Exploring the Dynamics of Shared Leadership and Coordination Under the Moderating Effect of Trust: A Dyadic Perspective

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Abstract

This study aimed to investigate the relationships between shared leadership, trust, and coordination on a dyadic level. A multi-source design was used, having questionnaires filled in from both leaders and followers in Dutch context. The findings revealed a significant positive relationship between shared leadership and coordination, supporting previous research. However, no significant positive relationship was found between trust and coordination, and trust did not significantly moderate the relationship between shared leadership and coordination. The study identified limitations such as a small sample size, potential measurement scale limitations, and violations of assumptions. Despite these limitations, the study contributes to the understanding of effective teamwork by exploring the dynamics of shared leadership, coordination and trust. Future research should be conducted. Understanding the interplay between these variables is crucial for organizations facing challenges in achieving team success.

Keywords: shared leadership, trust, coordination, dyadic, multi-source design, Dutch context

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In today's complex and dynamic work environment, organizations face numerous challenges to achieve success. In order to do this, coordination is a critical aspect, as it allows team members to work together towards a common goal (Kozlowski & Ilgen, 2006). In organizations a leader chooses a leadership style that matches their approach to maximize productivity and create a positive work environment. The leadership style refers to the way leaders interact with their followers and make decisions. In recent years shared leadership has gained popularity as a preferred leadership style. This is a leadership style in which team members share leadership responsibilities and decision-making authority (Pearce & Conger, 2003). Research on shared leadership has mostly been focused on its impact on team outcomes. However, in order to fully understand the team perspective the first step is to look into the relationship of leader and follower. There is growing recognition that shared leadership is a dyadic process that involves the interactions between leaders and followers (Hoch, Pearce & Welzel, 2010).

There is still much to learn at a dyadic level that can provide a more nuanced understanding of the social dynamics that underlie effective leadership and team functionality. By examining how leaders and followers interact with each other at a dyadic level, researchers can gain a deeper understanding of the processes that drive the effectiveness of team coordination. Another point is that despite the growing interest in shared leadership, there is still much to learn about this leadership style and what contributes to its success. It was mentioned that shared leadership influences coordination as a team, but it is unsure what factors might moderate this relationship. One of those factors that might moderate the relationship between shared leadership and coordination is trust. Trust is a key component of effective teamwork and it has been shown to influence the effectiveness of

leadership styles (Dirks & Ferrin, 2002; Mayer, Davis & Schoorman, 1995). High levels of trust among team members can facilitate coordination and enhance the impact of shared leadership on team performance. While low levels of trust may weaken or even negatively impact this relationship (Cohen & Bailey, 1997). While there has been research about trust as moderator, it is still unclear how exactly trust affects the relationship between shared leadership and coordination.

This study will focus on conducting research at the dyadic level, examining the interactions between leaders and followers in the context of shared leadership, coordination, and trust. More specifically, the study aims to investigate the relationship between shared leadership and coordination and how it is moderated by levels of trust among leader and follower. The first objective is to examine the association between shared leadership and coordination, with a hypothesis of a positive relationship between the two. The choice of shared leadership as the independent variable in this study is justified by its growing popularity as a preferred leadership style in today's complex and dynamic work environment. By investigating the relationship between shared leadership and coordination, the study aims to understand how this leadership style influences team dynamics and the extent to which it relates positively to coordination within the leader and follower context.The second objective is to explore the association between trust and coordination, with a hypothesis of a positive relationship. Lastly, this study aims to investigate how trust moderates the relationship between shared leadership and coordination, with a hypothesis that the positive relationship between shared leadership and coordination will be stronger when trust is high compared to when trust is low. By investigating how trust moderates the relationship between shared leadership and coordination, the study aims to shed light on the effect of trust in the relation between shared leadership and coordination.

The research gap lies in the need to understand the nuanced leader and follower dynamic, particularly within the context of shared leadership. While previous research has explored the influence of trust as a moderator, this was on a team level and not on a dyadic level. By addressing this gap, this study seeks to provide a more comprehensive understanding of how these factors interact in a leader and follower dynamic.

Theory and hypothesis development

Shared leadership

Shared leadership is an evolving concept, particularly in the context of developing organizations and complex work environments. The difficulty in defining shared leadership lies not in its definition, but rather in the challenge of integrating adaptive leadership structures that can effectively respond to the ever-changing dynamics of work. One way to conceptualize is leadership practice at a group level. Shared leadership is: (1) distributed and interdependent; (2) embedded in social interaction; (3) is leadership as learning. Shared leadership involves a dynamic transfer of the leadership function within a team, encompassing all three functions mentioned above (Pearce & Conger, 2003). The concept of shared leadership has its roots in the transformational leadership theory, which emphasizes the importance of leadership as a shared process between leaders and followers (Bass & Avolio, 1994). Shared leadership can be viewed as a form of distributed leadership, which emphasizes the importance of leadership functions being distributed throughout the team rather than being concentrated in a single individual (Spillane, 2005). Distributed leadership recognizes that leadership is not a property of individuals, but rather a property of social systems that emerge through the interactions between individuals (Gronn, 2000). The effectiveness of shared leadership is influenced by several factors, including the quality of the relationship between leaders and followers (Carmeli & Schaubroeck, 2007), the level of

coordination between leaders and followers (Pearce & Conger, 2003), and the level of trust between leaders and followers (Dirks & Ferrin, 2002).

At the dyadic level, shared leadership involves a complex interplay between leaders and followers, where leadership functions are transferred and exchanged through social interactions (Hoch et al., 2010). In this process, leaders and followers continuously negotiate and coordinate their actions, share information, and provide feedback to one another, which results in effective teamwork and shared decision-making (Carmeli & Gittell, 2009).

Shared leadership and coordination

When leadership responsibilities are shared among team members, it is easier to coordinate their actions towards achieving team goals (Hoch et al., 2010). This is because shared leadership promotes a cooperative work environment that encourages team members to work together towards a common goal (Lowe et al., 1996). Shared leadership is important in order to work together to achieve team goals and coordination is necessary to ensure that the efforts of team members are coordinated towards common objectives.

To understand the relationship between shared leadership and coordination, theoretical frameworks such as the Input-Process-Output (IPO) model (Hackman & Oldham, 1976) and the Team Coordination Dynamics (TCD) model (Marks et al., 2001) provide valuable insights. The IPO model (Hackman & Oldham, 1976) suggests that shared leadership enhances coordination processes, leading to better team performance. According to this model team performance is influenced by three factors: inputs, processes, and outputs. Inputs include team composition and context, processes include coordination and communication among team members, and outputs include team performance and satisfaction. Team members sharing responsibility for decision-making and goal-setting enhances coordination and communication among team members, ultimately improving team performance.

Similarly, the TCD model (Marks et al., 2001) highlights that shared leadership improves coordination by enhancing team processes, such as communication, cooperation, and adaptation. In shared leadership, team members take on leadership roles based on their knowledge and expertise, which can enhance communication and cooperation among team members. This can lead to better adaptation to changing circumstances and ultimately improve team performance.

These models emphasize the importance of coordination processes in achieving team goals, which is a key aspect of shared leadership. While research suggests a positive relationship between shared leadership and coordination, further investigation is needed to fully understand their relation to each other. Building on the existing research that suggests a positive association between shared leadership this study will test if there is a positive relationship between shared leadership and coordination.

H1: Shared leadership is positively associated with coordination.

Trust and coordination

Trust and coordination are interconnected. Trust can be defined as the willingness of individuals to rely on and be vulnerable to others in situations involving risk or uncertainty (Mayer, Davis & Schoorman, 1995). On the other hand, coordination is the process of managing interdependence among team members to achieve common goals (Marks et al., 2001). High levels of trust promote coordination, as team members are more willing to share information, seek and offer help, and communicate openly (Dirks & Ferrin, 2002). Low levels of trust can hinder coordination, as team members may become more guarded in their actions and decisions, prioritizing their own interests over those of the team (Carmeli & Schaubroeck, 2007). One theoretical framework that incorporates both trust and coordination at the group level is the IPO model (Hackman & Oldham, 1976) mentioned before. This

model suggests that trust is an input to the coordination process and influences how team members interact during the process, ultimately affecting the quality of the output.

At the dyadic level, trust and coordination are also closely linked. Dyadic trust refers to the degree of confidence and reliance that one person has in another in a particular context. In the absence of trust, individuals may be less likely to coordinate their efforts, as they may fear being taken advantage of or betrayed by the other person (Mayer, Davis & Schoorman, 1995). By understanding the relationship between trust and coordination on a dyadic level, individuals and teams can build stronger relationships and achieve better outcomes. For this reason, in this study the second hypothesis will be that there is a positive relationship between trust and coordination.

H2: Trust is positively associated with coordination.

The moderating role of trust

Trust plays a crucial role in the relationship between shared leadership and coordination. Shared leadership is based on mutual trust and respect among team members, which can enhance coordination processes and improve team performance. Research has shown that trust is positively related to shared leadership (Carmeli & Schaubroeck, 2007). As well as to coordination (Dirks & Ferrin, 2002). Trust can also moderate the relationship between shared leadership and coordination.

It is hypothesized that higher levels of trust between team members and their leader facilitate open sharing of ideas and concerns, leading to enhanced decision-making and problem-solving. (Mayer, Davis & Schoorman, 1995). This hypothesis has yet to be empirically tested in the current study. Further, prior research has indicated a positive relationship between trust and shared leadership (Carmeli & Schaubroeck, 2007). This suggests that when trust is high, it is likely to have a positive effect on the association between shared leadership and coordination. Trust can create a supportive and

psychologically safe environment within the team. When team members trust their leader, they are more likely to feel secure in talking, expressing divergent opinions and engaging in conflicts (Mayer et al., 1995). Trust acts as a catalyst for shared leadership, as it promotes a sense of mutual respect, cooperation, and shared responsibility among team members (Dirks & Ferrin, 2002). Thus, when trust is high, the positive association between shared leadership and coordination is expected to be strengthened, as trust enhances the effective coordination processes within the team (Carmeli & Schaubroeck, 2007; Dirks & Ferrin, 2002).

Conversely, when trust is low among team members, it may hinder the relation of shared leadership on coordination. Research has shown that low levels of trust can hinder the positive relationship between shared leadership and coordination (Carmeli & Schaubroeck, 2007). Carmeli and Schaubroeck (2007) have used a similar model with the moderating effect of trust on shared leadership and coordination. Yet it is important to replicate the model and extend the research on it. Furthermore, based on this previous research trust has shown to be important regarding shared leadership and coordination, but it has not been researched a lot. Therefore this study will test how trust moderates the relationship between shared leadership and coordination. With the hypothesis that the relationship is stronger when trust is high compared to when trust is low.

H3: Trust moderates the relationship between shared leadership and coordination, such that the relationship is stronger when trust is high compared to when trust is low.

Method

Participants

Participants were recruited from various organizations in different industries in the Netherlands and from the personal network of bachelor students from the University of Groningen for this study, which was part of a bachelor thesis project. The sample consisted of individuals with both leadership and follower roles, with half of the participants taking on

leadership roles and the other half serving as followers. There were data exclusions for participants when either the leader or follower did not fill in the questionnaire. Same went for participants who were not at least 18 years old, or did not work for a minimum of 20 hours per week. In total there were 60 leaders and 223 followers that filled in the questionnaire, after the exclusions the final sample consisted of 54 participants. Meaning there were 27 dyads, 27 leaders and 27 followers. The mean age from leaders was 42.89 (*SD*=13.34) with a range from 22 to 65. The mean age from followers was 32.67 (*SD*=10.98) with a range from 19 to 57. There were 26 male participants and 28 female participants. For the leaders 59.7% were male (*N*=16) and 40.7% were female (*N*=11). For the followers 37% were male (*N*=10) and 64% were female (*N*=17).

Among the total number of participants, the largest proportions identified themselves as working in the education and university (14.5%, *N*=8) and catering industry (14.5%, *N*=8). A smaller number of participants reported working in industries such as agriculture, horticulture, fishing, and food (3.7%, *N*=2), post and telecommunication (3.7%, *N*=2), government (3.7%, *N*=2), transportation and freight transport (3.7%, *N*=2), healthcare (3.7%, *N*=2) and the metal industry (1.9%, *N*=1). Participants were informed about the nature of the study and their participation was voluntary, with no reward for taking part in the study. Informed consent was obtained from all participants prior to their participation in the study.

Design and procedure

A quantitative research design was used in this study, which was cross-sectional and a multi-sourced field study to examine the relationship between shared leadership and coordination with the moderating effect of trust. The current study received ethical approval from the Ethics Committee of the Faculty of Behavioural and Social Sciences at the University of Groningen. In this multi-sourced field study, convenience sampling was used to select participants from various accessible sources, including going into the city of Groningen

to approach stores and pubs, on social networks and from the university of Groningen. Data was collected through a self-report questionnaire. Followers were answering the concepts of shared leadership and trust, whereas the leaders answered the concepts of coordination and trust. Followers provided ratings for their leaders, and leaders provided ratings for their followers, allowing for a comprehensive assessment from both perspectives. Participants were instructed to respond honestly and to the best of their ability. They were informed of their right to withdraw from the study at any time without any penalty. The data collected was kept confidential and anonymous, and only the research team had access to it. The data was analyzed by using SPSS and conducting a PROCESS analysis, by Andrew F. Hayes to examine the relationship between shared leadership and coordination, as well as the moderating role of trust.

Measures

The questionnaire consisted of several validated scales. All variables were measured on a 7-point Likert scale ranging from 1, completely disagree, to 7, completely agree. Demographic information, such as age, gender, and industry sector was also collected. The internal consistency of the measurement scales used in this study was assessed using reliability analysis. Specifically, Cronbach's alpha coefficient was computed to evaluate the reliability of the items measuring the construct of interest. All three variables surpassed the recommended threshold of .70. This indicates a high level of reliability and consistency among the items within each variable.

Shared Leadership

The independent variable shared leadership was measured with items from Hoch (2013). The scale to evaluate shared leadership was filled in by followers. Items for the variable shared leadership are for example “Mijn leidinggevende besluit samen met mij wat mijn prestatiedoelen zijn” in English it means “My leader decides together with me on my

performance goals" and "Mijn leidinggevende moedigt mij aan om zelf oplossingen te zoeken voor mijn problemen in het werk" in English it means ‘‘My leader encourages me to search for solutions to my problems without supervision". The obtained Cronbach's alpha coefficient for the scale from shared leadership was .76.

Coordination

The dependent variable coordination was measured with items from Bartell (2003) and Jehn and Mannix (2001). The scale to evaluate coordination was filled in by followers. Items for the variable coordination are for example "Ik heb moeite om het tempo waarin mijn medewerker en ik werken te coördineren (de één is langzamer of sneller dan de ander)" in English it means "I have trouble coordinating the pace in which my employee and I want to work at (i.e., one of us wants to work faster or slower than the other)" and "Ik heb moeite met het timen van de interacties tussen mijn medewerker en mezelf" in English it means "I have difficulty with timing interactions between my employee and I". The obtained Cronbach's alpha coefficient for the scale from coordination was .88.

Trust

The moderator trust was measured with items from De Jong and Elfring (2010). The scale to evaluate trust was filled in by leaders. Items for the variable trust are for example "Ik kan op mijn leidinggevende rekenen voor hulp als ik problemen heb met mijn werk" in English it means "I am able to count on my leader for help if I have difficulties with my job" and "Ik vertrouw mijn medewerker" in English it means "I trust my employee". The obtained Cronbach's alpha coefficient for the scale from trust was .80.

Additional Analysis

An additional analysis was conducted to gain insights into the individual perspectives and potentially uncover any unique patterns or associations that may not have been evident in the dyadic analysis. The same model was examined using data solely from followers. In this

analysis, the focus shifted from the dyadic level to the individual level, as all questionnaire items were completed by followers only. The follower sample consisted of 70 participants, in these were also the 27 participants used for the dyadic analysis. Cronbach's alpha coefficient was computed for the variable trust, seeing as the the Cronbach's alpha coefficient for shared leadership as well as coordination are already mentioned since these items are analyzed in the dyadic analysis as well. The Cronbach's alpha coefficient for trust, answered by followers, is .83. This surpassed the recommended threshold of .70. Similar to the main analysis, the data was analyzed by using PROCESS, by Andrew F. Hayes.

Results

Descriptive Statistics

Descriptive statistics were computed for the variables of interest, including shared leadership, coordination, and trust. Table 1a presents the means, standard deviations and correlations for these variables. The variable of shared leadership had a mean score of 5.39 (*SD* = 0.58), indicating that, on average, participants rated their perception of shared leadership behavior as moderately high on a 7-point Likert scale. The standard deviation suggests relatively low variability among participants' responses regarding shared leadership. In terms of coordination, the mean score was 6.46 (*SD* = 1.05), indicating a relatively high level of coordination within the organization based on the ratings provided by participants. The standard deviation reflects a moderate degree of variability in participants' responses regarding coordination. For the variable of trust, the mean score was 2.54 (*SD* = 0.58), suggesting a relatively low level of trust within the organization. The standard deviation indicates a moderate amount of variability in participants' trust ratings.

Correlation analysis revealed the relationships between these variables. The correlation can be found in table 1a. The correlation between shared leadership and coordination suggests that as shared leadership behaviors increased, so does coordination and

the other way around. However, the correlation between shared leadership and trust was relatively weak, suggesting a minimal association. This indicates that shared leadership behaviors were not strongly related to the level of trust within the organization. Additionally, the correlation between coordination and trust indicated a weak negative relationship, but this was insignificant.

To assess the assumptions underlying our main regression analysis, an examination of residual plots and the residual-by-predicted-values scatterplot was conducted, which can be seen in figure 1a, 2a and 3a. The normality of residuals was assessed by examining the distribution of the residuals. A visual inspection of the histogram and the P-P plot, as seen in figure 1 and 2, indicated that the residuals were approximately normally distributed, supporting the assumption of normality. Linearity and heteroscedasticity were assessed by examining the scatterplot of residuals against predicted values, as seen in figure 3. The scatterplot displayed a relatively linear pattern, suggesting that the assumption of linearity was met and the scatterplot showed no clear systematic pattern, indicating the absence of heteroscedasticity.

Overall, the assumption testing, the figures can be seen in figure 1a, 2a and 3a, results provided support for meeting the assumptions of normality of residuals, linearity and absence of heteroscedasticity. However, the variance inflation factors (VIF) were all above 4.0, indicating serious problems of multicollinearity. Therefore, interpretation of the results should be approached with some caution.

Hypothesis Testing

PROCESS, by Andrew F. Hayes, was conducted to test all three hypotheses. The significance of the models was examined to determine if the inclusion of the moderation effect improved the explanatory power of the regression model. The complete model including the predictors and the interaction explained close to zero variance in coordination

scores and the model was not significant, R^2 = .206, *Adjusted* R^2 = .103, $F(1, 23) = .701$, p = .411. The analysis, as shown in table 2a and table 3, does not provide strong evidence to support Hypothesis 1 : There is a positive relationship between shared leadership and coordination. The relationship between shared leadership and coordination is not statistically significant at the chosen significance level. Furthermore, looking at Hypothesis 2 : There is a positive relationship between trust and coordination. The relationship between trust and coordination is not statistically significant and thus the data does not support the hypothesis. Regarding the moderation effect, the interaction term between shared leadership and trust was examined. The test revealed that the interaction effect was not statistically significant. These findings did not provide strong evidence to support Hypothesis 3: Trust moderates the relationship between shared leadership and coordination, such that the relationship is stronger when trust is high compared to when trust is low. Therefore, the moderation effect of trust on the relationship between shared leadership and coordination was not supported by the data.

Additional Exploratory Analysis

The assumption testing results, the figures can be seen in figure 1b, 2b and 3b, for the additional analysis provided support for meeting the assumptions of linearity. However it did not meet the assumptions of normality of residuals, absence of heteroscedasticity. The variance inflation factors (VIF) were all above 4.0 as well, indicating serious problems of multicollinearity. Therefore, interpretation of the results should be approached with some caution.

The complete model including the predictors and the interaction explained close to zero variance in coordination scores and the model for the additional analysis was not significant, R^2 = .120, *Adjusted* R^2 = .080, $F(1, 66) = .170$, p = .682.

The correlations can be found in table 1b. Shared leadership and coordination had a weak and non-significant relationship. This suggests that within this specific sample of

followers, there is no clear association between shared leadership and coordination. Regarding the output as shown in table 2b no significant results were found.

Overall, the additional analysis does not provide strong evidence of a relationship between shared leadership, trust, and coordination among followers. The weak correlations and non-significant b values suggest that other factors beyond shared leadership and trust may play a more prominent role in influencing coordination dynamics within this particular sample.

Discussion

The current study aimed to investigate the relationships between shared leadership, trust, and coordination. The hypotheses tested were as followed:

H1: Shared leadership is positively associated with coordination.

H2: Trust is positively associated with coordination.

H3: Trust moderates the relationship between shared leadership and coordination, such that the relationship is stronger when trust is high compared to when trust is low.

However, the findings from the analysis did not provide support for two out of three hypotheses. The results indicated that there was a significant positive relationship between shared leadership and coordination (Hypothesis 1). No significant positive relationship was found between trust and coordination (Hypothesis 2). Furthermore, trust did not significantly moderate the relationship between shared leadership and coordination (Hypothesis 3). It is important to note that even non-significant results do not necessarily indicate the absence of a relationship in our research, but rather suggest that the evidence is insufficient to support the hypothesized relationships in our study.

It is likely that the sample size (N=54, with 27 dyads) was too small to detect effects in most cases. Because of the participants that were removed from the data set (N=112), the target sample size was not reached and thus this study had too little statistical power to detect

effects between the different variables. Furthermore the means of the variables showed bottom/ceiling effects (the mean of the trust was fairly low *M*=2.54 and the mean of coordination was high *M*=6.46). This could indicate that the questions were not sensitive enough to capture the full range of values and thus makes it more difficult to detect relationships.

The analysis showed one significant result, which was a positive correlation between shared leadership and coordination, indicating that as the level of shared leadership increased, coordination among team members also increased. This result aligns with previous research that has highlighted the importance of shared leadership in promoting effective coordination within teams (Hoch et al., 2010; Lowe et al., 1996). In the context of the interaction between leaders and followers, shared leadership can foster coordination by promoting open communication, trust, and mutual respect. When leaders actively encourage and value the contributions of their team members, it creates an environment where individuals feel empowered to voice their ideas and concerns. This open communication enables the sharing of information, identification of potential conflicts, ultimately enhancing coordination between leader and follower. However, it is essential to note that the observed relationship between shared leadership and coordination was not exceedingly strong. This suggests that while shared leadership contributes positively to coordination, other variables may also play a role in influencing coordination dynamics within teams.

The insignificant result between trust and coordination was unexpected, as coordination is often considered a positive aspect of teamwork that fosters trust among team members (Dirks & Ferrin, 2002; Carmeli & Schaubroeck, 2007). Dirks and Ferrin (2002) argue that coordination processes enhance interpersonal interactions and communication within teams, leading to the development of trust. Similarly, Carmeli and Schaubroeck (2007) suggest that trust is positively related to shared leadership and can contribute to effective

coordination. However, the insignificant result in this study suggests that trust and coordination may be influenced by different factors. It is possible that additional variables may play a significant role in shaping the relationship between trust and coordination.

The moderation analysis explored whether trust played a moderating role in the relationship between shared leadership and coordination. Insignificant findings were found, indicating that trust did not significantly moderate the relationship between shared leadership and coordination. This result suggests that the positive relationship between shared leadership and coordination is not influenced by the level of trust within the team. However, it is important to note that this finding may be specific to the sample and context of this study.

For the additional exploratory analysis, the focus was on a model that utilized only one questionnaire, specifically the questionnaire filled in by followers. The aim was to gain insights into individual perspectives and explore potential patterns or associations that may not have been evident in the dyadic analysis. However, the findings did not provide strong evidence of a relationship between shared leadership, trust, and coordination among followers. The weak and non-significant correlation between shared leadership and coordination, as well as the non-significant results in the PROCESS output, suggest that other factors may have a more influence on coordination within this particular sample. Furthermore, the assumption testing results revealed some limitations in the analysis. While linearity assumptions were met, the data did not meet the assumptions of normality of residuals and absence of heteroscedasticity. Additionally, the presence of serious multicollinearity, indicated by high variance inflation factors (VIF) above 4.0, further complicates the interpretation of the results and calls for caution.

Strengths, Limitations, and Future Directions

This study on the variables of shared leadership, trust, and coordination has several notable strengths. Firstly, one of the notable strengths of this research was the utilization of a

multi-source design, incorporating questionnaires from both leaders and followers. By gathering data from multiple sources, the study benefited from a dyadic analysis, allowing for a deeper understanding of the interplay between these variables. The research design ensured a level of independence and confidentiality among participants. By having leaders and followers complete the questionnaires independently, privately, and anonymously, the potential for social desirability bias was minimized. In order to match a leader with a follower a code was used that consisted of the last two letters of the leaders surname, the last two letters of the followers surname and the first two letters of the company. This was done to ensure participants' privacy.

Another strength is that the study builds upon previous research that has identified the importance of shared leadership and trust in fostering effective coordination within teams (Cohen & Bailey, 1997). This theoretical foundation contributes to the existing body of knowledge and extends the understanding of the relationships between these variables. By investigating the relationship between shared leadership, trust, and coordination, this study addresses a gap in the literature and provides valuable insights into the dynamics of team functioning.

Despite its strengths, this study is not without limitations. One limitation is the reliance on self-report measures for data collection. Self-report measures are subject to response bias. Another limitation pertains to the cross-sectional correlational design of the study. The data collected at a single point in time limit the ability to establish causal relationships between shared leadership, trust, and coordination. Secondly, the study focused on a specific context, Dutch respondents, which may restrict the generalizability of the findings to other organizational settings or populations.

Moreover, as mentioned before there was a small sample size. There could be different issues for why there was a small sample size. One of them had to do with a

recruitment obstacle. The questionnaire took fifteen minutes, which leaders and followers sometimes perceived too time consuming and thus this resulted in loss of a lot of potential participants. Often was asked to send the questionnaire over email, for potential participants to fill in later. However this resulted in not a lot of responses, even after sending reminders. Next to this obstacle there also was a high threshold for followers to ask their leader to fill in the other questionnaire so a dyad could be made. This resulted in the fact that only followers that had a good relationship with their leader wanted to fill in the questionnaire, since they had no issues asking their leader to fill in the other questionnaire. This resulted in a selection bias, only followers which were in a good relationship were willing to fill in the questionnaire. Vice versa seemed to be less of an issue, indicating it possibly had to do with the hierarchical structure of leader and follower.

Another bias that could have influenced the answers of the participants and therefore the research, is the present moment bias. Present moment bias refers to the tendency of individuals to prioritize immediate feelings over long-term ones. Potentially leading participants to provide more negative responses in the questionnaire if they had recently experienced a challenging day or week at work.

One significant result was found, however this relation was not exceedingly strong it supported previous research. The two other findings were insignificant in this study and therefore future research should aim to further explore the relationship between shared leadership, coordination and trust. Most important would be to replicate the current study with a larger sample size, considering the viewpoints of leaders and followers might help to capture more insight into this study and increase data validity, seeing as the sample size for this research was small the results cannot be interpreted properly. Another idea for future research is to look into a certain work field to make it more specific. For this research there was not a specific work field and thus there might be a probability that in some specific fields

there might be differences and significant results. As last, a longitudinal study could be conducted where participants fill in the questionnaire more than once over a longer period of time. This could prevent the present moment bias and there is a possibility of finding a causal relationship.

Conclusion

In conclusion, this study explored the relationships between shared leadership, coordination, and trust within teams. While the findings indicated several insignificant results, it is important to consider the limitations of the study, such as the small sample size and the potential ceiling/bottom effects in the measurement scales. The lack of significant relationships between trust and coordination suggests that these variables may be influenced by different factors and should be examined independently in future studies. The moderation analysis also yielded insignificant results, indicating that trust does not significantly moderate the relationship between shared leadership and coordination, but this finding may be specific to the sample and context. The study did reveal a significant positive correlation between shared leadership and coordination, supporting previous research highlighting the importance of shared leadership in promoting effective coordination. However, the strength of this relationship was not particularly strong, suggesting that further research is needed.

Overall, this study lays the groundwork for further investigation into the complex interplay between shared leadership, coordination, and trust, contributing to the understanding of effective teamwork within organizations. Understanding the dynamics of shared leadership, coordination, and trust within teams is crucial in today's world, considering the numerous challenges organizations face on their path to success.

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Appendix

Table 1a

Means, Standard Deviations, and Correlations Between Core Study Variables

Variable	Mean	SD	1.	2.
1. Shared Leadership[a]	5.39	.58	–	
2. Coordination[a]	1.88	1.05	.40*	–
3. Trust[b]	6.46	.58	.06	-.12

Note. $N = 27$ dyads composed of 27 leaders and 27 followers.

[a] Rated by followers.

[b] Rated by leaders.

* $p < .05$.

Table 1b

Means, Standard Deviations, and Correlations Between Study Variables for the Additional Analysis

Variable	Mean	SD	1.	2.
1. Shared Leadership	5.37	.77	–	
2. Coordination	1.73	.82	-.02	–
3. Trust	6.21	.82	.65**	-.28*

Note. $N = 70$, only followers

* $p < .05$.

** $p < .01$.

Table 2a

Results of the Regression Analysis Predicting Coordination for the Core Study

Predictor	***B***	***SE***	***t***	***p***
Shared Leadership	.616	.373	1.652	.112
Trust	-.269	.336	-.801	.431
Interaction	.628	.750	.837	.411

Note. Dependent Variable: Coordination

Table 2b

Results of the Regression Analysis Predicting Coordination for the Additional Analysis

Predictor	***B***	***SE***	***t***	***p***
Shared Leadership	.612	.836	.741	.462
Trust	-.195	.627	-.312	.756
Interaction	-.053	.129	-.412	.682

Note. Dependent Variable: Coordination

Table 3

Results of the effect of Shared Leadership on Coordination with different levels of Trust from the Core Study

Trust	***B***	***SE***	***t***	***p***	***95% CI Lower***	***95% CI Higher***
High	1.87	.20	9.29	<.001	1.46	2.28
Low	2.50	.25	9.82	<.001	1.98	3.02

Note. Independent Variable: Shared leadership. Dependent Variable: Coordination

Table 4a

Results of the PROCESS Moderation Analysis for the Core Study

Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****

Model : 1

Y : Coord_E

X : SL

W : Trust_L

Sample

Size: 27

****

OUTCOME VARIABLE:

Coord_E

Model Summary

R	R-sq	MSE	F	df1	df2	p
,4541	,2062	,9919	1,9918	3,0000	23,0000	,1433

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,8690	,1922	9,7218	,0000	1,4713	2,2667
SL	,6158	,3729	1,6515	,1122	-,1556	1,3873
Trust_L	-,2689	,3356	-,8014	,4311	-,9632	,4253
Int_1	,6280	,7503	,8371	,4111	-,9240	2,1801

Product terms key:

Int_1 : SL x Trust_L

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0242	,7007	1,0000	23,0000	,4111

Focal predict: SL (X)

Mod var: Trust_L (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
  SL        Trust_L    Coord_E    .
BEGIN DATA.
    -,5787     -,5839     1,8819
```

```
      ,0000    -,5839    2,0260
      ,5787    -,5839    2,1702
     -,5787     ,0000    1,5126
      ,0000     ,0000    1,8690
      ,5787     ,0000    2,2254
     -,5787     ,5407    1,1707
      ,0000     ,5407    1,7236
      ,5787     ,5407    2,2765
END DATA.
GRAPH/SCATTERPLOT=
 SL      WITH     Coord_E  BY       Trust_L  .

********************** ANALYSIS NOTES AND ERRORS
************************

Level of confidence for all confidence intervals in output:
  95,0000

NOTE: One SD above the mean is above the maximum observed in the data for W,
      so the maximum measurement for W is used for conditioning instead.

NOTE: The following variables were mean centered prior to analysis:
          Trust_L  SL

------ END MATRIX -----
```

Table 4b

Results of the PROCESS Moderation Analysis for the Additional Analysis

Run MATRIX procedure:

********** PROCESS Procedure for SPSS Version 4.2 beta **********

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

****

Model : 1

Y : Coord

X : SL

W : Trust

Sample

Size: 70

****

OUTCOME VARIABLE:

Coord

Model Summary

R	R-sq	MSE	F	df1	df2	p

,3461 ,1198 ,6119 2,9943 3,0000 66,0000 ,0370

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,4207	3,8984	,3644	,7167	-6,3627	9,2041
SL	,6189	,8356	,7407	,4615	-1,0494	2,2873
Trust	-,1953	,6270	-,3116	,7563	-1,4471	1,0564
Int_1	-,0531	,1292	-,4114	,6821	-,3111	,2048

Product terms key:

Int_1 : SL x Trust

Covariance matrix of regression parameter estimates:

	constant	SL	Trust	Int_1
constant	15,1973	-3,1762	-2,3840	,4939
SL	-3,1762	,6982	,4836	-,1060
Trust	-2,3840	,4836	,3931	-,0786
Int_1	,4939	-,1060	-,0786	,0167

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0023	,1693	1,0000	66,0000	,6821

Focal predict: SL (X)

Mod var: Trust (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
  SL        Trust      Coord      .
BEGIN DATA.
     4,5936     5,3868     1,8963
     5,3675     5,3868     2,1537
     6,1413     5,3868     2,4111
     4,5936     6,2086     1,5352
     5,3675     6,2086     1,7587
     6,1413     6,2086     1,9823
     4,5936     7,0000     1,1873
     5,3675     7,0000     1,3784
     6,1413     7,0000     1,5694
END DATA.
GRAPH/SCATTERPLOT=
 SL       WITH     Coord    BY       Trust    .
```

********** ANALYSIS NOTES AND ERRORS

****

Level of confidence for all confidence intervals in output:

95,0000

NOTE: One SD above the mean is above the maximum observed in the data for W, so the maximum measurement for W is used for conditioning instead.

------ END MATRIX -----

Figure 1a

Histogram of the Standardized Residual of the Dependent Variable for the Core Study

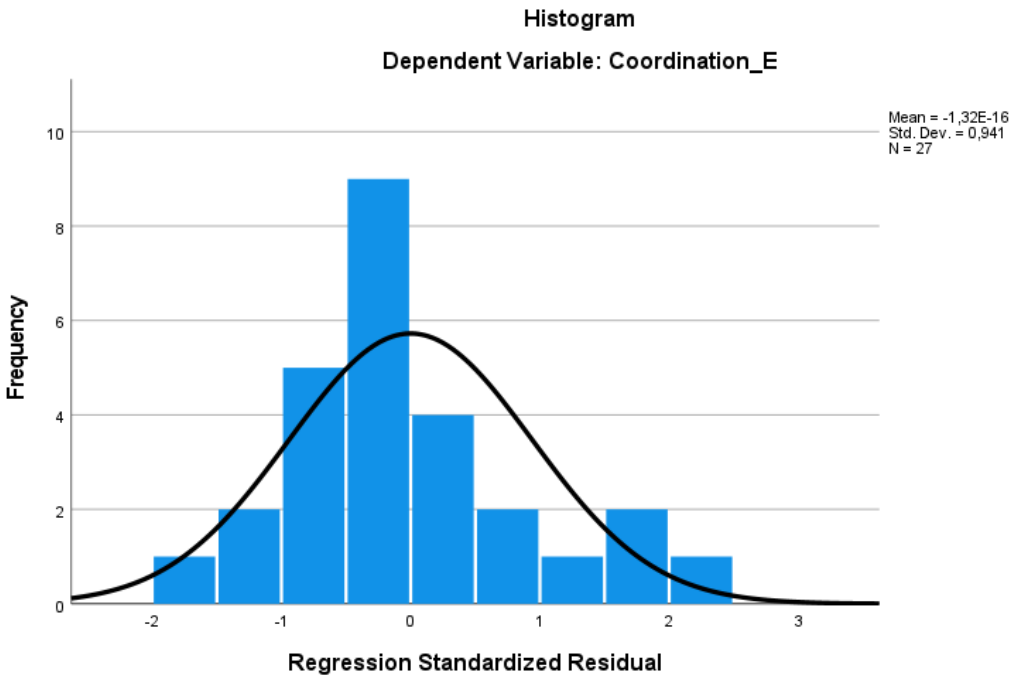


Figure 1b

Histogram of the Standardized Residual of the Dependent Variable for the Additional Analysis

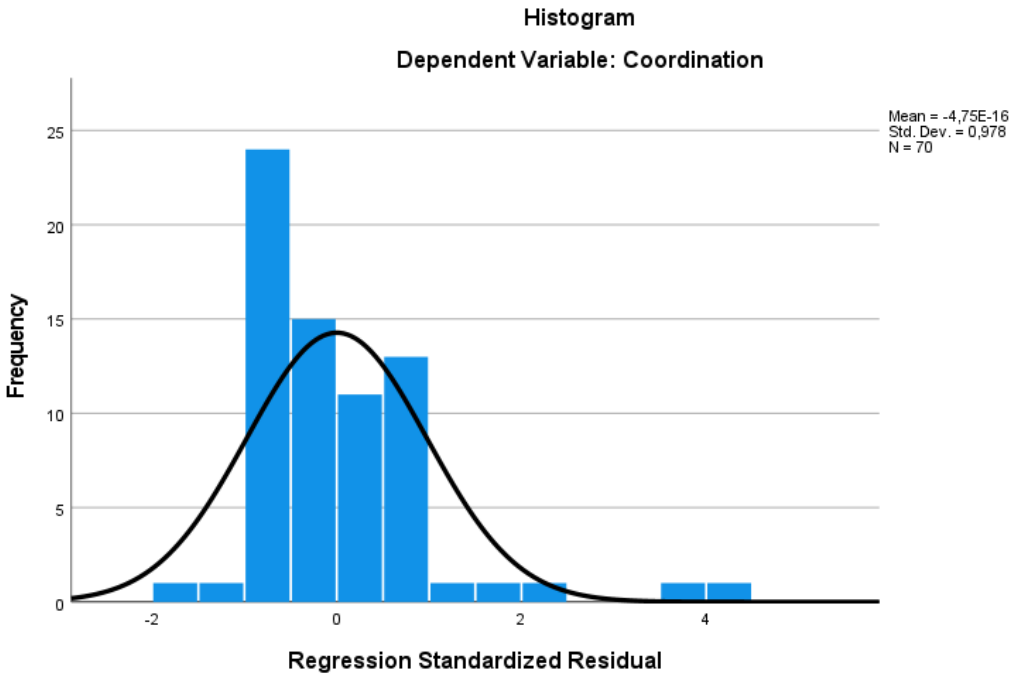


Figure 2a

P-P Plot of the Standardized Residual of the Dependent Variable for the Core Study

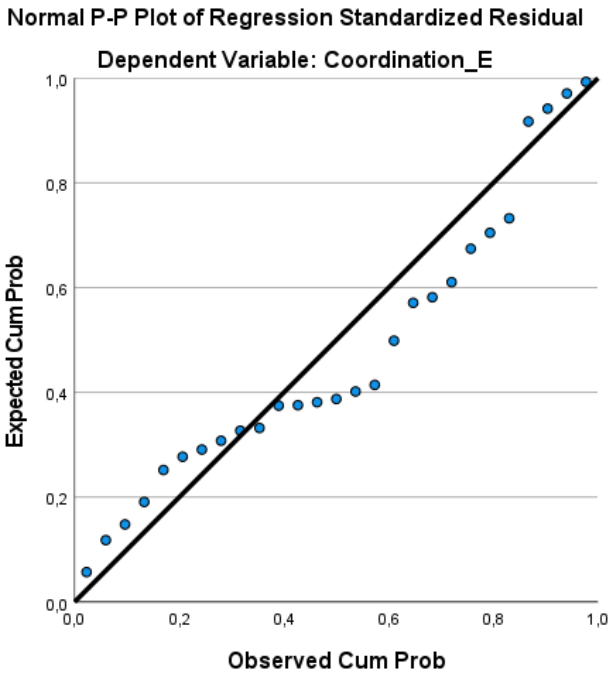


Figure 2b

P-P Plot of the Standardized Residual of the Dependent Variable for the Additional Analysis

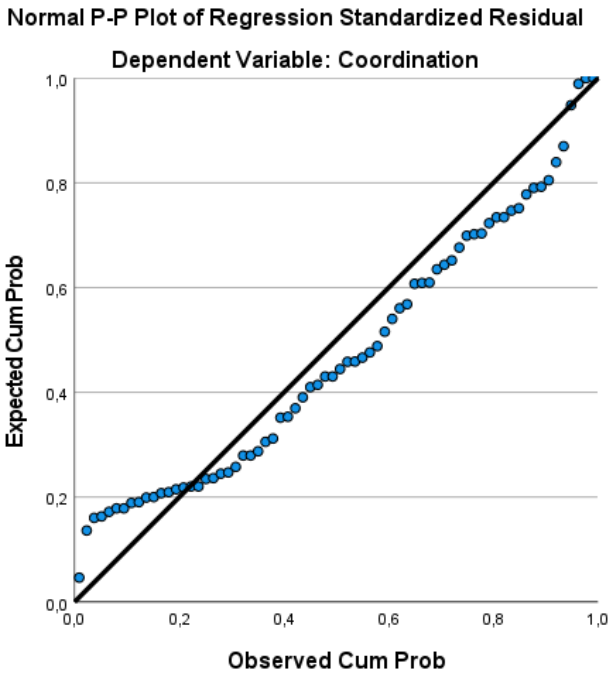


Figure 3a

Residual by Predicted Plot of the Dependent Variable for the Core Study

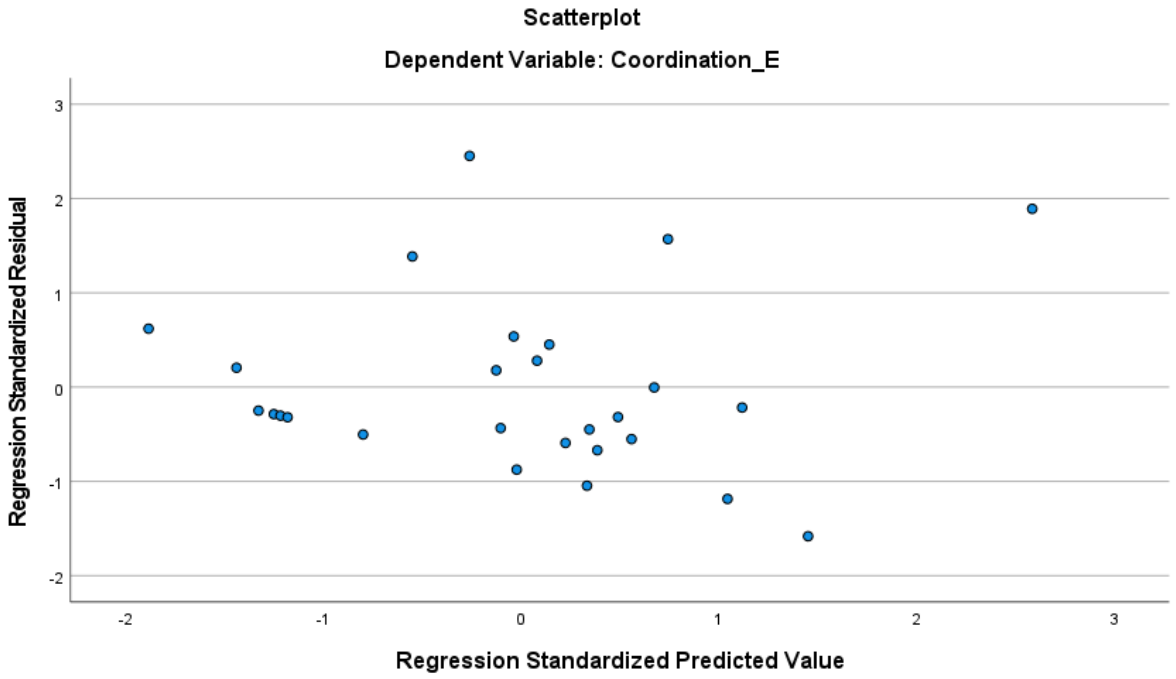
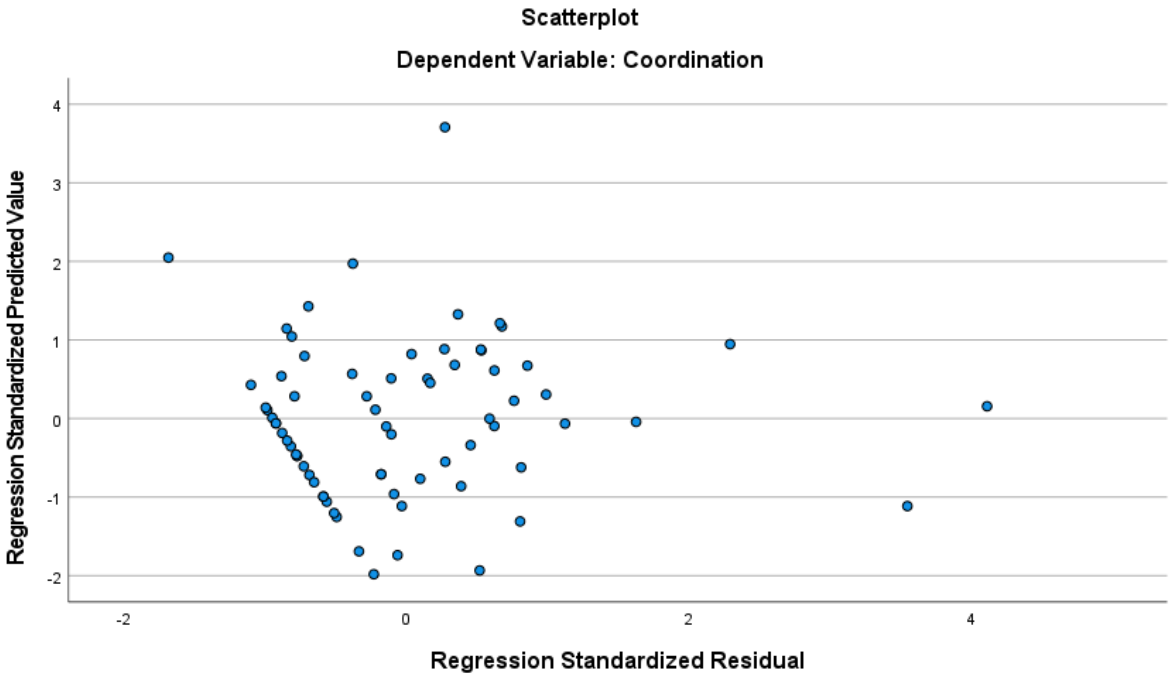


Figure 3b

Residual by Predicted Plot of the Dependent Variable for the Additional Analysis


Scatterplot
Dependent Variable: Coordination
Regression Standardized Predicted Value
4
3
2
1
0
-1
-2
-2
0
2
4
Regression Standardized Residual