Leader-Employee Dynamics: Shared Leadership on Innovative Work Behavior, Mediated by Self-Efficacy

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Abstract

Many have studied the dynamics between leaders and their employees as a team. This study however looks at the dyadic dynamic of a leader and one of their employees by use of mediation analysis. This model studies whether there is a relation between shared leadership and innovative work behavior, and if this relation is mediated by self-efficacy. The sample consists of 132 dyads (pairs of leaders and their employees) that filled in a questionnaire that corresponds with their role in the dyad. Regression analysis showed no evidence of a relation between shared leadership and innovative work behavior. Consequently, there is no evidence that self-efficacy mediates between the two variables. However, a positive relationship between shared leadership and self-efficacy was found. Contrary to prior studies that identified positive relationships between shared relationship and innovative work behavior when studied as a team, the use of a dyadic design in this study may have influenced participants' perception on the dynamics between themselves and their coworkers. Future research should further investigate factors that influence shared leadership and innovative work behavior, such as trust and team diversity.

Keywords: shared leadership, IWB, self-efficacy

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Introduction

Innovation influences an organization's capability to adapt, to change and remain competitive in changing surroundings (Beugelsdijk, 2008). Employees have an important role in these innovations (Janssen, 2000), as they generate novel and useful ideas, promote and implement them (Perry-Smith & Mannucci, 2017). Innovative activities are often perceived by the employees as an effective coping mechanism for dealing with heavy workload (West and Farr, 1989). However, Ford (1996) noted that creative engagement in work can be challenging. Innovation is important for both the organization and also for its employees, and many factors can influence this work output. For example, in pursuit of innovation and excellence, a sense of efficacy is needed (Bandura & Locke 2003). Given the significance of creativity in the working place, it is important to understand how to foster creativity and innovation within organizations.

Pinheiro Santana Ruiz et al (2024) noted that positive psychological resources, consisting of self-efficacy, hope, optimism and resilience, are pivotal to encouraging employee innovation. The resources play a role in helping employees manage the risks associated with innovation. However, further longitudinal research is needed in order to understand the long-term effects of psychological resources on employees' innovation. Furthermore, new insight can be gained by exploring positive psychological resources separately, as they can interact with organizational variables. Bos-Nehles et al (2017) noted that there is still a limited understanding of which types of practices are effective and how innovation is raised at an individual level. This is because most studies are focused on the organizational-level innovation rather than of individual employee behavior. Moreover,

contextual factors that influence innovative work behavior, such as organizational culture and leadership styles, have not been sufficiently examined.

One often overlooked factor in the study leader-employee dynamics is self-efficacy. Cognitive, motivational, affective, and selection processes can be influenced by self-efficacy. As a result, it is likely that it changes the approach to handle challenges and tasks at work (Bandura, 1997). While self-efficacy can influence the process of the performance of the employee, self-efficacy can be controlled and manipulated when managing the employee. Therefore, using self-efficacy as a mediator can give more insight in the dynamics between leader and employees.

Most researchers examine dynamics between a leader and their team, which complex group dynamics as team coordination and diversity, influence the outcome. This study instead uses a dyadic design. Specifically, this research explores the dyadic relationship between a manager and their employee, with particular attention to two key drivers of *innovative work behavior*, *shared leadership* and *self-efficacy*. Using a different design to study these dynamics may provide deeper insights on the leader-employee dynamics.

Theory and Hypothesis Development

Shared leadership and IWB

Organizations increasingly rely on teamwork, information sharing, decentralization of decision making, and a looser hierarchical structure, in order to respond to complex and dynamic environments (Daft, 2015). Adapting to turbulent environments enables teams to self-organize, share decision making, and quickly make decisions. These are components of shared leadership. Carson et al (2007) defines shared leadership as a team construct in which leadership is distributed among team members. Sharing knowledge among team members can result in them building on each other's ideas. The leader is part of the team and engaged in the team task (Morgeson et al, 2010).

Another factor influencing organizations is innovative work behavior (IWB). IWB is comprises of three components: idea generation, idea promotion, and idea realization (West & Farr, 1989). These components can be experienced and applied within a working role, group, or the organization as a whole (Kanter, 1988). Creative problem solving is not an isolated activity. It unfolds as chains wherein one innovative idea or solution serves as a stimulus for future chains of innovations and creative problem solving (Mumford & Todd, 2020). A lack of innovative ideas or low-quality ideas can have a significant impact on the long-term growth and survivability of an organization (Kock et al, 2015). IWB in context of this research entails creative problem solving.

The Social Exchange Theory (SET) (Blau, 1964) can explain the relation between shared leadership and IWB. According to SET, employees engage in reciprocal exchanges, offering support or favors to colleagues with the expectation that such favors will be returned in the future. As it requires cooperation and interdependence, interpersonal trust is a key factor for social relations. Shared leadership encourages employees to become jointly responsible, which can create a safe environment, promoting employees to share knowledge (MacIntyre, 1967).

West and Farr (1989) found that IWB is a possible outcome of shared leadership. Factors influencing this outcome include autonomy, group dynamics and organizational climate. They highlight that innovation is fostered when employees and teams openly exchange ideas, challenge assumptions, and integrating diverse viewpoints. This is in line with SET, as shared leadership helps employees share perspectives and help build on each other's ideas (Amabile et al, 1996). Sharing perspective promotes a culture of learning and collaboration that stimulates innovation, while supportive supervision provides the necessary support for employees to act on innovative ideas (Bos-Nehles and Veenendaal, 2019). Nijstad et al (2019) observed that leadership styles, that encourage independent thinking and

participation indecision making are likely to increase IWB of employees, as intellectual stimulation is fostered and psychological safety is endorsed. These findings are consistent with Oedzes et al (2018), who found that teams with evenly distributed influence among members are more likely to promote creativity. This creates an environment that supports the integration of diverse perspectives, which are crucial for creativity. Conversely, teams that concentrate leadership among few members can suppress creativity, as less influential individuals are less inclined to share ideas. This aligns with Amabile (1996) who observed that creativity is fostered by supportive supervision, autonomy, and a culture that values new ideas, while excessive control, constant evaluation, and competition can inhibit creative effort. SET supports this perspective as shared leadership requires interdependency within a team to function. The interdependency creates a safe environment, which in turn can foster creative development.

Hypothesis 1: Shared leadership is positively associated with employee innovative work behavior.

Shared leadership and Self-efficacy

Self-efficacy is defined as an individual's belief in the ability to organize and perform a task (Bandura,1977). Self-efficacy can be developed through successfully completing tasks, observing others succeeding in similar tasks, encouragement from others and positive emotional states. Bandura (1997) further explains that self-efficacy can vary in strength depending on contextual factors, such as the difficulty of the task, and persistence when facing setbacks. It also depends on the resources that build the image of oneself, successful and unsuccessful experience, observing others being successful or failing, encouragement from others, and the physiological and emotional state of a person.

The Self-Determination Theory (SDT) (Ryan & Deci, 2000) might explain the relationship between shared leadership and self-efficacy. SDT distinguishes between intrinsic

and extrinsic motivation (Ryan and Deci, 2000). Satisfaction is gained through autonomy, competence, and relatedness, which can help the development of self-determination.

Supervisors play an important role in facilitating IWB in organizations by specifying their role in building an innovative climate (De Jong & Den Hartog 2007). They indirectly influence employees' self-efficacy by fostering the intrinsic motivation by providing psychological safety and constructive feedback. Furthermore, when leaders' innovative behavior is perceived as effective and appropriate employees emulate the behavior of the leaders. This is in line with the SDT, as training, support and guidance can help raise the employees' self-esteem. The self-esteem is elevated because three psychological needs are being managed (Ryan & Deci, 2000), which can also influence the self-efficacy of an employee. Firstly, the need to be competent is managed by providing employees skills and knowledge. The need to be autonomous is fostered by coaching employees and giving the employee control over their actions and decisions, that align with their personal value. Lastly, the need to feel connected to and valued by others is nourished through coaching by providing support, and collaborative teamwork.

Hypothesis 2: shared leadership is positively associated with the employee's self-efficacy.

IWB and Self-efficacy

A key resource for creativity is intrinsic motivation. Intrinsic motivation can create self-efficacy through the need to improve one's knowledge and skills. It can help employees to explore, experiment, and generate more with novel ideas. Both competence and confidence gained through mastery can help employees to be more flexible, as well as more willing in solving problems. According to SDT intrinsic motivation can be fostered by making the employees feel competent. However, SET explains that intrinsic motivation is created when

employees feels that there is enough trust, equity and reciprocity within the working environment.

Mustafa et al (2023) found that leaders who cultivate collaborative environments directly enhance the employees' innovative work behavior. The exchange enhances self-efficacy, by means of supportive feedback, resource, provision, and autonomy. Self-assured employees are more prepared to take on and persist in innovative tasks despite the challenges it might bring. Perry-Smith (2006) emphasized the significance of environmental factors, such as supervisory support and social influences, are important antecedents to creativity in the workplace. Having infrequent interaction and low emotional closeness between leaders and employees is beneficial for the creativity of employees. Having weak ties (being acquaintances rather than friends) reduces conformity pressures, which in turn enables cognitive flexibility and autonomous thinking. This is in line with the SET. The principle of reciprocity, a mental process where a person feels obligated to return a favor (Cialdini, 2021), is less likely to be activated in weaker relationships where there is minimal perceived obligation to comply with the other. Being well-connected and having connections outside the working place is seen as a factor that improves creativity. When employees are encouraged to lead themselves and share influence with their peers in making decisions, solving problems and identifying opportunities for the future, widespread creativity and innovation is encouraged (Pearce & Manz, 2005)

Hypothesis 3: Employee's self-efficacy is positively associated with the innovative work behavior of an employee.

Self-efficacy as a mediator

The needs outlined in SDT; autonomy; competence; and relatedness (Ryan & Deci, 2000), can be met when the leader provides shared leadership. IWB can be a result of providing those needs. SET however views IWB as a reward for the leader by displaying

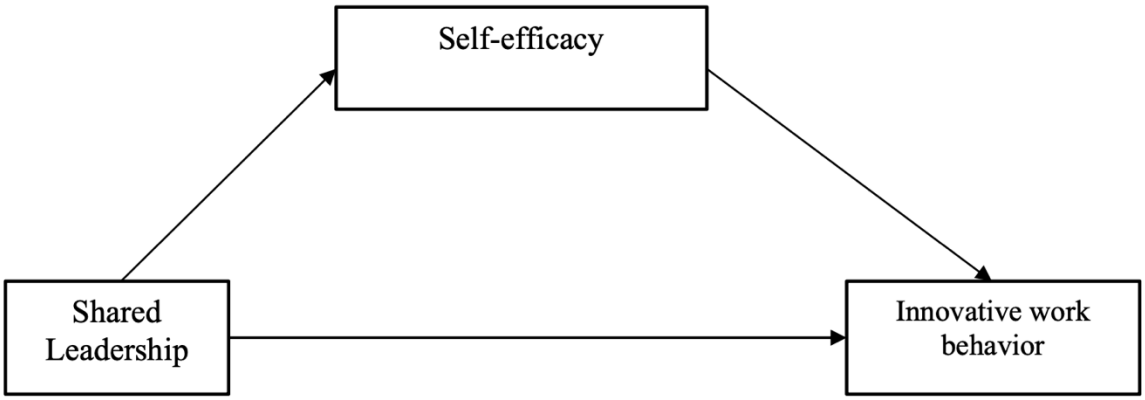
shared leadership. When the leader invests in the work relation with his or her employees by giving them more training and autonomy, employees are more likely to show IWB, to return the favor of the leader or organization (Cropanzano & Mitchell, 2005). With both SDT and SET, self-efficacy can also be affected by shared leadership. As self-efficacy can influence creativity of an employee, it is possible that self-efficacy is an intermediary between shared leadership and IWB.

Modliba et al (2024) found that employees who receive strong support from the team, and have high self-efficacy are more likely to show IWB. They noted that leader-employee exchange can promote IWB by enhancing self-efficacy of the employee. Prior studies had similar findings about self-efficacy mediating between leadership and improvisation (Nisula 2015, Gong et al 2009, Tierney and Pamela 2011, Hans & Gupta 2018). Nisula (2015) emphasized the importance of encouraging employees to manage their own learning as a driver of innovation. When team members believe in themselves shared leadership is more effective. This self-efficacy enhances engagement, motivation, and resource-sharing behaviors, resulting in better performance. Conversely, low self-efficacy can obstruct the effects of shared leadership, because members are less likely to participate fully or take initiative. Gong et al (2009) highlighted that transformational leadership – a style characterized by encouragement and motivation – positively influences employee creativity by increasing self-efficacy. Since both transformational and shared leadership focus on strengthening teamwork and employee motivation, they can be viewed as related or complementary approaches that help create supportive environments for creativity. This could indicate that there can be relation between shared leadership and innovative work behavior, which is influenced by self-efficacy.

Hypothesis 4: The self-efficacy of an employee mediates the relationship between shared leadership and the innovative work behavior of an employee

Figure 1

The effect of shared leadership on innovative work behavior, mediated by organization-based self-esteem



Methods

Participants

The participants in this study consisted of dyads, each comprising a leader and one of their employees, all working within Dutch organizations. The employees work part time for a minimum of 17 hours a week under the supervision of their respective leader. A total of 393 participants were recruited for this study. However, 129 of the participants were excluded. 67 participants did not provide a code that links to their dyad partner, and 62 participants did not have matching codes or did not complete the questionnaires. While the final sample included (n = 135) dyads (135 leaders and 135 employees), three dyads were incomplete, due to missing data on the shared leadership scale, the IWB scale, or the self-efficacy scale. Consequently, this research has (n =132) dyads (132 leaders and 132 employees). The leaders had a mean age of M = 43 with a SD = 14. 78 leaders were male and 54 Female. Regarding educational background 98 leaders have a master or bachelor's degree, 19 have an associate's degree, and 15 participants have a secondary school degree.

The employees had a mean age of $M = 43$ with a $sd = 13$. With 56 identifying as male and 75 as female. One employee did not fill in this item. Regarding educational background 72 of the employees have a master or bachelor's degree, 28 have an associate's degree and 31 have completed secondary school. 36 employees have been working for their leader for one year or less. 63 employees have been working for their leader for between one to five years. 32 employees have been working for their leader for five years or longer.

Design & Procedure

The present study is a one-wave, multi-source field study. The surveys were distributed via an online link. Both surveys were introduced with a letter drafted in Dutch for prospective participants. The leader questionnaire was different from the employee questionnaire, each had a separate link.

The questionnaire in this study was in Dutch only. Participants were asked to respond to questions concerning the work dynamic between the leader and employee, as well as the employee's work outcomes, including performance, IWB and job satisfaction. A consent form with information regarding this study; including a description of the study, eligibility criteria, and their rights and privacy. Participation was entirely voluntary, and the anonymity was assured. The committee ethics of the Psychology department of the University of Groningen (RUG) has approved the research plan. Data collecting commenced on April 2nd 2025 and ended on May the 19th 2025.

Measures

Shared leadership

Shared leadership was measured using the shared leadership scales adapted from Hoch (2013), which was filled in only by the participants that do not have a managerial function (see Figure A1). This scale is divided in three subscales: transformational leadership, individual empowering leadership, and participative leadership. All 18 statements are

measured on a 7-point Likert scale, ranging from 1 (*fully disagree*) to 7 (*fully agree*). Transformational leadership is conceptualized with the statements "My managers clearly visualize what ideals our teams represent". Individual empowering leadership is conventionalized with statements such as "My manager encourages me to learn new things". Participative leadership is conceptualized with statements such as "My manager and I decide together what my performance goals are". The complete scale, in Dutch, can be found in Appendix A. These subscales were combined into the variable shared leadership (α = .60).

IWB

This variable was assessed by using a scale adapted after Van der Vegt and Janssen's (2003) scale of innovative work behavior, which is divided in three sub-scales (α =.95): Idea-Generation, Idea-Promotion, and Idea-Realization. The scale (see Figure A2) entails nine statements measured on a 7-point Likert scale, ranging from 1 (*never*) to 7 (*always*). These statements are answered by participants that lead the employee. Idea-Generation is conceptualized with statements as: "How often does your employee devise new working methods, techniques or instruments at work." Idea-Promotion is conceptualized with statements as: "How often does your employee enthuse key players with innovative ideas." Idea-Realization is conceptualized with statements as: "How often does your employee methodically implement innovative ideas.'

Self-efficacy

Self-efficacy was measured (see Figure A3) using six items (α =.946) (Rigotti et al, 2008). Which was only filled in by participants that do not have a managerial function. The scale entails statements measured on a 7-point Likert scale, ranging from 1 (*fully disagree*) to 7 (*fully agree*). Self-efficacy is conceptualized with statements as: "When confronted with difficulty at work I remain calm, so I can appropriately use my skills".

Data Analysis

This study uses a cross-sectional design. SPSS was used to analyze the data. Linear regression analysis and mediation analysis were conducted to test the four hypotheses. The mediation analysis was conducted to test the direct and indirect effects of shared leadership on IWB with self-efficacy as the mediator. The mediator was analyzed with PROCESS macro (Hayes, 2020) model 4.

Results

Preliminary Analysis

Prior to performing the regression analysis, the data needed to be examined to ensure that the assumptions underlying regression were not violated. These conditions have been met (see appendix B). Normality of the residuals is checked through a histogram (see Figure B1), which shows a bell curve. Linearity is checked by use of a P-P plot (see Figure B2), which shows a near straight line. Heteroscedasticity is examined by using a scatterplot (see Figure B3), which shows no pattern in the plot. There is no violation of the multicollinearity assumption, as the variance inflation factors (VIF) (see Table B1) were below the threshold of 4.0, concluding that there is no risk of multicollinearity. There were some outliers, including four influential outliers with cook's distance of .1, .78, .75 and .51. (see Figure B4).

Additional analysis was conducted with the removal of the influential outliers. Removing the outlier did not affect the results (see Table B5, Table B6). However, in order to preserve the number of dyads, only the dyad with cook's distance of .1 has been removed, as removing more dyads did not change much of the results. The results must be interpreted cautiously, due to the low sample size and influential outliers.

A significant correlation was found between the variables shared leadership and self-efficacy (Table 1).

Table 1
Mean (M), Standard Deviation (SD), and Correlation between the variables

Variables	*M*	*SD*	1	2	3
1. IWB	3.87	1.18	-		

2. Shared leadership	5.54	.69	.02	-	
3. Self-efficacy	5.72	.91	-.01	.25**	-

Note. N = 132, The correlation is significant at p values <.01 (2-tailed)

Hypothesis testing

Hypothesis 1 predicted a positive association between shared leadership and IWB of the employee. 1% (R^2 = .01) of the variance of IWB of the employee can be accounted for by shared leadership. The F-value in the linear regression shows that between shared leadership and IWB there was no statistical significance, F (1,129) = 1.61, p = .2062.

Hypothesis 2 predicted a positive association between shared leadership and the self-efficacy of a person. 7 % (R^2 = .07) of the variance in self-efficacy can be explained by shared leadership. Linear regression found statistical significance with an F (1,129) = 9.84, p = .002.

Hypothesis 3 predicted a positive association between the self-efficacy of an employee and the IWB of an employee. No evidence was found to prove hypothesis 3. 2% (R^2 = .02) of the variance of IWB can be explained by self-efficacy. No statistical significance was found F (2, 128) = 1.46, p = .236.

Hypothesis 4 predicted that self-efficacy of an employee mediates between shared leadership and the innovative work behavior of an employee. The bootstrap confidence interval for the indirect effect (-.001), based on 5,000 bootstrap resamples has a lower limit of -.14 and an upper limit of .02. Because the confidence interval includes a zero no statistical significance was found.

Table 2. Results of PROCESS Mediation Analysis on IWB with removal of 1 influential outlier

Effect	Estimate	SE	t	p	LLCI	ULCI
Total Effect	.16	.12	1.27	.21	-.09	.41
Direct Effect	.2	.13	1.53	.13	-.06	.45
Indirect Effect	-.04	.04	-	-	-.14	.02

Note: N = 131. CI = 95%

Table 3. Hypotheses Testing with removal of 1 influential outlier

Hypotheses	Relationship	Estimate	t	SE	p	Conclusion
H1	SL → IWB	.16	1.27	.12	.206	Not supported
H2	SL → SE	.27	3.14	.09	.002	Supported
H3	SE → IWB	-.14	-1.14	.13	.257	Not supported
H4	SL → SE → IWB	-.01			n.s	Not supported

Note: $N = 131$. CI = 95%, $p < .05$. ** $p < .01$. *** $p < .001$.

SL = Shared leadership; SE = Self-efficacy

Discussion

With the use of SET and SDT we hypothesized that there is a relation between shared leadership and IWB. Furthermore, we also hypothesized that self-efficacy has an intermediary role in the link between shared leadership and IWB. Contrary to previous studies we found no relationship between shared leadership and IWB. We also did not find a link between self-efficacy and IWB. However, we did find a relationship between shared leader and self-efficacy. Because of the low sample size, it is important to be cautious with interpreting the results.

Theoretical implications

This study found no significant relationship between shared leadership and IWB. This contradicts prior studies, as they found a positive relation between the variables (Bos-Nehles and Veenendaal, 2019; Nijstad et al, 2019; Oedzes et al, 2018). Contrary to these studies that are focused on leader and team dynamics, this study focuses on the dynamics between a leader and one of his or her members. The differences in results might be caused by the model or design of this study.

We did find evidence supporting the relationship between shared leadership and self-efficacy. This indicates that leaders that include employees in decision making and providing help in self-management (Daft, 2015) can result in the employee's confidence in completing his or her tasks. Self-efficacy did not predict the outcome of IWB, nor did it provide evidence

for a direct or indirect effect of shared leadership on IWB. This implies that self-efficacy might not be a true mediator in this model. Consequently, other factors could influence the relation between shared leadership and IWB. Prior studies found that other variables can be influenced by shared leadership or influence IWB, such as trust (Thneibat et al, 2025; Rai & Kim, 2021; Klasmeier & Rowold, 2020) and team diversity (Du et al 2024; Wallrich et al, 2024), which could provide a better perspective on the relation between shared leadership and IWB. However, the results of this study could also suggest that there is no real effect on shared leadership and IWB. This would however contradict prior studies about the relationship between IWB (Nisula 2015, Gong et al 2009, Bos-Nehles and Veenendaal, 2019). Nijstad et al, 2019, Oedzes et al, 2019).

An explanation for not finding a relation between shared leadership and IWB might lie in the nature of working with dyadic data. The responses of the leader and employee are mutually influential, because of the dyad members' interaction and sharing of experiences (Kenny et al, 2024). The correlations of the data can become biased, standard errors can be underestimated, and there is a risk of getting a Type I error (Moore et al, 2021). In order to get more reliable results statistical power is needed, which is gained through a sufficient sample size for each dyadic member. However, recruiting a sufficient number of participants can prove to be difficult, as both the leader and the employee that forms the dyadic pair need to give consent, as well be available for the study. Often only one person of the dyadic pair is approached, which makes a potential participant also have to take the other member of the dyadic member's availability into account when deciding to participate. Unbalanced dyads, when one dyad member's data is missing, can decrease the statistical power of the model. Unbalanced dyads could introduce non-random gaps, such as selection bias: wherein dyads members that have a negative relationship would not want to participate in the study, which

may cause a skewing of the result. The small data sample used in this study might have complicated the analysis, that could have influenced the results.

Another explanation for not finding a relationship between leadership and IWB might be that the dyadic leader-employee relationship differs from team relationship. Team designs capture complex group dynamics, such as team coordination, diversity, and team functioning. There are layers to team dynamics, including sub-group dynamics, dyadic dynamics between each of the team members. These layers can influence how employees perceive the leader's approach to leadership. Employees can respond more honestly to the survey. This might be due to having their coworkers participate in the survey, which might create and increased sense of anonymity (Tang et al, 2024). Dyad designs focus only on the dynamics between dyad members. It emphasizes the quality of the relationship, which includes the trust they have for each other, communication, and the synergy. While it may feel safer when sharing personal or sensitive information due to higher intimacy and trust, it does not equate to greater anonymity. Power dynamics can influence the behavior of an employee, as they can make them less comfortable in sharing sensitive information (Szulc & King, 2022). Dyadic research can give a different result compared to a team design, because it measures different dynamics. This can indicate that there might be no relationship between shared leadership and IWB in dyadic design.

Strengths and Limitations

While this study only found a relation between shared leadership and self-efficacy, it might have shown that zooming in on the dyadic leader-employee dynamic can influence the result differently compared to using team. All of the participants were employees of Dutch organizations, which provides more insight in the dynamics between a leader and his or her employee within Dutch organizations. The participants were employed in a variety of different industries and sectors (Figure B5). Furthermore, the ages from both leaders and

employees span from 18 to 65. Both the differences in ages as well the variety of industries the participants are employed at, makes the sample more generalizable.

Despite the sample being more generalizable, because the participants are from different industries and sectors, the low sample size ($N = 132$) might have undermined the reliability of the results. As a result, there was a risk of getting Type II errors. It also made the study more vulnerable to outliers influencing the results. The dyadic nature of this study made it difficult to recruit participants, as we could not control with whom a participant will be paired with. A leader could ask any of his or her employees to participate, as the employee could do the same. A request from a leader to the employee to participate in this study yielded more results in recruiting participants compared to employees requesting their leader to participate. Employees mostly were hesitant or declined when having to ask their leaders to participate in this study. A common rejection was that the leader did not have time to participate. Another problem was there were unbalanced dyads, which resulted in data loss.

Another limitation in this study is the use of surveys. The participants might not answer truthfully, or try presenting themselves in a more positive light. There is the chance that the leader and their employee discussed the survey whilst answering the questionnaire, influencing how they answered the survey. The personal relationship between participants might also influence the result. Having a bad relationship might result in the participant putting the other half of the dyad in a negative light. This might especially be a problem with the shared relationship scale, as this scale describes part of the professional relationship between the dyad members. Another problem that might have occurred is that participants misunderstood questions, leading to inconsistent or invalid answers.

Another problem in the design is the measurement of shared leadership. While shared leadership can be defined as a collaborative leadership approach wherein responsibility, authority and influence are shared amongst several team members. The items in this study

were focused on whether the leader would encourage and inspire the employee, rather than the leader distributing responsibility and authority amongst the team members. These items are more in line with hierarchical relationships in a transformative leadership style, which is a style focused on encouraging personal growth and development. Other studies used the term shared leadership more in line with the distribution of authority amongst team members.

Future Research

For future research we propose a replication of this study. Increasing the sample size makes the outcome give the model more power, which in turn gives more reliable results. Furthermore, the data becomes more generalizable as well as more robust against outliers. This can also give more insight whether this model works in a dyadic setting. However, we do propose improvements in this study, in the form of an inclusion of a scale that addresses shared responsibility and authority. This can give more clarity whether the study is about shared leadership or transformative leadership, might be a better representation of the term shared leadership. Moreover, in this study the leaders did not fill in the shared leadership scale. This gives a one-sided perspective of the leadership style of the leader. It might be better to have the leader fill in the leader scale as well, in order to get a better perspective on the dynamic between the leader and employee.

We also propose to measure self-efficacy in a different manner. Whilst the items in the scale represents self-efficacy, it can be prone to the influence of emotional states. An event triggering an emotion, before participating in the study, can impact the feeling of self-efficacy either positively or negatively. Conducting a longitudinal test can give a more accurate view of the self-efficacy of the employee. Having the employees fill in the self-efficacy scale several times, can give a more nuanced view of their self-efficacy.

Lastly, using different factors as trust or transformational leadership and team diversity as mediators or moderators might gain more or new insights in leader-employee

dynamics. Hans & Gupta (2018) found that a climate where members feel safe to take risks strengthens team performance. While these finding show that psychological safety and diversity plays an important role in employees team output, a dyadic leader-employee study can give different results. Koh et al (2019) found that a positive effect between transformational leadership and employee creativity. When leader encourage new perspectives, challenge assumptions, and support employee development, it helps foster employees' creative thinking and innovation. In a dyadic design, our expectation is that transformational leadership will also show a positive relationship with IWB, because transformational leadership affects the employee directly. Kukenberger and D'Innocenzo (2020) found that groups with functional diversity (members with varied skills, backgrounds, or expertise) tend to distribute the leadership among the members, because they trust and rely on each member's expertise. However, in a dyadic design the diversity is not about the diversity of the other team members, it is about the employee and leader manage the functional diversity between them. Compared to team dynamics, different results might be found in a leader-employee dynamics research using diversity as mediator or moderator.

Practical Implications

Given the absence of significant results for the overall model in this study, we conclude that shared leadership does not have a direct, statistically significant effect on employees' IWB. However shared leadership can have a positive influence on self-efficacy. Shared leadership provides the employee with more responsibility leading and autonomy, which can improve self-efficacy. Consequently, low self-efficacy can obstruct the effects of shared leadership. Organizations can implement shared leadership styles when their goal is to improve the self-efficacy of the employees. Providing training and coaching focused on communication, decision-making and leadership skills, helps reinforce the employees' belief in their capabilities (Burke, 2024).

Conclusions

An important factor to the survival of an organization is innovation. These innovations stem from the employees' IWB. Because there is an information gap regarding dyadic studies about the dynamics between leader and employees, this study provides a perspective on the dynamics between leader and employees. We hypothesized that shared leadership influences employees' IWB, mediated by self-efficacy. No statistical significance was found between shared leadership and IWB, and between self-efficacy and IWB. Consequently, no evidence was found supporting a mediation of self-efficacy on shared leadership and IWB. Yet, evidence was found supporting a positive relation between shared leadership and self-efficacy. Due to a lack of participants, low statistical power was created, which cannot detect whether this study missed relationships between shared leadership, self-efficacy, and IWB. Another explanation might be that there is no relation between shared leadership and IWB when studying the dyadic relation between leader and employee. Future research could benefit from replicating this study with modifications to the leadership scale. A higher number of participants and the use of other mediators/moderators might give a new or improved perspective on the dynamics between leader and employee.

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Appendix A

Figure A1: Items about Shared Leadership from the Employee questionnaire

De volgende vragen gaan over uw leidinggevende.

Geef alstublieft aan in hoeverre u het eens bent met de stellingen.

[1 Helemaal mee oneens; 7 Helemaal mee eens; 4 niet mee eens, niet mee oneens]

1. Mijn leidinggevende geeft een duidelijk beeld van waar ons team voor staat.
2. Mijn leidinggevende is gedreven door hogere doelen of idealen.
3. Mijn leidinggevende laat waardering zien voor mijn inspanningen.
4. Mijn leidinggevende moedigt mij aan om ideeën te heroverwegen die nooit eerder in twijfel getrokken zijn.
5. Mijn leidinggevende maakt gebruik van veel verschillende perspectieven om problemen op te lossen .
6. Mijn leidinggevende moedigt mij aan om meer te doen dan alleen dat wat van mij verwacht wordt (bijv. extra inspanning).
7. Mijn leidinggevende moedigt mij aan om zelf oplossingen te zoeken voor mijn problemen in het werk.
8. Mijn leidinggevende dringt aan om zelf verantwoordelijkheid voor het werk te nemen.
9. Mijn leidinggevende moedigt mij aan om nieuwe dingen te leren.
10. Mijn leidinggevende moedigt mij aan om mezelf een schouderklopje te geven wanneer ik een nieuwe uitdaging heb behaald.
11. Mijn leidinggevende moedigt mij aan om samen te werken met andere teamleden.
12. Mijn leidinggevende adviseert mij om mijn werk af te stemmen met anderen, die onderdeel uitmaken van het team.
13. Mijn leidinggevende dringt erop aan om als een team samen te werken met anderen, die deel uitmaken van het team.
14. Mijn leidinggevende verwacht dat de samenwerking met de andere teamleden goed verloopt.
15. Mijn leidinggevende besluit samen met mij wat mijn prestatiedoelen zijn.
16. Mijn leidinggevende en ik werken samen om te kiezen wat mijn prestatiedoelen moeten zijn.
17. Mijn leidinggevende en ik gaan samen om de tafel om overeenstemming te krijgen over mijn prestatiedoelen.
18. Mijn leidinggevende werkt met mij samen om mijn prestatiedoelen te ontwikkelen.

Figure A2: Items about IWB from the Leader questionnaire

Onderstaand staan een aantal specifieke werkgedragingen die te maken hebben met nieuwe ideeën. Wilt u aangeven hoe vaak uw medewerker deze werkgedragingen vertoont in zijn of haar werksituatie.

1 = nooit; 2 = sporadisch; 3 = af en toe; 4 = regelmatig; 5 = dikwijls; 6 = heel vaak; 7 = altijd

Hoe vaak komt het voor dat uw medewerker in zijn/haar werk ....

[Idee-Generatie]
1. Nieuwe werkwijzen, technieken of instrumenten bedenkt.

2. Met originele oplossingen komt voor werkproblemen.
3. Creatieve ideeën bedenkt voor verbeteringen.

[Idee-Promotie]
4. Steun mobiliseert voor vernieuwende ideeën.
5. Bijval oogst voor vernieuwende ideeën.
6. Sleutelfiguren enthousiast maakt voor vernieuwende ideeën.

[Idee-Realisatie]
7. Vernieuwende ideeën uitwerkt tot werkbare toepassingen.
8. Vernieuwende ideeën planmatig invoert.
9. De invoering van vernieuwende ideeën grondig evalueert.

Figure A3: Items about Self-efficacy from the Employee questionnaire

De volgende vragen gaan over uw werk.

Geef alstublieft aan in hoeverre u het eens bent met de stellingen.

[1 Helemaal mee oneens; 7 Helemaal mee eens; 4 niet mee eens, niet mee oneens]

1. Ik kan kalm blijven wanneer ik geconfronteerd word met moeilijkheden in mijn werk, omdat ik kan terugvallen op mijn vaardigheden
2. Wanneer ik geconfronteerd word met een probleem in mijn werk, dan vind ik meestal meerdere oplossingen
3. Wat er ook gebeurt in mijn werk, ik kan het meestal wel aan
4. De ervaringen die ik in het verleden in mijn werk heb opgedaan, hebben me goed voorbereid op mijn werk in de toekomst
5. Ik haal de doelstellingen die ik aan mezelf stel in mijn werk
6. Ik voel me in staat om de eisen van mijn werk het hoofd te bieden

Appendix B

Figure B1: Normality of the data

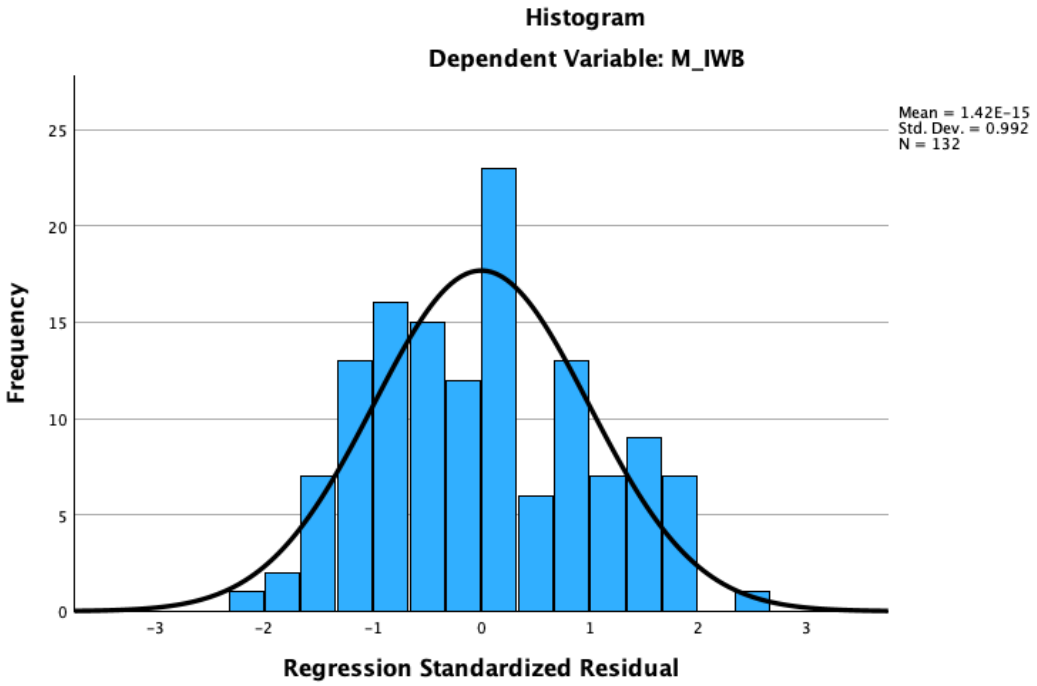

Figure B2: P-P plot

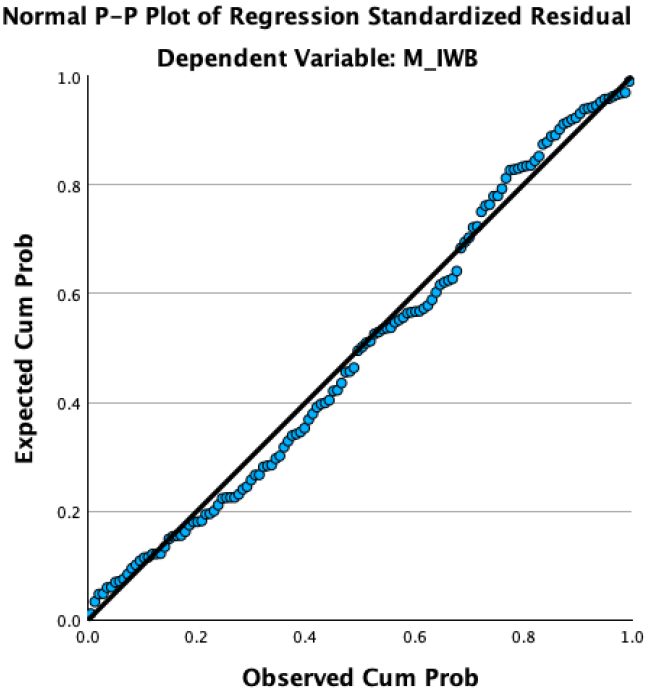

Figure B3: Scatterplot

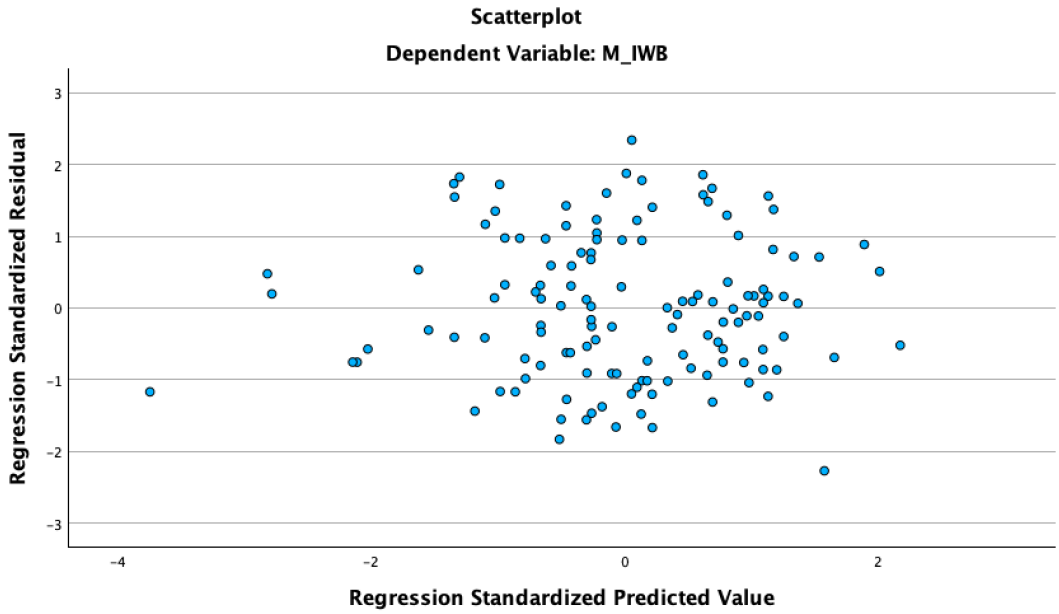

Figure B4: cook's distance scatterplot

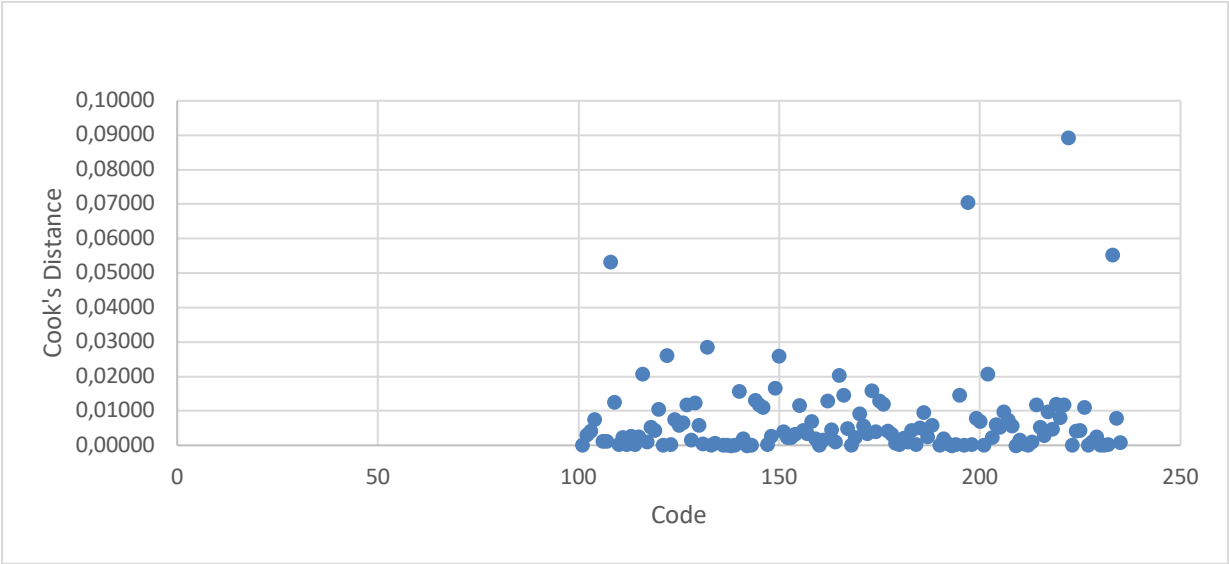

Table B5

Collinearity diagnostics

	Tolerance	VIF
(constant		
Shared leadership	.936	1.069
Self-efficacy	.936	1.069

Table B2. Results of PROCESS Mediation Analysis on IWB with influential outlier

Effect	Estimate	SE	t	P	LLCI	ULCI
Total Effect	.11	.13	.87	.39	-.14	.36
Direct Effect	.14	.13	1.05	.3	-.12	.39

Indirect Effect	-.03	.04	-	-	-.12	.04

Note: $N = 132$. CI = 95%

Table B6. Hypotheses Testing with influential outliers

Hypotheses	Relationship	Estimate	t	SE	p	Conclusion
H1	SL → IWB	.1	.87	.39	.385	Not supported
H2	SL → SE	.26	2.94	.09	.004	Supported
H3	SE → IWB	-.1	-.82	.13	.413	Not supported
H4	SL → SE → IWB	.1			n.s	Not supported

Note: $N = 132$. CI = 95% $p < .05$. ** $p < .01$. *** $p < .001$.

SL = Shared leadership; SE = Self-efficacy

Figure B5