	1	2	3	4	5	6	7
1. Age	33.30	8.49							
2. Gender	0.54	0.50	−0.05						
3. Tenure	5.61	4.63	0.59 **	0.17 *					
4. Education	2.77	0.74	0.29 **	−0.01	0.12				
5. Office Setting	0.84	0.37	−0.20 **	0.28 **	0.10	0.12			
6. TRL	3.76	0.58	−0.09	0.06	−0.22 **	−0.02	0.01		
7. PE	3.83	0.42	−0.00	−0.02	−0.03	0.03	0.01	0.39 **	
8. OCB	3.97	0.55	0.16 *	0.17 *	0.12	0.14 *	0.10	0.11	0.18 *

Note: N = 216. * $p < 0.05$; ** $p < 0.01$. Age and tenure in years. With regard to gender, male is coded as 0, and female is coded as 1. With regard to level of education, "upper secondary school" is coded as 1, "3-years college" is coded as 2, "bachelor's degree" is coded as 3, "master's degree" is coded as 4 and "PhD/doctoral degree" is coded as 5. With regard to office setting, cellular is coded as 0, and open-plan is coded as 1. TRL = transformational leadership; PE = psychological empowerment; OCB = organizational citizenship behaviour.

4.2. Measurement Model

Table 3 presents the measurement model fit indices for the study variables. We conducted CFA using STATA 14.2 to examine the construct validity of the variables. As shown in Table 3, the fit indices support that the hypothesized four-factor model of transformational leadership, psychological empowerment, office setting and OCB ($\chi2 = 272.07$; $df = 198$; RMSEA = 0.04; CFI = 0.96 and TLI = 0.95) yielded a better fit to the data than the three-, two- and one-factor models. These CFA results confirm the distinctiveness of the four study variables for subsequent analyses (Table 3).

Table 3. Chi-square difference tests among alternative measurement models.

Model	$\chi2$	df	CFI	TLI	RMSEA	Δdf	$\Delta\chi2$
4-Factor model (hypothesized model)	272.07 ***	198	0.96	0.95	0.04	-	-
3-Factor model (TRL and PE merged)	489.39 ***	201	0.85	0.81	0.08	3	217.32 ***
2-Factor model (TRL, PE and office setting merged)	785.03 ***	203	0.70	0.63	0.12	5	512.96 ***
1-Factor model (all variables merged)	978.56 ***	204	0.60	0.50	0.13	6	706.49 ***

Note: N = 216. *** $p < 0.001$. TRL = transformational leadership; PE = psychological empowerment; CFI = comparative fit index; TLI = Turkey–Lewis Index; RMSEA = root mean square error of approximation.

4.3. Hypotheses Testing

Hypothesis 1 posited that the perceptions of transformational leadership would be positively associated with employees' psychological empowerment. As shown in Model 2 (Table 4), we found that transformational leadership was significantly and positively related to employees' psychological empowerment ($\beta = 0.41$, $p < 0.001$). Therefore, Hypothesis 1 is confirmed.

Hypothesis 2 proposed that employees' psychological empowerment would be positively related to their helping behaviour (OCB). Regression test results support this prediction ($\beta = 0.16$, $p < 0.05$), verifying Hypothesis 2 (Table 4, Model 4).

To test the mediating role of psychological empowerment (Hypothesis 3), we used a bootstrap mediation method with 5000 samples having replacement and percentile bootstrap confidence intervals. The indirect effect of transformational leadership on OCB through psychological empowerment was significant ($b = 0.06$; 95% CI: 0.01, 0.13), as indicated by the confidence interval excluding zero (Table 5). Accordingly, Hypothesis 3 is also supported.

Table 4. Hierarchical multiple regression results.

Variables	Psychological Empowerment		Organizational Citizenship Behaviour		
	M1	M2	M3	M4	M5
Employee age	0.01	−0.02	0.13	0.14	0.14
Employee gender	−0.01	−0.06	0.17 *	0.15 *	0.15 *
Organizational tenure	−0.04	0.08	0.00	0.03	0.01
Education	0.03	0.03	0.10	0.09	0.08
TRL		0.41 ***		0.06	0.05
PE				0.16 *	0.05
Office setting				0.08	0.08
PE x Office setting					0.18 *
R^2	0.00	0.16	0.06	0.10	0.12
F	0.11	7.95 ***	3.60 **	3.41 **	3.59 ***
ΔR^2		0.16		0.04	0.02
ΔF		39.22 ***		3.01 *	4.44 *

Note: N = 216. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Age and tenure in years. With regard to gender, male is coded as 0, and female is coded as 1. With regard to level of education, "upper secondary school" is coded as 1, "3-years college" is coded as 2, "bachelor's degree" is coded as 3, "master's degree" is coded as 4 and "PhD/doctoral degree" is coded as 5. With regard to office setting, cellular is coded as 0, and open-plan is coded as 1. TRL = transformational leadership; PE = psychological empowerment.

Table 5. Mediating effect of psychological empowerment.

Indirect Effect	Estimate	SE	95% CI
TRL→PE→OCB	0.06	0.03	[0.01, 0.13]

Note: N = 216. TRL = transformational leadership; PE = psychological empowerment; OCB = organizational citizenship behaviour; SE = standard error; CI = confidence interval.

Finally, we tested whether the office setting moderates the positive relationship between psychological empowerment and OCB. As noted, psychological empowerment and office setting were transformed into mean-centered variables, which we then used to create interaction terms. Additionally, we calculated VIF values in order to test whether there was a multicollinearity bias between psychological empowerment and office setting using STATA 14.2. The VIF values for psychological empowerment and office setting were 1.67 and 1.17, respectively. Therefore, we can conclude that the two variables (psychological empowerment and office setting) were relatively unaffected by the issue of multicollinearity.

Model 5 (Table 4) demonstrates that there is significant interaction between office setting and psychological empowerment ($\beta = 0.18$, $p < 0.05$), proving our hypothesis that the positive relationship between psychological empowerment and OCB is stronger when the office design is open-plan rather than cellular. Therefore, Hypothesis 4 is confirmed (Table 4, Model 5). We also conducted a simple-slop test analysis for the significant interaction effect [125]. As predicted, the significant indices for the open-plan office setting ($\beta = 0.26$, $p < 0.003$) confirmed Hypothesis 4.

5. Discussion

The results of this study indicate that employees who work for supervisors engaged in transformational leadership are self-confident in their abilities, capable of implementing given tasks successfully and perceive high levels of meaning, impact and control over their work. Consistent with the findings of Dvir et al. [59], our results demonstrate that the followers of transformational leaders are highly empowered employees in the organization. The results of this study also prove that psychologically motivated employees are more likely to reciprocate the treatment of empowering (transformational) leaders by voluntarily meeting and exceeding expectations—that is, by engaging in OCB. However, the moderating role of office design also needs to be considered: These effects become stronger when employees work in an open-plan office, rather than a cellular office. This finding

suggests that the absence of internal walls and partitions in an office creates opportunities for employees to interact with their co-workers, leading to greater willingness to engage in discretionary behaviour.

5.1. Theoretical Contributions

Our research contributes to office design and transformational leadership research. To date, studies pertaining to office design have studied the direct influence of office layout on employee work outcomes. To best of our knowledge, our study is first to examine office type (cellular vs. open-plan) as a moderator on the relationship between employee intrinsic motivation and OCB. We examined how psychological empowerment and office design interact to influence employees' helping behaviour. This integration presents a new approach to research on office environment.

Additionally, as noted, in research on the effect of transformational leadership on OCB, psychological empowerment has only been studied as a moderating variable. However, this study uncovered the mediating role of psychological empowerment on the relationship between transformational leadership and OCB. Examining psychological empowerment as an intervening mechanism, we disclosed another "black box" between transformational leadership and employee discretionary behaviour.

We also postulated positive relationship between transformational leadership and psychological empowerment, and positive relationship between psychological empowerment and OCB, separately. Since our data were collected from different organizations in Uzbekistan, our study contributes to the generalizability of previous results on these relationships in a new context, namely Uzbekistan.

Recent studies examining the influence of the architectural and functional features of offices have associated open-plan offices with decreased employee well-being and several other negative health-related outcomes, including increased sick leave; higher levels of stress, distraction and disturbance; as well as reduced interaction, job satisfaction and performance [9–11]. As such, the extant research has a negative view of the open-plan office design. However, our research indicates that open-plan offices are still effective to encourage empowered employees to engage in OCB.

We applied SET [53] to better explain the relationships between our study variables. In doing so, we also contributed to the reciprocity norm of this theory.

5.2. Practical Implications

This research yields indispensable practical implication for the benefits of organizations. By identifying the context within which office design type is effective, this study provides an additional insight for leaders to increase their subordinates' extra-role behaviour. Our research results show that empowered employees in an open-plan office setting are more willing to perform OCB. Supervisors seeking to increase their followers' willingness to engage in helping behaviours need to consider the physical environment of the office in which they work. In doing so, they need to be sure that their employees are confident in their abilities and that they perceive high levels of meaning, impact and control over their work.

In addition, OCB helps employees to be recognized and supported by colleagues, which in turn leads to the development of positive social relationships [21]. Thus, employees engaged in OCB will benefit from the social support and positive relationships within an organization to mitigate their burnout. Recent studies have identified that support of others (i.e., colleagues) in the organization and the effective leadership by supervisors can play a key role in burnout manifestation and its effect on individuals (e.g., turnover intentions) and organizations [126,127]. Therefore, when employees engage in OCB, this is beneficial not only for the organizations, but also for individuals themselves.

5.3. Limitations and Suggestions for Future Studies

This study has several limitations. We suggest replicating this study in other nations, since our survey respondents primarily comprised Uzbek employees. In our study, the majority of respondents (84%) worked in open-plan offices. As such, the unequally distributed samples in

terms of cellular and open-plan office design might have negatively impacted the research findings. Accordingly, replications of this study should have an equal number of participants from both office design types.

Additionally, further work is needed to determine the conditions under which open-plan offices have few positive—or negative—effects on the work outcomes of employees in a dyadic relationship with a leader. It is possible that open-plan offices may be more appropriate for certain types of employees or organizations.

We also suggest future research examining the influence of office type on other employee work-related constructs, such as creativity. We assume that employees working together in the same office will engage in the creative process more easily as they can share their ideas with one another and collaborate in meeting challenges and finding useful and novel solutions to problems. As mentioned in the literature review, open-plan offices are one of the main enhancers of communication and coordination among employees.

A further limitation of this study concerns its control variables. This study only included employees' age, gender, organizational tenure and education as control variables. Further research should also include employees' work status (full vs. part-time) and organization type (public vs. private organizational units) and then check for differences in terms of office design influence. This is necessary because employees who work at the office for a short period as a part-time worker may not be impacted by office design type.

Moreover, conducting the survey in organizations where employees initially worked in cellular offices and then moved to an open-plan office design may show a clearer difference between the impact of cellular and open-plan office design on employee work outcomes.

6. Conclusions

This study contributes to the understanding of the motivational implications of transformational leadership and the effect of office design type on employees' helping behaviour (OCB). The findings suggest that transformational leaders possess empowering characteristics and are adept at using their strengths to increase the intrinsic motivation of their followers. Subordinates who feel psychologically empowered are more willing to engage in discretionary behaviour. As this study shows, office design—specifically, open-plan office design—will intensify employee willingness to engage in extra-role behaviour.

Appendix A

Transformational Leadership [120].

1.   My supervisor communicates a clear and positive vision of the future.
2.   My supervisor treats staff as individuals, supports and encourages their development.
3.   My supervisor gives encouragement and recognition to staff.
4.   My supervisor fosters trust, involvement and cooperation among team members.
5.   My supervisor encourages thinking about problems in new ways and questions assumptions.
6.   My supervisor is clear about his/her values and practices what he/she preaches.

7. My supervisor instils pride and respect in others and inspires me by being highly competent.

Psychological Empowerment [56].

1. I am confident about my ability to do my job.
2. I am self-assured about my capabilities to perform my work activities.
3. I have mastered the skills necessary for my job.
4. I have significant autonomy in determining how I do my job.
5. I can decide on my own how to go about doing my work.
6. I have considerable opportunity for independence and freedom in how I do my job.
7. My impact on what happens in my department is large.
8. I have a great deal of control over what happens in my department.
9. I have significant influence over what happens in my department.
10. The work I do is very important to me.
11. My job activities are personally meaningful to me.
12. The work I do is meaningful to me.

Organizational Citizenship Behaviour [44].

1. This employee attends functions that are not required but that help the organizational image.
2. This employee offers ideas to improve the functioning of the organization.
3. This employee takes action to protect the organization from potential problems.

References

1. Duradoni, M.D.F.; Di Fabio, A. Intrapreneurial self-capital and sustainable innovative behavior within organizations. *Sustainability* **2019**, *11*, 322. [CrossRef]
2. Di Fabio, A.P.; Peiró, J. Human Capital Sustainability Leadership to promote sustainable development and healthy organizations: A new scale. *Sustainability* **2018**, *10*, 2413. [CrossRef]
3. Di Fabio, A.R.; Rosen, M.A. Opening the black box of psychological processes in the science of sustainable development: A new frontier. *Eur. J. Sustain. Dev. Res.* **2018**, *2*, 47. [CrossRef]
4. Di Fabio, A.K.; Kenny, M. Academic relational civility as a key resource for sustaining well-being. *Sustainability* **2018**, *10*, 1914. [CrossRef]
5. Becker, F.D.G.; Gield, B.; Gaylin, K.; Sayer, S. Office design in a community college: Effect on work and communication patterns. *Environ. Behav.* **1983**, *15*, 699–726. [CrossRef]
6. Jaeger, D. Office Landscape—A Systems Concept. In *Management Conference, Improving Office Environment*; Business Press: Elmhurst, IL, USA, 1969.
7. Palmer, A.E.; Lewis, M.S. *Planning the Office Landscape*; McGraw-Hill Companies: New York, NY, USA, 1977.
8. Kraemer, S. *Open-Plan Offices: New Ideas, Experience and Improvements*; McGraw-Hill: New York, NY, USA, 1977.
9. Danielsson, C.B.; Bodin, L. Office type in relation to health, well-being, and job satisfaction among employees. *Environ. Behav.* **2008**, *40*, 636–668. [CrossRef]
10. Vischer, J.C. Towards an environmental psychology of workspace: How people are affected by environments for work. *Archit. Sci. Rev.* **2008**, *51*, 97–108. [CrossRef]
11. Otterbring, T.; Pareigis, J.; Wästlund, E.; Makrygiannis, A.; Lindström, A. The relationship between office type and job satisfaction: Testing a multiple mediation model through ease of interaction and well-being. *Scand. J. Work Environ. Health* **2018**, *44*, 330–334. [CrossRef]
12. Lee, P.J.; Jeon, J.Y. A laboratory study for assessing speech privacy in a simulated open-plan office. *Indoor Air* **2014**, *24*, 307–314. [CrossRef]
13. Lee, P.J.; Lee, B.K.; Jeon, J.Y.; Zhang, M.; Kang, J. Impact of noise on self-rated job satisfaction and health in open-plan offices: A structural equation modelling approach. *Ergonomics* **2016**, *59*, 222–234. [CrossRef]
14. Kim, J.; De Dear, R. Workspace satisfaction: The privacy-communication trade-off in open-plan offices. *J. Environ. Psychol.* **2013**, *36*, 18–26. [CrossRef]

15. Seddigh, A.; Berntson, E.; Jönsson, F.; Danielson, C.B.; Westerlund, H. The effect of noise absorption variation in open-plan offices: A field study with a cross-over design. *J. Environ. Psychol.* **2015**, *44*, 34–44. [CrossRef]

16. Leder, S.; Newsham, G.R.; Veitch, J.A.; Mancini, S.; Charles, K.E. Effects of office environment on employee satisfaction: A new analysis. *Build. Res. Inf.* **2016**, *44*, 34–50. [CrossRef]

17. Pierrette, M.; Parizet, E.; Chevret, P.; Chatillon, J. Noise effect on comfort in open-space offices: Development of an assessment questionnaire. *Ergonomics* **2015**, *58*, 96–106. [CrossRef] [PubMed]

18. Khazanchi, S.; Sprinkle, T.A.; Masterson, S.S.; Tong, N. A spatial model of work relationships: The relationship-building and relationship-straining effects of workspace design. *Acad. Manag. Rev.* **2018**, *43*, 590–609. [CrossRef]

19. Gullahorn, J.T. Distance and friendship as factors in the gross interaction matrix. *Sociometry* **1952**, *15*, 123–134. [CrossRef]

20. Organ, D.W. *Organizational Citizenship Behavior: The Good Soldier Syndrome*; Lexington Books/DC Heath and Com: Lexington, MA, USA, 1988.

21. Wang, L.; Law, K.S.; Zhang, M.J.; Li, Y.N.; Liang, Y. It's mine! Psychological ownership of one's job explains positive and negative workplace outcomes of job engagement. *J. Appl. Psychol.* **2019**, *104*, 229. [CrossRef]

22. Yu, M.; Yang, S.; Qiu, T.; Gao, X.; Wu, H. Moderating role of self-esteem between perceived organizational support and subjective well-being in Chinese nurses: A cross-sectional study. *Front. Psychol.* **2019**, *10*, 2315. [CrossRef]

23. Cicolini, G.; Comparcini, D.; Simonetti, V. Workplace empowerment and nurses' job satisfaction: A systematic literature review. *J. Nurs. Manag.* **2014**, *22*, 855–871. [CrossRef]

24. Di Maggio, I.; Santilli, S.; Nota, L.; Ginevra, M.C. The predictive role of self-determination and psychological empowerment on job satisfaction in persons with intellectual disability. *Adv. Neurodev. Disord.* **2019**, *3*, 197–203. [CrossRef]

25. Allen, S.; Winston, B.E.; Tatone, G.R.; Crowson, H.M. Exploring a model of servant leadership, empowerment, and commitment in nonprofit organizations. *Nonprofit Manag.* **2018**, *29*, 123–140. [CrossRef]

26. Aggarwal, A.; Dhaliwal, R.S.; Nobi, K. Impact of structural empowerment on organizational commitment: The mediating role of women's psychological empowerment. *Vision* **2018**, *22*, 284–294. [CrossRef]

27. Kundu, S.C.; Kumar, S.; Gahlawat, N. Empowering leadership and job performance: Mediating role of psychological empowerment. *Manag. Res. Rev.* **2019**, *42*, 605–624. [CrossRef]

28. D'Innocenzo, L.; Luciano, M.M.; Mathieu, J.E.; Maynard, M.T.; Chen, G. Empowered to perform: A multilevel investigation of the influence of empowerment on performance in hospital units. *Acad. Manag. J.* **2016**, *59*, 1290–1307.

29. Joo, B.K.; Jo, S.J. The effects of perceived authentic leadership and core self-evaluations on organizational citizenship behavior: The role of psychological empowerment as a partial mediator. *Leadersh. Organ. Dev. J.* **2017**, *38*, 463–481. [CrossRef]

30. Bester, J.; Stander, M.W.; Van Zyl, L.E. Leadership empowering behaviour, psychological empowerment, organisational citizenship behaviours and turnover intention in a manufacturing division. *SA J. Ind. Psychol.* **2015**, *41*, 1–14. [CrossRef]

31. Newman, A.; Schwarz, G.; Cooper, B.; Sendjaya, S. How servant leadership influences organizational citizenship behavior: The roles of LMX, empowerment, and proactive personality. *J. Bus. Ethics* **2017**, *145*, 49–62. [CrossRef]

32. Vischer, J.C. The effects of the physical environment on job performance: Towards a theoretical model of workspace stress. *Stress Health J. Int. Soc. Investig. Stress* **2007**, *23*, 175–184. [CrossRef]

33. Gerdenitsch, C.K. Christian Hertel, Guido Need–supply fit in an activity-based flexible office: A longitudinal study during relocation. *Environ. Behav.* **2018**, *50*, 273–297. [CrossRef]

34. Soriano, A.; WKozusznik, M.; Peiró, J.M.; Mateo, C. The Role of Employees' Work Patterns and Office Type Fit (and Misfit) in the Relationships Between Employee Well-Being and Performance. *Environ. Behav.* **2018**. [CrossRef]

35. Abdulrab, M.; Zumrah, A.R.; Almaamari, Q.; Al-Tahitah, A.N.; Isaac, O.; Ameen, A. The role of psychological empowerment as a mediating variable between perceived organizational support and organizational citizenship behaviour in Malaysian higher education institutions. *Int. J. Manag. Hum. Sci.* **2018**, *2*, 1–14.

36. Di Fabio, A. The psychology of sustainability and sustainable development for well-being in organizations. *Front. Psychol.* **2017**, *8*, 1534. [CrossRef] [PubMed]

37. Walumbwa, F.O.; Wernsing, T. From transactional and transformational leadership to authentic leadership. *Oxf. Handb. Leadersh.* **2012**, *6*, 392–400.

38. Antonakis, J.; Bastardoz, N.; Liu, Y.; Schriesheim, C.A. What makes articles highly cited? *Leadersh. Q.* **2014**, *25*, 152–179. [CrossRef]

39. Dinh, J.E.; Lord, R.G.; Gardner, W.L.; Meuser, J.D.; Liden, R.C.; Hu, J. Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *Leadersh. Q.* **2014**, *25*, 36–62. [CrossRef]

40. Diaz-Saenz, H.R. Transformational leadership. *Sage Handb. Leadersh.* **2011**, *5*, 299–310.

41. Barrick, M.R.; Thurgood, G.R.; Smith, T.A.; Courtright, S.H. Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Acad. Manag. J.* **2015**, *58*, 111–135. [CrossRef]

42. Jiang, W.; Zhao, X.; Ni, J. The impact of transformational leadership on employee sustainable performance: The mediating role of organizational citizenship behavior. *Sustainability* **2017**, *9*, 1567. [CrossRef]

43. Butar, I.D.B.; Sendjaya, S.; Pekerti, A.A. Transformational Leadership and Follower Citizenship Behavior: The Roles of Paternalism and Institutional Collectivism. In *Leading for High Performance in Asia*; Springer: Berlin, Germany, 2019; pp. 19–40.

44. Buil, I.; Martínez, E.; Matute, J. Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *Int. J. Hosp. Manag.* **2019**, *77*, 64–75. [CrossRef]

45. Puni, A.M. Ibrahim Asamoah, Emmanuel Transformational leadership and job satisfaction: The moderating effect of contingent reward. *Leadersh. Organ. Dev. J.* **2018**, *39*, 522–537. [CrossRef]

46. Kossek, E.E.; Petty, R.J.; Bodner, T.E.; Perrigino, M.B.; Hammer, L.B.; Yragui, N.L.; Michel, J.S. Lasting impression: Transformational leadership and family supportive supervision as resources for well-being and performance. *Occup. Health Sci.* **2018**, *2*, 1–24. [CrossRef]

47. Bowers, E.K.A. Transformational Leadership An Analysis of Effects on Employee Well-Being. *J. Integr. Stud.* **2019**, *11*, 1–9.

48. Kim, B.J.; Kim, T.H.; Jung, S.Y. How to enhance sustainability through transformational leadership: The important role of employees' forgiveness. *Sustainability* **2018**, *10*, 2682. [CrossRef]

49. Pradhan, S.; Jena, L.K. Does Meaningful Work Explains the Relationship Between Transformational Leadership and Innovative Work Behaviour? *Vikalpa* **2019**, *44*, 30–40. [CrossRef]

50. Jha, S. Transformational leadership and psychological empowerment: Determinants of organizational citizenship behavior. *South Asian J. Glob. Bus. Res.* **2014**, *3*, 18–35. [CrossRef]

51. Seibert, S.E.; Wang, G.; Courtright, S.H. Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *J. Appl. Psychol.* **2011**, *96*, 981. [CrossRef]

52. Maynard, M.T.; Gilson, L.L.; Mathieu, J.E. Empowerment—Fad or fab? A multilevel review of the past two decades of research. *J. Manag.* **2012**, *38*, 1231–1281. [CrossRef]

53. Blau, P. Power and Echange in Social Life. Available online: https://www.google.com.hk/url?sa=t&rct= j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjFw5eEyqfmAhVXfd4KHV56BIMQFjAAegQIAxAC& url=http%3A%2F%2Fwww.garfield.library.upenn.edu%2Fclassics1989%2FA1989CA26300001.pdf&usg= AOvVaw0zjJ2L0KC8S4GzzyJRq0Lv (accessed on 28 June 2019).

54. Podsakoff, P.M.; MacKenzie, S.B.; Moorman, R.H.; Fetter, R. Transformational leader behaviors and their effects on followers trust in leader, satisfaction, and organizational citizenship behaviors. *Leadersh. Q.* **1990**, *1*, 107–142. [CrossRef]

55. Bass, B.M.; Leadership, T. *Industry, Military and Educational Impact*; Lawrence Erlbaum Associates, Inc.: Mahwah, NJ, USA, 1998.

56. Spreitzer, G.M. Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Acad. Manag. J.* **1995**, *38*, 1442–1465.

57. Afsar, B.; FBadir, Y.; Bin Saeed, B. Transformational leadership and innovative work behavior. *Ind. Manag. Data Syst.* **2014**, *114*, 1270–1300. [CrossRef]

58. Pradhan, R.K.; Panda, M.; Jena, L.K. Transformational leadership and psychological empowerment: The mediating effect of organizational culture in Indian retail industry. *J. Enterp. Inf. Manag.* **2017**, *30*, 82–95. [CrossRef]

59. Dvir, T.; Eden, D.; Avolio, B.J.; Shamir, B. Impact of transformational leadership on follower development and performance: A field experiment. *Acad. Manag. J.* **2002**, *45*, 735–744.

60. Bass, B.M.; Riggio, R.E. *Transformational Leadership*; Lawrence Erlbaum Associates, Inc.: Mahwah, NJ, USA, 2006.

61. Shamir, B.; House, R.J.; Arthur, M.B. The motivational effects of charismatic leadership: A self-concept based theory. *Organ. Sci.* **1993**, *4*, 577–594. [CrossRef]

62. Conger, J.A.; Kanungo, R.N. *Charismatic Leadership in Organizations*; Sage Publications: Thousand Oaks, CA, USA, 1998.

63. Kovjanic, S.; Schuh, S.C.; Jonas, K. Transformational leadership and performance: An experimental investigation of the mediating effects of basic needs satisfaction and work engagement. *J. Occup. Organ. Psychol.* **2013**, *86*, 543–555. [CrossRef]

64. Chen, Y.S.; Chang, C.H.; Lin, Y.H. Green Transformational leadership and green performance: The mediation effects of green mindfulness and green self-efficacy. *Sustainability* **2014**, *6*, 6604–6621. [CrossRef]

65. Walumbwa, F.O.; Hartnell, C.A. Understanding transformational leadership–employee performance links: The role of relational identification and self-efficacy. *J. Occup. Organ. Psychol.* **2011**, *84*, 153–172. [CrossRef]

66. Arnold, K.A.; Turner, N.; Barling, J.; Kelloway, E.K.; McKee, M.C. Transformational leadership and psychological well-being: The mediating role of meaningful work. *J. Occup. Health Psychol.* **2007**, *12*, 193. [CrossRef]

67. May, D.R.; Gilson, R.L.; Harter, L.M. The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *J. Occup. Organ. Psychol.* **2004**, *77*, 11–37. [CrossRef]

68. Yasin Ghadi, M.; Fernando, M.; Caputi, P. Transformational leadership and work engagement: The mediating effect of meaning in work. *Leadersh. Organ. Dev. J.* **2013**, *34*, 532–550. [CrossRef]

69. Pierce, J.L.; Gardner, D.G.; Cummings, L.L.; Dunham, R.B. Organization-based self-esteem: Construct definition, measurement, and validation. *Acad. Manag. J.* **1989**, *32*, 622–648.

70. Gardner, D.G.; Pierce, J.L. Self-esteem and self-efficacy within the organizational context: An empirical examination. *Group Organ. Manag.* **1998**, *23*, 48–70. [CrossRef]

71. Piccolo, R.F.; Colquitt, J.A. Transformational leadership and job behaviors: The mediating role of core job characteristics. *Acad. Manag. J.* **2006**, *49*, 327–340. [CrossRef]

72. Alzayed, M.; Jauhar, J.; Mohaidin, Z. The mediating effect of affective organizational commitment in the relationship between organizational justice and organizational citizenship behavior: A conceptual model. *Asian Soc. Sci.* **2017**, *13*, 165. [CrossRef]

73. Kernodle, T.A.; Noble, D. Organizational citizenship behavior: Its importance in academics. *Am. J. Bus. Educ.* **2013**, *6*, 235–240. [CrossRef]

74. Randhawa, G.; Kaur, K. An empirical assessment of impact of organizational climate on organizational citizenship behaviour. *Paradigm* **2015**, *19*, 65–78. [CrossRef]

75. Kehoe, R.R.; Wright, P.M. The impact of high-performance human resource practices on employees' attitudes and behaviors. *J. Manag.* **2013**, *39*, 366–391. [CrossRef]

76. Podsakoff, N.P.; Whiting, S.W.; Welsh, D.T.; Mai, K.M. Surveying for "artifacts": The susceptibility of the OCB–performance evaluation relationship to common rater, item, and measurement context effects. *J. Appl. Psychol.* **2013**, *98*, 863. [CrossRef]

77. Choudhary, A.I.; Akhtar, S.A.; Zaheer, A. Impact of transformational and servant leadership on organizational performance: A comparative analysis. *J. Bus. Ethics* **2013**, *116*, 433–440. [CrossRef]

78. Kim, Y.J.; Van Dyne, L.; Kamdar, D.; Johnson, R.E. Why and when do motives matter? An integrative model of motives, role cognitions, and social support as predictors of OCB. *Organ. Behav. Hum. Decis. Process.* **2013**, *121*, 231–245. [CrossRef]

79. Spreitzer, G.M.; Kizilos, M.A.; Nason, S.W. A dimensional analysis of the relationship between psychological empowerment and effectiveness satisfaction, and strain. *J. Manag.* **1997**, *23*, 679–704.

80. Peccei, R.; Rosenthal, P. Delivering customer-oriented behaviour through empowerment: An empirical test of HRM assumptions. *J. Manag. Stud.* **2001**, *38*, 831–857. [CrossRef]

81. Yusof, J.; Yaacob, H.F.; Rahman, S.A.A. The Effects of Psychological Empowerment on Organisational Citizenship Behaviour among Malaysian Nurses. *Manag. Res. Spectr.* **2019**, *9*, 48–53.

82. Noranee, S.; Abdullah, N.; Mohd, R.; Khamis, M.R.; Aziz, R.A.; Som, R.M.; Ammirul, E.A.M. The Influence of Employee Empowerment on Organizational Citizenship Behavior. In Proceedings of the 2nd Advances in Business Research International Conference, Langkawi, Malaysia, 16–17 November 2016.

83. Byaruhanga, I.; Othuma, B.P. Enhancing organizational citizenship behavior: The role of employee empowerment, trust and engagement. In *Entrepreneurship and SME Management Across Africa*; Springer: Berlin, Germany, 2016; pp. 87–103.

84. MacKenzie, S.B.; Podsakoff, P.M.; Rich, G.A. Transformational and transactional leadership and salesperson performance. *J. Acad. Mark. Sci.* **2001**, *29*, 115. [CrossRef]

85. Hannah, S.T.; Schaubroeck, J.M.; Peng, A.C. Transforming followers' value internalization and role self-efficacy: Dual processes promoting performance and peer norm-enforcement. *J. Appl. Psychol.* **2016**, *101*, 252. [CrossRef] [PubMed]

86. Pandey, S.K.; Davis, R.S.; Pandey, S.; Peng, S. Transformational leadership and the use of normative public values: Can employees be inspired to serve larger public purposes? *Public Adm.* **2016**, *94*, 204–222. [CrossRef]

87. Pieterse, A.N.; Van Knippenberg, D.; Schippers, M.; Stam, D. Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment. *J. Organ. Behav.* **2010**, *31*, 609–623. [CrossRef]

88. Hirak, R.; Peng, A.C.; Carmeli, A.; Schaubroeck, J.M. Linking leader inclusiveness to work unit performance: The importance of psychological safety and learning from failures. *Leadersh. Q.* **2012**, *23*, 107–117. [CrossRef]

89. Simola, S.; Barling, J.; Turner, N. Transformational leadership and leaders' mode of care reasoning. *J. Bus. Ethics* **2012**, *108*, 229–237. [CrossRef]

90. Siegall, M.; Gardner, S. Contextual factors of psychological empowerment. *Pers. Rev.* **2000**, *29*, 703–722. [CrossRef]

91. Haider, S.; de Pablos Heredero, C.; Ahmed, M. A three-wave time-lagged study of mediation between positive feedback and organizational citizenship behavior: The role of organization-based self-esteem. *Psychol. Res. Behav. Manag.* **2019**, *12*, 241. [CrossRef]

92. Wat, D.; Shaffer, M.A. Equity and relationship quality influences on organizational citizenship behaviors: The mediating role of trust in the supervisor and empowerment. *Pers. Rev.* **2005**, *34*, 406–422. [CrossRef]

93. Gouldner, A.W. The norm of reciprocity: A preliminary statement. *Am. Sociol. Rev.* **1960**, *1*, 161–178. [CrossRef]

94. Bass, B.M. Two decades of research and development in transformational leadership. *Eur. J. Work Organ. Psychol.* **1999**, *8*, 9–32. [CrossRef]

95. Walsh, M.; Dupre, K.; Arnold, K.A. Processes through which transformational leaders affect employee psychological health. *Ger. J. Hum. Resour. Manag.* **2014**, *28*, 162–172. [CrossRef]

96. Dust, S.B.; Resick, C.J.; Mawritz, M.B. Transformational leadership, psychological empowerment, and the moderating role of mechanistic–organic contexts. *J. Organ. Behav.* **2014**, *35*, 413–433. [CrossRef]

97. Hedge, A. The open-plan office: A systematic investigation of employee reactions to their work environment. *Environ. Behav.* **1982**, *14*, 519–542. [CrossRef]

98. Brennan, A.; Chugh, J.S.; Kline, T. Traditional versus open office design: A longitudinal field study. *Environ. Behav.* **2002**, *34*, 279–299. [CrossRef]

99. Geen, R.G.; Gange, J.J. Drive theory of social facilitation: Twelve years of theory and research. *Psychol. Bull.* **1977**, *84*, 1267. [CrossRef]

100. Dunbar, C.G.; Li, Z.F.; Shi, Y. Corporate social responsibility and CEO risk-taking incentives. *SSRN* **2017**. [CrossRef]

101. Li, Z.; Minor, D.B.; Wang, J.; Yu, C. A learning curve of the market: Chasing alpha of socially responsible firms. *J. Econ. Dyn. Control* **2019**, *109*, 103772. [CrossRef]

102. Organ, D.W.; Konovsky, M. Cognitive versus affective determinants of organizational citizenship behavior. *J. Appl. Psychol.* **1989**, *74*, 157. [CrossRef]

103. Tziner, A.; Sharoni, G. Organizational citizenship behavior, organizational justice, job stress, and workfamily conflict: Examination of their interrelationships with respondents from a non-Western culture. *Rev. Psicol. Trab. Organ.* **2014**, *30*, 35–42. [CrossRef]

104. Farid, T.; Iqbal, S.; Ma, J.; Castro-González, S.; Khattak, A.; Khan, M.K. Employees' perceptions of CSR, work engagement, and organizational citizenship behavior: The mediating effects of organizational justice. *Int. J. Environ. Res. Public Health* **2019**, *16*, 1731. [CrossRef] [PubMed]

105. Allen, T.J.; Gerstberger, P.G. A field experiment to improve communications in a product engineering department: The nonterritorial office. *Hum. Factors* **1973**, *15*, 487–498. [CrossRef]

106. Zahn, G.L. Face-to-face communication in an office setting: The effects of position, proximity, and exposure. *Commun. Res.* **1991**, *18*, 737–754. [CrossRef]

107. Sundstrom, E.; Burt, R.E.; Kamp, D. Privacy at work: Architectural correlates of job satisfaction and job performance. *Acad. Manag. J.* **1980**, *23*, 101–117.

108. Brookes, M.J.; Kaplan, A. The office environment: Space planning and affective behavior. *Hum. Factors* **1972**, *14*, 373–391. [CrossRef]

109. Fisher, C.D. Why do lay people believe that satisfaction and performance are correlated? Possible sources of a commonsense theory. *J. Organ. Behav. Int. J. Ind. Occup. Organ. Psychol. Behav.* **2003**, *24*, 753–777. [CrossRef]

110. Kandlousi, N.S.A.E.; Ali, A.J.; Abdollahi, A. Organizational citizenship behavior in concern of communication satisfaction: The role of the formal and informal communication. *J. Bus. Manag.* **2010**, *5*, 51. [CrossRef]

111. Bolino, M.C. Citizenship and impression management: Good soldiers or good actors? *Acad. Manag. Rev.* **1999**, *24*, 82–98. [CrossRef]

112. Konovsky, M.A.; Pugh, S.D. Citizenship behavior and social exchange. *Acad. Manag. J.* **1994**, *37*, 656–669.

113. Bowler, W.M. Organizational Goals Versus the Dominant Coalition: A Critical View of the Value of Organizational Citizenship Behavior. *J. Behav. Appl. Manag.* **2006**, *7*, 258–273.

114. Banbury, S.P.; Berry, D.C. Office noise and employee concentration: Identifying causes of disruption and potential improvements. *Ergonomics* **2005**, *48*, 25–37. [CrossRef] [PubMed]

115. De Croon, E.; Sluiter, J.; Kuijer, P.P.; Frings-Dresen, M. The effect of office concepts on worker health and performance: A systematic review of the literature. *Ergonomics* **2005**, *48*, 119–134. [CrossRef] [PubMed]

116. Di Blasio, S.; Strepi, L.; Puglisi, G.E.; Astolfi, A. A Cross-Sectional Survey on the Impact of Irrelevant Speech Noise on Annoyance, Mental Health and Well-being, Performance and Occupants' Behavior in Shared and Open-Plan Offices. *Int. J. Environ. Res. Public Health* **2019**, *16*, 280. [CrossRef] [PubMed]

117. Open-Plan Offices are Not Inherently Bad—You are Probably Using Them Wrong. 2019. Available online: http://theconversation.com/open-plan-offices-are-not-inherently-bad-youre-probably-just-using-them-wrong-113689 (accessed on 28 June 2019).

118. Podsakoff, P.M.; MacKenzie, S.B.; Podsakoff, N.P. Sources of method bias in social science research and recommendations on how to control it. *Annu. Rev. Psychol.* **2012**, *63*, 539–569. [CrossRef]

119. Brislin, R.W. Translation and content analysis of oral and written materials. *Methodology* **1980**, *5*, 389–444.

120. Carless, S.A.; Wearing, A.J.; Mann, L. A short measure of transformational leadership. *J. Bus. Psychol.* **2000**, *14*, 389–405. [CrossRef]

121. Tsui, A.S.; Egan, T.; O'Reilly, C., III. Being different: Relational demography and organizational attachment. *Acad. Manag. Proc.* **1991**, *1*, 183–187. [CrossRef]

122. Rego, A.; Cunha, M.P.E. Organisational citizenship behaviours and effectiveness: An empirical study in two small insurance companies. *Serv. Ind. J.* **2008**, *28*, 541–554. [CrossRef]

123. Browne, M.W.; Cudeck, R. Alternative Ways of Assessing Model Fit. Available online: https://journals.sagepub.com/doi/abs/10.1177/0049124192021002005 (accessed on 28 June 2019).

124. Chatterjee, S.H. AS Price, Analysis of collinear data. In *Regression Analysis by Example*; Wiley: Hoboken, NJ, USA, 2006; pp. 143–174.

125. Aiken, L.S.; West, S.G.; Reno, R.R. *Multiple Regression: Testing and Interpreting Interactions*; Sage: Thousand Oaks, CA, USA, 1991.

126. Sijbom, R.B.; Lang, J.W.; Anseel, F. Leaders' achievement goals predict employee burnout above and beyond employees' own achievement goals. *J. Personal.* **2019**, *87*, 702–714. [CrossRef] [PubMed]

127. Steffens, N.K.; Yang, J.; Jetten, J.; Haslam, S.A.; Lipponen, J. The unfolding impact of leader identity entrepreneurship on burnout, work engagement, and turnover intentions. *J. Occup. Health Psychol.* **2018**, *23*, 373. [CrossRef] [PubMed]