

**The Relationship between Shared Leadership and Employee Performance: the
Moderating Role of Trust**

Dorien Lekkerkerk

s4381769

Department of Psychology, University of Groningen

PSB3E-BT15: Bachelor Thesis

2324_1b_02 EN

Supervisor: Roxana Bucur, MSc

Second evaluator: Teodora Heihal, MSc

In collaboration with: Kaylynn Niango, Arya Ramos, Angeliki Strati, Isabella Strows, Fionn
Waters

May 14, 2024

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate, but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

Abstract

This study investigates the relationship between shared leadership and employee performance and the moderating role of trust in this relation. It is hypothesized that high levels of trust enhance the positive relationship between shared leadership and employee performance. Contrary, it is hypothesized that low levels of trust diminish the positive relationship between shared leadership and employee performance. A cross-sectional research has been conducted with 89 leader/follower dyad who filled in a questionnaire with scales on, amongst others, shared leadership, trust and employee performance. The results showed that a negative correlation between shared leadership and employee performance exists. Next to that, a significant positive relationship was found between trust and employee performance. Lastly, a marginally significant effect was found for the moderating role of trust on the relationship of shared leadership and employee performance. Higher levels of trust enhance the positive relationship between shared leadership and employee performance, whereas lower levels of trust diminish the relationship between shared leadership and employee performance. These findings contribute to the literature and organizational practices on shared leadership and employee performance by demonstrating the important role of trust in this relationship. This can be used for future research and practical implications, such as trainings to improve trust within the leader/follower dyad.

Keywords: Shared Leadership, Trust, Employee Performance, Dyad, Leadership

Styles

The Relationship between Shared Leadership and Employee Performance: the Moderating Role of Trust

The past few decades have seen the rapid development of information technology and globalization. That indicates that change happens fast in the current competitive market (Barkema et al., 2002; Sirmon et al., 2007). Leadership has repeatedly been identified in the literature as an important factor to team success (Barling et al., 2011; Kozlowski et al., 2009; Zaccaro et al., 2001). Practitioners and academic researchers argue that a single leader is unable to deal with these challenges and thereby misses opportunities (Gu et al., 2020; Cakiroglu et al., 2020; Day et al., 2004). There is a growing understanding of leadership as a process of influence within organizations, in which a single formal leader is just one component (Day, 2000; Day & Harrison, 2007; Mehra et al., 2006). Pearze and Manz (2005), for instance, stated that shared leadership is often advantageous since it is “ever more difficult for any leader from above to have all of the knowledge, skills and abilities necessary to lead all aspects of knowledge work”. Shared leadership is a type of leadership where team members share this role instead of one individual having the leadership. Multiple team members work towards a goal together and they are interdependent (Zhang, 2021). Theory suggests that shared leadership can be beneficial to performance, a proposition that has been supported by some empirical studies (e.g., Wang et al., 2014).

However, further research on shared leadership and employee performance may help clarify the currently existing contradicting findings in past research. Some research has shown that there is a positive relation between shared leadership and employee performance (e.g. Carson et al., 2007; Ensley et al., 2006), whilst others have shown no or a negative relation (Hmieleski et al., 2012; O’Toole et al., 2003). Perhaps the moderating role of trust can explain these discrepancies. At a high level of trust, the relationship between shared leadership and employee performance might be positive. However, at low levels of trust, this relationship

might be negative. Previous research has shown that trust is related to performance, but also to the leader and its employees (Burke et al., 2007). Further research on this topic is needed to further investigate this relationship. The current study will investigate the relationship between shared leadership and employee performance and thereby the moderating role of trust by conducting dyadic research.

This research helps gaining more insight in the relationship between shared leadership and employee performance and the moderating role of trust in this relationship. The research will address the open gap there currently is in the field. This relationship and moderating role will be tested via a questionnaire from which conclusions will be drawn. The findings of this empirical research will contribute to theoretical, but also practical knowledge. Future research can build up on these dyadic findings and organizations could use this knowledge to enhance performance within their teams.

Shared Leadership and Employee Performance

Allocating leadership roles across team members can increase the collective cognitive capabilities of the group (Burke et al., 2003; Day et al., 2004) and its capacity to use its expertise (Aime et al., 2013; Burke et al., 2003), thus enabling them to coordinate their efforts more effectively. Additionally, members of a team can get empowerment and self control from shared leadership or the self management of the team (Dumaine, 1994; Manz & Sims, 1993). This can lead to members being more satisfied and feeling more responsible for decision-making (Hoch & Dulebohn, 2013). In conclusion, shared leadership should increase both task-related and social dimensions of functioning within a team, which in turn should increase performance. This has been supported by several empirical studies. For instance, research from Martin and colleagues (2018) shows that there is a positive relationship between shared leadership and employee performance. Their research shows that members of a team work together to achieve their common goal when there is shared leadership. The

meta-analysis of 42 studies of Wang and colleagues (2014) has shown that shared leadership is positively related to performance. It is proposed that shared leadership and employee performance are positively related, because shared leadership possibly fosters both task-related and social dimensions of functioning within a team, which in turn should increase performance. Based on this reasoning, we propose the following hypothesis.

Hypothesis 1: Shared leadership is positively related to employee performance.

Trust and Employee Performance

Team members who show trust in each other are more likely to have productive interactions and teamwork processes that increase team performance (Jones & George, 1998; Spreitzer et al., 1999). Opposed to this is that without trust, team members sooner avoid these interactions and processes. They do this to protect themselves and this leads to decreased team performance (Dirks, 1999; Mayer & Gavin, 2005). Trust is likely to increase the effort being put into group tasks and their willingness to collaborate towards achieving common goals (McEvily et al., 2003). Prior research suggests that trust correlates with individuals doing more than their formal duties to help coworkers and the organization achieve common goals (Colquitt et al., 2007). Research from De Jong and Elfring (2010) shows that trust indeed affects team performance. Based on this reasoning, the following hypothesis is proposed.

Hypothesis 2: Trust is positively related to employee performance.

Trust as a Moderator for the Relation of Shared Leadership and Employee Performance

As previously established, trust is beneficial for employee performance. Additionally, trust is needed to accept the authority and influence of other people (Tyler & DeGoey, 1996).

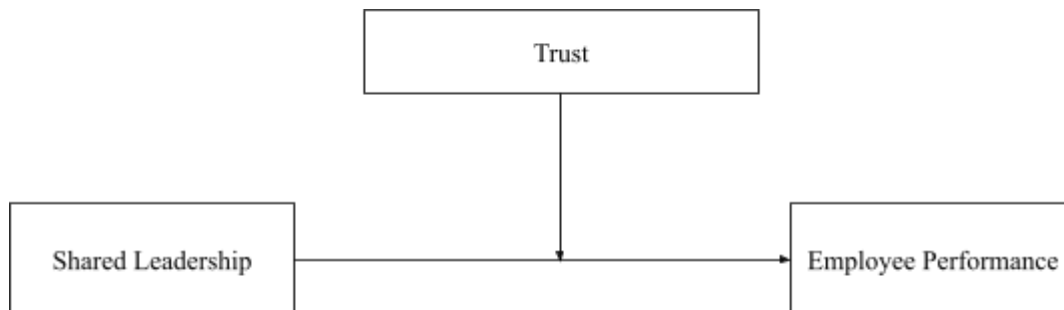
Next to this, trust is also an important part in group performance (De Jong & Dirks, 2012). Therefore, trust is possibly critical in the relation between shared leadership and performance. Drescher et al. (2014) hypothesize that when trust develops within a group, more individuals would be willing to put in extra effort in helping their colleagues and the group. Collaborative work would then improve and this would lead to increased performance. Next to this, less time would be spent on monitoring each other (Langfred, 2004). This would then lead to improved work activities (McEvily et al., 2003; Serva et al., 2005). In conclusion, when there is more trust within a group, members have more room to work on other tasks and thereby enhance team performance. And by improved trust, members will put extra effort in their tasks and collaborate more. So higher trust within a team would then lead to higher team performance. In shared leadership it is important to be able to accept the influence of others and this turns out to be easier when trust is high (Tyler & DeGoey, 1996). Contrastingly, when trust is low, team members avoid interactions with each other in order to protect themselves and this leads to decreased performance (Dirks, 1999; Mayer & Gavin, 2005). This could indicate that trust plays a moderating role in the relationship between shared leadership and employee performance.

The hypothesis is that higher trust leads to an increase in the relationship between shared leadership and employee performance. Lower trust will lead to a diminishment of this relationship between shared leadership and employee performance. The hypothesis is as follows.

Hypothesis 3: Trust moderates the effect of shared leadership on employee performance. The positive effect of shared leadership on employee performance will be stronger when trust in the leader is high.

Figure 1.

Research Model: Relationship of Shared Leadership with Employee Performance Moderated by Trust.

**Methods****Participants**

The sample size is $N = 385$. It consists of $N = 191$ leaders and $N = 194$ employees. Participants were recruited in dyads. That is, one half of the dyad being a leader, the other half being an employee. Leader and employee were matched with each other via a code they provided at the beginning of the survey. This code was formed by the last two letters of the surname of the leader and the last two letters of the surname of the employee. Excluded cases were people of which only one half of the dyad filled in the questionnaire. After combining the dyad, a final sample size of $N = 89$ remained. This means that the final sample size consists of 89 leaders and 89 employees. Amongst the leaders there were 55 men, 33 women and 1 person who did not specify their gender. The mean age of the leaders was approximately 42 ($M = 41.61$, $SD = 12.39$). The educational background of the leaders ranged from VMBO or comparable to University. On average, most leaders worked 38 ($M = 37.74$, $SD = 7.31$) hours per week. Most leaders were working in ‘Construction and installation companies, retail sector, wholesale sector’ (10.1%); ‘Healthcare’ (10.1%) and ‘Other’ (21.3%). The latter included for instance the energy branche or marketing. The sample of employees consisted of 34 men, 53 women and 2 persons did not specify their

gender. The mean age of the employees was approximately 33 ($M = 33.36$, $SD = 12.32$). The educational background of the employees ranged from HAVO or similar to University. On average, most employees worked 30 ($M = 30.49$, $SD = 8.59$) hours per week. Most employees were working in 'Healthcare' (10.1%); 'Construction and installation companies, retail sector, wholesale sector' (10.1%) and 'Other' (22.5%). The latter for instance ranged from the gaming industry to marketing. Participants had to be 18 years or older to be eligible and work a minimum of 17 hours a week. Next to this, participants had to be Dutch-speaking.

Design and Procedure

The study that has been conducted is a cross-sectional multi-source field study. The leader/employee dyads, recruited by students of the Rijksuniversiteit Groningen working on this research, were gathered via the personal networks of the students.. This has been done via social media, such as LinkedIn, Facebook, Whatsapp groups, and by personally approaching possible participants. In February 2024 the participants received a link to Qualtrics with which they could open the survey. The leader and employee each had their own personal link which led to either a leader survey or employee survey. After reading the informed consent, the leaders filled in scales on Performance and Trust. Lastly, they provided some demographic information. First of all, the employees read the informed consent and then filled in scales on Shared Leadership and Trust. In closing, they provided demographic information. Both the leader and employee survey consisted of other scales, but those are irrelevant for the current research. Filling in the survey took approximately 15 minutes..

Measures

Shared Leadership (Independent Variable)

The variable shared leadership was measured in the employee survey, using a scale developed by Hoch (2013). Employees were asked to indicate to what extent the leader integrates shared leadership. The scale contained 18 items, which are divided into three

subscales, namely transformational leadership, individual empowering leadership and participative leadership. Example items are: “My manager uses many different perspectives to solve problems”, “My manager encourages me to learn new things” and “My manager insists on working as a team with others, who are part of the team”. The complete scale can be found in the appendix. Participants were asked to indicate on a 7-point scale (from 1= *totally disagree* to 7= *totally agree*) how much they agreed with the statement. Therefore, a higher score on this scale means that the employee perceives higher shared leadership. The reliability of the scale was Cronbach’s alpha = .75.

Employee Performance (Dependent Variable)

This variable was measured in the leader survey. The concept was measured by two using two scales. One scale designed by Williams and Anderson (1991) and another scale designed by Van der Vegt and Bunderson (2005). On one of the scales for employee performance, developed by Williams and Anderson (1991), leaders had to indicate how satisfied they were with the performance of their employee. The scale consisted of 21 items. Example items are: “Helps others that have been absent”, “Fails to perform essential tasks” and “Complains about unimportant things at work”. The complete scale can be found in the appendix. The participants were asked to indicate whether they agreed with the statements on a 7-point scale (from 1= *totally disagree* to 7= *totally agree*). A higher score on these items meant a higher employee performance. Five out of 21 items were reversed statements, where a low score indicated a high employee performance. These items have been reversed using SPSS (2021). The reliability of this scale was Cronbach’s alpha = .92. The other scale for employee performance was developed by Van der Vegt and Bunderson (2005). On this scale, leaders rated the employee on six items. Example items are: “How does your employee score on achieving goals?”, “How does your employee score on the quality of work?” and “How does your employee score on meeting deadlines?”. The leaders were asked to evaluate their

employees on these items with a 7-point scale (from 1= *very poor performance* to 7= *very good performance*). Low scores represented low employee performance and high scores represented high employee performance. The reliability of this scale was Cronbach's alpha = .94.

Trust (Moderator)

This moderating variable, trust, was measured using the scale designed by De Jong and Elfring (2010). Leaders and employees were both asked how they perceive their leader/employee in terms of trust. They both received the same statements but these were altered for the leader/employee perspective. The scale contained 5 items. Example items from the leader survey are: "I trust my employee", "I can count on my employee for help when I have problems with my work" and "I feel confident that my employee takes my interests into account when making work-related decisions". Example items from the employee survey are: "I trust my leader", "I can count on my manager for help when I have problems with my work" and "I feel confident that my manager takes my interests into account when making work-related decisions". The complete scale can be found in the appendix. Participants were asked to rate the items on a 7-point scale (from 1= *totally disagree* to 7= *totally agree*). Hence, a higher score on these items meant a higher trust level between leader and employee. The reliability of the trust scale in the employee questionnaire was Cronbach's alpha = .92. Furthermore, the reliability of the trust scale in the leader questionnaire was also Cronbach's alpha = .92.

Results

Descriptive statistics

In total 89 leader/follower pairs completed the survey. Therefore the sample consists of N=89 dyads. The descriptive statistics of the independent, moderating and dependent variable can be found in Table 1. The independent variable, shared leadership, has a mean of

5.46 (SD = .77). The moderating variable, mutual trust, has a mean of 6.12 (SD = .85). The dependent variable, employee performance, has a mean of 5.78 (SD = .88). Shared leadership and mutual trust are positively correlated to each other and this relationship is also significant. Shared leadership and employee performance seem to be slightly positively to not at all correlated and this relationship is found to not be significant. The relationship of mutual trust and employee performance is found to be positive and significant.

Table 1

Means, Standard Deviations, and Correlations Between Core Study Variables

Variable	Mean	SD	1.	2.
1. Shared Leadership	5.46	.77	-	-
2. Mutual trust	6.12	.85	.370**	-
3. Employee Performance	5.78	.88	.022	.561**

Note. $N = 89$. * $p < .05$. ** $p < .001$

Assumptions

Before the main analyses can be computed, the basic assumptions for regression need to be checked. This is needed to ensure reliable interpretation of results. Firstly, the assumption of normality was checked with a histogram, as can be seen in Appendix D. This shows that the data is centered around the mean. It therefore showed a bell curve. Hence, it can be assumed that the assumption of normality is met. Secondly, by examining the P-P plot (as can be seen in Appendix E), it was concluded that the assumption for linearity was also met. The data exhibit no great deviance from the straight line. It shows a linear line. Hence, the relationship between the independent and dependent variable can be seen as linear and therefore the assumption for linearity is met. The third assumption that was tested, is the assumption of homoscedasticity. This was examined by checking the scatterplot (which can be found in Appendix F) and observing how the data were distributed. This shows no signs of

a funnel, and thereby no signs of heteroscedasticity. Hence, it can be concluded that the assumption of homoscedasticity is met. Lastly, the assumption of multicollinearity was checked. This is done by examining the Variance Inflation Factors (VIF). The scores for Shared Leadership, Trust and the interaction variable (Shared Leadership x Trust) were 1.78, 1.23 and 1.85, respectively. This shows that all the scores were below the cut-off score of 4, so the assumption of multicollinearity is also met. Because all four of the assumptions are met, the main analyses can be performed.

Hypothesis Testing

Hypothesis 1 states that shared leadership and employee performance are positively related to each other. To test this, a simple linear regression analysis has been performed in SPSS (2021). As can be found in table 2, this relationship appeared to be non-significant. The coefficient of shared leadership was slightly negative, implying a negative association between shared leadership and employee performance. In conclusion, the analysis did not support hypothesis 1.

Hypothesis 2 states that trust and employee performance are positively related. This too has been tested with a simple linear regression analysis in SPSS. This showed that there is a significant relationship between these two variables. The correlation between these two variables is positive. Therefore, hypothesis 2 was supported.

Hypothesis 3 states that mutual trust moderates the effect of shared leadership on employee performance. To test this hypothesis, a multiple linear regression analysis has been performed. Firstly, an interaction variable (shared leadership x trust) has been computed. Subsequently, the variables were standardized. Then the regression analysis was performed with all these variables. This showed to be marginally significant. Thus, hypothesis 3 was supported.

The overall model significantly explained 38% ($R^2 = .382$, Adjusted $R^2 = .360$, $F(3,87) = 17.336$, $p < .001$) of the variance in employee performance.

Table 2

Results of the Regression Analysis Predicting Employee Performance

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	1.930	.877	2.200	.031
Shared Leadership	-.095	.130	-.731	.467
Trust	.707	.098	7.204	<.001
Interaction	.110	.057	1.937	.056

Note. $N = 89$. * $p < .08$, ** $p < .05$. * $p < .001$

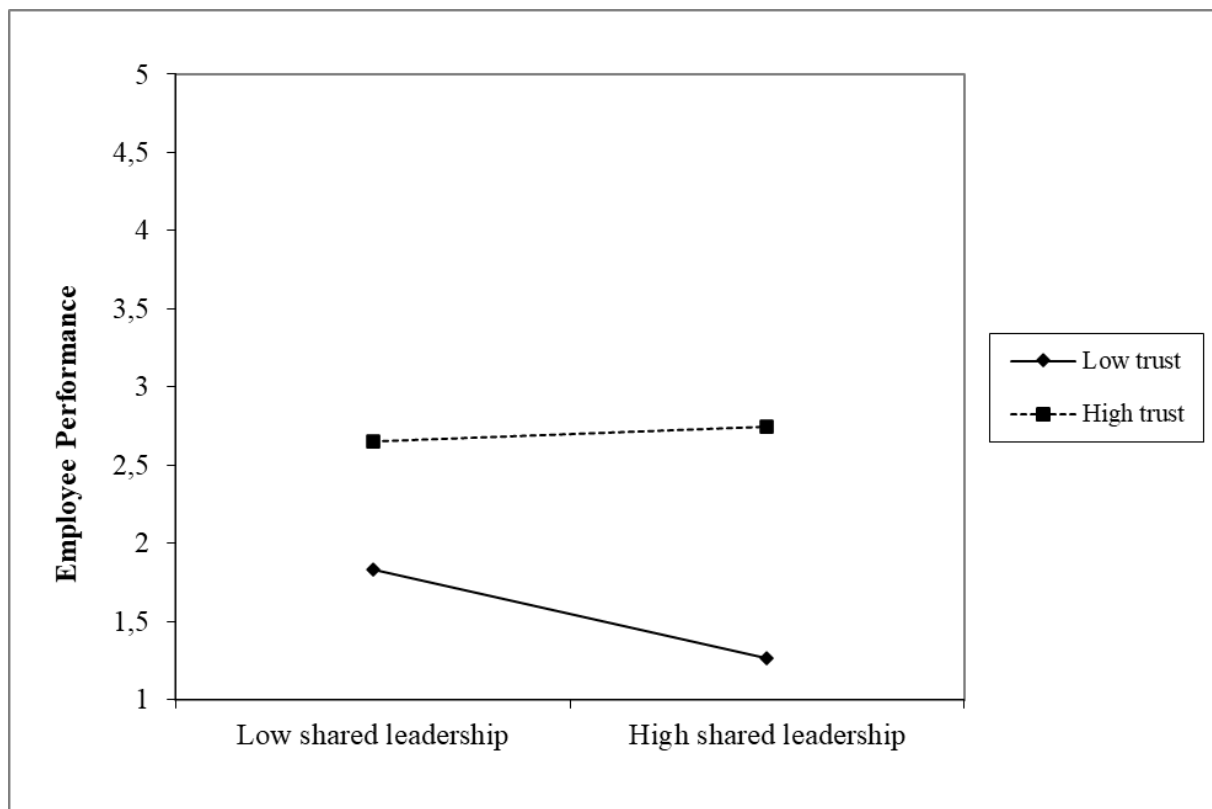
Figure 1 shows the interaction effect between shared leadership and trust on employee performance. The x-axis depicts different levels of shared leadership. The y-axis denotes different levels of employee performance. The two lines in the figure illustrate the interaction between shared leadership and the moderator trust. In the condition that trust is high, the line is slightly increasing. This indicates that when shared leadership increases, this has a small influence on employee performance. However, when trust is low, the line is decreasing, indicating when shared leadership increases, employee performance decreases. Concluding, this means that low trust can have a negative influence on the relationship between shared leadership and employee performance, while high trust can have a small positive influence on this relationship.

In conclusion, the interaction graph shows that the variable trust could perhaps influence the relationship between shared leadership and employee performance. High levels of trust have a small influence on the relationship between the independent and dependent variable. However, low levels of trust have an influence on the relationship

between shared leadership and employee performance. Under conditions of high trust, the relationship between shared leadership and employee performance becomes slightly positive. Additionally, under low conditions of trust, the relationship between shared leadership and employee performance becomes negative.

Figure 1

Interaction Between Shared Leadership and Trust



Discussion

This study has investigated the relationship between shared leadership and employee performance and thereby the moderating role of trust. The first hypothesis states that shared leadership and employee performance are positively related. However, the results did not confirm this hypothesis. The second hypothesis states that trust and employee performance are positively related. A significant positive relationship between

these two variables has been found. Lastly, the third hypothesis posits that trust moderates the relationship between shared leadership and employee performance. The results show that this relationship is marginally significant.

Theoretical implications

In contrast with hypothesis 1, no positive relationship between shared leadership and performance was found. However, a small negative association has been found. This is contrary to previous research on shared leadership and performance that indicated a positive relationship between those two variables (Martin et al., 2018). Other research has also pointed out the negative relation between shared leadership and employee performance (Hmieleski et al., 2012; O'Toole et al., 2003). This might be attributable to the fact that shared leadership is a dynamic process instead of a static one. At some points in time, shared leadership might increase employee performance, whereas at other points, it might decrease the employee performance (Cronin et al., 2011).

Consistent with hypothesis 2, a significant positive relationship between trust and employee performance was found. As mentioned earlier, team members who show trust in each other are more likely to have productive interactions and teamwork processes that increase team performance (Jones & George, 1998; Spreitzer et al., 1999). This can be explained by the fact that trust is likely to increase the effort being put into group tasks and their willingness to collaborate towards achieving common goals (McEvily et al., 2003). Additionally, research suggests that trust correlates with individuals doing more than their formal duties to help coworkers and the organization achieve common goals (Colquitt et al., 2007). In conclusion, trust leads to an increase in the effort being put in the collaboration towards a common goal. This subsequently increases performance. This has also been supported by empirical research by, for instance, De Jong and Elfring (2010) that shows that trust indeed affects team performance.

In line with hypothesis 3, a marginally significant result was found on the moderating role of trust in the relationship between shared leadership and employee performance. It appears that high trust has a positive influence on the relationship between shared leadership and employee performance. On the other hand, low trust has a negative influence on the relationship between shared leadership and employee performance. Hence, trust moderates the relationship between shared leadership and employee performance. This is in line with earlier mentioned reasoning that when there is more trust within a group, members are willing to put more effort into their tasks. This leads to more collaborative work and thereby increased performance (Drescher et al., 2014). Additionally, employees are better able to accept the influence of others when trust is high (Tyler & DeGoey, 1996). This is an indicator for the increase of the relationship between shared leadership and employee performance by the moderating role of trust. However, when trust is low, team members avoid interactions with each other in order to protect themselves and this leads to decreased performance (Dirks, 1999; Mayer & Gavin, 2005). This indicates that trust as a moderator diminishes the relationship between shared leadership and employee performance.

Strengths and limitations

One of the strengths of this research is the dyadic approach. The responses of the leader were connected to the responses of the employee. The employee rated the leader's shared leadership and the amount of trust. Furthermore, the leader rated the employee's performance and the amount of trust. Thus, both leaders and employees did not answer the questions to their own characteristics, but they were evaluated by the other person in the dyad. This prevents participants from giving socially desired answers. If, for instance, an employee would have had to rate themselves on the scale of employee performance, they might give socially desired answers and those would be more biased compared to the

leader filling those questions in. Another strength of this study is that it is generalisable to the Dutch working environment. The aim of the study was to get a better insight into different characteristics and perceptions between leaders and followers in the Dutch workplace. By only letting Dutch employers and employees fill in the questionnaire, it is representative of the Dutch context. Additionally, the sample is fairly diverse. It consists of people from different age ranges, different educational backgrounds and different sectors. This makes the sample fairly generalisable to the Dutch working context.

A limitation of our study is the sample. Firstly, over a hundred employee/leader responses were removed from the data set because they were missing the other half of their dyad. That's unfortunate because it would have been preferred to actually use this data. This leads to a smaller size ($N = 89$). It would be preferable to increase the size of the sample and thereby the power of the research. Additionally, the sample was recruited as a convenience sample. To get a more diverse sample, it would enhance the sample to recruit people in a more randomized way. Another limitation of our study is the marginally significance of the moderation. As a result of this marginally significant relationship, it is harder to draw certain conclusions from the data.

Future research

Currently, only the Dutch context has been investigated. On one hand, that is a strength because it therefore is a good representation of the Dutch workplace, but on the other hand, it would be interesting to see how shared leadership and employee performance relate to each other in other cultures. Additionally, it would be interesting to investigate the dynamic shared leadership. Recent studies indicate that leadership within groups is a dynamic process, meaning that various members of the group may take up leadership roles at different times based on the specific resources needed (Aime et al., 2013; Klein et al., 2006). This could be done by letting the leader and follower fill in the

same questionnaire but then at different points in time. Perhaps the level of shared leadership, trust and/or employee performance can fluctuate and differ over time. It could give a better overview of the workplace relationships if the participants filled in the questionnaire multiple times. It therefore would be interesting to conduct a cross-cultural study. And additional to this, a longitudinal study would be recommended. Hence, multiple measurement points in time. A longitudinal cross-cultural approach would provide more information on relationships between leader and follower in different cultures and on the dynamic nature of shared leadership. Additionally, it would be intriguing to investigate team roles instead of the leader/follower dyad. This could be carried out by asking multiple followers that need to report to a certain leader to fill in the questionnaire. This would give an insight into team roles in organizations.

In addition to the aforementioned research ideas, it might also be interesting to see how the model could be expanded. A recommendation is to control for team size and/or task interdependence. Those factors possibly have an influence on trust and therefore on the moderating role of trust in the relationship of shared leadership and employee performance. Firstly, task interdependence can potentially moderate the relationship between shared leadership and employee performance. A stronger relationship between these two variables will be expected when task interdependence is high. Since, interdependence requires higher levels of expertise spread across multiple individuals, coordination, and more interaction and guidance (Alper et al., 1998; Guzzo & Shea, 1992; Wageman, 1995). The appearance and impact of shared leadership relies heavily on effective coordination and integration in a high-quality relational environment (Weibler & Rohn-Endres, 2010). Additionally, several studies have found that shared leadership enhances employee performance in interdependent contexts. For instance, in medical teams (Klein et al., 2006), top management teams (Ensley et al., 2006) and consulting

groups (Carson et al., 2007). Lastly, this is consistent with prior research that has found stronger correlations between leadership behaviors and performance under high conditions of interdependence (e.g. Burke, 2006). The meta-analysis of Nicolaides and colleagues (2014) has confirmed the moderating role of task interdependence. A second option for a control variable is team size. Prior research has shown that team size can both be an advantage and a disadvantage (e.g. Maier, 1967). From one perspective, bigger teams have better decision-making and information-processing capacities compared to smaller teams (Hill, 1982; Maier, 1967). From another perspective, a bigger team also leads to proximity barriers and it reduces effective coordination and communication (Campion et al., 1993; Shaw, 1981; Smith et al., 1994). In conclusion, research implies ways in which team size may moderate the relationship between shared leadership and performance.

Practical implications

The findings of this study have practical applications to practitioners, leaders, managers and groups more generally. The dyadic approach of this study gives insightful implications for both leaders and employees. The results have shown that trust is positively related to employee performance. Moreover, trust moderates the relationship between shared leadership and employee performance. This current research highlights the importance of trust in the leader/follower dyad. Hence, this gives implications for organizational practices. Enhancing trust in the organizational context could enhance the employee's performance. Additionally, it also enhances the relationship between shared leadership and employee performance. This could be achieved by fostering a trusting organizational environment. This could be accomplished through, for instance, providing leaders and followers with training. These trainings could enhance trust within their relationship. By means of this, leaders and followers can work together toward common objectives.

Conclusion

This study examined the relationships between shared leadership, trust and employee performance. The results showed a significant finding for the positive relationship between trust and employee performance. This points out the importance of trust in the working environment to improve the performance of employees. Additionally, a marginally significant effect was found for the moderating role of trust on the relationship between shared leadership and employee performance. High conditions of trust lead to an increase in the relationship between shared leadership and employee performance. However, low conditions of trust lead to a diminishment in the relationship between shared leadership and employee performance. This implies that trust is important in the relationship of shared leadership and employee performance. This lays the ground for future research on this topic. Additionally, these findings can be implemented in organizational practices by enhancing trust within the leader/follower dyad to improve employee performance and to enhance the positive relationship between shared leadership and employee performance.

References

- Aime, F., Humphrey, S., Derue, D. S., & Paul, J. B. (2014). The riddle of heterarchy: power transitions in cross-functional teams. *Academy of Management Journal*. Advance online publication. doi:10.5465/amj.2011.0756
- Alper, S., Tjosvold, D., & Law, S. A. (1998). Interdependence and controversy in group decision making: Antecedents to effective self managing teams. *Organizational Behavior and Human Decision Processes*, 74, 33–52.
<https://doi.org/10.1006/obhd.1998.2748>
- Barkema, H. G., Baum, J. A. C., & Mannix, E. A. (2002). Management challenges in a new time. *Academy Of Management Journal*, 45(5), 916–930.
<https://doi.org/10.2307/3069322>
- Barling, J., Christie, A., & Hopton, C. (2011). Leadership. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology. Building and developing the organization*, Vol. 1. (pp. 183–240). Washington, DC, US: American Psychological Association.
- Burke, C. S., Fiore, S. M., & Salas, E. (2003). The role of shared cognition in enabling shared leadership and team adaptability. In C. L. Pearce & J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 103–122). Thousand Oaks, CA: Sage. doi:10.4135/9781452229539.n5
- Burke, C. S., Sims, D. E., Lazzara, E. H., & Salas, E. (2007). Trust in Leadership: a multi-level review and integration. *The Leadership Quarterly*, 18(6), 606–632.
<https://doi.org/10.1016/j.leaqua.2007.09.006>
- Cakiroglu, S. S., Caetano, A., & Costa, P. (2020). How do mid-senior multinational officers perceive shared leadership for military teams? A qualitative study. *Team Performance Management*, 26(5/6), 301–318. <https://doi.org/10.1108/tpm-11-2019-0109>
- Campion, M.A., Medsker, G. J., & Higgs, A.C. (1993). Relations between work group

- characteristics and effectiveness: Implications for designing effective work groups. *Personnel Psychology*, 46(4), 823–850.
<https://doi.org/10.1111/j.1744-6570.1993.tb01571.x>
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 50, 1217–1234. doi:10.2307/20159921
- Colquitt, J. A., Hollenbeck, J. R., Ilgen, D. R., LePine, J. A., & Sheppard, L. (2002). Computer-assisted communication and team decision-making performance: The moderating effect of openness to experience. *Journal of Applied Psychology*, 87, 402–410. doi:10.1037/0021-9010.87.2.402
- Cronin, M. A., Weingart, L. R., & Todorova, G. (2011). Dynamics in groups: Are we there yet? *The Academy Of Management Annals*, 5(1), 571–612.
<https://doi.org/10.1080/19416520.2011.590297>
- Day, D. V. (2000). Leadership development: A review in context. *The Leadership Quarterly*, 11, 581–613. doi:10.1016/S1048-9843(00)00061-8
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *Leadership Quarterly*, 15, 857–880. doi:10.1016/j.leaqua.2004.09.001
- Day, D. V., & Harrison, M. M. (2007). A multilevel, identity-based approach to leadership development. *Human Resource*
- De Jong, B. A., & Dirks, K. T. (2012). Beyond shared perceptions of trust and monitoring in teams: implications of asymmetry and dissensus. *Journal of Applied Psychology*, 97(2), 391–406. <https://doi.org/10.1037/a0026483>
- De Jong, B., & Elfring, T. (2010b). How Does Trust Affect the Performance of Ongoing Teams? The Mediating Role of Reflexivity, Monitoring and Effort. *Social Science Research Network*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2050924

- Dirks, K. T. (1999). The effects of interpersonal trust on work group performance. *Journal of Applied Psychology*, 84(3), 445–455. <https://doi.org/10.1037/0021-9010.84.3.445>
- Drescher, M., Korsgaard, M. A., Welpe, I. M., Picot, A., & Wigand, R. T. (2014). The dynamics of shared leadership: building trust and enhancing performance. *Journal of Applied Psychology*, 99(5), 771–783. <https://doi.org/10.1037/a0036474>
- Dumaine, B. (1994). The trouble with teams. *Fortune*, 130(5), 86.
<https://eric.ed.gov/?id=EJ487492>
- Ensley, M. D., Hmieleski, K. M., & Pearce, C. L. (2006). The importance of vertical and shared leadership within new venture top management teams: Implications for the performance of startups. *The Leadership Quarterly*, 17(3), 217–231.
<https://doi.org/10.1016/j.leaqua.2006.02.002>
- Gu, Q., Liang, B. and Cooke, F.L. (2020), “How does shared leadership affect creativity in teams? A multilevel motivational investigation in the Chinese context”, *The International Journal of Human Resource Management*, doi: 10.1080/09585192.2020.1783345.
- Guzzo, R. A., & Shea, D. (1992). Group performance and intergroup relations in organizations. In M.D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology*, Vol. 3. (pp. 269–313).
<https://psycnet.apa.org/record/1993-97201-005>
- Hmieleski, K. M., Cole, M. S., & Baron, R. A. (2012). Shared Authentic Leadership and New Venture Performance. *Journal Of Management*, 38(5), 1476–1499.
<https://doi.org/10.1177/0149206311415419>
- Hoch, J. E. (2012). Shared Leadership and Innovation: The Role of Vertical Leadership and Employee Integrity. *Journal Of Business And Psychology*, 28(2), 159–174
<https://doi.org/10.1007/s10869-012-9273-6>

- Hoch, J. E., & Dulebohn, J. H. (2013). Shared leadership in enterprise resource planning and human resource management system implementation. *Human Resource Management Review*, 23(1), 114–125. <https://doi.org/10.1016/j.hrmr.2012.06.007>
- Jones, G. R., & George, J. M. (1998). The Experience and Evolution of Trust: Implications for cooperation and teamwork. *Academy of Management Review*, 23(3), 531–546. <https://doi.org/10.5465/amr.1998.926625>
- Klein, K. J., Ziegert, J. C., Knight, A. P., & Xiao, Y. (2006). Dynamic Delegation: Shared, Hierarchical, and Deindividualized Leadership in Extreme Action Teams. *Administrative Science Quarterly*, 51(4), 590–621. <https://doi.org/10.2189/asqu.51.4.590>
- Kozlowski, S. W. J., Watola, D. J., Jensen, J. M., Kim, B. H., & Botero, I. C. (2009). Developing adaptive teams: A theory of dynamic team leadership. In E. Salas, G. F. Goodwin, & C. S. Burke (Eds.), *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches* (pp. 113–155). Routledge/Taylor & Francis Group.
- Langfred, C. W. (2004). Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. *Academy of Management Journal*, 47(3), 385–399. <https://doi.org/10.2307/20159588>
- Lorinkova, N., & Bartol, K. M. (2020). Shared Leadership Development and Team Performance: A new look at the dynamics of shared leadership. *Personnel Psychology*, 74(1), 77–107. <https://doi.org/10.1111/peps.12409>
- Manz, C. C., & Sims, H. P. (1993). Business Without Bosses: How Self-Managing Teams Are building High- Performing Companies. <http://ci.nii.ac.jp/ncid/BA26814033>
- Martin, J. N., Cormican, K., Sampaio, S., & Wu, Q. (2018). Shared Leadership and Team Performance: An analysis of moderating factors. *Procedia Computer Science*, 138,

- 671–679. <https://doi.org/10.1016/j.procs.2018.10.089>
- Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while the employees watch the boss? *Academy of Management Journal*, 48(5), 874–888. <https://doi.org/10.5465/amj.2005.18803928>
- Mehra, A., Smith, B., Dixon, A., & Robertson, B. (2006). Distributed leadership in teams: The network of leadership perceptions and team performance. *The Leadership Quarterly*, 17, 232–245. doi:10.1016/j.leaqua.2006.02.003
- McEvily, B., Perrone, V., & Zaheer, A. (2003). Trust as an organizing principle. *Organization Science*, 14(1), 91–103. <https://doi.org/10.1287/orsc.14.1.91.12814>
- O'Toole, J., Galbraith, J., & Lawler, J. E. (2002). When Two (or More) Heads are Better than One: The Promise and Pitfalls of Shared Leadership. *California Management Review*, 44(4), 65–83. <https://doi.org/10.2307/41166143>
- Pearce, C. L., & Manz, C. C. (2005). The New Silver Bullets of Leadership: *Organizational Dynamics*, 34(2), 130–140. <https://doi.org/10.1016/j.orgdyn.2005.03.003>
- Tyler, T. R., & DeGoey, P. (1996). Trust in organizational authorities: the influence of motive attributions on willingness to accept decisions. In SAGE Publications, Inc. eBooks (pp. 331–356). <https://doi.org/10.4135/9781452243610.n16>
- Serva, M. A., Fuller, M. A., & Mayer, R. C. (2005). The Reciprocal Nature of Trust: A longitudinal study of interacting teams. *Journal of Organizational Behavior*, 26(6), 625–648. <https://doi.org/10.1002/job.331>
- Shaw, M. E. (1981). *Group dynamics: The Psychology of Small Group Behavior*. McGraw-Hill Companies.
- Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box. *The Academy Of Management Review*, 32(1), 273–292. <https://doi.org/10.5465/amr.2007.23466005>

- Smith, K. G., Smith, K. A., Olian, J.D., Sims, H. P., O'Bannon, D. P., & Scully, J. A. (1994). Top management team demography and process: The role of social integration and communication. *Administrative Science Quarterly*, 39(3), 412–438.
<https://doi.org/10.2307/2393297>
- Spreitzer, G. M., Noble, D. S., Mishra, A. K., & Cooke, W. N. (1999). Predicting process improvement team performance in an automotive firm: Explicating the roles of trust and empowerment. *Research On Managing Groups And Teams*.
<https://psycnet.apa.org/record/1999-04071-004>
- Van Der Vegt, G. S., & Bunderson, J. S. (2005). Learning and Performance in Multidisciplinary Teams: The Importance of Collective Team Identification. *Academy Of Management Journal/The Academy Of Management Journal*, 48(3), 532–547.
<https://doi.org/10.5465/amj.2005.17407918>
- Wageman, R. (1995). Interdependence and group effectiveness. *Administrative Science Quarterly*, 40, 145–180. <https://doi.org/10.2307/2393703>
- Wang, D., Waldman, D. A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of Applied Psychology*, 99(2), 181–198.
<https://doi.org/10.1037/a0034531>
- Weibler, J., & Rohn-Endres, S. (2010). Learning conversation and shared network leadership: Development, gestalt, and consequences. *Journal of Personnel Psychology*, 9, 181–194. <https://doi.org/10.1027/1866-5888/a000015>
- Williams, L. J., & Anderson, S. E. (1991). Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-Role Behaviors. *Journal Of Management*, 17(3), 601–617. <https://doi.org/10.1177/014920639101700305>
- Zaccaro, S. J., Rittman, A. L., & Marks, M.A. (2001). Team leadership. *Leadership Quarterly*, 12(4), 451–483. [https://doi.org/10.1016/s1048-9843\(01\)00093-5](https://doi.org/10.1016/s1048-9843(01)00093-5)

Zhang, D. (2021). The influence of shared leadership on employees' knowledge sharing behavior. *Advances in social science, education and humanities research*.

<https://doi.org/10.2991/assehr.k.211020.275>

Appendix A

Shared Leadership Scale by Hoch (2013)

(A) Transformational leadership:

“My colleagues provide a clear vision of whom and what our team is.”

“My colleagues are driven by higher purposes or ideals.”

“My colleagues show enthusiasm for my efforts.”

“My colleagues encourage me to rethink ideas which had never been questioned before.”

“My colleagues seek a broad range of perspectives when solving problems.”

“My colleagues encourage me to go above and beyond what is normally (e.g., extra effort).”

(B) Individual empowering leadership:

“My colleagues encourage me to search for solutions to my problems without supervision.”

“My colleagues urge me to assume responsibilities on my own.”

“My colleagues encourage me to learn new things.”

“My colleagues encourage me to give myself a pat on the back when I meet a new challenge.”

(C) Team empowering leadership:

“My colleagues encourage me to work together with other individuals who are part of the team.”

“My colleagues advise me to coordinate my efforts with the others, who are part of the team.”

“My colleagues urge me to work as a team with the others, who are part of the team.”

“My colleagues expect that the collaboration with the other members in the team works well.”

(D) Participative leadership:

“My colleagues decide on my performance goals together with me.”

“My colleagues and I work together to decide what my performance goals should be.”

“My colleagues and I sit down together and reach agreement on my performance goals.”

“My colleagues work with me to develop my performance goals.”

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.

Appendix B

Intrateam Trust Scale by De Jong & Elfring (2010)

1. I am able to count on my team members for help if I have difficulties with my job.
2. I am confident that my team members will take my interests into account when making work-related decisions.
3. I am confident that my team members will keep me informed about issues that concern my work.
4. I can rely on my team members to keep their word.
5. I trust my team members.

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 op mijn leidinggevende rekenen voor hulp als ik problemen heb met mijn werk.
2. Ik heb er vertrouwen in dat mijn leidinggevende rekening met mijn belangen houdt bij het nemen van werk-gerelateerde beslissingen.
3. Ik heb er vertrouwen in dat mijn leidinggevende mij op de hoogte brengt van onderwerpen die belangrijk zijn voor mijn werk.
4. Ik reken erop dat mijn leidinggevende zich aan zijn/haar woord houdt.
5. Ik vertrouw mijn 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. Ik kan op mijn medewerker rekenen voor hulp als ik problemen heb met mijn werk.
2. Ik heb er vertrouwen in dat mijn medewerker rekening met mijn belangen houdt bij het nemen van werk-gerelateerde beslissingen.
3. Ik heb er vertrouwen in dat mijn medewerker mij op de hoogte brengt van onderwerpen die belangrijk zijn voor mijn werk.
4. Ik reken erop dat mijn medewerker zich aan zijn/ haar woord houdt.
5. Ik vertrouw mijn medewerker.

Appendix C

Performance Scale by Van der Vegt & Bunderson (2005)

How does your employee score on ...:

- ... achieving goals?
- ... meeting deadlines?
- ... work speed?
- ... the quality of work?
- ... productivity?
- ... effectiveness?

De volgende vragen gaan over uw medewerker.

(1=zeer slechte prestatie, 7=zeer goede prestatie)

Hoe scoort *uw medewerker* op...:

- ... het bereiken van doelen?
- ... het behalen van deadlines?
- ... werksnelheid?
- ... de kwaliteit van het werk?
- ... productiviteit?
- ... effectiviteit?

Performance Scale by Williams & Anderson (1991)

1. Adequately completes assigned duties.
2. Fulfills responsibilities specified in job description.
3. Performs tasks that are expected of him/her.
4. Meets formal performance requirements of the job.
5. Engages in activities that will directly affect his/her performance evaluation.
6. Neglects aspects of the job he/she is obligated to perform. (R)
7. Fails to perform essential duties. (R)
8. Helps others who have been absent.
9. Helps others who have heavy work loads.
10. Assists supervisor with his/her work (when not asked).

11. Takes time to listen to co-workers' problems and worries.
12. Goes out of way to help new employees.
13. Takes a personal interest in other employees.
14. Passes along information to co-workers.
15. Attendance at work is above the norm.
16. Gives advance notice when unable to come to work.
17. Takes undeserved work breaks. (R)
18. Great deal of time spent with personal phone conversations. (R)
19. Complains about insignificant things at work. (R)
20. Conserves and protects organizational property.
21. Adheres to informal rules devised to maintain order.

*Note: Items marked with (R) are reverse scored.

De volgende vragen gaan over uw medewerker.

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]

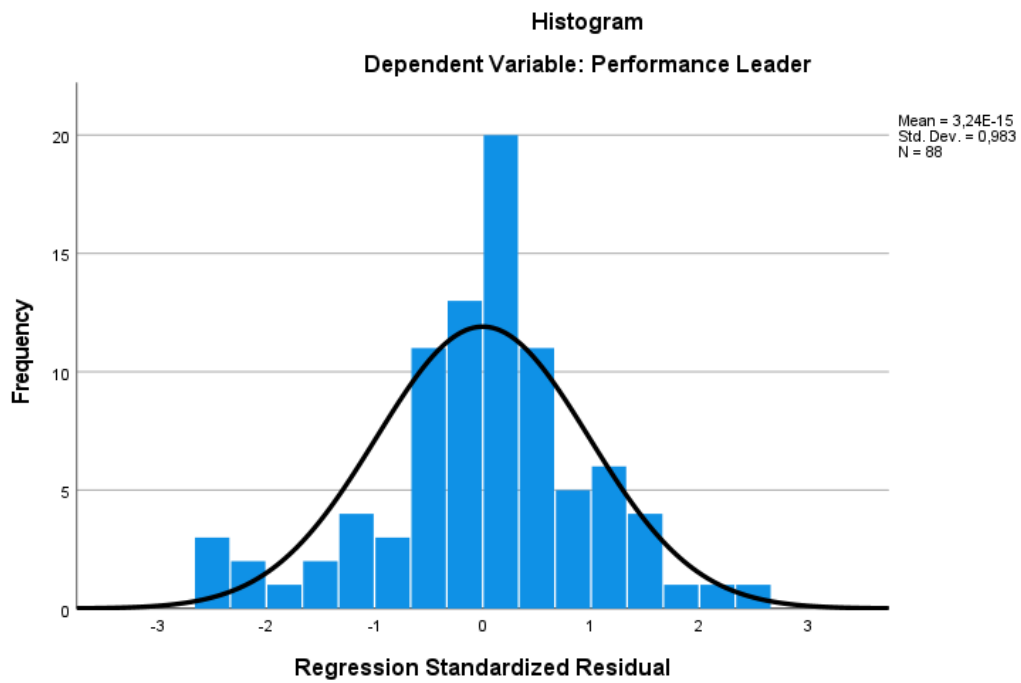
Mijn medewerker:.....

1. Voert de opgedragen taken naar behoren uit
2. Voldoet aan de verantwoordelijkheden vermeld in de functiebeschrijving
3. Voert de taken uit die van hem/haar verwacht worden
4. Voldoet aan de formele prestatie-eisen van de functie
5. Houdt zich/haar bezig met activiteiten die rechtstreeks van invloed zijn op zijn/haar prestatiebeoordeling
6. Verwaarloost aspecten van het werk dat hij/zij verplicht is uit te voeren
7. Faalt in het uitvoeren van essentiële taken
8. Helpt anderen die afwezig zijn geweest
9. Helpt anderen die een zware werklast hebben
10. Assisteert mij bij mijn werkzaamheden (wanneer niet gevraagd)
11. Neemt de tijd om te luisteren naar problemen en zorgen van collega's
12. Doet zijn/haar uiterste best om nieuwe medewerkers te helpen
13. Heeft persoonlijke belangstelling voor andere werknemers
14. Geeft informatie door aan collega's
15. Aanwezigheid op werk is boven de norm
16. Geeft van te voren aan wanneer hij/zij niet kan komen werken
17. Neemt te veel werkpauses
18. Besteed veel tijd aan persoonlijke telefoongesprekken
19. Klaagt over onbelangrijke dingen op het werk
20. Bewaart en beschermt eigendommen van de organisatie
21. Houdt zich aan informele regels die zijn opgesteld om de orde te handhaven

Appendix D

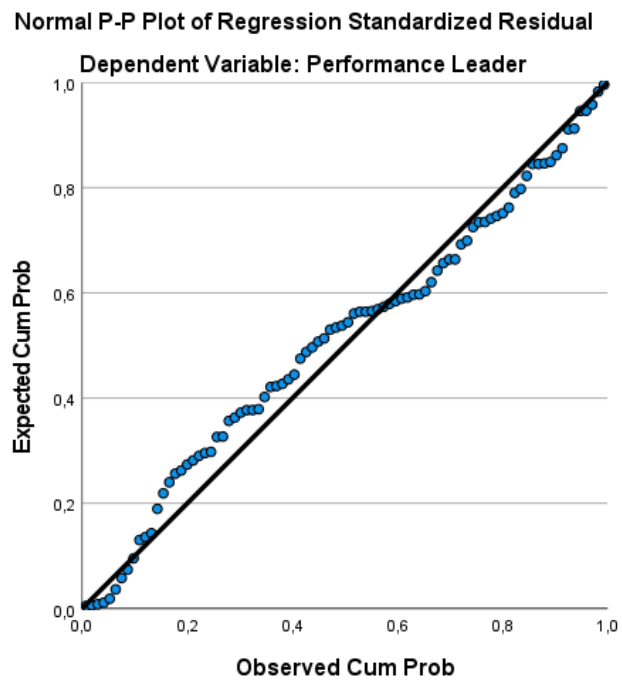
Figure D

Histogram Employee Performance for Normality



Appendix E

Figure E

Normal P-P Plot for Linearity

Appendix F

Figure F

Scatterplot Employee Performance for Homoscedasticity

