# Linking Workplace Ostracism with Discretionary Work Effort: A Serial Mediation Model of the Software Industry

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#### **Abstract**

This study investigates the relationship between workplace ostracism and discretionary work effort in the software industry focusing particularly on exploring the serial mediation role of negative affect and employee silence in this dynamic. Data were gathered from 384 software engineers. Workplace ostracism, a universally observed phenomenon, has been known for its detrimental effects across various sectors. A self-administered questionnaire was used in this quantitative research, as the nature of the research was based on the self-perception of the employees. Variance-based structural equation modeling (SEM) was used to conduct the data analysis in SmartPLS 4. Our study's results showed that negative affect and employee silence mediate the relationship between workplace ostracism and discretionary work effort.

**Keywords:** discretionary work effort, workplace ostracism, negative affect, silence.

### Introduction

Discretionary work effort of employees in an organization is quite essential in many fields of work however for this research software industry was chosen based on the need for continuous changes, continuous learning, and improvement. Discretionary work effort is an individual's intrinsic motivation to work harder, faster, or more than the minimum requirement of the job (Sharafizad & Redmond, 2020). Lack of discretionary work effort can have a detrimental effect on the employees as well as on the organization especially due to competition in the market. Most studies on discretionary work effort have focused on its impact on various organizational outcomes such as enhancing job performance and earnings

(Yu & Kuo, 2023), increasing the combined outcomes of an organization, and decreasing the need for resources (Sharafizad & Redmond, 2020). Studies also show that it helps in creating a competitive advantage for the organization (Sharafizad et al., 2020) and boosts job performance and earnings (Yu & Kuo, 2023). Being voluntary is one of the aspects of discretionary work effort that leaves it totally up to the employees' will to work. It cannot be enforced through contracts and can't be made mandatory (Sharafizad & Redmond, 2020) thus there is no legal requirement to exhibit discretionary work effort. Discretionary work effort being dependent on employees themselves relies on various factors that can impact their willingness to make extra effort. One of these factors is workplace ostracism which can influence the discretionary work effort negatively (Anjum et al., 2019).

Workplace ostracism is truly an indirect, passive-aggressive form of behavior (Liu & Xia, 2016). It is ambiguous, unclear, elusive, and based on a person's perception that might not be considered true for someone else. Researches show that it generally leads to negative work behavior in the employees (Farasat et al., 2021; Mirza et al., 2020) and can also cause problems with positive work behaviors (Bashir & Nadeem, 2019; Kwan et al., 2021).

This study aimed to investigate the mechanism behind the linkage of workplace ostracism and discretionary work effort. The main theoretical contributions based on the gaps in the literature discussed above are as follows: Direct link between employee silence and discretionary work effort, serial mediation of negative affect, and employee silence between workplace ostracism and discretionary work effort in the context of the software industry.

Software development is a fast-growing industry in Pakistan and most software companies deal internationally by offering their services. The Pakistani software industry is employing a large number of people in various areas of software development. This field requires a lot of mental work that is needed for innovation, problem-solving, and even doing regular work. Increasing performance is critical for survival in the software industry (Shahzad et al., 2017). The absence of discretionary work effort can be highly detrimental to an organization's overall performance (Shoobridge, 2020). Most people not involved in discretionary work efforts feel a lack of support from their colleagues and managers and in return, they don't want to be cooperative with others either (Shoobridge, 2020).

Workplace ostracism can weaken the morale of employees and this could spill over into employee work effort (Anjum et al., 2019). This study is important in terms of enhancing the literature by creating a new model on the relationship between workplace ostracism and its consequences on discretionary work effort by studying the mechanism based on the recommendation of researchers and logical reasons. The current study observes the serial mediating roles of negative affect and employee silence to evaluate to what extent these variables affect discretionary work effort. Many studies have shown negative consequences of workplace ostracism in terms of employees' performance suffering in some way; having behavioral issues and psychological aversion reactions (Ferris et al., 2008). This study is important in the field of Human Resources and Organizational Psychology as it focuses on a person's self-effort to overcome the negative phenomena. It is also important to make the organizations realize what harm a subtle thing like workplace ostracism can result in, and how important it is for a person to contribute to the organization through the flow of knowledge and information to function effectively and help in innovation (Maqbool et al., 2019). When people don't share information and knowledge in an organization it brings

negative outcomes for the organization. Sometimes it is not done on purpose and is not intended to damage the organization in any way. Employees just stop sharing information, ideas, concerns, etc. with the people in the organization (Morrison, 2014).

#### Affective events theory

According to Affective events theory, events are the proximal cause of emotional reactions. These events which cause an emotional reaction are called affective events. People don't just remember objective facts in any event but also what it felt like and what it meant to them. When people are asked to recall the events they have experienced in the past, the ones that are recalled very vividly have some kind of emotions attached to them (Ochsner, 2000). Negative events can disrupt the expectations of the employees or can cause disagreements which can be obvious or be of a very subtle kind (Covell, 2020). Positive events cause positive, whereas negative events cause negative emotional reactions. Negative affect makes one feel that something is not right in their life (Martin & Stoner, 1996).

Negative work events lead to changes in the behavior and attitude of an individual towards the organization (Weiss & Cropanzano, 1996). Research findings have validated the premises of the Affective events theory, indicating that experiences of workplace ostracism trigger negative emotional responses, commonly referred to as "negative affect." Consequently, individuals experiencing such negative emotions tend to withhold contributions to the organization, refraining from sharing opinions, solutions, concerns, and other forms of active participation which is called employee silence. It has been suggested in previous research that negative work phenomena like lack of support from leaders or groups, as well as individual variables like negative affect, play an important role in employee silence (Madrid et al., 2015). Affective events theory also states that the consequences of a negative event are not just limited to the person but also affect the organization (Weiss & Cropanzano, 1996). Based on the sequence of the events leading to emotions resulting in behavioral changes disrupting attitude towards the organization, our study is about serial mediation starting from work events of workplace ostracism leading to negative emotions which result in employee silence thus affecting employee's discretionary work effort.

Drawing on Affective Events Theory, which has been utilized by various researchers to understand the consequences of workplace ostracism (Anjum et al., 2019; Li & Pan, 2020), we observed that while some studies directly address the negative outcomes, others delve into the emotional responses triggered by encountering adverse work events (Fatima, 2017). Based on Affective Events Theory, we hypothesized that workplace ostracism would cause emotional reactions in the form of negative affect, which led to behavioral changes in the form of employee silence. Subsequently, employee silence resulted in reduced discretionary work effort thus supporting a serial mediation mechanism. provide a framework for understanding how events in the workplace, such as ostracism, can trigger emotional responses that subsequently influence behavior and outcomes. This sequential chain aligns with the broader principles of Affective Events Theory, which emphasize the cascading effects of affective states on behavior and performance.

### Discretionary work effort

Employees' hard work, conscientiousness, devotion, etc. cannot be captured in the contract.

These things can be taken as extra effort that depends on the willingness of the person to put into their work. Though initially the word discretionary work effort wasn't used, however, similar concepts have been used since 1938 by Barnard like willingness to cooperate, which was differentiated from the abilities of the employees and their effectiveness. He also wrote that the willingness to contribute is discretionary (Morris, 2009). He however did not use the term discretionary work effort or work effort directly (Gonzales, 2016). Some words like volunteer work have been used before and even in the latest papers researchers have used "discretionary work effort" and "work effort" alternatively. In 1983 the term discretionary effort was used by Yankelovich and Immerwahr (Lloyd, 2008). They defined it in terms of the difference between the maximum effort a person can offer and the minimum effort that's required to keep the job. Later other definitions of discretionary work effort have also been given by various authors such as Lloyd (2008) defined it as, voluntary effort directed toward organizational goals above the minimum work required. Work effort is taken from Industrial and organizational psychology where it refers to a collection of attentional resources that people expend on their jobs (Yeo & Neal, 2004). The attentional resources according to Yeo and Neal (2004) are persistence in work, intensity, as well as direction of the effort. Persistence of effort deals with the time characteristic of the work effort. Thus, it indicates how long a person keeps working or at least keeps trying to work on a task. Intensity deals with the level of energy used to work. In simple words, it is called as hard work. The direction involves work behavior or activities that the person does, that go in the direction of achieving organizational goals and doesn't involve the activities that are not in that direction.

Most studies have focused on the positive outcomes of discretionary work effort; however, we are more interested in studying the antecedents that can potentially hinder discretionary work effort. Organizations that give a supportive environment to the employees motivate the employees to reciprocate to the organization through their contribution towards the organization in the form of discretionary work effort (Andrews, 2022; Morris, 2009). Due to a non-supportive work environment, employees feel negative emotions like stress which impairs performance due to the unavailability of mental resources (Khalid et al., 2020). The software industry in Pakistan is a growing industry and the work done is mostly under a lot of pressure, needs to meet deadlines, and constantly requires innovation (Rashidi & Jalbani, 2009). To meet urgent deadlines, stay competitive in the market, face stressful situations, etc. we can say that the software industry is in constant need of discretionary work effort. Considering the importance of discretionary work effort, the software industry was chosen for this study.

### Workplace ostracism

Workplace ostracism is a phenomenon prevalent worldwide in workplaces and is referred to as the social exclusion, isolation, or rejection of an employee in the workplace by other employees (Laeeque & Khan, 2024). It involves intentionally or unintentionally ignoring, excluding, or shunning someone (Chung, 2017). Workplace ostracism is an undesirable social behavior and a part of a negative work environment (Ferris et al., 2008). It can bring undesired outcomes not only for the employees themselves but also for the organization they work for (Choi, 2019). It gives a feeling of lack of social support, social value, and belongingness, and thus results in the perception of lost control and feeling of loss (Ferris et

al., 2008; Molden et al., 2009). Workplace ostracism is an indirect, passive-aggressive form of behavior. It is vague, unclear, subtle, and based on a person's perception that might not be true for someone else. It generally leads to negative work behaviors (Farasat et al., 2021; Mirza et al., 2020) and causes problems with positive work behaviors (Bashir & Nadeem, 2019; Kwan et al., 2021). Ostracism is mainly perception-based and affects mental health as well as the performance of the individual. Workplace ostracism causes frustration-attack in the form of their behavior towards the organization (Liu & Xia, 2016). We can also find evidence of workplace ostracism affecting employee behavior in the field of the software industry (Shah & Hashmi, 2019).

### **Negative affect**

Human beings are considered to be emotional therefore they try to maintain relationships and avoid being excluded and rejected. Therefore, the feeling of rejection or exclusion from the workplace leads to negative emotions (Leary, 2015). Affect is a state of mind that is neuropsychological, intentionally accessible as raw feelings that are reflected in moods and emotions. Its characteristics include being primitive, simple, and universal (Russell, 2003). Negative affect is a tendency to experience negative emotions (Watson et al., 1988). It is quite normal to feel negative emotions when faced with negative behavior from others. In management research, the term Negative affect is used in terms of feeling or experiencing negative emotions (Bland, 2017). Negative affect is a general dimension dealing with distress and unpleasant experiences that result in negative emotions like anger, hatred, disgust, guilt, nervousness, fear, etc. (Watson et al., 1988).

#### **Employee silence**

Pinder and Harlos (2001) stated that silence is any kind of concealment of the actual expression of one's behavioral, cognitive, and emotional evaluations of organizational situations towards the people they perceive as having the power or capability to change or remedy the situation. Organizations need a flow of knowledge and information to function effectively and help in innovation (Maqbool et al., 2019). Hence, if individuals withhold information and knowledge within the organization, it can lead to adverse consequences for the organization (Hao et al., 2022). Employees' silence can not only cause harm to other employees and their superiors but also to the organization as a whole (Jyxhel Spahi, 2024). It reduces the potential for innovation, creativity, and learning at work, and affects organizational success (Beheshtifar et al., 2012).

This research contributes to the theory of workplace ostracism and discretionary work effort by studying the mechanism behind the relationship of the said constructs. At a practical level, it can help the employees realize the importance of discretionary work effort at the workplace. At the individual level, it can help to find a coping strategy for facing workplace ostracism, minimizing its effect so it does not lower their work effort.

### Model of the research

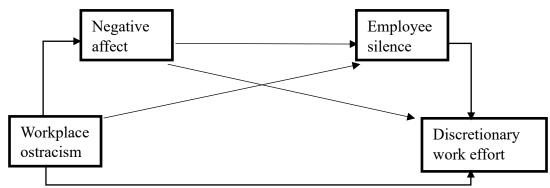


Figure 1: Model of the research

### Workplace ostracism and discretionary work effort

Ostracism is "a dark phenomenon within organizations" (Zhu et al., 2017). It is also known that it lowers self-esteem which in turn makes the people facing ostracism less likely to be involved in helpful work behaviors (Ferris et al., 2008). Discretionary work effort is an essential part of the performance domain and it has positive implications for organizations, therefore whatever is detrimental to performance can also affect discretionary work effort negatively (Anjum et al., 2021). Thus, we expected that ostracism negatively affect discretionary work effort as well. Shah and Hashmi (2019) examined the existence of workplace ostracism in the software industry. The importance of innovation, the constant pressure of meeting deadlines (Rashidi & Jalbani, 2009), and the requirement of creativity in the software industry imply that there is a constant need for discretionary work effort in the field. Given the negative effects of ostracism based on Affective events theory we expected a negative relationship between workplace ostracism and discretionary work effort, which lead to our first Hypothesis:

H1: There is a negative relationship between workplace ostracism and discretionary work effort.

### Employee silence and discretionary work effort

Individuals' suffering also causes organizations to suffer in terms of their potential work effort (Morris, 2009). One of these phenomena which affects organizational performance in some way, is silence (Brinsfield, 2009). Organizations need a flow of knowledge and information to function effectively and help in innovation (Maqbool et al., 2019). Employee silence causes harm to the communication process in the organization thus resulting in organizational loss in monetary form and resulting in poor functioning of the organization as a whole (Beheshtifar et al., 2012; Brinsfield, 2013). As silence is a kind of backing off from an organization's concerns and affects its success (Beheshtifar et al., 2012), therefore it is logical to conclude that silence reduces the discretionary work effort of the individual toward the organization in the software industry. Silence in this case is a behavioral response to the negative event that affects the attitudinal response of discretionary work effort. So based on the pattern of silence affecting organizations negatively and support of affective event theory, we expected a negative relation between employee silence and discretionary work effort.

Based on above discussion following hypothesis was formed:

H2: There is a negative relationship between employee silence and discretionary work effort.

### Workplace ostracism, negative affect, and discretionary work effort

The software industry faces workplace ostracism (Shah & Hashmi, 2019) and a lot of stress (Riaz et al., 2017) so we expect different kinds of emotional reactions as a response to workplace ostracism in different organizations. Organizations need interaction among the people to perform effectively. Especially in organizations where tasks are interdependent, social interactions become more important for organizational as well as individual performance (LePine et al., 2000). Human beings need affiliation, maintain relationships, and need to avoid being excluded and rejected (Kwan et al., 2018). That's why there is a strong relationship between workplace events and their emotions. Negative events like workplace ostracism generate negative effects. Negative affect leads to the perception that there is no support available for them in the organization (Civitci, 2015) thus negative affect leads to decreased discretionary work effort (Anjum et al., 2019; Sakurai & Jex, 2012). Based on the above discussion following hypothesis was formed:

H3: Negative affect mediates between workplace ostracism and discretionary work effort.

### Workplace ostracism, employee silence, and discretionary work effort

Workplace ostracism is considered a stressful situation by employees. People who feel ostracized may interpret interpersonal interactions as detrimental, unpleasant, and distressing (Sahabuddin et al., 2023). As a result of this workplace ostracism, employees disengage themselves from the organization (Yao et al., 2022), and withhold their opinions, ideas, or concerns towards the organization resulting in employee silence (Morrison, 2023). Employees' silence can not only cause harm to other employees and their superiors but also to the organization as a whole. It reduces the potential for innovation, creativity, and learning at work, and affects organizational success (Beheshtifar et al., 2012). Literature shows that silence affects the person and organizations negatively (Beheshtifar et al., 2012; John & Manikandan, 2019) as it affects negatively on being concerned with the organization (Beheshtifar et al., 2012; Brinsfield, 2013) and reduces contribution towards the organization (Sethupathy et al., 2018). Employee silence can hinder employee's willingness to go above and beyond the compulsory role requirement for the organization broadly referring to discretionary work effort (Chou & Chang, 2021). Based on the said pattern we expect employee silence to mediate between workplace ostracism and discretionary work effort. H4: Employee silence mediates between workplace ostracism and discretionary work effort.

### Negative affect and employee silence as serial mediators

Workplace ostracism causes negative perceptions and reactions in some way which can be harmful for the person (Sarfraz et al., 2019) as well as their organization (Chughtai, 2008; Ferris et al., 2008). Workplace ostracism can have detrimental effects on individuals by leading to negative effects, encompassing emotions such as sadness, anger, or distress. This emotional response arises from feelings of exclusion or being ignored by colleagues or superiors, contributing to a sense of isolation and diminished well-being. Thus workplace ostracism leads to negative affect (Anjum et al., 2019; Chow et al., 2008).

Experiencing negative effects in response to workplace ostracism can lead individuals to adopt a more passive stance in the workplace like withholding opinions, concerns, or feedback. Thus negative affect leads to silence (Stouten et al., 2019) reflecting a reluctance to engage in open communication or proactive participation. The transition from negative affect to employee silence underscores the profound impact of interpersonal dynamics on individual behaviors within organizational settings. Employee silence, where individuals withhold their opinions, concerns, or feedback, can lead to detachment. When employees feel unable or unwilling to speak up, they may become less motivated to exert discretionary effort beyond their basic job requirements. (Chou & Chang, 2021).

Workplace ostracism, negative affect, employee silence, and discretionary work effort required careful examination in the software industry. In environments characterized by high levels of competition and pressure, the harmful effects of workplace ostracism may be particularly noticeable, amplifying negative affective states and inhibiting constructive engagement towards the organization. Based on the said logic backed by Affective Events Theory we expect serial mediation of negative affect and employee silence between workplace ostracism and discretionary work effort.

H5: The relationship between workplace ostracism and employee silence is serially mediated by negative affect and employee silence.

### Research design

This study follows a positivist philosophy and uses a deductive research approach. Due to time constraints, data collection was conducted at a specific moment using quantitative methods, categorizing the study as cross-sectional.

### Sample

In this study, we focused on examining the experiences of software engineers within the software industry. Our sample comprised software engineers (programmers, designers, and developers) with a minimum of one year of experience in the current organization. The survey comprises replies from 384 software engineers.

### **Statistical analysis**

Structural equation modeling (SEM) was used for data analysis in this study. Smart PLS4 software was used for data analysis.

#### Measures

This study has used reliable and valid measures to assess the constructs under study. All the scales were measured on a 5-point Likert scale.

Discretionary Work Effort:

Lloyd (2008) scale with 7 items was used to assess discretionary work effort. It includes questions like "When I work, I really exert myself to the fullest, beyond what is expected". *Workplace Ostracism:* 

The scale used to measure independent variable workplace ostracism comprises 10 items developed by Ferris et al. (2008). It includes items like, "Others ignored you at work" etc. *Negative Affect:* 

The scale that is commonly used to measure Negative Affect is taken from the PANAS scale created by Watson et al. (1988). 10 items were used to measure negative affect like upset, afraid, irritable, hostile, distressed, etc.

Employee Silence:

The scale developed by Dyne et al. (2003) with 15 items was used as a second-order construct for this study. It includes items like "I passively keep ideas about solutions to problems to myself".

#### Results

### Sample characteristics

The analysis of participant demographics revealed that 329 individuals (85.7%) were male, while 55 (14.3%) were female. The majority, 50%, belonged to the 25-29 age group, and 21.9% were in the 30-34 age bracket. The rest belonged to other age categories with much smaller percentages. Regarding occupation non managerial staff comprised of 227(59.1%), Managers 108(28.1%) and executive 49 (12.8%).

#### Measurement model

We employed a variance-based structural equation modeling (SEM) approach within SmartPLS to estimate both the measurement and structural models. Before estimating the structural paths, we conducted an assessment of the measurement model. This involved performing a confirmatory factor analysis (CFA) to evaluate the reliability and construct validity of the measurement scales. The composite reliability, and average variance extracted (AVE) values for all constructs surpassed the threshold of 0.7 and 0.5 respectively, indicating satisfactory reliability and validity (Fornell & Larcker, 1981a). Further, all factor loadings exceeded the recommended value of >0.708(Hair et al., 2011).

Table 1. Psychometric properties of the scales

| Construct           | Indicator | Factor Loadings | Cronbach<br>Alpha | AVE   |
|---------------------|-----------|-----------------|-------------------|-------|
| Workplace ostracism | W01       | 0.747           | 0.937             | 0.642 |
|                     | W02       | 0.828           |                   |       |
|                     | W03       | 0.768           |                   |       |
|                     | W04       | 0.798           |                   |       |
|                     | W05       | 0.781           |                   |       |
|                     | W06       | 0.896           |                   |       |
|                     | WO7       | 0.759           |                   |       |
|                     | W08       | 0.839           |                   |       |
|                     | W09       | 0.705           |                   |       |
|                     | W010      | 0.873           |                   |       |
| Negative affect     | NA1       | 0.728           | 0.928             | 0.606 |
|                     | NA2       | 0.794           |                   |       |
|                     | NA3       | 0.773           |                   |       |
|                     |           | [ 332 ]         |                   |       |

|                        | NA4          | 0.805         |         |                |        |
|------------------------|--------------|---------------|---------|----------------|--------|
|                        | NA5          | 0.810         |         |                |        |
|                        | NA6          | 0.748         |         |                |        |
|                        | NA7          | 0.809         |         |                |        |
|                        | NA8          | 0.782         |         |                |        |
|                        | NA9          | 0.800         |         |                |        |
|                        | NA10         | 0.731         |         |                |        |
| Employee silence       |              |               |         |                |        |
| (Acquiescent silence   |              | 0.899         |         | 0.926          | 0.772  |
|                        | ES(AS2)      | 0.849         |         |                |        |
|                        | ES(AS3)      | 0.841         |         |                |        |
|                        | ES(AS4)      | 0.895         |         |                |        |
|                        | ES(AS5)      | 0.906         |         |                |        |
| Employee silence       |              |               |         |                |        |
| (Defensive silence)    | ES(DS1)      | 0.899         |         | 0.921          | 0.761  |
|                        | ES(DS2)      | 0.861         |         |                |        |
|                        | ES(DS3)      | 0.873         |         |                |        |
|                        | ES(DS4)      | 0.884         |         |                |        |
|                        | ES(DS5       | 0.843         |         |                |        |
| Employee silence       | 70(7001)     |               |         |                | 0 = 40 |
| (Prosocial silence)    | ES(PSS1)     | 0.836         |         | 0.899          | 0.712  |
|                        | ES(PSS2)     | 0.835         |         |                |        |
|                        | ES(PSS3)     | 0.830         |         |                |        |
|                        | ES(PSS4)     | 0.859         |         |                |        |
| _                      | ES(PSS5)     | 0.859         |         |                |        |
| Discretionary work     | DVIIII       | 0 00 <b>=</b> |         | 0 0 0 <b>=</b> | 0.505  |
| effort                 | DWE1         | 0.887         |         | 0.937          | 0.727  |
|                        | DWE2         | 0.832         |         |                |        |
|                        | DWE3         | 0.868         |         |                |        |
|                        | DWE4         | 0.818         |         |                |        |
|                        | DWE5         | 0.855         |         |                |        |
|                        | DWE6         | 0.850         |         |                |        |
|                        | DWE7         | 0.858         |         |                |        |
| Table 2: Fornell-Larck | er criterion |               |         |                | -      |
| WO                     | NA ES(AS)    | ES(DS)        | ES(PSS) | DWE            | _      |

|        | WO    | NA    | ES(AS) | ES(DS) | ES(PSS) | DWE |
|--------|-------|-------|--------|--------|---------|-----|
| WO     | 0.802 |       |        |        |         |     |
| NA     | 0.497 | 0.779 |        |        |         |     |
| ES(AS) | 0.273 | 0.428 | 0.878  |        |         |     |
| ES(DS) | 0.360 | 0.515 | 0.690  | 0.872  |         |     |
| E2(D2) | 0.360 | 0.515 | 0.690  | 0.872  |         |     |

| ES(PSS) | 0.339  | 0.319  | 0.543  | 0.596  | 0.844  |       |
|---------|--------|--------|--------|--------|--------|-------|
| DWE     | -0.388 | -0.361 | -0.305 | -0.313 | -0.318 | 0.853 |

The Fornell-Larcker criterion focuses on the comparison between the square root of AVE values and correlations of the variables. In general AVE square root values (diagonal elements in the table) of each construct should be greater than correlations (off-diagonal elements). This indicates that the latent factors are distinct and have good discriminant validity (Fornell & Larcker, 1981b)

As Employee silence is a second-order variable its loadings were found to be .866 for acquiescent silence, .903 for defensive silence, and .810 for pro-social silence. For secondorder employee silence, the results of the Fornell-Larcker criterion indicate that the square root of the average variance extracted (AVE) for each construct is greater than the correlations between the constructs, confirming discriminant validity. The values were 0.860 for employee silence, 0.853 for DWE, 0.779 for NA, and 0.802 for WO. Additionally, correlations between the constructs ranged from -0.389 to 0.497, further supporting the distinctiveness of each construct.

#### Structural model

We used a data set of 384 observations for the PLS-SEM analysis. The calculations were done in SmartPLS. Path coefficients were calculated and the following table was generated. Table 3: Hypothesis Testing

|    | - <u>7 F </u>                       |                    |              |          |
|----|-------------------------------------|--------------------|--------------|----------|
|    | Hypothesis paths                    | <b>Beta Values</b> | T statistics | P values |
| H1 | $WO \rightarrow DWE$                | -0.245             | 3.731        | 0.000    |
| H2 | $ES \rightarrow DWE$                | -0.198             | 3.264        | 0.001    |
| Н3 | $WO \rightarrow NA \rightarrow DWE$ | -0.068             | 1.987        | 0.047    |

| H2 ES $\rightarrow$ DWE -0.198 3.264 0.001   H3 WO $\rightarrow$ NA $\rightarrow$ DWE -0.068 1.987 0.047   H4 WO $\rightarrow$ ES $\rightarrow$ DWE -0.026 1.964 0.050 | H1 | $WO \rightarrow DWE$                               | -0.245 | 3.731 | 0.000 |
|--|----|--|--------|-------|-------|
| H4 W0 $\rightarrow$ ES $\rightarrow$ DWE -0.026 1.964 0.050  | H2 | $ES \rightarrow DWE$                               | -0.198 | 3.264 | 0.001 |
| -0.020 = 0.020 = 0.020   | Н3 | $WO \rightarrow NA \rightarrow DWE$                | -0.068 | 1.987 | 0.047 |
|  | H4 | $WO \rightarrow ES \rightarrow DWE$                | -0.026 | 1.964 | 0.050 |
| H5 W0 $\rightarrow$ NA $\rightarrow$ ES $\rightarrow$ DWE -0.042 2.938 0.003   | H5 | $WO \rightarrow NA \rightarrow ES \rightarrow DWE$ | -0.042 | 2.938 | 0.003 |

WO=workplace ostracism, NA=negative affect, ES=employee silence, DWE=discretionary work effort

All the above hypotheses show significant results with a p-value of .05 or less. The results support hypothesis 1 indicating a significant negative relationship between workplace ostracism and discretionary work effort ( $\beta$  = -0.245, p=0.000). -Similarly, It was hypothesized in hypothesis 2 that employee silence is negatively related to discretionary work effort which is significant and confirmed by the results ( $\beta$ = -0.198, p=0.001).

Hypothesis 3 suggested that negative affect mediates the relationship between workplace ostracism and discretionary work effort which was proved with the significant results (B= -0.068, p=0.047).

Hypothesis 4 suggested an indirect relationship between workplace ostracism and discretionary work effort mediated by employee silence. The findings reveal a statistically significant negative indirect effect ( $\beta$ = -0.026, p=0.050).

Hypothesis 5 proposed a serial mediation model involving negative affect and employee silence in the relationship between workplace ostracism and discretionary work effort. The results demonstrate a significant serial mediation effect of negative affect and employee silence ( $\beta$ = -0.042, p=0.003).

This study has significant theoretical implications for understanding the relationships between workplace ostracism, negative affect, employee silence, and discretionary work effort in the context of the software industry in Pakistan. The study confirms that workplace ostracism is negatively related to discretionary work effort, however, the link between the two variables is not just direct.

In addition to a direct link between workplace ostracism and discretionary work effort, the study reveals a complex relationship. It suggests that the impact of workplace ostracism on discretionary work effort is mediated by a sequence of concepts involving negative affect and employee silence. This understanding adds depth to the current understanding of the mechanisms through which workplace ostracism influences work outcomes. This helps in the expansion of the theoretical framework by discussing the whole mechanism through which workplace ostracism is linked with discretionary work effort.

### **Limitations of the Study**

Cross-sectional data though is valid for this research it limits the ability to establish causal relationships or observe changes over time. Quantitative data though gives a lot of information, qualitative data can capture the complexity and richness of individual experiences. Furthermore, our study's sample, composed solely of software engineers, may limit the generalizability of our findings to other professions or industries.

#### **Future directions for research**

Future researchers can do comparative studies, exploring whether the observed relationships are also applicable across various other sectors. Other industries may have distinct organizational dynamics and may show different findings. Comparative studies could offer more understanding of the industrial aspect of the research. Future research can complement the quantitative findings with qualitative exploration to capture the richness of individual experiences. Future research can also replace the mediator employee silence with variables like Voice, Employee Energy Levels: referring to physical, emotional, and cognitive energy at work, and Career Resilience, etc. The role of positive affect along with negative affect or just the role of positive affect in the model can also be used in future research. Researchers can also investigate the positive role of psychological safety, inclusion climate, and inclusive leadership in discretionary work efforts.

Addressing these future directions will not only contribute to the refinement and extension of the current study but will also provide a foundation for advancing knowledge in the field of organizational psychology and human resource management.

#### Conclusion

The main objective of this study was to investigate the relationship between workplace ostracism (WO) and discretionary work effort (DWE), focusing on serial mediation by two variables. Our findings revealed a negative relationship between WO and DWE, with negative affect and employee silence serially mediating this relationship. Organizations should focus on these variables to enhance their effectiveness, as understanding and addressing these factors are crucial for improving workplace dynamics and employee performance.

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