The Effect of Abusive Supervision Climate on B2B Sales Performance: A Moderated Mediation Model

Matthew Daniel
Abilene Christian University

Abusive supervision climate (ASC) describes what happens to third parties that witness displays of abusive supervision towards their coworkers. This study examined how an ASC impacts business-to-business (B2B) sales performance within a moderated mediation model. The data were collected through LinkedIn and audience panel services MTurk and Centiment. The results showed that the moderated mediation model explained 40% of the variance in outcome sales performance, with leader-members interdependence (LMI) as the moderator and psychological safety (PS) as the mediator. Furthermore, ASC had a significant negative effect on PS, while leader-members interdependence buffered the effect of ASC on PS. The findings from this study may help companies appreciate the broader impact an abusive supervision climate has on their sales organization. Organizations may prioritize interventions and implement policies to reduce the frequency of ASC within their B2B sales organizations, thereby fostering higher psychological safety and building high-performing sales teams.

Keywords: abusive supervision climate, business-to-business (B2B) sales, sales performance, leader-members interdependence, psychological safety, organizational justice, sales supervisors, salespeople

INTRODUCTION

B2B salespeople have complex, multi-dimensional, and boundary-spanning roles critical to an organization's bottom line. The complex and vital nature of B2B sales often creates a high-stress environment both from the top down and bottom up within the organizational hierarchy (Wo et al., 2018). Sales supervisors are susceptible to high-stress environments, which creates optimal conditions for abusive supervision to emerge. According to Tepper (2000), abusive supervision (AS) is defined as "subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (p. 178). Often, sales managers role model the same abusive behavior received by their superiors, further perpetuating the organization's cycle of abuse and cultural degradation (Rice et al., 2021).

The ability of sales supervisors to create high-performing sales teams is essential because B2B salespeople are responsible for top-line revenue at an organization and play a critical role in the success of the organizations they serve (Chaker et al., 2016). Yet, in light of the critical revenue-producing role B2B salespeople have, the occurrence of abusive supervision (AS) is a significant problem that can negatively impact the financial welfare and subjective well-being of organizations and their employees (Mackey et al., 2017; Vogel & Bolino, 2020). Despite the low occurrence (10% to 16%) of employees reporting that their supervisors regularly behave abusively, the consequences can be severe (Tepper et al., 2004, 2017; Vogel...
Abusive supervision compounds salespeople's stress and encourages unethical behavior, as exemplified in the Wells Fargo scandal involving unethical leadership and sales practices resulting in three billion dollars paid in legal settlements (Badrinarayanan et al., 2019; Flitter, 2020; Lyngdoh et al., 2021). Left unchecked, employees subjected to sustained AS can experience lower organizational commitment, increased workplace deviance, decreased job satisfaction, increased turnover intent, and even posttraumatic stress disorder (Eissa et al., 2020; Gabler & Hill, 2015; Schwepker, 2017; Vogel & Bolino, 2020; Zhu & Zhang, 2019.)

Unethical leadership behavior is especially harmful to sales performance (Badrinarayanan et al., 2019; Gabler et al., 2014). AS, considered a form of unethical leadership, decreases job satisfaction and organizational commitment for both the salesperson and sales supervisor, further amplifying the harmful effects (Gabler et al., 2014). Nevertheless, the archetype of the hard-charging, take no prisoners, verbally abusive sales supervisor as a results-oriented approach (a.k.a. good manager) persists (Gabler & Hill, 2015; Seppälä, 2014). The persistent nature of abusive sales supervisors also implies that organizations may still have a cultural tendency to seek out these aggressive or abusive supervisors because of their motivation techniques, thereby failing to recognize the longer-term consequences of abusive leader behavior (Gabler et al., 2014).

The B2B sales landscape is becoming more complex and requires more sophisticated sales approaches. Presenting a product or service using a feature-benefit sales approach is no longer sufficient. Instead, business clients now demand that their suppliers offer more complex solutions that aggregate multiple products or services and connect to their business's workflows and processes (Böhm et al., 2020). To succeed in this highly complex environment, modern B2B salespeople must identify gaps in their clients' value streams and propose innovative solutions that combine multiple elements into a solution (Böhm et al., 2020). Given the emphasis on sales performance in B2B sales organizations, leadership plays a critical role in creating a positive and ethical environment where salespeople can perform to their full potential more sustainably with decreased risk of burnout and turnover (Badrinarayanan et al., 2019; Gabler et al., 2014).

Research has shown that preventing the cycle of AS is possible, creating an opportunity for a more positive, ethical, and psychologically safe environment to emerge (Edmondson, 1999; Taylor et al., 2019). When an organization's level of abusive supervision decreases, psychological safety improves, resulting in increases in collaboration and innovative thinking that is critical in the complex B2B selling environment (Edmondson, 1999; Liu et al., 2016; Mawritz et al., 2012; Restubog et al., 2011). Therefore, the purpose of this correlational study was to examine the effect an abusive supervision climate has B2B sales performance, the mediating role of psychological safety and if leader-members interdependence moderated the relationship.

THEORETICAL BACKGROUND

This study sought to understand the importance of reducing an ASC and promoting a psychologically safe environment as a pathway to innovation and creative problem-solving, allowing salespeople and their organizations to perform at higher levels. Figure 1 illustrates the conceptual model, including individual, dyad, and group-level interactions.
The Trickle-Down Effect of Social Learning

Social learning theory explains human behaviors as learned through observation or interaction with others (Badrinarayanan et al., 2019; Bandura, 1977). The trickle-down effect of social learning explains how behaviors are learned starting at a higher level in the organizational hierarchy, and those behaviors are perpetuated down the organization by their subordinates (Mawritz et al., 2012). For example, the trickle-down theory can help explain the domino effect of an abusive supervisory climate that can ripple throughout the organization polluting the culture and creating a toxic workplace (Badrinarayanan et al., 2019).

Abusive supervisors and their relative position of authority are likely to be considered role models by subordinates (Wo et al., 2018). In sales leadership, the amplifying effects of abusive or unethical practices have been shown to harm sales performance (Badrinarayanan et al., 2019). The trickle-down effect, therefore, is important to understand the full impact on an organization from an ASC, as it ripples through the organization rather than in an isolated supervisor-employee dyad (Mawritz et al., 2012; Wo et al., 2018).

Organizational Justice

Organizational justice theory has been a fundamental construct used to explain outcomes resulting from abusive supervision and unethical or unjust behavior (Rousseau & Aubé, 2018). In addition, organizational justice is critical in explaining employee attitudes and behavior and is fundamental to explaining sales performance (Manzoor et al., 2012). On the contrary, organizational injustice may manifest as abusive behavior such as mistreatment, verbal abuse, or sabotage. Furthermore, salespeople are acutely sensitive to organizational justice since it impacts how they are compensated, evaluated, and viewed.

Within the sales function, many external factors can influence performance. Any perceived injustice a salesperson feels compared to their peers can result in lowered motivation and sales performance (Chang & Dubinsky, 2005). When salespeople perceive unfair treatment, their attitudes and behavior may suffer (Mitchell & Ambrose, 2007). Furthermore, abusive supervisory decisions (i.e., setting quotas higher for salespeople they do not like) that negatively impact a salesperson can be seen as unfair and negatively influence extrinsic and intrinsic motivation (Deci et al., 2017; Manzoor et al., 2012). Conversely, when salespeople perceive others being treated more favorably (i.e., the supervisor giving extra incentives to their favorite salesperson), this can also negatively affect the organization, resulting in decreased organizational commitment and performance (Böhm et al., 2020).

Justice Climate

Most research on organizational justice focuses on the individual (Li & Cropanzano, 2009). However, climate research on justice focuses on a workgroup's overall sense of justice. Justice climate is defined as "a shared group-level cognition regarding the degree of fairness perceived by a unit as a whole" (Ambrose et al., 2021, p. 80) and is a valuable construct for assessing individual perceptions and group outcomes. The level or degree of justice climate within a group is primarily influenced by social learning via a vis role-modeling behaviors of influential individuals (Ambrose et al., 2021; Schneider et al., 2017). Therefore, a

FIGURE 1
CONCEPTUAL MODEL OF THE STUDY

Abusive Supervision Climate ———> Psychological Safety

Leader-Member Interdependence ———> Sales Performance

Justice Climate
healthy justice climate promotes fair coworker behavior that promotes positive outcomes such as organizational citizenship behavior (OCB) and group engagement (Ambrose et al., 2021). Consequently, in a tight, controlling workgroup structure, the perceived level of justice climate decreases (Ambrose et al., 2021).

**Abusive Supervision**

Abusive supervision (AS) has garnered increasing attention since Tepper's (2000) seminal research, and much has been learned about the serious consequences abusive supervision has on organizations. Undesirable outcomes of AS include lower job satisfaction, lower employee engagement, increased stress, employee illness, absentee rates, and employee turnover, as well as decreased sales performance resulting in lower financial performance for the organization (Gabler & Hill, 2015; Gabler et al., 2014; Lyngdoh et al., 2021; Schilling, 2009). Less obvious are the negative consequences AS has on knowledge sharing, proactiveness, and solution-oriented thinking that are essential for success in complex B2B sales (Böhm et al., 2020; Rui et al., 2021; Zhu & Zhang, 2019).

Some studies suggest that the rate of AS may be higher in specific fields, such as athletics, where rates of abusive supervision may be up to three times higher than the industry average of approximately 10% (Tepper et al., 2017; Yukhymenko-Lescroart et al., 2015). The possibility exists that the field of sales is yet another segment where AS is higher than average. Despite research on abusive supervision tripling (Tepper et al., 2017), very little research has looked at AS in the sales setting (Gabler & Hill, 2015; Valentine & Fleischman, 2018).

Due to the vital role, the sales function plays in an organization’s ability to compete, gain customers, and generate revenue, the importance of understanding the role of AS as a critical factor in underperforming B2B sales teams cannot be underestimated. Abusive behavior significantly impacts innovative behaviors, including problem-solving and solution orientation, essential for promoting creative ideas and solutions to the organization (Zhu & Zhang, 2019).

**Abusive Supervision Climate**

Abusive supervision climate describes what happens to third parties that witness abusive supervision towards their coworkers (Priesemuth & Schminke, 2019). Beyond AS’s impact on the leader-employee dyad, ASC further erodes psychological safety at the sales team level, preventing the team from sharing ideas, providing feedback, engaging in dialog, and learning from each other to become more effective in their work (Priesemuth et al., 2014). Ultimately, AS and ASC’s impacts on psychological safety are detrimental to a sales organization’s learning and innovation, which is key to crafting solutions based on customer needs (Kim et al., 2020; Rousseau & Aubé, 2018).

Tepper et al. (2017) stated that a hostile organizational climate is an antecedent for abusive supervision and called for more climate-based research. To more fully understand the negative impact of abusive supervision at the team level, the construct of ASC can more accurately reflect group-level outcomes (Priesemuth et al., 2014). The present study aims to contribute to the nascent research in ASC.

**Leader-Members Interdependence**

Leader-Members Interdependence (LMI) refers to the interdependence between a team member and the team leader (Rousseau & Aubé, 2018). The construct of LMI merges Leader-Member Exchange (LMX), a dyadic relationship between leader and subordinate, and task interdependence, which explains how people rely on each other to complete a task (Rousseau & Aubé, 2018). For example, a sales supervisor may require that all customer proposals or discounts be approved before being allowed to present them to the client or before processing an order. Moreover, high leader-member interaction prevents employees from utilizing the coping strategy of avoidance because the leader requires a high level of interdependence to complete their tasks (Yagil et al., 2011).

When a leader uses a more positive leadership behavior, such as coaching, LMI creates positive outcomes through a close and healthy interaction between the supervisor and employee (Rousseau & Aubé, 2018). In contrast, an abusive supervisor requiring high LMI could also be perceived as controlling,
micromanaging, and disempowering because they use task interdependence to exert control and force interaction rather than collaboration (Rousseau & Aubé, 2018). Moreover, in abusive supervision, higher levels of LMI result in lower levels of proactive behavior, which has been shown to negatively impact innovation and performance (Rangarajan et al., 2021; Rousseau & Aubé, 2018).

Psychological Safety
Psychological safety consists of three primary components: speaking up, collaboration, and experimentation (Nembhard & Edmondson, 2011). Speaking freely and sharing opinions and ideas are necessary for organizational learning and innovation (Nembhard & Edmondson, 2011; Rogers, 2003). However, an environment conducive to psychological safety is most influenced by interpersonal relationships, group and intergroup dynamics, management style and process, and organizational norms (Kahn, 1990). Regarding interpersonal relationships and management style and process, Kahn (1990) stated that feeling supported was essential to employees establishing a sense of psychological safety at work. Edmondson (1999) also asserts that leaders who respond in a supportive fashion instead of an authoritarian or punitive approach encourage their employees to discuss and learn from mistakes.

In sales teams, sharing best practices and ideas to continue to outpace competitors or internal competition among different groups is common. In today's complex selling environment, where organizations must adapt to changing demands quickly, anything that undermines a team's ability to create new and innovative solutions puts the organization at a competitive disadvantage.

Leader behaviors are also instrumental in creating or destroying psychologically safe conditions (Detert & Burris, 2007; Tyan, 2005). Abusive supervisory behaviors are shown to fracture psychological safety inhibiting teams from learning, innovating, and performing to their potential (Priesemuth et al., 2014). For example, approachability, accessibility, inclusiveness, and openness encourage employees to speak up and share ideas, even if they might upset the status quo (Javed et al., 2019). On the other hand, abusive behaviors such as ridiculing and public shaming create an environment of fear and insecurity, making the employee feel it is too risky to themselves and their career to share creative and innovative ideas or make suggestions against the current norm (Carmeli et al., 2010; Tyan, 2005).

Organizations that build a culture around psychological safety can learn better and faster through great communication and ideas among their employees (Javed et al., 2019). Furthermore, a psychologically safe work environment fosters collaboration and innovation through experimentation in today's world of volatility, complexity, uncertainty, and ambiguity (Nembhard & Edmondson, 2011). Collaboration and experimentation can emerge where people are encouraged to communicate opinions and ideas. The ideas exchanged, especially those of employees closest to the customers (e.g., salespeople), can help organizations prevent pitfalls and identify new opportunities for learning, growth, and improvement that leadership would not otherwise have seen on their own (Edmondson, 2019).

Based on the conceptual model and underlying theoretical framework, we propose that a salesperson witnessing abusive supervision toward a salesperson on their team will impact psychological safety at the team level and, consequently, the salesperson's sales performance, and put forth the following hypotheses:

Hypothesis 1: The relationship between abusive supervision climate and outcome sales performance is mediated by psychological safety.

In addition, we propose that the level of leader-members interdependence between a salesperson and their supervisor will moderate the effect of an abusive supervision climate on psychological safety, as stated in the second hypothesis:
Hypothesis 2: The relationship between abusive supervision climate and psychological safety is moderated by leader–members interdependence.

Finally, we propose that leader-members interdependence, which explains the task interdependence between the supervisor and salesperson, will moderate the relationship between the abusive supervision climate and psychological safety, as outlined in the third hypothesis:

Hypothesis 3: The indirect effect of abusive supervision climate on outcome sales performance through psychological safety is moderated by leader–members interdependence.

METHOD

Qualtrics was utilized to create and distribute the survey via an anonymous link. Posts announcing the purpose of the study and requests for participation by B2B sales professionals were submitted on LinkedIn and through audience panel services Amazon Mechanical Turk (MTurk) and Centiment. The anonymous response setting in Qualtrics was set to active to prevent capturing IP addresses or email addresses. When a participant clicked on the anonymous survey link, they were brought to the inclusionary criteria question. If the participant was determined to be eligible to take the survey, they were directed to the informed consent page. Once an eligible participant had reviewed the informed consent and wished to participate, they were able to click "Yes, I consent" and advance to the beginning of the survey. If the participant selected "No, I do not consent" the participant was directed to a thank you message and not allowed to continue the survey. Participants that consented were then directed to the survey beginning with four demographic questions, followed by the five abusive supervision climate questions, four LMI questions, seven psychological safety questions, and five outcome sales performance questions. Participants were free to review and edit their responses until they were ready to submit the survey.

The population consisted of all actively employed non-managerial B2B sales professionals. Participants of the study included a convenience sample of full-time employed B2B salespeople.

MEASURES

The survey scales for this study included three independent variables consisting of the 5-item Abusive Supervision Climate scale (Priesemuth et al., 2014), 4-item Leader-Members Interdependence scale (Rousseau & Aubé, 2018) that measures the interdependence between a team member and the team leader, and 7-item Psychological Safety scale (Edmondson, 1999) to measure the psychological safety among the sales team. The dependent variable was the 7-item Outcome Sales Performance scale (Schwepker & Good, 2012) that measured the individual salesperson's performance outcome. All the survey instruments in the study used Likert scales. Any required permissions to use the identified instruments were obtained from the author(s) in advance. The survey instruments demonstrated a Cronbach alpha of at least .70 as a measure of reliability (Allen, 2017). Cronbach's alpha rates the internal consistency of a scale ranging from 0 to 1. The closer the value is to 1, the more consistent the scale is, with ≥ .70 as generally accepted as sufficiently reliable (Allen, 2017). However, Pallant (2001) states that Cronbach's alpha at .60 can also be considered reliable and acceptable.

Abusive Supervision Climate Scale

Based on Tepper's (2000) seminal research and Mitchell and Ambrose's (2007) five-item abusive supervision survey, the abusive supervision climate scale by Priesemuth et al. (2014) was selected for this experiment. ASC measures the impact of abusive supervision at the team level, rather than a leader-member dyad, to more fully represent the impact of the abusive supervisor at the team level through the team's collective perceptions during the sensemaking process (Priesemuth et al., 2014). Priesemuth et al. (2014) found that abusive supervision climate was a distinct construct from dyad-based abusive supervision and helped to explain group-level outcomes. An 11-factor confirmatory factor analysis (CFA) supported the
scale's discriminant validity. Further, the abusive supervision climate scale exceeded the 0.70 thresholds for within-group agreement (rwg = .87), exceeded intraclass correlation cutoff of .10 (moderate agreement) to .25 (moderate agreement) with ICC(1) and ICC(2) scores of .52 and .81 respectively, and a Cronbach alpha of .94. The results of the construct reliability and validity tests performed by Priesemuth et al., (2014) indicated that the abusive supervision climate scale meets or exceeds minimum thresholds for construct reliability and validity.

**Leader-Members Interdependence Scale**

The Leader-Members Interdependence scale (Rousseau & Aubé, 2018) is adapted from Pearce and Gregersen's (1991) task interdependence scale. LMI measures the level of interdependence required between the team leader and team members to accomplish their tasks. In other words, a high LMI requires team members to frequently interact with their team leader to complete their work, versus a low LMI requires very little interaction between team members and the team leader to complete their work. The LMI scale consists of four questions utilizing a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree, α = 0.92). Prior to Rousseau and Aubé's (2018) study, a pilot was conducted to test the reliability of LMI and resulted in a coefficient alpha of 0.96. CFA confirmed consistency among the three variables of LMI, abusive supervision, and team proactive behavior.

**Psychological Safety Scale**

Based on the seminal work by Edmondson (1999), psychological safety was measured by seven items using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree, α = .82). Discriminant validity of the scale was determined via a multitrait-multimethod matrix (Edmondson, 1999). Factor analysis between team learning behavior and team psychological safety also confirmed team psychological safety as a unique construct. The instructions in the survey asked the salesperson to rate the questions from the perspective of their sales team's peers (other salespeople reporting to the same supervisor). The 7-question scale by Edmondson (1999) focuses on the psychologically safe aspect of a supportive learning environment in a team setting. The scale measured an individual's sense of psychological safety with their team. It was important in understanding the relationship between a salesperson's coworkers that all share the same supervisor relative to the salesperson's dyadic LMI interactions with the supervisor.

**Outcome Sales Performance Scale**

Following prior research (Schwepker & Good, 2012; Sujan et al., 1994), outcome sales performance was measured by seven items using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree, α = .82), based on the framing question, how strongly do you agree or disagree with the statements below regarding your own sales performance? The outcome performance scale is well-established and frequently used in scholarly research (Behrnman & Perreault, 1982; Jaramillo et al., 2009; Sujan et al., 1994). In the Schwepker and Good (2012) study, the outcome sales performance scale reliability of .86 exceeds the minimum Cronbach alpha score of 0.70 (Schwepker & Good, 2012). The discriminant validity of 0.503 exceeded the minimum acceptable critical value of 0.50 (Schwepker & Good, 2012). Common method variance was also tested using the Harmon one-factor method and factor analysis and indicated common method variance should not be a problem (Schwepker & Good, 2012).

**RESULTS**

The survey results were gathered and consolidated into a single data file. In total, 404 surveys were returned, with 319 complete and usable responses. The data were then uploaded to SPSS for statistical analysis. Descriptive statistics were run to determine normality, linearity, and outliers. Following the analysis of the descriptive statistics, the relationship between the independent variable (abusive supervision climate), moderating variable (leader-members interdependence), mediating variable (team psychological safety), and dependent variable (outcome performance) was established utilizing Hayes PROCESS Model 7. Statistically significant relationships among the variables were established. Multiple linear regression
analysis based on a moderated mediation model was performed and validated through two sub-model tests, and bootstrap tests. Cronbach’s alpha was also calculated to determine internal consistency and reliability for the four instruments.

The results describe how ASC impacts OSP for B2B salespeople within the proposed moderated mediation model. One key finding of the statistical analysis performed on the data included a statistically significant inverse relationship between ASC and PS among B2B salespeople. Second, the results showed a statistically significant positive relationship between PS and OSP. Finally, the model’s moderating variable LMI was statistically significant as a moderating effect between ASC and PS.

Demographic questions captured age range, gender, years in current position, and the number of years in B2B sales. The largest group of respondents (48.9%) recorded an age range between 20-35, followed by 31.3% recording an age range between 36-49. Most respondents (60.5%) were male, followed by 38.6% of respondents recording female, and three participants did not respond to the question.

The percentage of respondents by industry varied widely, but all industries listed (Appendix C) were represented. Moreover, the sample was a relatively experienced group, with 69.2% having three or more years of experience and 27% with one to three years of experience. Only 3.4% of the survey respondents had been in B2B sales for less than one year.

The results in Table 1 show that ASC is correlated with LMI (0.306, \( p < 0.01 \)) and PS (-0.542, \( p < 0.01 \)). ASC is also statistically correlated with OSP, (0.094, \( p < 0.05 \)).

### TABLE 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC</td>
<td>2.77</td>
<td>1.394</td>
<td></td>
<td>(96)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LMI</td>
<td>5.30</td>
<td>1.294</td>
<td>0.306**</td>
<td>(.87)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS</td>
<td>4.67</td>
<td>.990</td>
<td>-.542**</td>
<td>-.053</td>
<td>(.60)</td>
<td></td>
</tr>
<tr>
<td>OSP</td>
<td>4.06</td>
<td>.633</td>
<td>.094*</td>
<td>.438**</td>
<td>.248**</td>
<td>(.78)</td>
</tr>
</tbody>
</table>

Notes: \( N = 319 \). ASC = Abusive Supervision Climate, LMI = Leader-Members Interdependence, PS = Psychological Safety, OSP = Outcome Sales Performance. 
*\( p < .05 \). **\( p < .01 \).

Multicollinearity diagnostics in SPSS showed that all variance inflation factor (VIF) values were below 3, indicating that the assumption was met at the most stringent level (<10 is the minimum threshold, and VIF >10 indicates potential multicollinearity) and that each variable has little to no overlap in redundancy to the other (Pallant, 2016) in predicting OSP. Additional collinearity diagnostics showed that only one condition index value > 15, indicating a possible collinearity problem. However, none have a value > 30, indicating a strong possibility of collinearity, and no variance proportions appeared with two or more values >0.9 in the same row, supporting that little to no collinearity existed between the variables.

**The Moderated Mediation Model**

The model summary output showed that the predictors (ASC & LMI) accounted for a statistically significant variation in PS with an R-square of 0.3947 and \( p < 0.001 \).

Table 2 shows the first sub-model results that ASC was a negative and significant predictor (-0.4679, s.e. = 0.0337, \( p < 0.001 \)) of PS for cases falling at the mean on LMI. LMI was a positive and significant predictor (0.1022, s.e. = 0.0385, \( p < 0.01 \)) of PS for cases falling at the mean on ASC. The combined interaction term was significant in the model (0.1129, s.e. 0.0240, \( p < 0.001 \)).
Table 2: First Sub Model Summary

<table>
<thead>
<tr>
<th>Variable</th>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>4.6040</td>
<td>.0452</td>
<td>101.7626</td>
<td>.0000</td>
<td>4.5150</td>
<td>4.6930</td>
</tr>
<tr>
<td>ASC</td>
<td>-.4679</td>
<td>.0337</td>
<td>-13.8904</td>
<td>.0000</td>
<td>-.5341</td>
<td>-.4016</td>
</tr>
<tr>
<td>LMI</td>
<td>.1022</td>
<td>.0385</td>
<td>2.6561</td>
<td>.0083</td>
<td>.0265</td>
<td>.1780</td>
</tr>
<tr>
<td>Int_1</td>
<td>.1129</td>
<td>.0240</td>
<td>4.6964</td>
<td>.0000</td>
<td>.0656</td>
<td>.1602</td>
</tr>
</tbody>
</table>

Table 3 shows the second sub-model results of OSP regressed on ASC and PS. The results demonstrate that ASC and PS accounted for a statistically significant variation of OSP (R-square = 0.1281; F(2, 316) = 23.21, p < 0.001). ASC was a positive and significant predictor of OSP (b1 = 0.1580, s.e.=0.0197, p < 0.001), and PS was also a positive and significant predictor (b2=-0.274, s.e.= 0.0452, p < 0.001.)

Table 3: Second Sub Model Summary

<table>
<thead>
<tr>
<th>Variable</th>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>2.7778</td>
<td>.1973</td>
<td>14.0772</td>
<td>.0000</td>
<td>2.3895</td>
<td>3.1660</td>
</tr>
<tr>
<td>ASC</td>
<td>.1580</td>
<td>.0296</td>
<td>5.3371</td>
<td>.0000</td>
<td>.0998</td>
<td>.2163</td>
</tr>
<tr>
<td>PS</td>
<td>.2741</td>
<td>.0417</td>
<td>6.5738</td>
<td>.0000</td>
<td>.1921</td>
<td>.3561</td>
</tr>
</tbody>
</table>

The slope for ASC on PS varies across levels of LMI, as visualized in Figure 2. The graph illustrates the moderating effect of LMI by the steepness of the slopes, one standard deviation below the mean, at the mean, and one standard deviation above the mean. Using the bootstrap confidence intervals, the data showed that zero falls outside the upper and lower bounds confidence intervals, indicating that the conditional indirect effect is statistically significant at all three levels with p < 0.001. The graph also shows that the simple slopes for the effect of ASC on PS are becoming less and less negative with increasing levels of LMI, buffering the effects of ASC on PS, therefore supporting hypothesis 2.
The Index of Moderated Mediation (IMM) can be treated as an all-purpose test for moderated mediation. Table IMM showed that zero does not fall between the bootstrapping test's lower bounds and upper bounds, supporting that moderating mediation is statistically significant. Therefore, hypothesis 3, stating that LMI moderates the indirect effect of ASC on OSP via PS, is supported.

Additional validation of the moderated mediation involved using the pairwise contrasts between the conditional indirect effects. The data showed that zero falls outside the lower and upper bounds of the bootstrapping confidence intervals, further supporting the moderated mediation model and indicating a significant difference in conditional effects between +/- one standard deviation. Figure 2 illustrates the complete model.

**FIGURE 2**

**MODERATED MEDIATION MODEL WITH COEFFICIENTS**

<table>
<thead>
<tr>
<th></th>
<th>ASC</th>
<th>TPS</th>
<th>OSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1SD</td>
<td>-0.6140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (0)</td>
<td>-0.4679</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+1SD</td>
<td>-0.3217</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.2741</td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION**

Results indicated a statistically significant inverse relationship between ASC and PS among B2B salespeople. In addition, the results showed a statistically significant and positive relationship between PS and OSP. Finally, the model's moderating variable LMI was statistically significant as a moderating effect between ASC and PS.

These findings contributed to the body of scholarly work in several ways. In a moderated mediation model, no previous research examined the relationships among abusive supervision climate, leader-members interdependence, team psychological safety, and B2B sales performance. Moreover, the study contributed to our understanding of abusive supervision climate and leader-members interdependence by examining the moderating effects of leader-members interdependence and abusive supervision climate, providing another perspective on the complex nature of abusive supervisors and their impact on their employees.

First, the study showed that ASC significantly negatively impacted psychological safety. The negative relationship implies that when salespeople are in an abusive supervision climate (they witness abusive supervision inflicted on a peer), their level of psychological safety decreases. Lower team psychological safety has been shown to lower team learning due to a lack of willingness to share ideas, express opinions, or engage in creative problem-solving (Edmondson, 1999), which can be so crucial in B2B sales (Ge, 2020; Liu et al., 2020). Psychological safety also affects team learning and innovation, critical to modern high-performing sales teams. Steps to minimize any negative impacts on PS, such as abusive supervision climates, should be taken. Further, due to the positive effect of psychological safety on outcome sales performance, additional antecedents that foster psychological safety should be encouraged to provide an environment for learning and innovation to thrive.

From a practical standpoint, organizations wishing to drive learning and innovation within their B2B sales teams should prevent an abusive supervision climate. Moreover, organizations should encourage positive leadership practices that promote psychological safety and others that foster improved sales performance. Second, organizations that encourage healthy leader-members interdependence and
collaboration between supervisor and salesperson can help to mitigate abusive supervisory climates. Interventions through training, as well as implementing policies discouraging abusive supervision practices and encouraging just and ethical behaviors, could be put in place to provide a more positive workplace for employees.

Limitations and Delimitations

Due to this study's cross-sectional nature, a causal relationship between abusive supervision climate, leader-members interdependence, psychological safety, and outcome sales performance cannot be definitively established. Future research with a longitudinal design would further validate the moderated mediation model proposed in this study.

One delimitation was that the research was quantitative only and did not include any qualitative or mixed-method data gathering. Incorporating qualitative data such as interviews of B2B salespeople and sales supervisors could have revealed additional context around the data constructs and the proposed model, providing further insights into the results (Saldaña & Omasta, 2018). An additional delimitation was limiting the independent variable to an abusive supervision climate. Adding an abusive supervision measure could have provided additional insights by differentiating groups that witnessed and experienced abusive supervision relative to those that witnessed but did not experience abusive supervision.

Recommendations for Future Research

The cross-sectional scope of this study did not establish causal relationships between the variables or the model over time. A longitudinal study design could help confirm the validity of the model and the potential for causal relationships and their effects over time. In addition, a longitudinal study may provide additional insights into the short and long-term effects of an abusive supervision climate on team psychological safety and how that may impact sales performance over the long run.

In addition to the independent variable of abusive supervision climate, adding a measure for abusive supervision to collect responses on both abusive supervision and abusive supervision climate would allow a comparison of the participant's perceptions of how their supervisor treats them versus other teammates. With the complexity of work demanding more team collaboration, innovation, and creativity, additional research should be conducted to understand how abusive supervisors impact their team's individual and group performance (Fan et al., 2020; He et al., 2021).

Leader-Members Interdependence is a relatively new construct that warrants further research, as it may explain more variance than leader-member exchange or task interdependence. LMI was introduced as a construct by Rousseau and Aubé (2018), and this article is the second peer-reviewed article examining this construct. From a practical standpoint, LMI appears to have an important role in the B2B sales supervisor/salesperson dyad because the work in B2B sales is collaborative and necessary for high-performing B2B sales teams and warrants further research.

Further research should examine constructs such as psychological safety, ethical climate, proactivity, and team helping as strategies to ameliorate abusive supervisor behaviors in B2B sales and other settings (Agnihotri & Krush, 2015; Milosevic et al., 2020; Smallfield et al., 2020). Understanding the mitigating variables of abusive supervision will allow organizations negatively impacted by this behavior to create more effective interventions and monitoring.

Gaps also exist in understanding how abusive supervision influences relational energy, job engagement, and job performance. An area ripe for investigation includes examining emotional exhaustion as an origin of abusive supervision, its relationship to the emergence of abusive supervision, and the related effects of emotional exhaustion on the supervisor's salespeople, including sales performance (Lam et al., 2017).

CONCLUSIONS

First, the study contributed to understanding an abusive supervision climate in the workplace, specifically within a B2B sales environment. Most of the current research in this field focuses on abusive supervision at the supervisor-employee dyad level and doesn't consider the impact at the team level. On the
other hand, ASC is similar to other climate constructs and encompasses employees shared experiences (Uğur & Öztürk, 2021). Therefore, the study contributed to expanding climate research on abusive supervision, bringing attention to the significant negative effect of witnessing abusive supervision.

Second, the study contributed to the B2B sales performance field, the positive influence PS has on sales performance, and the negative effect of ASC on a team's psychological safety. According to Priesemuth et al. (2014), an abusive supervisory climate "fragments the psychological safety that allows team members to seek and provide the feedback, help, and expertise that underlie its ability to learn and engage…", "which negatively affects the group's performance" (p. 1526). ASC's trickle-down (and across) effects are an essential consideration in understanding the full impact of abusive supervision on the individual and the climate it creates for those also witnessing the perceived injustice.

Third, the study contributed to the literature by testing the new construct of LMI as a moderator between ASC and PS, and answering the call to expand our understanding of how abusive supervision influences work outcomes (Mackey et al., 2017; Martinko et al., 2013). In addition, examining LMI as a moderator also answers the call for research (Oh & Farh, 2017; Tepper et al., 2017) to understand better the moderating role of relational factors on abusive supervision to outcomes.

Companies that wish to have high-performing B2B sales teams should look at implementing policies and interventions to reduce or eliminate abusive supervision and the climate it creates. For example, 360-degree evaluations and feedback systems (Day & Dragoni, 2015) could help supervisors become more aware of how their behaviors are perceived and develop higher levels of self-awareness and what is considered acceptable behavior within their organization.

A focus on leadership interventions for sales supervisors has the potential to yield significant improvements. Sales supervisors, in particular, have an especially large influence on their team's performance. Providing the sales supervisors with leadership training, especially in coaching, collaboration, and psychological safety, as well as supporting attributes such as trust and ethics, could provide the framework for sustainable growth in the sales organization. Organizations could also leverage a leadership development program to create a pipeline of high-potential leaders, grooming them for future leadership roles that support continued growth while maintaining the culture and fueling the organization's success.

The quantitative correlational study explored how an abusive supervision climate can influence sales performance within a moderated mediation model. The research achieved its purpose in understanding the mediating role of team psychological safety and moderating role of leader-members interdependence between ASC and OSP.

Despite evidence that abusive supervision and abusive supervision climate are low base rate phenomena, the severity of the impact as it trickles throughout the organization can be significant. Further, team psychological safety plays a vital role in sales performance and how companies can foster a psychologically safe environment creating a thriving environment for sales teams to interact, share, learn, and perform at increasingly higher levels. Organizations that wish to create high-performing B2B sales teams that can adapt to changing markets and customer needs, think critically, and solve new challenges would do well to minimize abusive supervision climates to allow creativity, innovation, and collaboration to emerge.

B2B sales professionals and the organizations they work with continue to experience increased competition and unprecedented external forces, such as health pandemics and disruptive technologies that can impact their performance and well-being (Rangarajan et al., 2021). The continuous pressure placed on sales organizations by senior leaders, investors, and other stakeholders to grow revenue and seek a return on capital can encourage stakeholders' short-term thinking, increase abusive supervision tactics, and muffle ideas and innovation.
REFERENCES


APPENDIX 1: SURVEY ITEMS

Abusive Supervision Climate (Priesemuth et al., 2014)
My supervisor ridicules members of my sales team
My supervisor tells members of my sales team their thoughts or feelings are stupid
My supervisor puts members of my sales team down in front of others
My supervisor makes negative comments about members of my sales team to others
My supervisor tells members of my sales team they are incompetent

Leader-Members Interdependence (Rousseau & Aubé, 2018)
To do our work we need to collaborate with our team leader
To do our work we need to coordinate our efforts with our team leader
To do our work we need to exchange information with our team leader
To do our work we need to consult our team leader

Psychological Safety (Edmondson, 1999)
If you make a mistake on this team, it is often held against you. Members of this team are able to bring up problems and tough issues
People on this team sometimes reject others for being different
It is safe to take a risk on this team.
It is difficult to ask other members of this team for help
No one on this team would deliberately act in a way that undermines my efforts
Working with members of this team, my unique skills and talents are valued and utilized

Outcome Sales Performance (Schwepker & Good, 2012)
Contributing to my company's market share
Selling high profit-margin products
Generating a high level of dollar sales
Generating sales of new company products
Exceeding sales targets

APPENDIX 2: INDUSTRY TABLE WITH AVERAGE ASC, LMI, PS, AND OSP SCORES BY INDUSTRY

<table>
<thead>
<tr>
<th>Industry</th>
<th>ASC</th>
<th>LMI</th>
<th>PS</th>
<th>OSP</th>
<th># of respondents</th>
<th>% of all respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Profit</td>
<td>4.33</td>
<td>2.88</td>
<td>2.29</td>
<td>3.90</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Education</td>
<td>4.14</td>
<td>5.79</td>
<td>4.10</td>
<td>4.25</td>
<td>12</td>
<td>4%</td>
</tr>
<tr>
<td>Finance</td>
<td>3.31</td>
<td>5.47</td>
<td>4.20</td>
<td>3.94</td>
<td>28</td>
<td>9%</td>
</tr>
<tr>
<td>Health Care</td>
<td>3.24</td>
<td>5.35</td>
<td>4.45</td>
<td>3.93</td>
<td>32</td>
<td>10%</td>
</tr>
<tr>
<td>Hospitality</td>
<td>3.09</td>
<td>5.92</td>
<td>4.67</td>
<td>4.37</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>Telecom</td>
<td>3.02</td>
<td>5.58</td>
<td>4.67</td>
<td>4.33</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.95</td>
<td>5.42</td>
<td>4.57</td>
<td>4.05</td>
<td>46</td>
<td>14%</td>
</tr>
<tr>
<td>Insurance</td>
<td>2.87</td>
<td>5.14</td>
<td>4.69</td>
<td>4.11</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>Technology</td>
<td>2.70</td>
<td>5.49</td>
<td>4.72</td>
<td>4.12</td>
<td>42</td>
<td>13%</td>
</tr>
<tr>
<td>Construction</td>
<td>2.70</td>
<td>4.84</td>
<td>5.03</td>
<td>4.07</td>
<td>25</td>
<td>8%</td>
</tr>
<tr>
<td>Energy</td>
<td>2.67</td>
<td>5.13</td>
<td>4.79</td>
<td>3.90</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>Retail</td>
<td>2.51</td>
<td>5.38</td>
<td>4.82</td>
<td>4.04</td>
<td>40</td>
<td>13%</td>
</tr>
<tr>
<td>Media</td>
<td>2.37</td>
<td>5.13</td>
<td>5.04</td>
<td>4.20</td>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>Transportation</td>
<td>2.22</td>
<td>5.29</td>
<td>5.22</td>
<td>4.00</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>Industry</td>
<td>ASC</td>
<td>LMI</td>
<td>PS</td>
<td>OSP</td>
<td># of respondents</td>
<td>% of all respondents</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Automotive</td>
<td>2.21</td>
<td>5.39</td>
<td>4.79</td>
<td>4.24</td>
<td>14</td>
<td>4%</td>
</tr>
<tr>
<td>Professional</td>
<td>2.08</td>
<td>4.60</td>
<td>5.10</td>
<td>3.88</td>
<td>12</td>
<td>4%</td>
</tr>
<tr>
<td>Utilities</td>
<td>1.93</td>
<td>5.00</td>
<td>4.57</td>
<td>4.80</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>1.91</td>
<td>5.02</td>
<td>4.81</td>
<td>4.03</td>
<td>26</td>
<td>8%</td>
</tr>
</tbody>
</table>

**APPENDIX 3: HAYES PROCESS MODEL 7**

![Diagram of Hayes Process Model 7]